

TRANSFORMING OUR WORLD IN HARMONY WITH NATURE

Integrating Nature while Implementing the
UN's Sustainable Development Goals



TRANSFORMING OUR WORLD IN HARMONY WITH NATURE

Integrating Nature while Implementing
the UN's Sustainable Development Goals

CHIEF AUTHORS OF THE ENCLOSED REPORTS

Joan Kehoe, MSC

Maia Kincaid, MA, PhD.

Founder of the Sedona International School for Nature and Animal
Communication Consultant and International Lecturer

Lee Samotowic, ND

Lisinka Ulatowska, MA, PhD.

UN Representative, AWN, AWC, IPS
Coordinator, Commons Cluster of the UN NGO Major Group

Rob Wheeler

Main UN Representative, Global Ecovillage Network
Input was received and produced by the Commons Cluster of the UN
NGO Major Group for the Partnership on the Right of Nature.
Integrating Nature into the Implementation of the SDGs.

CHIEF EDITOR

Lee Samotowic, ND

EDITORS OF (PARTS OF) ENCLOSED REPORTS

Maia Kincaid, PhD.

Lee Samotowic, ND.

Marilyn Fowler, MA, PhD.

Professor Emeritus
Department of Consciousness and
Sustainable Development
John F. Kennedy University

Jill Lauri, MBA, MSW

LAYOUT AND FORMATTING

Tonny van Knotsenburg

COVER AND CHAPTER DESIGN

Sven van Asselt

Recipient of Dutch Prize for Innovation

TEMPLATE DESIGN

Devin Lafferty

CreativSense

SPECIAL THANKS:

Dr. Cliff Cockerham

Maya Environmental Education & Research Center
for photo's supplied and used in Part One
and in the Executive Summary of Part Two

COORDINATOR & CONTACT

Lisinka Ulatowska,

Commons.Cluster.UNO@gmail.com

CONTENTS

Introduction	6
--------------------	---

Executive Summary: Transforming our World in Harmony with Nature, Integrating Nature while Implementing the SDGs	8
---	---

Part I: Integrating Nature with the UN's 2019 Sustainable Development Goals	41
---	----



SDG 1: End Poverty in All its Forms Everywhere.	4
.....	
Introduction	
Targets	



SDG 2: End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Agriculture.....	7
Introduction	
Targets	



SDG 3: Ensure Healthy Lives and Promote Well-Being for All Ages.....	9
Introduction	
Targets	



SDG 5: Active Gender Equality and Empower All Women and Girls.....	115
Introduction	
Targets	



SDG 9: Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation.....	126
Introduction	
Targets	



SDG 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development.....	140
Introduction	
Targets	

Part II: Actions to Implement the 2020 SDGs with a Nature Perspective..... 157

General Introduction: Part II as a Powerful Tool.....	158
Environment and Nature.....	196
Introduction: Consciously recognizing the role of Nature is playing in our daily living; and fashioning this into a powerful tool for sustainable development.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Education and Research.....	215
Introduction: Nature as an indispensable tool for the development of individual potential as well as well-integrated, benevolent societies.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Society and Infrastructure.....	244
Introduction: Nature-inspired building blocks for sustainable societies.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Culture.....	273
Introduction: How Culture is rooted in geographic location in interaction with individual and social development; the problems that arise as our geographic environment spans the globe and how these might be resolved.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Economy and Financing Mechanisms.....	283
Introduction: Nature-inspired approaches to sustainable economic development and its financing.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Development.....	308
Introduction: How right relationship with Nature can help us address both material and spiritual poverty which are two sides of the same coin.	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	
Technology.....	328
Introduction: The relationship between Nature, technology and human evolution	
Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.	

Policy and Law 341

Introduction: Globally enforceable law seen from the perspective of evolution since the Big Bang.

Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.

Agriculture 363

Introduction: Nature specifically as it relates to large, industrial monocultures.

Means of Implementation: To help us reach SDGs 1, 2, 3, 5, 9 and 14.

About the Partnership on the Rights of Nature: Integrating Nature into the Implementation of the SDGs and the Commons Cluster of the UN NGO Major Group..... 377

General Introduction

With this book, the ***Partnership on the Rights of Nature: Integrating Nature into the Implementation of the SDGs*** (the Partnership) has completed its commitment to the United Nations.

We offer it both to the UN's Member States and our civil society colleagues in grateful recognition of all that is being done. After 5 years of gathering insights and best practices from civil society worldwide, we hope that, together, we have found ways of working with the evolutionary forces of Nature which are active in our globalizing world.

Our relationship to Nature is unique.

While the economy, society and the environment (Nature) are the three dimensions of sustainable development, Nature differs from the other two in one critical way: human beings create their own societies and economies, but human beings are a creation of Nature. We can distance ourselves from our societies and economies to get an objective view of how to make them more sustainable. But since every breath, everything we eat and drink, our life energy and our thoughts are integral parts of the systems of Nature, our very survival depends on learning to accurately interpret the signals Nature is giving us.

The reports in this book show how a Nature-centred approach can be integrated into the implementation of Sustainable Development Goals (SDGs) 1, 2, 3, 5, 9, 14 and 17. This book is part of a trilogy.

Here are links to each of the three books with the specific SDGs it focuses on:

Book 1: Transforming Our World in Harmony with Nature:

Integrating Nature into SDGs 1, 2, 3, 5, 9, 14, and 17.

Link:

<http://www.allwinnetwork.net/wp-content/uploads/2020/04/Integrating-Nature-into-the-SDGs-2020.pdf>

Book 2: Transforming Our World in Harmony with Nature:

Integrating Nature into SDGs 6, 7, 11, 12, 15 and 17.

Link:

http://www.allwinnetwork.net/wp-content/uploads/2018/06/Summary_Final1.5.pdf

Book 3: Transforming Our World in Harmony with Nature:

Integrating Nature into SDGs 4, 8, 10, 13, 16 and 17.

Link:

<http://www.allwinnetwork.net/wp-content/uploads/2019/06/Transforming-Our-World-Web-22-June-19.pdf>

The SDGs in each book are clustered according to those that were reviewed by the UN's High-Level Political Forum (HLPF) in 2016, 2017, and 2019 respectively.

The three books and the 17 reports were written and edited by colleagues from

academia, indigenous people, Nature communicators, and representatives of civil society organizations, many accredited to the UN. Some of the latter participated in the UN's Open Working Group that actually developed the SDGs.

The books can be used in a number of ways:

1. **As a quick reference** for examples of Nature-centric approaches that can be used for any of the SDGs and targets. Just go to the report in the book that focuses on that SDG. The targets are listed in order.
2. **As an overview of how a Nature-centred approach relates to all of the SDGs and relevant targets being reviewed by the UN that year** by just reading the Executive Summary in the book dealing with those specific SDGs.
3. **For Means of Implementing the SDGs (MOI.)** The actions recommended to implement the SDGs discussed in Part One of each book, are seen as its MOI. In Part Two all of the actions in Part One are subdivided into nine different areas, so that Ministries and others who focus on one or more of these can see at a glance which Nature-centred actions they can take.

The nine focus areas are:

- The Environment and Nature
 - Education (formal, informal, and the media)
 - Society and infrastructure
 - Culture
 - Economy and Financing Mechanisms
 - Development
 - Technology
 - Policy and Law
 - Agriculture
4. **To learn how Nature manifests differently in each of these focus areas**, each chapter contains a brief introduction. In this specific book, each also ends with a conclusion. These can be read to gain a general insight.
 5. **For use by Ministries and civil society organizations (including the private sector) and students at all levels of education** for Nature-centred actions they can carry out in their area of interest.

Whether we use this trilogy as reference works or a way of familiarizing ourselves with a Nature-centred approach we will, with use, realize that a Nature-centred approach involves allowing ourselves to be inspired by Nature.

A Nature-centred approach is critical to achieving any of the SDGs.



EXECUTIVE SUMMARY

January 2020

In addressing the three dimensions—Economy, Society and Environment (Nature)—that support the United Nations 2030 Agenda for Sustainable Development, much emphasis has been placed on the economic and social reforms needed to create a sustainable future. In the coming years, the UN's High Level Political Forum will be looking specifically at the role that these same sectors can and do play in transitioning to a more sustainable society and world. In this book we focus on how we can meet our goals of ending poverty, providing food security, improving world nutrition, promoting sustainable agriculture, ensuring that all people lead healthy lives and experience wellbeing, achieving gender equality, building resilient, inclusive, sustainable infrastructures, and to put the conservation and protection of our oceans and marine resources at the forefront of Sustainable Development Goals 1, 2, 3, 5, 9, and 14.

However, if we truly wish to meet the goals that we have set out for ourselves by the fast approaching year of 2030, it is essential that we pay just as much, if not more, attention to the third dimension, that of the Natural Environment, given that it is generally acknowledged that the implementation of the UN's Sustainable Development Goals (SDGs) will succeed only to the extent to which we succeed in living in harmony with Nature and within the carrying capacity that the Earth provides.

Nature and the natural environment provide the basic resources that are required to support all of life and to create and maintain a healthy economy. We have already degraded

the natural environment to such an extent that we have rapidly depleted the natural resource base, are facing increasing shortages across many sectors that are now impacting one

another in a complex inter-connected manner, and are undermining even the ability of ecosystems to be able to heal and regenerate or restore themselves. The consequences from our actions are felt in economies and societies around the world as conflicts break out between people in many countries as they scramble for scarce resources.

Indeed, there is so much work that needs to be done to restore the natural environment, fully address climate change, and transition to a sustainable economy that this alone would provide more than enough well-paying and worthwhile jobs for everyone long into the future.

If we truly want to protect, restore, and promote the sustainable use of both natural resources and the natural environment while achieving all of the various SDGs, we will have to shift from the mind-set of controlling Nature to a mind-set of learning from Nature how to sustain existence in cooperation with all life. This will require that we teach and include education for sustainable development in as many schools as possible all over the world, as well as through the use of diverse media. Since the Earth System is one indivisible whole, it will also be necessary to make an assessment of the entire planet including all of its waterways and waterbodies, the terrestrial areas, the deserts, and the quality of the air in order to determine where our attention and focus is most urgently needed.

By taking responsibility for the well-being of the entire planet we can join as one global community to own the impact of our activities from the past, understand the challenges we face today, and create a new beginning where together we can solve the challenges and issues which ultimately impact every human being. History has

shown that when we come together knowing the issues and take responsibility for the challenges and for resolving them, miraculous changes may occur. Feeling, listening to, and considering the planet before taking action will bring clarity and understanding. The result will be a discontinuation of destructive actions and practices, a renewal of vitality of the earth, a thriving diversity of species, and a sense of pride and joy in community.

The *Partnership on the Rights of Nature: Integrating Nature into the Implementation of the SDGs*, with the help of the Commons Cluster of the NGO Major Group, have thus undertaken to draft recommendations for how humanity could best implement the SDGs while keeping Nature and the natural environment well in mind. We are thus including in this report a chapter on each of the remaining SDGs we focus on. In this Executive Summary we are including a few of the most salient and we believe insightful points and recommended actions from SDGs 1, 2, 3, 5, 9, 14 and 17. This executive summary embraces both Parts One and Two of this book.

Finally, in Part Two, we have summarized all of the actions recommended in the full reports and arranged them under the following headings:

- Environment and Nature
- Education (Formal and Informal) and Research
- Society and Infrastructure
- Culture
- Economy and Financing Mechanisms
- Development
- Technology
- Policy and Law
- Agriculture

This will make it easier for Ministries and other entities wishing to implement the recommended actions to locate those that relate most to the topic areas under their jurisdiction. Read on below for a summary overview from each of this year's SDG reports.

To read our more detailed analysis and all of the action steps you can read either the full report, the individual chapters, or this executive summary which provides a condensed version of the full report.

SDG 1: *End poverty in all its forms everywhere*

Nature has developed amazing biodiversity over the course of earth's four billion years, despite recurrent ice ages, atmospheric catastrophes, and countless natural cataclysms. Yet at this critical juncture in history, we are faced with human activities that are contributing to irreparable planetary changes at a rate that is transgressing the very boundaries necessary to support human life. And, these same human activities are creating diverse forms of poverty that keep many people on the edge of survival, living in poor health and financial impoverishment in environmentally degraded communities.

Our misguided attempts to live in a way that separates us from Nature and which divides us from one another have led to fear and destruction of our natural environment, as well as perpetuating conflict and wars with one another. We are destroying the very means to ensure our survival as well as the means to eliminate poverty.

SDG 1 focuses on systemic changes that will shift our emphasis from a divisive perspective to one of honouring that the human species is an interdependent part of a larger whole.

Where we don't recognize this, we create and perpetuate a state of poverty in all forms. Where we recognize this, we can begin to care for all the resources that we ourselves and the Earth System produce, and each action will then contribute to poverty eradication in all its forms.

Here are six factors that keep us from accepting the fundamental truth that we are integrally related to Nature and all Earth Systems. These are:

I. The tendency of cultures to lose sight of the totality and focus on details in isolation.

Societies that tend to focus on details while losing sight of the whole, exist within all nations and most sectors of their populations, regardless of wealth or class. When we lose sight of the understanding that we are integrally connected to one another and all of life, we lose our capacity to empathize and identify with one another, creating a sense that we have to "go it alone". This sense of isolation can engender feelings of fear, suspicion, threat and scarcity, leading to a conviction that only the fittest survive. The resulting struggle for resources destroys our means for eradicating poverty and our motivation to make the effort.

II. Fear of reprisals that hinder poverty eradication.

As the illusion of separation becomes a reality in the minds of increasing numbers of people, our misunderstanding turns into maltreatment and destruction of one another and of Nature. With this we are destroying the resources so desperately needed for our ongoing survival as a species and for poverty eradication. Our fear of the "other" can keep us locked in a vicious cycle of conflict that distracts us from our larger responsibility to care for our fellow humans.

Nature as a whole grows, diversifies, and becomes more resilient through **cooperation** within and among species, as is evident when we look at ecosystems where diverse species and natural phenomena thrive in partnership with one another.

The conviction that only the fittest survive and the resulting atrocities that occur frequently deter people from attempting to change existing power structures out of fear of reprisals or, in the case of those who depend for their survival on others, out of fear of abandonment.

We discuss many actions we can take to overcome our fears and act in greater harmony with Nature. The first step is in educating ourselves and others on how to make effective, durable, and constructive change without causing intrinsic harm to Nature or parts of society by showing specific social, economic and political changes that have successfully and durably taken place, benefitting all in the end.

People accomplish so much when we come together and help each other generate internal motivation. Like other species faced with challenges to their survival, humans have the capacity to tap into amazing founts of creativity and strength when their survival is at stake. When we work together, we have the opportunity to build on others' knowledge. The internet is an important tool in helping people educate themselves and find the resources they need that will help them move out of substandard situations. Each person has the right to seek opportunities that will help them fulfil their potential. We can support this within education and workplaces by making allowances for flexible schedules, self-direction, and collaboration to increase the sense of personal fulfilment.

III. Our emphasis on the outer/material dimension of poverty while under-emphasizing the inner/spiritual perspective that stresses connectivity.

When we believe that only the fittest survive, we are often tempted to choose to keep our eyes on personal goals at the expense of all the enriching relationships we might have with other people and with Nature. In this way, an imbalance has developed. We tend to recognize and emphasize the eradication of outer/material/social poverty, which is most easily perceived, and we often forget that this is connected to inner/spiritual/emotional poverty. While we have been able to halve extreme poverty in the last 15 years, we find ourselves confronted by forms of poverty that are much more entrenched.

In this report we discuss related examples of how spiritual poverty affects both human beings and nations and how this in turn sabotages poverty alleviation in both rich and poor countries. We also recognize that developing countries sometimes have the experience of being given aid which promises attractive opportunities but which ends up being foreign and challenging to apply in their culture and customs. Or, they have the experience of violation of their natural resources, harm to their health, and toxic waste left behind as consequence of a donor nation's corporations taking their natural resources without protective regulation. True humanitarian giving is giving what is needed and useful for the good of the receiver, rather than merely for the gains by the donor. True humanitarian giving is necessary if we are to eradicate both spiritual and physical poverty in all its forms. The focus and practice of generosity and gratitude is essential to counteract

poverty and manifest natural abundance.

IV. The need to include *all* people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities.

In this fourth factor we recognize that there is a flourishing of community-based consciousness and new sharing economies arising from the cross-cultural, cross-religion, cross-national connections fostered largely by the internet. With it comes a strengthened sense of community and the revival of a collaborative economy based on peer-to-peer sharing and partnership. This movement is helping to transform divisiveness into an inclusive global culture based on the wellbeing of all people and Nature. In time, our human predilection for connection across boundaries will help dissolve systemic resistance to poverty eradication while creating a strong foundation for dealing with poverty in all its forms.

It is important to include all people, especially the poor and disenfranchised in our efforts to eradicate poverty, even if it is simply to express their needs. In many cases the poor understand the predicaments other poor people face better than those who have never been confronted with poverty themselves. All too frequently, people with disabilities are looked upon as weaker than other people, while in fact, they often have had to develop skills and faculties to a greater degree than the average extent to compensate for their disability, and so they have skills and talents that excel in other areas. People with a disability could be a great asset when it comes to poverty eradication, especially if they work in groups consisting of people with diverse disabilities.

V. The need to recognize our interdependence with Nature.

Increasingly, people in the industrialized world are losing the awareness that all of life, including humanity, is interconnected in the Earth System. When we consider ourselves separate from Nature, we feel less concern about critical issues affecting the world today, such as climate change, species extinction, and environmental devastation.

In order to foster a renewed recognition of humans' integral place in the web of life and our connection to Nature, education can be a prime tool, particularly for young people currently in the school system. It is critical to promote education regarding our connection with Nature. In this report we outline many actions that can be taken.

VI. The interconnected systemic basis of poverty and the need to view poverty eradication as foundational to all the SDGs

Poverty is a systemic problem, the result of substandard conditions in many aspects of life. The seventeen Sustainable Development Goals point out the scope of the problems that must be addressed if we are to end poverty in all its forms. Only by making significant progress in *all* of the SDGs will we be able to eradicate poverty worldwide.

Here the United Nation's Specialized Agencies have played pivotal roles: UNESCO in the field of education, science, culture, WHO in world health, FAO in food and agriculture, ILO, IMO, ITU in mass communications and so on. The UN's 2030 Agenda, with the SDGs as its core, is having a particularly powerful influence at all levels of societies worldwide.

With the involvement of civil society in implementing the SDGs, including the private sector, it is likely that the number and types of solutions to global problems will increase, allowing people and their leaders to share a common sense of social responsibility for all members of their respective societies. It will take involvement from every level of society to develop and sustain effective measures for poverty eradication.

Some of the most important aspects of poverty eradication involve environmental remediation of degraded ecosystems and farmlands to ensure food security for all of humanity, particularly those who depend directly on the earth for their daily living. These practices affect not only poverty eradication but other SDGs as well. In our Chapter on SDG1 we share best practices to restore the environment, local ecosystems, and agricultural practices to protect the soils and return vitality to farms and agricultural communities to help eradicate poverty, which will also help in implementing the other SDGs.

In the first part of SDG 1 we look at how extreme poverty for all people everywhere can be eradicated by connecting all parts of the Earth System and empowering people to work together with one another and with Nature as a whole. Besides environmental degradation, *money* is often cited as a barrier to poverty eradication. Under *Target 1.1* we focus on some best practices that can help build an economy of inclusiveness and generate a basic income for all. There are a number of ways of generating the funds needed. Most are based on changing destructive ways of treating Nature and at the same time generating financing to alleviate poverty. Some are already widely used, others are still to be implemented. They will be used further in the Report to show how such

diverse mechanisms can be adjusted to target a variety of challenges.

In this Target we make recommendations as to best practices to build a more inclusive and shared economy. There are numerous ways from where these funds can come. One such recommendation is that of *Pigouvian (or Pigovian) Taxes* which are taxes placed on a negative externality to correct for a market failure. By imposing a Pigouvian Tax a government can artificially create a cost for activities such as a business causing pollution, a cost equal to what the price would be had if a market for such activity existed, or a cost so high that it deters the activity all together.

An alternative form of Pigouvian Tax would add that those perpetrating the harm can be required to restore the damage they have caused as well as pay the tax. Revenue from such taxes can be used to restore damage done to the environment or society. If the taxes are high enough they could take the place of tax on income—at least until people are no longer tempted to do this harm. Income from Pigouvian Taxes could go to the Global Fund for Sustainable Development and a basic income for all people.

Another strategy discussed is to build a *Global Fund for Sustainable Development* (also referred to as a *Global Resource Fund*). This Fund could be fed by a number of activities, such as Pigouvian Taxes and from other fines for unsustainable activities, such as income derived by shifting tax from income to a small rental fee for the use of natural resources.

Commons Rent /Land Value Taxation would be a useful method of raising public revenue by means of an annual charge on the rental value of land. This tax encourages valuation based on the value of the land itself rather than land

improvements, thus strengthening the local economy and discouraging destructive land uses. Here exceptions would be made for indigenous peoples.

The purpose of a Government Pension Fund – such as *The Norwegian Government Pension Fund* - is to facilitate government savings to finance rising public pension expenditures, and support long-term considerations in the spending of government petroleum revenues.

Here we also introduce the idea of creating a *Self-financing World Marshall Plan* as a way of creating and financing a supplementary income for all people worldwide, as endorsed by Noble Prize winner Jan Tinbergen, and written about in *The Year 2000: Crossroad for Mankind* by Dr. Lisinka Ulatowska (available in English and Dutch), and *The Ideal Self Image* by Pieter Kooistra (available in English and Dutch), sponsored by the Dutch Government.

Even more possibilities can be created when we consider the use of alternative local currencies, including the *LETSsystem* - the best-known local alternative currency, or *Time Dollars*, and *use of local currencies*, all elaborated upon in the report.

Commons are groups and networks of people who jointly manage one or more resource in such a way that all stakeholders benefit equitably. Many of the resources they provide are free. Commons are meeting a wide range of their own and community needs from local to global levels, and contribute greatly to poverty alleviation.

Entrepreneurial Clusters

include groups that repurpose and up-cycle waste into new products providing a unique and much needed service and income source. *Business Cooperatives*

do well in all sorts of economies, attracting one billion members worldwide. Cooperatives tend to do well even in times of economic downturn, because the owners/workers all share in the profits.

Micro-financing institutions such as the *Grameen Fund, Bangladesh - Women's Fund* which provides small loans to women - and similar programs throughout the world - changes the lives of individuals, which changes the lives of whole communities.

In *Target 1.2* we look closely into the vicious cycle of poverty, whereby the economic environment and market capitalism keeps people poor. Poor health and no resources makes investment unattractive. No investment means no development and no improvement. But it's not just lack of money, it's also environmental degradation that prevents poverty eradication. Reversing this has to be a two-pronged approach that involves changing destructive ways of treating Nature and at the same time generating financing to alleviate poverty.

Within the concerns of SDG1, there is a delicate balance between ensuring that all people are protected, supported and cared for to their particular needs and levels, while also uplifting, educating, and bringing confidence and appropriate resources to those who can be elevated to a higher level of self-actualization and self-support. *Target 1.3* discusses how to implement nationally appropriate social protection systems especially for the poor and the vulnerable, while providing opportunities such as career assessments, guidance, and training for the un and under-employed. Both the people receiving financial assistance as well as the communities they are a part of can benefit from community service activities or other

related jobs to repay the community while they are developing their skills.

As we look to the SDG's to help us make the world a better place, we have to carefully consider that we are becoming a world where automation and AI are increasingly taking over work from human beings. In light of SDG1 and all the facets of eliminating all types of poverty, it is important to find alternatives that allow people to undertake activities that are of interest and meaningful to them personally. This will shift the global economy from one where people focus on meeting basic physical needs to one in which physical needs are met by machines and AI. This requires the blossoming of an immaterial economy to meet people's needs for immaterial development which includes their creativity, cultural pursuits, spiritual and intellectual development etc. By allowing this side of human beings to flourish, a new economy will grow that has to do with the creation of "immaterial" goods and services that lead to deep inner satisfaction, accompanied for many by benevolence. This economy will be as valid as and more satisfying than the present one where people are forced to work at jobs that do not interest them. We see this already developing in the form of the social solidarity economy that is growing fast with the help of the Internet.

We also put consideration into nations which do not yet have the necessary infrastructure for providing and implementing social protection plans, by providing recommended steps that can help these governments prepare and fulfil their national sustainable development goals.

Target 1.4 emphasizes the importance of equal access to finances, resources, property ownership, new technology, and basic services. But along with this

equal access must come guidance, education, and a commitment to helping those who own property or assets know how to use, honour, manage and grow their resources without harming other people or Nature. Here we show how putting stewardship of Nature and the protection of the Earth resources first is essential for true sustainable development of SDG1.

Building resilience requires balance in give and take between people and between people and Nature. In providing resources to empower others and build a more resilient environment, we are helping to create a safer, more resilient world for ourselves, future generations, all peoples and the whole of Nature. Only when our fundamental way of seeing our relationship to one another and Nature has changed can we take effective measures to help those most in need.

In *Target 1.5* we provide concrete actions that can be taken to ensure the health and safety of our more vulnerable populations from such occurrences as Tsunami's, First Aid needs, preventing accidental poisoning of our children from lead and household batteries, and poisoning of communities from toxic wastes in landfills and industry.

In section 1 a, we discuss the necessity for ensuring significant mobilization of resources from a variety of sources in order to provide means that are adequate and predictable for developing countries to implement programmes and policies that will lead to the end of poverty in all its dimensions. This could be by way of the fast-growing sharing/collaborative/partnership economy – person to person – those who are moved to share goods, services and expertise - including with people in poorer circumstances. This can also be giving done by civil

societies, individuals in the private sector, and community cooperatives. Then of course there is also International development assistance. In this section, we provide down to earth actions that can help distribute assistance when and where it is needed.

Section 1 b advises there to be sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies. We want to emphasize that we are all in this together, just as in Nature, all Beings existing in a supportive cycle of life and living. In an ideal world, all are taken care of, and there is no need to specify special individual groups or populations. However, we still have work to do to get there. In the meantime, our actions must both transform the mindset that causes people to compete for domination, while at the same time bringing about a shift in legislation that is pro-poor and does not discriminate against youth, the elderly, people with disabilities or in regard to gender, religion, culture or race, etc. We believe our suggested actions here provide the basis to do just that.

SDG 2: *End Hunger, achieve food security and improved nutrition and promote sustainable agriculture*

The Earth is a perfect self-contained system well designed to feed all of life on the planet, including humankind. Plants and animals form food chains and food webs whereby organisms large and small live, are ingested, or die of their own accord, and in one way or another are recycled back into the web of life. Human beings are complex and depend on this process of give and take between a large number of life forms for nutritious foods and their food security. Most of the agricultural practices

employed have harmed the environment by causing desertification, or loss of top soil due to clear cutting of forested areas, the land has dried out, lost its fertility and has become difficult to farm. These practices are not sustainable, and limit our abilities to feed ourselves. Recognizing this is essential. However, when surrounding eco-systems are left intact, they provide reservoirs for holding and slowly releasing water throughout the year, thus creating the type of environments that richly supports this complex web of life. This in turn provides the natural resources that agriculture for human consumption needs to thrive. Recognizing this is essential if we are to have sustainable agriculture.

Unfortunately, many humans have come to believe that it is a matter of the “survival of the fittest” when it comes to their relationships with Nature and are eradicating whole species and destroying ecosystems in an attempt to “safeguard” food for human consumption. In the process, they are also depleting and poisoning the air, water and soils. Conventional farming causes 25% of the greenhouse gases that are released into the atmosphere - run-off from fields causes eutrophication of our water courses, siltation, and the development of large dead zones in the sea. Although the rate of forest loss is decreasing, large tracts are still being cut down to make way for agriculture. Human activity is largely responsible for the loss of 150-200 species of plants and animals each day and is endangering the Planet’s capacity to maintain human life in almost all areas covered by the Sustainable Development Goals. We must therefore adopt sustainable life-giving agricultural practices in all nations by building on the example of Nature, if we are to assure food security, optimal nutrition, and an end to hunger. Life-giving in this context

means agricultural practices which bring life and vitality to the ecosystem within which our agriculture takes place. This includes all those who are involved in agriculture - from the grower, to those who package and ship, to the consumer - thereby reinforcing a mind-set based on cooperation between people and people with Nature. We may have to compromise in the spirit of cooperation and give up some of our freedoms to end hunger as well as for the ongoing survival of our own species. We cannot compromise on the agricultural practices we employ going forward - they must all be in alignment with life-giving protocols. A non-toxic ecosystem approach to agriculture can be a great asset in producing sufficient nutritious food all year round.

The Earth is perfectly capable of producing enough food for all our populations if we take a Nature first, cooperative, non-toxic, and whole-systems approach. Much of the problems we currently face stem from large populations living separate from, and thus ignorant of our interdependent relationship with Nature, and how Nature works. A massive movement towards including this knowledge and experience of Nature into all forms of day-to-day life and especially in all our forms of education is key. Already there are programs that provide opportunities for students to experience deep reflection in a natural environment, much like the Indigenous Peoples "vision quests", fostering the experience of Nature, for instance, as available through John F. Kennedy University, CA, in the USA (<https://www.jfku.edu/>).

The targets of SDG 2 highlight particular areas of concern regarding feeding our planet. In *Target 2.1* we address how, by taking Nature's lead, we can see that the production of safe,

nutritious and sufficient food all year round is a much more comprehensive process than merely planting, harvesting, and distributing food. ***State of the World's Forests 2016*** states this about forests and agriculture - the land-use challenges and opportunities:

"Forests and trees support sustainable agriculture. They stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people, for whom they are important sources of food, energy and income. Yet, agriculture remains the major driver of deforestation globally, and agricultural, forestry and land policies are often at odds." It is essential that we halt destructive agricultural practices and harness the powers inherent in Nature.

As we take the steps to provide all people with safe, nutritious, and sufficient food all year round, we have an enormous opportunity to sequester giga-tons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, and providing conditions that are much more favourable to dryland, rain-fed areas, subsistence and family farmers - particularly those living in regions of degraded farmlands and ecosystems. We provide many actions that can be taken towards this goal, such as changing our farming practices to be more in tune with Nature, where possible, using an ecosystem approach by nourishing the earth first, so that it will be able to feed human beings abundantly. This may require suggesting the many populations to change the way we eat, promoting the consumption of more vegetables, fruits, seeds and grains, as opposed to meats which the raising of is a less productive way to use our farmland. Monocultures

are destroying Nature and should therefore be avoided, including monocropping to grow cattle feed—one of the most destructive types of farming practices that is negatively affecting soil health. By working with, instead of against Nature, we will find that we have befriended a powerful ally.

People can be empowered to get involved in the sustainable modes of production of sufficient, safe, and nutritious food all year round. If businesses, civil societies, and rural governments are given incentives to help provide education, skills training, basic services, and new telecommunications and information systems, then people will be encouraged and drawn back to the rural areas from the cities. Also needed will be agricultural equipment, construction of roads that connect farms with one another and with markets, making sure every community benefits from pipe-borne water, clean energy for each household, and basic education opportunities for children – all providing a whole network of necessary gainful employment. In this way people are empowered to get involved in the sustainable modes of production of sufficient, safe, and nutritious food. We have an enormous opportunity to sequester giga-tons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, providing conditions that are much more favourable to dryland, rain-fed areas, and supporting especially subsistence and family farmers – particularly those living in regions of degraded farmlands and ecosystems.

Target 2.2 is about addressing the problems of malnutrition. Much of this is about the need to produce enough food for all, as well as using more organic bio-dynamic/Earth-friendly methods of food production to high quality food. However, the issue is more complex

than that and involves a more community oriented mindset whereas we are all here to take care of each other. A community is strong to the degree it cares for its young and vulnerable. A poverty of nutrition is the result of a poverty of love for our fellow human beings and life itself.

When we actually experience the interdependence between all people as well as people and Nature, we realize that caring for others is in essence also caring for ourselves.

Secure and equal access to land and waters is another important step that, if guaranteed, is likely to contribute toward groups who tend to be on the periphery – such as small scale farmers, women, the elderly, small-scale fishermen, etc. – becoming much more productive and also increasing their incomes, all bringing us closer to fulfilling *Target 2.3*. Women, indigenous peoples, pastoralists and small-scale farmers and fishermen are constantly having to defend the lands under their jurisdiction due to the lust for resources, land, and waters, by much larger and more powerful interests, often backed by wealthy corporations and whole governments. These more powerful interest groups are taking possession of the areas under their jurisdiction and mining these or otherwise destroying the soils and water quality for the benefit of a few and to the detriment of the planet as a whole. Setting in place legal, social, educational, and technological protections, programs, laws, incentives, and allowances are actions discussed in *Target 2.3*. We must also remember that the Earth must also be given a voice and protection. There have repeatedly been attempts to introduce a World Environmental Court. We suggest that now more than ever it is time to put this in place. For laws that provide Nature with rights see:

www.harmonywithnatureun.org.

Under 2.0 and 2.1, we noted the importance of using an ecosystem approach to bring about sustainable agriculture. The natural interactions of large numbers of plants and animals tends to boost productivity and production and create resilience while producing sustainable and nutritious food for the long-term. Permaculture is based on Nature's ecosystem approach where each element strengthens all others as it goes through its life cycle. It has been used for thousands of years and is now being rediscovered. While permaculture requires us to integrate agricultural practices with all other development practices and considerations found in the local area - and this makes it more challenging to implement on a large agricultural scale - it is well suited to involving people individually or with the help of small town gardens to grow their own food, as well as to be used by larger growers. At the same time permaculture on a small scale has the advantage that people can have access to the types of food they need and want.

Under 2.1, we also recognized the need to provide food for many more people that are living today using the same available space. In fact, possibilities for food production abound everywhere where there are communities and individuals living and working: grounds around buildings, living spaces, along streets, and even rooftops can be utilized for efficient production. We can plant food-producing trees and food-producing shrubs amid decorative trees, and utilize diverse forms of ground cover to feed populations. We can use the concept of plant communities which complement each other's nutrient and water utilization, sun and shade needs, root distribution and harvest times. In this way, the fact that permaculture is well suited to small

scale agricultural production is an advantage. It increases productivity in areas where it is most needed.

"Green" or sustainable housing is an exciting and up-and-coming movement. There are numerous places where a variety of new sustainable forms of living can be explored –such as on the internet and at special expos such as Green Tech, an exhibition that took place in Amsterdam in the Netherlands from June 12-14, 2018.

As noted above under 2.1, genetic diversity is absolutely essential for the survival of all. Nature takes care of plant and animal evolution in its own time and pacing. The evolutionary wisdom of Nature in this capacity assures longevity and balance amongst all species. Mono-culturing of species is therefore short-sighted and limits survivability. And so, too, the cultivation of individual genetic strains from the perspective of human use can be destructive for the rest of the ecosystem. As discussed under 2.0, to limit the diversity of the ecosystem is ultimately destructive to the human population.

The management and saving of seeds is not just prudent - it is a measure of honouring and celebrating the very foundation of life. Healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems provide or produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species, and enable these species to grow strong through the diversity of other species they interact with. Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend. Interconnected and mutually nurturing ecosystems also have the following advantages:

- Because the genes have been created within a Natural context, they are sustainable and are less likely to have unexpected repercussions.
- There are no strings attached to their use.
- They can propagate naturally and do not require permits for use.

International cooperation and investments in agricultural research, technological development, and even in agricultural productivity - whether in developed or developing countries - is critical as we move forward towards *Target 2.5*, but we must keep in mind that their involvement is not always constructive. When investments are made with the best intentions, these can backfire when Nature is not fully taken into account. In addition, there are many investments made whereby the investor gains at the expense of those who are meant to benefit. Now that international cooperation is increasingly available in our interdependent world, we have a choice who to work with, bearing in mind that it is important that we learn from the balance inherent in Nature while taking our own (Nation's) needs into account. Some questions we can ask are:

- Is the help being offered by experts who are working in harmony with Nature?
- Is the help being offered exclusively for financial gain? For instance, are there strings attached, such as having to buy new seeds year after year, because the seeds are infertile?
- Do the seeds take over from natural species thereby depleting the diversity of species in the area?
- Does the use of the offered technology and genes allow the agriculture to develop freely or does

the beneficiary become captive to the provider of the help?

- To which degree do those offering the help and collaboration also bring benefit to a larger context? Some businesses, such as cooperatives, are obliged to give both to the community where they are based and also to the international community, as a part of their Cooperative Identity. For this reason, these tend to provide aid that is balanced in terms of giving and receiving. (See International Cooperative Association:

<https://www.ica.coop/en>

Such questions are important to critically evaluate.

When it comes to human connection with Nature, international cooperation can benefit from the input of technologically less advanced/ more community-oriented cultures. Many innovations do not necessarily require a great financial investment and more technology is not necessarily better when it comes to the development of a more sensitive relationship with Nature. In 2.a we suggest that we can:

1. Gather and promote the exchange of best practices from both technologically advanced communities and those living closer to Nature. Give credit to, remunerate and, where appropriate, upscale best practices.
2. Ensure that best practices with regard to the building and keeping of gene banks and the improvement of infrastructure are made available worldwide, including through the sharing economy. Reward those using a cooperative approach which can be up-scaled. Publicity can be given using awards and prizes.

Many countries have offered their concerns over trade restrictions in agricultural markets that potentially have negative impacts. These discussions are important and need to be continued and resolved with the ongoing intention of a sustainable world economy for a thriving, inclusive, sustainable planet.

And in 2.c we are reminded of the key role the internet can play in levelling the playing field – so to speak – by providing easy access to all types of world food market information such as food prices and food reserve information.

SDG 3: *Ensure Healthy Lives and Promote Well-Being for All at All Ages*

Nature is integral to human health and wellbeing. The physical and mental health of individuals and of societies and economies is rooted in a healthy relationship with Nature. We tend to feel more benevolent and open to others, our well-being increases, inspiration and creativity can thrive with the result that both society and the economy tend to flourish. Inherent in Nature there is a Will for survival, but Nature also exemplifies an inherent balance that is finely crafted to make all systems work.

In implementing *SDG3* it is essential to look at and focus healing on whole systems (bodies, soil, water, etc.). It is important to maintain focus on the community as a whole, the country as a whole and the planet as a whole. When health becomes the priority communitywide, countrywide and finally globally, many of the health challenges will disappear, because products and practices that weaken and destroy the immune systems of humans that are not contained by human-made boundaries are eliminated.

While moving toward this global situation, it is useful to study the practices within the country, and to focus on the specific changes that must be made and then to use sustainable health-giving practices that are rooted in that nation's culture. Working in this focused manner will uplift the immune system of the nation, its people and all other expressions of life. Everything will be more resilient including people's minds, their ingenuity, creativity and joy in living. Everyone will have a higher level of functioning and this will give rise to an entirely new experience of well-being on the planet.

Actions to promote the achievement of this goal, including education, community engagement, connection with Nature and each other as well as legal safeguards are discussed. *Target 3.1* focuses on decreasing maternal mortalities by 2030. This target looks to not only keep these mothers alive but to actually contribute to the quality of their lives from the understanding that their children are truly *our* children. They are our future. We discuss ways to achieve this target, including the creation of a secure, loving atmosphere, access to healthy food, housing and clean water for women who are pregnant and those who are in the process of giving birth.

Target 3.2 deals with ending preventable deaths of new-borns and children under 5 by creating natural support systems and increasing education regarding child rearing. The points listed above under target 3.1—maternal deaths—also apply to infant mortality, including creating a natural support system for pregnant women, women with children, and providing education of the “whole” child, as opposed to the mere survival of the child. People must be prepared for what is involved in having children - the

emotional, physical, social, and psychological care that is necessary to help our children grow into maturity, to develop their full potential. The development of a new level of respect and care towards our women and children are pointed out as being of utmost importance to the survival of our species and the joy of our future.

According to *Target 3.3*, the health and well-being of our populations is also dependent upon ending the epidemics of communicable diseases. This target looks at the different approaches we have to combat disease – from providing clean and healthy environments, water, and fresh and viable food for the prevention of disease, to the use of natural medicines and therapies that increase the vital force and innate immune system, to natural herbal microbials that help throw off disease organisms. Where more specific and potent eradication is necessary, we have new drugs and antimicrobials as “the big guns”. It is well known that the overuse of such agents has led to antibiotic resistance. While antibiotics and vaccines are highly useful, we are already confronted with the dangers of adaptation and resistance. This dilemma must be carefully looked at – we cannot expect to be able to infinitely produce stronger and stronger medications without some kind of consequence to the delicate balance of our internal and external ecosystem. This is a complicated (and sometimes heated) topic, and here we take a look at some of the advantages and disadvantages of creating pharmaceuticals that can eradicate disease producing organisms, as well as more natural holistic approaches that balance the internal human ecosystem, preventing these organisms to take hold and thrive. The issue of species loss is discussed. We

have transgressed the planetary boundary with regard to the rate of biodiversity loss. The question arises whether the approach of eradicating further species is wise. Nature thrives on diversity.

Target 3.4 seeks to reduce premature mortality from non-communicable diseases through prevention and treatment and to promote mental health and well-being. We often see Nature as allowing those plants and animals to perish that are weak. In fact, if we take a closer look we find that when it comes to species, each one has its individual strengths and weaknesses and that those that survive have found a niche within the network of life where they perform a unique and important function within the systems of Nature. As described in *Target 3.4* we can reduce premature mortality from non-communicable diseases by helping our populations live a balanced and healthy lifestyle in the way that Nature intends us to. Nature provides the very means for disease prevention and treatment by way of water, air, nutritious food, and plants as long as we don’t pollute and otherwise destroy them. Even the beauty of Nature promotes mental health and well-being.

And we in our societies and communities are key in increasing resilience, promoting strong bonding in early childhood, empowering each child to develop its own potential by providing integrative skills training are some of the means to enable each person to enhance mental health and well-being.

Addiction has become a major problem in our communities. Addictions consist of physical, mental, psychological, heredity, social, economic, and spiritual causes and ramifications. Human beings often use and “push” drugs to make up for emptiness and lack of fulfilment. *Target 3.5* addresses

strengthening the prevention and treatment of addictions and harmful substance abuse. Many diverse approaches within different cultures that are actually helping individuals to overcome these complex diseases are discussed. Promoting education and globally sharing ways of combating addiction is suggested to allow people to connect with the natural well-spring within, bring satisfaction into their lives and to develop their full potential.

Another area of health and safety concern is the rise in deaths and injuries from traffic accidents, as addressed in *Target 3.6*. More and more humans commute over long distances for work and much of that is by road. The great limitations of road travel are becoming apparent. Increasing efforts and opportunities to encourage people to limit their activities to their local communities would decrease the number of cars on the roads and thereby the number of global deaths and injuries from road traffic accidents.

Creation of self-reliant, self-sustainable, self-contained communities where in which daily activities are performed close to home, technologies for small ecological vehicular transport, flexible work schedules, creation of systems for mass transit that are convenient, ecologically sound, and enjoyable and increased capacity and incentives for people to work peacefully on busses and trains, discouraging the use of cars through increasing the taxes as well as high fees levied for carbon emissions are proposed actions to support this target.

Natural constraints to overpopulation, such as poverty and the inability to provide quality care for each member of society as well as the positive ways in which people can pull together to

achieve common goals influence *Target 3.7*. Increasing acceptance of access to sexual and reproductive health-care services, including for family planning, information and education, are critical for the empowerment and education of women and girl's to participate at all levels of society. This, in turn, benefits the society as a whole, having a significant effect in decreasing the rates of population growth.

It is likely that the implementation of this target will meet with resistance in some parts of our societies. For the numbers of children born and the sex of those allowed to survive in a family depends on the culture and religion of the family and is often influenced by considerations of economic and social power. Women are often prevented from access to sexual and reproductive health-care services by their husbands or partners, since fertility and virility are connected in the minds of some. Education, effective implementation of human rights as well as media promotion play important roles for the success of this target.

Universal health coverage for all people globally has been established as a goal for 2030. *Target 3.8* looks at ways to achieve this. Here we consider the advantages of creating a program which provides universal health coverage for all people globally. Above all it would lead to a concerted global effort to do away with agents that create diseases that cannot be contained through national borders. Universal health coverage is not just about dispensing medicines. Many diseases are a result of toxins in the air, water, land and food sources. The more pristine the environment, the less environmentally induced illnesses occur and the more knowledgeable people worldwide, the fewer diseases we shall have to contend with and the

more affordable healthcare can be. Approaching this as a part of a global effort would do much to decrease this hazard. Greater health abounds when people are open to being infused by the health-giving effects of their natural environments. Some ways suggested for achieving this include creating relaxing green spaces, and utilizing diverse forms of medicine that align the body/mind/spirit with its natural connection to natural forces.

It is clear that putting Nature first - taking care of the health and wellbeing of Nature - is the foundation for our own health and wellbeing. All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic and exponential consequences, for humans as well as the Earth as a whole. In *Target 3.9* we put this into perspective as the means for substantially reducing the number of deaths from hazardous chemicals, contaminated and polluted air, water, and soil.

An ever increasing population and focus on individual wealth and control are changing the conditions on Earth that are necessary to support human health and wellbeing to conditions that do not support health and wellbeing - for any species on the planet. Brilliant inventions and advancements in technologies such as the combustion engine, pharmaceuticals, and plastics revolutionized our transportation industries, manufacturing, packaging, and medicines, changing the landscapes of our minds, habits, and the planet. While there is so much good that has taken place through human breakthroughs and inventions and practices, it has been done with little

fore thought to the unhealthy consequences in the way of pollution, contamination, and depletion. The unprecedented pollution of our air, water, and soil is altering the very fabric of life, in some cases irreversibly, causing grave illnesses, and even death. The changes necessary to stop these harmful practices will require the effort and commitment of every person, and every nation.

Teaching our young to attune with Nature and their own intuition is essential to healing human experience and to cleaning up our air, water and earth. Humans need to learn to be in tune with and support practices which support all life and quality of life. This means we need to shift our focus from independence, wealth and position to our web of connection, interrelatedness and interdependence.

Another essential issue in cleaning up our water, air, and soil is shifting priorities and stopping practices which pollute and poison our air, water and earth. All nations need to stop supporting and protecting the interests of corporations creating hazardous chemicals and polluting the planet, including pharmaceuticals which are finding their way into our precious water supplies. Politicians and policies need to stop protecting big business and blocking creative innovators who present healthy solutions, but are focused on increasing wealth. Policies and practices need to focus on supporting and subsidizing those implementing sustainable practices leading to the health and wellbeing of all life.

Target 3.a states the need to support research and development of vaccines and medicines for diseases primarily affecting developing countries and provide access to essential medications and vaccines to all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, and in many indigenous cultures, there is an inherent knowledge of how to overcome challenges to health and wellbeing. We have effective options from allopathic, homeopathic, and naturopathic practices, and here we outline some of the advantages and disadvantages of each. The importance of making data regarding costs and benefits visible to all is pointed out. Legalizing traditional forms of healing which in many cases take a more Nature-inspired approach is advised.

There are many advantages to building local health care work forces both in developing nations and others. *Target 3.b* stresses the need to increase health financing, recruiting, developing, training and retaining the health workforce in developing countries. In this target we explore how human health is multifaceted. We recognize that if all facets were brought into play to foster human health and resilience, the physical aspects would play a much smaller role than they do today, people would have many more choices with regard to the types of health care they can best use, and health care would be much less costly.

A community's health is very much influenced by the degree to which that human population lives in harmony and respect for its national as well as natural resources. The greatest resources are the natural resources of any area, as well as the people that live there.

Expanding the national health industry to embrace practices indigenous to that nation will provide jobs and also a niche in the market for developing countries that can also be of interest in industrialized nations, where people are increasingly looking for alternatives. It could help to free developing countries from domination by others and place them more on a par with the health industry in wealthy nations.

While the establishment of professional standards will be extremely important in all aspects of medicine and involve costly lifelong learning in many cases, combining approaches to medicine (as mentioned above) will decrease the overall costs and increase effectiveness. These diverse approaches to human health should be made available to people along with, as necessary, the "Western" approaches that hold sway in many countries today. This larger choice of healing modalities will decrease the cost of people's healthcare since many will opt for less costly approaches that implement a multi-faceted form of health care. Such a broadening of recognition that other forms of healing are relevant will also give legitimacy to healing modalities used in developing countries worldwide.

The importance of adopting a holistic approach to human health, providing cooperative education and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to Nature are suggested. Enforcing sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature, utilizing holistic health practices that have worked over long periods of time, recognizing traditional/holistic methods, encouraging the recruitment of people of a community to be the health

advocates and workforce for their community – and offering appropriate training and remuneration - are also recommended. The need to free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits is pointed out as important to the success of this target.

Target 3.d calls for strengthening the capacity for all countries, in particular developing countries, to establish effective warning systems, reducing risks, and management of global health risks.

Early warning systems are available in the shifts in subtle energy systems of Nature. Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timely. As human beings, it is to our advantage to learn to differentiate between healthy and necessary energy shifts, and those that are in response to human generated changes to natural systems. It is important to respond to natural shifts in ways that maintain what is healthy for the earth. Health risks decrease proportionately to a community's loving interaction and cooperative and harmonious living within the laws and systems of Nature, provided communities are free and able to live in areas that can support them.

SDG 5: Achieve Gender Equality and Empower All Women and Girls

There are strong natural evolutionary forces working inside of the natural order and within people individually, encouraging humanity to form a well-integrated global community. At this critical planetary juncture, humanity is attempting to come into a new, integrated form through these same evolutionary pressures. One of the

strongest evolutionary forces now coming to the fore is *gender equality*.

If humankind is to create a sustainable future, there must be a far greater understanding and valuing of the crucial role that women and girls play in maintaining and sustaining our species. Increased valuing of women's roles can be reinforced through supportive legislation, education, and active participation by both women and men in the movement to end discrimination against women.

When we look at Nature, we see clearly that females of the species are powerful forces to be reckoned with. Their power is derived from respect rather than fear.

To empower boys/girls, men/women, we need policies and programs at all levels, in addition to laws, that foster mutual respect rather than fear. Females and males have different biological imperatives critical to the survival of the human species. Humans can acknowledge and celebrate these differences, without judgment. There are many ways discussed in this report as to what can be done balance power differentials.

Achieving gender equality and empowerment for all women and girls will require a paradigm shift - a new perspective that values all beings regardless of gender. By creating gender equality and empowering both women and girls, we can help to advance the full development of the human personality in both females and males, while fostering global community in which new and meaningful bonds can be formed across existing geographic, cultural, and economic boundaries. This will require a change in education, a shift in media depictions of females *and* males, as well as new policies that support this shift. At the same time, the cohesiveness between men and

women will help build a human society that can live in greater harmony with itself and with Nature.

Implementation of the Universal Declaration of Human Rights (UDHR) 26 (2), the development of the whole human personality, both legislatively and via the

Curricula of all formal educational institutions is proposed as key to this target.

Developing education that fosters intuition and receptivity including reflection and meditation are important action steps mentioned in this target. Offering artistic activities that generate creativity and foster innovative thinking and new perspectives is proposed. Learning through socially relevant group projects that encourage people to act in keeping with their own strengths, becoming team players to work for the betterment of society, learning to communicate with Nature, increasing self-awareness and deep listening to develop harmony with the Natural Order, fostering education and experiences that connect humans to Nature, modelling respect for the interconnection of all life, developing programs that value all life forms, developing Curricula that teach the distinction between aggression and assertiveness are examples of how we can move towards equality.

Target 5.1 seeks to end all forms of discrimination against all women and girls everywhere. Inequalities have created confusion and challenges for *all* children today. Addressing the situation by focusing solely on equality for girls/women maintains the premise that boys/men are treated ideally and that we should compare the treatment of girls/women with the treatment and opportunity for boys/men as a way to achieve equality. This approach keeps us in continual conflict since the basis

of the problem for women originates from an underlying foundation of inequality, wrongdoing and blame.

Rather than trying to fix a broken system, which is not helpful for either gender, it will be more effective to create a new way for people to view *all* children, honouring each one as a precious new member of our species with unique qualities and gifts. This new thought movement can be introduced by national leaders, teachers and community leaders to increase awareness of the importance of our planet's children. With this awareness, people will seek out the unique characteristics of each child and take pride in being a part of their careful development. Changing our view of children so that each is considered "our own precious child" will give each the freedom to blossom. In a system that values *all* children, gender equality can flourish. Considering the brilliance and adaptability of our human species, this is a real possibility.

Target 5.2 calls for the elimination of all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation. Violence against women is rooted in fear, rage and feelings of powerlessness. Violence can be met with peace, love, and a "*fierce compassion*" that sees and understands the reality of what is and sets an intention to shift to greater love and compassion. It is stressed that this will require females and males of all ages to join together. Violence against women is not a "female issue." It impacts all of us. Males must play an active role in this shift.

The basis for ongoing trafficking and other types of exploitation is intricately related to economics. Even some parents and other family members participate, thinking of their girls as

possible money earners for the family. In many cases, these families' actions are based on desperation for survival, but such practices are now increasingly common when survival is not the reason.

While partial solutions can be helpful to provide immediate counter measures, ultimately the entire system must be changed to bring about a final end to this violence against girls. Real change is only possible by dismantling the system and powerful structures currently in place. Breaking down these systems will require transparency in bringing these leaders' involvement into public awareness. This is key to solving this issue and, going forward, to creating a new way of viewing our children as precious gifts rather than financial resources, as suggested above in 5.1.

This section discusses the need to work to understand the economic drives of those participating in the system that perpetuate violence against women; to implement alternatives for those who contribute out of perceived need; to stop promoting violence in media, advertising, play and to offer examples and models of peace and mutual respect in books, magazines, TV, movies, games. Other solutions offered are: to teach problem solving, conflict resolution, mediation, and non-violent communication; to organize a worldwide peaceful march in support of eradicating violence against girls and women. The energy released in this process could be a powerful force in creating change.

Elimination of harmful practices, such as child, early, and forced marriage and female genital mutilation is what *Target 5.3* is about. Love and appreciation of the value of each woman in her own right and to the whole community - society is the true basis for implementing this target. In Nature,

individual species are able to survive and thrive only to the degree that each contributes to the whole and is nurtured by it. In our human society harm done to women has brought humanity out of sync with the laws of Nature practiced by all other species.

Change has begun through the adoption and implementation of SDG 5 and targets on gender as a global standard and policy. As a next step, the recommendations made in this report should be translated into enforceable national and local laws. It is important to remember that disempowerment and abuse of women is kept alive by *both* women and men. Durable change will only take place once these predatory behaviours have truly been eradicated in both men and women and all can experience for themselves the benefits of a society where both genders can come into their own without being stunted by violence.

At that point, the natural laws will be able to operate fully within the human species, and the resulting experience of benevolence and wellbeing will make genital mutilation and forced marriages unthinkable. Harmful practices such as child, early and forced marriage, and female genital mutilations are possible because of a belief that female children and adults are a commodity with potential value to influence or in trade. There is also a basis of fear in general with perpetrators, including fear and superstition about females and fear for survival. Understanding what drives parents and perpetrators to acts of forced early marriage and genital mutilations is key to eliminating these acts.

This can be done through creating a new way to view all children. One way discussed is developing groups that include both boys and girls and enable them to work in harmony with one another with the same mission, equally

sharing the benefits. Another is establishing true equality to education and daily life by introducing innovative ways of understanding and interacting with one another to create greater appreciation of the intrinsic value of every life. Also suggested is the creation of education that includes formal training in traditional subjects that will prepare them for work and offer them more options, while building their self-esteem and empowering them to move beyond their current limitations.

It will be essential to stop glorifying and promoting substance abuse and pornography and to actively support, with finances and policies, entertainment, products and activities that promote mutual respect, problem solving, conflict resolution, healthy sexual attitudes, and healthy connections between humans and with Nature. We need to bring about a new movement that supports all that we as humans wish to experience and share in our lives.

Changing the way we view stay-at-home parents and providers for children's care will make a tremendous shift for humanity. *Target 5.4* calls for us to recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family. When we believe that *all* children have value and importance, truly as the future of our species, when child-rearing and children's education is consistently valued, we naturally think of parents, caretakers, and teachers as essential to their development. Community members are inspired to become mentors and contribute to the development and expansion of our species. To create the world we want, it is of paramount importance that we

change the perceived value of at-home-work and child-rearing duties.

In this target it is proposed that we create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued. We need to encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole. We need to promote mutual respect with policies, funding, education and technology.

Females of many species, including humans, have shown their capacity for leadership to be equivalent to that of males. In the human species, gender equality will require change in the socio/economic power structures that are currently supported by both genders. It will require shifts in individual consciousness, training in self---assertiveness, and support of both genders within one's own culture and in other cultures where greater equality has been achieved. *Target 5.5* focuses on ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.

This can be greatly helped where women and girls, universally, have access to the Internet. People in many countries have made great headway in this effort, changing power structures to maintain gender equality through the law as well as through social and peer pressure. Eventually there will be a tipping point that will enable legal protection of gender equality to become a global reality.

The implementation of *Target 5.6* is essential to nearly all other goals with education being key. *Target 5.6* deals with ensuring universal access to sexual and reproductive health and reproductive rights. In many cases, lack

of education and health services have contributed to the challenges, misunderstandings and abuses seen today. Making sexual health education and health services available and acceptable will serve to unify women and men in understanding. It is suggested that a department of reproductive health and education be developed to train educators for sexual and reproductive health and rights and make them available worldwide, from the smallest village to the largest cities. Making education and health services available for both women and men, and young people as well, so they can become new leaders, teaching others in the community is proposed. The importance of aligning policies, education and funding with this goal is pointed out.

Target 5.a seeks to undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws. This target calls for reform in policies, education, laws and funding so they align with and support this goal. We need to develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with nature. It is necessary to bring relevant education to women, men, and young people. It will be beneficial to provide guidance in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature. This target also calls for us to develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.

Access to technology is key to promoting women's empowerment, as per *Target 5.b*. In addition, technology,

media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Bringing computers and Internet to villages and especially to young girls, and women who have had no access, developing technology and training in equality and inclusivity, providing women and girls with access to materials and training and ensuring a spirit of inclusivity and equality among the genders are proposed actions that can form a basis for interaction and development going forward.

Where sound policies and enforceable legislation are passed that benefit *all people*, as proposed by *Target 5.c*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders of all ages - and the community as a whole - on new possibilities for living, employment, health and wellness and nearly all areas of interest to create a future with myriad possibilities for all and to generate a spirit of new unlimited potential for life in all.

SDG 9: *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*

Both to fulfil the SDGs by 2030 as well as to build truly loving, and thus sustainable relationships with all Beings on Earth, a paradigm shift that touches all aspects of our living on this planet is required. We need to re-evaluate all of our foundational systems: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.

Building basic socio-economic frameworks and systems and using our resources sustainably demands the

cooperation of all humans with one another and with all of Nature. We need to break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Humans need to adapt to Nature, making sure that technological advances benefit all life and harm none.

Technological advances in communication, including the internet, have increased the migration of ideas by facilitating greater communication between people, diverse cultures, approaches to problem solving, and forms of expertise. This has resulted in the fast-growing sharing economies based on cooperation and communication between diverse people, and provided a unique opportunity to reach the SDGs using the full creativity that lives in and among human beings from multiple cultures.

The physical movement and intermingling of peoples creates a cross-culturalism, introducing a wealth of new perspectives, skills, and expertise with which to address the emerging local and global problems. It tends to lead to an infusion both with new thought and the remembering of ancient wisdom.

Diversity itself can be a goal, welcoming the gifts and input of all. Building effective computer programmes to manage the information may be shared out among the countries, aiding development and implementation of SDGs in all countries rather than each having to reinvent the wheel. This may be a computer system that can be accessed by all, or an app, or a website with all the needed functions.

It is important to focus on the new growth and increased resilience to realize SDG 9. We need to see the new life and potential of the intermingling of cultures and movements of peoples. More often than not, revitalization,

diversification, and strengthened resilience and growth is experienced by the culture as a whole after an influx of people from outside has been accepted and integrated into a country. Globalization, from a human perspective, increases opportunities for personal and community growth.

Globalization means increased migration not just across national boundaries but across ecosystems, allowing for transport of and exposure to organisms outside of their natural ecosystem. Nature does not acknowledge the same boundaries of land and human communities that have been created through political and national territorialism over thousands of years, but it is defined by varied ecosystems. During this time of expansion and globalization, great diligence is needed in protecting the physical health and safety of both humans and all of Nature, strengthening immune systems and ecosystems.

It can seem an almost impossibly daunting task, like climbing a mountain. But mountains can be scaled if we focus on the goal and use the right tools and equipment. Sharing wisdom, tools and equipment, lending a helping hand creates a supportive community.

Local town hall meetings that are open for all to participate to share innovative, creative ideas to be heard and implemented by political leaders at various levels of governance, publishing success stories about the integration of refugees and migrant workers, setting up methods for mediation to address and resolve issues as well as to promote better understanding and broaden perspectives are all ways to strengthen community and get things done.

Other suggestions are: to establish win-win policies for assimilating immigrants

and refugees into a culture, to increase safe screening of non-native organisms for migrating people and transported plant and animal materials out of native territories, to provide non-toxic, sustainable, and eco-friendly solutions for the inadvertent transport of organisms into non-native territories.

We can make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all and provide ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

These infrastructures must promote ethical and sustainable production and consumption. Policies and actions need to stimulate growth, create wealth, as well as preserve and conserve resources while supporting the wellbeing of all Beings. Production of goods and services should be done locally, such as by using organic food, bio food, and seasonal foods to work in sync with Nature, to reduce global warming and our carbon foot print. Recycling and using 2nd hand equipment and materials will reduce our impact on the environment as well as our carbon footprint.

It is essential that a new ethic be introduced prominently on a global

scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

The most universal promoter of human wellbeing is living and working within a close proximity to Nature. Creating gardens, Naturescapes, food production, recycling systems, and low cost green energy production conversions within communities also creates reliable employment for those who become the caretakers. As discussed in *Target 9.2*, communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within each community, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries can turn their reputation around and increase their market shares by implementing eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the well-being of their local community. Such conversions will require the implementation of new technologies. Educating and repurposing their current employees for these new practices, receiving government subsidies and support for training within communities for ecological, sustainable occupations and practices would support the

survival and growth of these industries. It would also engender public favour and ensure a more stable and prosperous future for all.

The main thing is to get started in implementing these goals. It is like building a path – you find the solution for each section when you get to that part of the path. The momentum will bring in new ideas, next steps, and solutions. This is the key to resilience.

Steps suggested to start the movement on this are: setting up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices; creating policies and incentives encouraging industries to implement eco-friendly practices; developing education and training and government subsidies to support these new practices. It will also be important to implement policies and practices to reduce consumption before increasing productivity.

Whereas many large businesses take value out of communities without giving back, small businesses tend to pollute less, serve, and support their communities more. In *Target 9.3* we encourage local businesses to actively contribute which strengthens the network of the local and global community. It would be beneficial to increase the access to financial services by small-scale industrial and other enterprises, in particular those in developing countries. Small businesses are the basis for economy and exchange of services and goods. It is especially important to support small businesses in developing countries.

The primary way to save small businesses is to refrain from expanding "global" chains to every corner of the world, and to leave small producers their local niches. This serves the dual

purpose of not further depleting fossil fuels and other essential resources. Ways suggested to support the sustainable growth of small businesses include: using local currencies to finance local business, exploring ways to approach tourism, awarding grants for people to start small businesses, especially in developing countries and provide affordable credit, encouraging sustainable economies.

Target 9.4 suggests that it is important for industries to see themselves as a part of the whole community, and to realize that the products and services being produced must serve the common good of that community and the world at large. Communities and governments can incentivize sustainable actions by providing positive publicity and financial incentives and rewards. Companies and industries making good contributions can work together to find, communicate, and make public what works and exponentially create growth from the wealth of good ideas.

Connective infrastructure is important as well, because it opens up relationships and makes them less centered on individual profit by enabling industries to see the advantages of connecting with one another and learn from one another, and to share solutions as is now being done in the partnership economy.

We need to have careful management of our natural resources and maintain a healthy relationship with Nature. Putting Nature at the centre of all industry and all economic interests is essential to maintaining healthy infrastructure.

From *Target 9.5*, we understand that the essence of Nature is creation and reinvention. Nature-inspired solutions are an important source for science and technology to draw from, and that there

is great creative potential as evidenced by past scientific and technological inventions. Modern, often well-financed scientific and technological developments have in some cases not foreseen many of the emerging challenges that are confronting us today. Primary motivation of financial gain combined with the perspective that humans as being "above" or "masters of creation" are distorting factors. The consequences of such ways of thinking and doing things have often been born by all. There is an important place for "thinking outside of the box" by people without conditioned thinking who have a fresh way of looking at things. This is a fertile, hitherto untapped, source of innovation. Research is necessary, but precision and innovative solutions are possible without technology and without machines. Changes need to be in the flow and with the rhythms of life, in tune with life on the planet, and in tune with all the other countries if the changes are to be truly sustainable. Those already living in harmony with Nature have many tools and abilities that will be necessary to attain all of the SDGs. Working from the heart, with open eyes and open communication with all nations, all people, all Beings of the world is the new paradigm that will make all the difference.

It is suggested to create a group of financiers dedicated to contributing their respective strengths to a sustainable and equitable global community especially focusing on the development of marginalized communities and nations. They could elicit possible solutions or partial solutions for projects to take place from folks in the communities that stand to benefit especially if these are in developing countries and then provide financial aid toward the implementation of these projects. These projects could be published to inspire others and spark further innovative solutions. Further,

internships and scholarships could be established based on research and development, and technological innovation with collaboration with Nature, sustainability, and eco-friendly solutions as the focus to attract the interest of younger generations who are widely interested in these fields but are unaware of this new specialty.

All peoples have their own unique life outlook and abilities based on their own personal development and cultural world-view. While people in any particular community, country, or region know and understand their own needs, strengths, and weaknesses, people from outside that community, country, or region may also have unique contributions to share in the way of ideas for innovation and development that are only seen by an objective perspective. In section 9.a we outline how developing countries can enhance their own financial and infrastructure development by balancing their own economic and technological development, taking what they see as good and useful, and leaving out what they have seen as destructive and harmful.

Likewise, developing countries sharing their strengths and values as a culture and world view with more developed countries can help reverse some of the less sustainable and destructive practices maintained by the developed countries. The goal is to learn from one another at the crossroads where we all stand as a planet, and make new global decisions that are sustainable, resilient, and friendly to Nature and all of Earth's inhabitants. Green infrastructure is essential both for the peaceful and mutually beneficial coexistence of both human beings and other forms of life. In building the green infrastructure, the well-being of all must be considered. It should permit all life to travel, find nurture and habitat and survive

peacefully side by side. Green infrastructure that serves both humans and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems. Ways to create green infrastructure discussed include: avoiding the expansion of human settlements onto paths traditionally used by wildlife and give wildlife a wide berth, creating green spaces and parks in towns to increase the supply of fresh fruit and vegetables, decreasing transport lines, creating habitat for small animals and insects and create Nature-study areas to attract tourists and educate people in the wonders of Nature and its amazing diversity. Other important things to consider in creating green infrastructure are reducing the amount of electricity needed to be brought in over long distances, returning to the use of traditional building materials and styles, and generating electricity locally using small generators that run on energy from the sun, flowing water and wind. For the development and upkeep of green infrastructure in keeping with local needs, seek information and the support of the grass roots using Geographic Information Systems (GIS) and local planning and building groups. We can conserve Nature by returning to traditional forms of herding and agriculture. We need to increase the provision of water so that it does not have to be brought in over large distances and increase the provision of food and livelihoods by building biodiverse ecosystems and stewarding these until they maintain themselves.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems support creation of resilient infrastructure including the use of locally grown or produced materials and using simple that run on natural

power (rivers, streams, waterfalls, wind). In section 9.b we suggest contemplating the greater picture by asking inspirational questions. Looking at the bigger picture and seeking innovative solutions in this way will lead toward achieving the SDGs. Before seeking high-tech solutions, we need to send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used. It is also important to employ local labour to implement these solutions. This will ensure the investment of the local population and that local expertise is kept alive.

Section 9.c suggests the importance of increasing access to ICT and providing universal and affordable access to the internet in LDCs, a goal to achieve by this year - 2020. What we know is that connection is the basis of intelligence, understanding, and good relationships between people and therefore can decrease fears about forming global community. Connecting at a heart level can take away the fear of the unknown which we already see as more people use the internet to build an economy based on sharing and collaboration. The internet can also be used as a tool to demystify diverse cultures and build bridges between people. This technology can be a means to foster universal access to information and services and increase our expertise in using it. Here the United Nations can play an important role in keeping the cost down and ensuring that the education people get is of high quality. Research and development needs to focus on advancing the industry in ways that do not harm life or produce waste.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

The fact that oceans and seas are integrally related with the rest of the Earth System is emphasized as the key to achieving this goal. The Ocean is the lifeblood of our planet, is the source of more than 50% of the oxygen we breathe, drives global weather patterns, absorbs carbon dioxide and serves as a critical buffer to global warming. It encompasses complex and varied landscapes, is home to nearly 200,000 identified species and provides the livelihood for many humans. Put simply, we are all united by the oceans, and without healthy and sustainable oceans, our place on this planet is in jeopardy.

The need for collective action to reclaim the health of our oceans was recognized by world leaders in 2015, when they adopted the 2030 Agenda for Sustainable Development. SDG 14 sets out critical targets that must be met in order to conserve and sustainably use our oceans, seas and maritime resources.

Oceans are being negatively impacted by humans' effect on all of the Earth sub-systems (the hydrosphere, the biosphere, geosphere, atmosphere, and noosphere). A number of causes and various kinds of marine pollution is addressed in *Target 14.1*. The connection of these polluted waters to social problems are mentioned.

Long term consequences and impacts such as extinction of species at a rate that is threatening to transgress those planetary boundaries necessary for supporting human life are noted.

(See: *Planetary Boundaries: Guiding human development on a changing planet in Science*.

347: DOI:10.1126/Science.1259855. Source Will Steffan et al.)

People are a common denominator and play a central role both as victims and as perpetrators. Therefore, it is important to focus on both our activities and capacities to steward Nature in the areas we inhabit to play a central role in correcting the damage and returning to sustainable co-existence with all of Nature.

It is essential that we understand the interconnections and interdependencies among all aspects of the Earth System and that we target both marine pollution specifically and also the larger context of oceans and seas within the all-encompassing Earth System.

We suggest a two-pronged approach of adopting and enforcing legislation along with inspirational education and motivation.

- Through adopting strictly enforced legislation calling for prosecution by universal jurisdiction of those who pollute oceans and seas or otherwise harm any aspect of Nature.
- Through an inspirational approach to change how we humans feel about Nature as a whole, so that we are actively motivated to find solutions where these have not yet been discovered. Through education, our motivation and inspiration to tackle marine pollution can grow, the more deeply we experience the wonders of Nature.

A number of critically important problems and challenges are addressed as we strive to meet *Target 14.2*. Stream flows have been significantly reduced and depleted, coastal wetlands have been destroyed, and both small and large scale natural water cycles have been disrupted. As

ecosystems are damaged or destroyed the land tends to dry out and with it the water both under, in, and also above the soil and plant matter. The loss of ground cover causes further run-off, erosion, evaporation and even loss of groundwater, thus destroying natural water cycles and causing both flooding and desertification, along with the rising of the sea level as water from the land and air returns to the seas. Much of this is reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to quit dumping un-processed wastes into our rivers, lakes and streams.

Coastal development is causing the continuing loss of wetlands and marine and coastal species that depend on fresh water are in major decline. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

This Target calls for advancements in science and technology such as: investing in and creating water retention landscapes, engaging in regenerative and restorative agricultural practices, restoration of damaged ecosystems and creation of ecological buffer zones.

It calls for teaching of such practices as agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc. It is necessary to educate all humans about the need to eliminate the use of toxic products, which pollute the oceans and cause

death and disease, and the benefits that could come from universally adapting the use of non-toxic products.

It is also important to provide financing and assistance to developing countries and civil society organizations to carry out such activities as are described above and to support businesses in making such a transition. Development of extension programmes and training courses need to be established and scaled up in all countries and regions around the world to support such a transition.

The best means to reduce the impacts of ocean acidification, the focus of *Target 14.3*, is to stop the practices and activities that cause it in the first place. This begins with phasing out and ending our use of fossil fuels, but it also requires changing our agricultural practices and diets and reversing deforestation. This calls for switching to locally based, organic, regenerative and climate friendly agriculture, transitioning to 100% renewable energy as rapidly as possible and investing in regenerating forests; adopting laws requiring sustainable management of all timber lands and conservation of forests.

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, and are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food. When we see fish as "things", distinct from ourselves and easily categorized, "mere" creatures engaged in a savage fight for survival, we don't mind squandering their lives when we massacre them in our attempts to catch more lucrative species. This compartmentalization lies at the very heart of un-sustainable fishing practices and of un-sustainability in general.

By providing continual, updated information and education on alternative ways of fishing, how to viably make a living with these methods, that we can communicate directly with Nature including the fish (i.e. via Nature Communicators), and creating cooperatives of fisher people, we can move away from a view of reality as consisting of separate, unrelated fragments to one in which we realize that the water, the air, the earth are in constant interaction with one another.

Adopting and enforcing strict agreements and laws aimed at stopping the mass extinction of species, including fish and preserving a diversity of fish species, while looking for solutions that rely on the regenerative powers of Nature herself are needed. Equally important is the enforcement of such legislation with an International Environmental Court with branches at national and local levels. Thinking about the establishment of an Environmental Court has progressed quite far. It seems just a matter of time until an Environmental Court will join the ranks of the International Court of Justice and the International Criminal Court. Support is needed to accomplish this as soon as possible.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature as laid out in *Target 14.5*, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease. Thus it would be good if countries would set targets that

are far higher than 10% especially as we move on beyond 2020. It is important to bear in mind that all areas that border on oceans and seas are interlinked with many other parts of the Earth System, and efforts will have to be made to preserve and restore them as well in order to really conserve the 10%.

It is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

It is suggested that, via the United Nations, all coastal areas are proclaimed "Trust Territories" to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. A global fund could be established for preserving these territories. Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.

Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction.

It is important to encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together,

and to form cooperatives to manage specific resources. In addition it will be beneficial to incentivize cooperatives working together with diverse aspects of the oceans, forming an international network of cooperatives to develop best practices.

Target 14.6 deals with moneyed mega-interests both with regard to the subsidies that allow destructive fishing practices to persist and also with regard to the fishing industry itself. They exist because the rest of humanity allows them to do so. Large political and commercial interests depend on their constituents for power. They hold only the power to the extent this is granted to them by others. To replace present power interests with a viable alternative, it is necessary to understand how these mega interests came about and how they continue to survive. It is important to know alternatives exist and to motivate citizens and governments to take responsible action for the wellbeing of all people and Nature.

A brief description of some of the dynamics that led to the present disparity between rich and poor is laid out here. Two actions called for to counter such problems:

- Stop giving power to those who insist on the subsidies that are causing overfishing and destruction of other marine resources and create a supplementary economy based on socially, economically and environmentally, responsible and just fisheries practices.
- A relatively low-risk strategy is to boycott fish products where these have been illegally procured.

Once the hold of moneyed interests is broken and the fishing industry has realized that their only alternative is to adopt environmentally sound approaches, the competition that in the

past put small scale local fishermen out of business and led to overfishing can make way for working with the restorative functions of Nature. The formation of cooperative fishing business models which share joint care for the "commons", such as marine resources and water quality, and because all members of the cooperative are owner/operators and all share in the profits, tend to do well even in times of economic downturn.

Appendix 1 addresses oceans, seas and marine resources in their larger contexts. As paragraph 33 of the Declaration of Agenda 2030 states, human social and economic development depends in part upon mountains. And this is particularly true as relates to the oceans and seas. For mountains are the source of rivers which provide oceans with fresh water, necessary to feed and restore them. These same rivers are breeding grounds for fish and other creatures that can only survive by dividing their life cycles between oceans and rivers. In this way both salt and fresh water belong to the same hydro-system. To maintain these links between the Earth's subsystems it is essential that mountain people, those living around deltas, the fertile breeding ground of so much of the Earth's biosphere, as well as those who use the seas and oceans for transportation and for the resources these provide, are both economically and educationally prepared to steward the bioregions where they live and work and receive the necessary financial assistance to perform their missions well.

Issuing licenses for each form of activity performed by people with regard to oceans, seas and maritime resources, as well as the sweet water aspects of the hydro cycle is one way proposed in order to ensure the protection of oceans and seas and the ecosystems that feed

them and to enable ocean resources to thrive. Ensuring that the mountain people and inhabitants of deltas and other shore areas are trained in stewardship of their bioregion, are conversant with the full life cycles each aspect of the bioregion moves through, how all these inter-relate and, in turn, affect human beings, and are provided with the necessary financial assistance will enable them to effectively and sustainably carry out their responsibilities.

Appendix 2 includes the Blue Ecology Practitioners Guide (1/11/2017) Blue Ecology Water Cycle is meant to be an intuitive companion to Western Science's analytical hydrologic cycle, which recognizes the integral relationship of the hydrosphere with the geosphere, the biosphere and the atmosphere as subsystems of the Earth System that is one integral, indivisible whole. It was written by a combination of indigenous and western peoples. The vision is to embrace a water-first approach to planning human

interventions in the environment. Blue Ecology is an ecological philosophy, which emerged from interweaving First Nations and Western thought that acknowledges water's (i.e. fresh and salt) essential rhythmical life-spirit and central role in generating, sustaining, receiving and ultimately unifying life on Earth Mother.

Key concepts and five principles of Blue Ecology are discussed. The intent of the Blue Ecology vision is to give priority to water, over human's financial interests. The highest sustainability test is water first – that planned development (e.g. real estate, urban planning, forestry, agriculture, mining, oil and gas extraction) cannot impede the functional delivery of quality water to ecosystems in a healthy rhythm. Actions to embrace blue ecology and best practices are laid out. More can be found at:

<https://www.usgs.gov/mission-areas/water-resources>

TRANSFORMING OUR WORLD IN HARMONY WITH NATURE

Part I: Integrating Nature with the UN's Sustainable Development Goals



NO POVERTY

SUSTAINABLE DEVELOPMENT GOAL 1: End Poverty in all its Forms Everywhere

TARGETS

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.
- 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.
- 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.
- 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.
- 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.
- 1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimension.
- 1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.



Executive Summary

This report proposes specific steps to implement inclusive and equitable quality education and lifelong learning for all, with the imperative to do this in harmony with Nature. To implement an educational perspective that promotes respect for the natural world and honours the lessons we can learn there will require nothing less than a paradigm shift in how we view Nature and how we understand our relationship to other species.

To that end, the document discusses the role of Government in achieving this shift while keeping the cost of education down and leaving no one behind. It also explains the type of curriculum needed to help human beings revive their inborn capacity to interrelate with Nature and live in harmony with both our human and non-human communities.

The information examines a number of targets from the perspective of how they can be implemented without harm to Nature, how Nature can help to inspire human creativity and innovation, and how people can become more sensitive to Nature, by recognizing that we are an integral part of the natural world.

Specifically:

Target 1.1 *By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.*

Target 1.2 *By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.*

Target 1.3 *Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.*

Target 1.4 *By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.*

Target 1.5 *By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.*

Target 1.a *Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimension.*

Target 1.b *Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.*

INTRODUCTION

All of the Sustainable Development Goals (SDGs) are interlinked. Each one deals with an aspect of poverty. All of them coincide in SDG 1, ***End Poverty in All its Forms Everywhere***.

There are four reasons why it is imperative that we focus on the role of Nature in our efforts to implement and achieve the SDGs:

1. The prosperity and wellbeing of all peoples and of our global economies depend on the health and wellbeing of Nature and on the continued abundant availability of Earth's natural resources.
2. Nature provides the ideal model of sustainable development.
3. Learning from Nature will help us to live in greater harmony with all other forms of life on earth as well as enable us to better maintain planetary boundaries that are necessary for human survival.
4. When we *experience* our deep at-oneness with the systems that make up the Earth System, our sense of well-being, health, sensitivity, and intelligence expand and the changes we are now being called on to make to achieve the SDGs flow more naturally from the heart rather than from a sense of duty or fear.

Nature has developed amazing biodiversity over the course of Earth's four billion years, despite recurrent ice ages, atmospheric catastrophes, and countless natural cataclysms. Yet at this critical juncture in history, we are faced with human activities that are contributing to irreparable planetary changes at a rate that is transgressing the very boundaries necessary to support human life. And, these same human activities are creating diverse forms of poverty that keep too many people on the edge of survival, living in poor health and financial impoverishment in environmentally degraded communities.

The term *Nature* refers to one interdependent Earth System comprised of integrally interspersed spheres—including the hydrosphere, geosphere, atmosphere and biosphere. The systems that make up these various spheres are constantly interacting and affecting each other, creating continuous dynamic change in every aspect of the Earth System and within each living being. While we have differentiated and categorized these as individual "elements" or "parts", the truth is that none of them can be isolated from the rest.

Humans' mental capacities for rational analysis, procedural thinking, future planning, and creative innovation have set us apart from other species. However, while these capacities have allowed us great creativity and fulfilment, they have also resulted in a sense of domination over the planet, creating the illusion that we are separate from the rest of life.

Our misguided attempts to live in a way that separates us from Nature and divides us from one another have led to fear and destruction of our natural environment, as well

as ongoing conflict and wars with one another. We are destroying the very means to ensure our survival as well as the means to eliminate poverty.

If we are to eradicate poverty and transform our world, it is essential that we adopt a more integrated perspective that can assess the effects of isolated actions and changes on the Earth System as a whole. This will necessitate the development of greater understanding and emphasis on scientific knowledge of systems relevant to the Earth System, including living systems theory, quantum mechanics, the zero-point, quantum and morphogenetic fields, as well as ancient spiritual systems.

This report focuses on systemic changes that will shift our emphasis from a divisive perspective to one of honouring that we are part of a larger whole. As we shall see in what follows, this change is necessary if we are to eliminate the remaining poverty that has become entrenched.

GOAL 1

End Poverty in all its Forms Everywhere

To end poverty in all its forms requires first an ability to focus on systemic changes that will shift our emphasis from a divisive perspective to one that honours the human species as an interdependent part of a larger whole. From a living systems perspective, humans are just one of many diverse forms of life on Earth; all of us are interconnected with one another and all other forms of life with every breath and all that we think and do. We and all that we know are in constant interaction with the Earth System as a whole and thus an integral part of Nature. Where we recognize this, we can begin to care for all the resources that we ourselves and the Earth System produce, and each action will then contribute to poverty eradication. Where we have failed to recognize this, we are constantly harming ourselves by fighting and weakening the very resources we need ourselves, to survive and thrive and to eradicate poverty in all its forms.

There are a number of factors that keep us from accepting the fundamental truth that we are not separate from Nature but are integrally related to one another and to an integral part of the Earth system. Among them are:

- II. The tendency of cultures to lose sight of the totality and focus on details in isolation.
- III. Fear of reprisals that hinder poverty eradication.
- IV. Our emphasis on the outer/material dimension of poverty while under-emphasizing the inner/spiritual perspective that stresses connectivity.
- V. The need to include *all* people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities.
- VI. The need to recognize our interdependence with Nature.
- VII. The interconnected systemic basis of poverty and the need to view poverty eradication as foundational to all the SDGs.

Let us examine these points in greater detail -

I. The tendency of cultures to lose sight of the totality and focus on details in isolation.

Societies that tend to focus on details while losing sight of the whole, exist within all nations and most sectors of their populations, regardless of wealth or class. When we lose sight of the understanding that we are integrally connected to one another and all of life, we lose our capacity to empathize and identify with one another, creating a sense that we have to “go it alone”. This sense of isolation can engender feelings of fear, suspicion, threat and scarcity, leading to a conviction that only the fittest survive.

Wars, ethnic cleansing, genocide, and even cut-throat competition are extreme forms that can develop when our feelings of fear and threat become paramount. The resulting struggle for re- sources destroys our means for eradicating poverty and our motivation to make the effort.

Narrow thinking is instilled from a young age by many different influences. These can include competition instilled through the grading system and hierarchy in societies; stories we tell ourselves and reinforced by advertising and the media about what constitutes success. Scarcity thinking can be compounded by the control of our economic systems by the rich and powerful—often the moneyed and corporate elite—and increased automation, with a resulting growing loss of jobs as more people move to the cities.

All of these factors reinforce one another and result in an ever-greater separation between people, and separation between people and Nature.

II. Fear of reprisals that hinder poverty eradication.

As the illusion of separation becomes a reality in the minds of increasing numbers of people, our misunderstanding turns into maltreatment and destruction of one another and of Nature. With this we are destroying the resources so desperately needed for our ongoing survival as a species and for poverty eradication. Our fear of the “other” can keep us locked in a vicious cycle of conflict that distracts us from our larger responsibility to care for our fellow humans.

The “survival of the fittest” dynamic is indeed found in Nature, where there can be competition for sexual dominance and food. But this is seldom accompanied by the extinction of one species by another. In Nature, all members of social species find their individual place through such competition, both with regard to their own species and in the give and take between species that enables them to survive. This vying for position is a means of strengthening the species. Nature as a whole however grows, diversifies, and becomes more resilient through **cooperation** within and among species, as is evident when we look at ecosystems where diverse species and natural phenomena thrive in partnership with one another.

The conviction that only the fittest survive and the resulting atrocities that occur frequently deter both the poor and vulnerable, and even those with wealth and power, from attempting to change existing power structures. They comply with those they

consider more powerful out of fear of reprisals or, in the case of those who depend for their survival on others, out of fear of abandonment. Nature provides many examples of how this dynamic is overcome with trust and cooperation within and between species and that there is enough for all.

Here are some actions we can take to overcome our fears and act in greater harmony with Nature.

ACTIONS

1. Educate others on how to make durable change:

- Teach via traditional education both about specific social, economic and political changes that have successfully taken place, together with how and why these were successful and to which degree they were durable. This will give people the ability to bring about constructive change and the means to do this effectively, without causing intrinsic harm to Nature or parts of society.
- Provide information and examples on how the disenfranchised have successfully put pressure on those in power—showing how the powerful can profit from such change through passive resistance, strikes, formation of pressure groups such as trade unions, popular uprisings, etc. Support in learning and implementing such approaches to change can also be provided by civil society organizations with the relevant change as their objective.

2. Generate internal motivation.

Like other species faced with challenges to their survival, humans have the capacity to tap into amazing founts of creativity and strength when their survival is at stake. An educational tool sometimes used are “survival camps”, where young people are sent out into the wilderness to survive for a few days with just rudimentary equipment.

Here are three examples that illustrate how groups of people tapped into strengths they did not realize they had.

- A strong lobby by the disabled in Berkeley, CA, USA, was formed when one person who was seemingly totally dependent on his official caregiver to undertake the most basic survival tasks, tapped into a huge fount of energy and creativity when he was left in the lurch once too often. Somehow, propelled by the anger he felt, he overcame the sense of helplessness and found unexplored ways of caring for himself. He then set up self-help groups to help others with disabilities to tap into this “survival” energy; and then formed a powerful political lobby by and for the disabled.
- African countries, after decades of empty promises of development assistance, decided to generate their own resources without giving up on what should have been rightfully coming to them through official development assistance. They raised the interest rates offered by the African Development Bank to draw savings from the extensive African diaspora worldwide, decided to take back their natural resources from those exploiting their dependence on outside help, and among many other such actions, they created and agreed the African Sustainable Development Goals.

- Street children who were being targeted for their organs, have formed street gangs both for their day-to-day survival and to prevent this terrible practice.

3. Build on others' knowledge.

In Nature, species learn to build on the strength of other species: they become sensitive to others' warnings of impending danger and learn by example about new tools and ways to meet their needs. Humans have this same capacity.

- Access to the Internet is already leading to a worldwide sharing of knowledge, much of this free of charge. Once all people have access to the Internet, the poor and vulnerable and those who are dedicated to supporting them, will have access to a fount of information that can help change the mindset that is sabotaging poverty eradication.

4. Support the development of individuals' personal potential.

- In the workplace:

In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.

- In the educational system:

To work on poverty eradication many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of other students as they share what they are doing to promote collaboration and learning from each of their fellow students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole. This way of working can have great social benefits:

- The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team.
- Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be implemented in society.
- Where people and students are asked to consider the SDGs in the implementation of such group projects, solutions can be found to the web of problems that contribute to unsustainable social relationships and relationships with Nature.

III. Our emphasis on the outer/material dimension of poverty while under emphasizing the inner/spiritual perspective that stresses connectivity.

There is an ancient story that illustrates an important lesson about inner and outer perspectives on life. According to the story, people once moved through life holding their head high while enjoying all of their surroundings with deep gratitude. Showered with this grateful appreciation that was ignited by all the interconnections as these were made, everyone and everything bloomed and prospered. So too did all people and Nature thrive.

One day a person discovered that by watching his feet, he was able to make faster progress. Impressed by this new way of moving, others followed suit. After some time, people barely looked around or took notice of the world they lived in. All the appreciation and life enhancing relationships gradually disappeared. And so, people and aspects of Nature forgot their intrinsic connectedness, and starved of life enhancing gratitude, began to hang their heads as their energy wilted away.

When we believe that only the fittest survive, we are often tempted to choose to keep our eyes on personal goals at the expense of all the enriching relationships we might have with other people and Nature.

In this way, an imbalance has developed. We tend to recognize and emphasize the eradication of outer/material/social poverty, which is most easily perceived, and we often forget that this is connected to inner/spiritual/emotional poverty. While we have been able to halve extreme poverty in the last 15 years, we find ourselves confronted by forms of poverty that are much more entrenched.

Here are two related examples of how spiritual poverty affects both human beings and nations and how this in turn sabotages poverty alleviation in both rich and poor countries.

The economies of developed countries—donor nations—are mostly debt-based. That means that banks can make loans with as little as 10% of the amount loaned as collateral. In order to provide the loans to borrowers and make profit themselves, banks are therefore forced to foster a need to borrow among as many people as possible worldwide. So increasingly people are encouraged to go into debt.

Borrowers, in turn, are forced to make money in order to pay back their loans. Advertising campaigns, as well as entertainment programming, encourage people worldwide to buy at any expense. Hearing the pervasive message brought about by these ubiquitous campaigns, many people believe that the acquisition of possessions is a way to find inner personal fulfilment. With this misguided belief, their spiritual poverty grows as they scramble increasingly for possessions in desperate but vain attempts to fill the growing inner void. Since these unsustainable consumption and production patterns exist worldwide, so too, does spiritual poverty.

Spiritual poverty leads to a feeling of "There is never enough" and the reluctance to give up possessions. And so, agreements to provide help for the poor or development assistance to developing countries is experienced as an unwelcome moral imperative, often accompanied by conditions to compensate for the "loss". This can assume

myriad forms, such as special mining, trading or other privileges, perks for the donor's large corporations, or political concessions. It often includes access to natural resources without regulations to safeguard the people of recipient countries or the environment.

Developing countries sometimes have the experience of being given aid which promises attractive opportunities, but which ends up being foreign to them and challenging to apply in their culture and customs. Sometimes they have the experience of violation of their natural resources, harm to their health and toxic waste left behind as consequence of a donor nation's corporations taking their natural resources without protective regulation. In this way, spiritual poverty in donor (nations) leads to a deepening of spiritual poverty in recipient countries.

These unsustainable patterns of production and consumption that are associated with spiritual poverty lead to a depletion of natural resources of every possible type, increased waste and other pollution and the increased destruction of the environment which is ultimately the basis for all poverty alleviation.

Today, increasingly both people and nations are seeing the economic, social and moral imperative to alleviate the poverty of others to secure their own survival. Many of these moreover experience the joy of giving of what they themselves have, regardless of any gratitude or perks they receive in return.

In Nature, such selfless giving from the heart can be compared to the way the bumble bee fulfils itself by pollinating the flowers it visits, thereby helping whole plant species to propagate and thus survive and bring great benefit to others. Such giving can be seen as giving from spiritual wealth. Here the act of both giving and receiving generates joy, providing an increase in spiritual/psychological/emotional wealth that blesses the donor as well as the recipient and tends to spill over into the environment.

This form of humanitarian giving is necessary if we are to eradicate both spiritual and physical poverty in all its forms. The focus and practice of generosity and gratitude is essential to counteract poverty and manifest natural abundance.

Is it possible to transform ways of thinking that destroy our means for poverty eradication into one that cares deeply about the well-being of all people and Nature?

Fortunately, with the expansion of our commons areas and an increasingly global focus, this process is already underway. Many indigenous peoples worldwide still live in harmony with Nature. They have much to teach us all and have developed initiatives to bring back our ancient understandings. For example, the West Australian *Guardians of the Moodoowarra*, the Sacred River of Life, are pointing the way to a new sustainable economy based on living in harmony with Nature and peace between peoples. This economy is based on the stewardship of the very resources indispensable for poverty eradication, while at the same time providing hope for the indigenous Kimberly People.

ACTIONS

1. To foster an inner perspective:

Encourage understanding of how to activate potential and find personal fulfilment:

- In educational institutions: by introducing self-reflection in curricula; through student centered education; and group class projects where every student develops his or her own specific skills and contributes both as student and teacher to fellow students in that school project.
- Using the media: by developing advertising that offers a truthful education on the value and uses of products and services, rather than an incitement to buy at all costs; and programming that stresses the multiple ways to find and enjoy personal fulfilment.
- By assessing and rewarding educational institutions and the media for their capacity to promote an understanding of our need for both inner and outer fulfilment.
- By providing prizes and awards to businesses and banks that foster development not based on a debt-based system. There are a number of such banks that are run along cooperative lines: such as the Desjardins Group in Canada and Florida, community-financed banks; national banks such as the Triodos and ASN Banks in the Netherlands which focus on building sustainable development.
- Provide permits for advertising and legislate severe fines for misleading and biased advertising.

IV. The need to include all people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities.

We need to recognize that, largely through the Internet, even national borders are disappearing, fostering communication and connection across cultural, religious, national and other divides. As with all profound changes, this virtual global connection is also causing fear, distrust and conflict for some. Concurrently, the development of a global commons for the benefit of all is also leading to a strengthened sense of community and the revival of a collaborative economy based on peer-to-peer sharing and partnership, across national, cultural and other borders. We can emphasize the latter while respecting people's need to integrate these changes in their own time.

This community-based consciousness and the new sharing economies that are flourishing with it helps to transform divisiveness into an inclusive global culture based on the wellbeing of all people and Nature. In time, our human predilection for connection across boundaries will help dissolve systemic resistance to poverty eradication while creating a strong foundation for dealing with poverty in all its forms.

It is important to include all people, especially the poor and disenfranchised in our efforts to eradicate poverty, even if it is simply to express their needs. In many cases the poor understand the predicaments other poor people face better than those who have never been confronted with poverty themselves. So, it is important for humanity

as a whole to ensure they can share their experiences, particularly by providing worldwide access to the Internet.

All too frequently, people with disabilities are looked upon as weaker than other people, while in fact, they often have had to develop skills and faculties to a greater degree than the average extent to compensate for their disability, and so they have skills and talents that excel in other areas. For instance, people whose sight is impaired have had to develop their other senses --hearing, touch, smell, intuition, etc.-- to an above average degree. Therefore, people with a disability could be a great asset when it comes to poverty eradication, especially if they work in groups consisting of people with diverse disabilities.

ACTIONS

Here are some additional actions we can take:

1. View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
 - Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs of others and possibly above average when it comes to innovation and creativity.
 - Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.
2. Bring together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a life-time of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.
3. Integrate the poor and most marginalized into society
4. Implement and enforce all fundamental human rights agreements, the UN Charter, and the 2030 Agenda including all the SDGs.
5. Pass and strictly implement laws against all forms of discrimination.
6. Treat people of other socio-economic backgrounds with respect (be they richer/more powerful or less so) enabling people to learn to judge one another by their actual actions rather than through a veil of social prejudice that makes it impossible to work effectively together. This is essential to raise the motivation for poverty eradication.

7. Develop and implement laws, making it unlawful for families, caregivers and communities to neglect those who are vulnerable and bring those who are negligent of their responsibilities and duties to justice.
8. Institute social services and other provisions within societies for the most vulnerable such as the elderly, young people, people with disabilities, and those with incomes below \$1.25 a day. Where possible, allow those most vulnerable to take a leadership role when it comes to generating solutions for their specific needs.
9. Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
10. Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
11. Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature

V. The need to recognize our interdependence with Nature.

Increasingly, people in the industrialized world are losing the awareness that all of life, including humanity, is interconnected in the Earth System. When we consider ourselves separate from Nature, we feel less concern about critical issues affecting the world today, such as climate change, species extinction, and environmental devastation.

In order to foster a renewed recognition of humans’ integral place in the web of life and our connection to Nature, education can be a prime tool, particularly for young people currently in the school system. It is critical to promote education on our connection with Nature:

ACTIONS

1. Include the study of Nature within curricula of all subjects, at all school levels. Here it is primary for students to ***experience*** their connection with Nature. This can be done through the arts and encouraging students to paint, create music, write stories based on their experience and personal interactions with Nature. Once the experiential connection is there, then the other subjects can come to life and their full meaning can be recognized. Here are some ways in which the interconnectedness of all that is can become more evident.
 - *In Science:*
Holistic approaches can be emphasized and explored, such as

- Einstein's $E=mc^2$ which shows that mass and energy are two aspects of the same equation.
- quantum mechanics which shows that once electrons have been in contact with one another, they remain in communication over time and space.
- chaos theory where it becomes clear that what seem to be chaotic forms (including fractals) are in fact made up of patterns that repeat themselves.
- the various field theories, including the zero-point field, the quantum field and the morphogenetic fields; and
- the implicate/explicate order discovered mathematically by the late Professor David Bohm of Birkbeck College, London

All of these help us see the world as a place where everything is connected. Once we feel connected to the world around us, fear can be transformed into a sense of connection. This is crucial if feelings like empathy and caring both for our fellow human beings and Nature are to develop.

- *In Environmental Education:*
Activities are often included such as the "Web of Life," demonstrating how there are interconnections within Nature between and among many species that are essential for their mutual wellbeing and success.
- *Mathematics and Art:*
In painting and music, mathematical relationships like the golden mean, are often found in the natural world and are associated with our sense of harmony; absence of such basic proportions are experienced as disharmony.
- *Literature:*
The plot themes discussed in literature classes are often rooted in our understanding of Nature.
- *Social studies:*
This subject lends itself to learning how social and economic forms (social solidarity societies, cooperatives, commons) are often based on an ecosystem approach and how the resulting sharing makes them effective for poverty alleviation. This discipline also offers the opportunity to show how human beings are integral parts of the natural ecosystem and how, as such, we benefit from all aspects of Nature.
- *Nature communication:*
This subject can be integrated into the education model to arouse greater curiosity and wonder in young people's connection with Nature and the sense that even when they feel alone, they can still make connections with other living things.

VI. The interconnectedness of all aspects of poverty eradication and the importance of dealing with all the SDGs.

Poverty is a systemic problem, the result of substandard conditions in many aspects of life. The seventeen Sustainable Development Goals point out the scope of the problems that must be addressed if we are to end poverty in all its forms. Only by

making significant progress in *all* of the SDGs will we be able to eradicate poverty worldwide.

Here the United Nation's Specialized Agencies have played pivotal roles: UNESCO in the field of education, science, culture, WHO in world health, FAO in food and agriculture, ILO, IMO, ITU in mass communications and so on. The UN's 2030 Agenda, with the SDGs as its core, is having a particularly powerful influence at all levels of societies worldwide.

With the involvement of civil society in implementing the SDGs, including the private sector, it is likely that the number and types of solutions to global problems will increase, allowing people and their leaders to share a common sense of social responsibility for all members of their respective societies. It will take involvement from every level of society to develop and sustain effective measures for poverty eradication.

Some of the most important aspects of poverty eradication involve environmental remediation of degraded ecosystems and farmlands to ensure food security for all of humanity, particularly those who depend directly on the earth for their daily living. These practices affect not only poverty eradication but other SDGs as well.

Best practices to restore the environment and local ecosystems to help eradicate poverty, while also helping to implement other SDGs:

- In rural areas that are largely dependent upon subsistence farming the economic wellbeing of both families and communities depend on the health of the soil and local ecosystems, including hydrological systems. Given that most of the people living in rural areas depend upon subsistence farming in the developing world for their very livelihood and family incomes, it is essential that we maintain soil and plant health while increasing productivity.
- Given the threat to agriculture faced by many family farmers in the developing world due to climate change and global warming, it is essential that new programs and substantial increasing in funding be dedicated to supporting agro-ecology and agro-forestry practices throughout the world.
- Ninety percent of human waste in the developing world flows back into the watershed untreated. This includes a large percentage of "night soil", a valuable resource that could be composted and returned to the earth, such as is done in thousands of ecovillage communities around the world using biological waste treatment facilities and practices. Such affordable processes and practices can help produce healthy and productive soils in regions where nutrients are largely depleted and provide much needed jobs in rural communities, while helping to eliminate water-borne diseases and improve the quality of drinking water.
- Similar biological processes can make water treatment affordable in the developing world, while supporting biological systems that build up and restore soils and the natural environment, provide a habitat for aquaculture, and boost agricultural productivity.

*Best agricultural practices to protect the soils and return vitality
to farms and agricultural communities*

- This past year France launched its 4/1000 initiative focusing on sequestering large amounts of carbon in plants and soils while improving soil health and productivity.
- Regeneration International is pioneering new means to restore healthy ecosystems of our croplands.
- Agricultural practices are being adopted around the world that are increasing resiliency to drought and natural disasters while increasing productivity, including no till, cover cropping, mixed and rotation cropping, conservation agriculture and key line farming.
- FAO has found organic agriculture to be 2 - 4 times as productive as conventional agriculture in the developing world and much more affordable for small scale farmers who cannot afford to import fertilizer in poor countries and regions.
- Field extension programs and increased funding for research, development, and training programs can greatly increase productivity and help to substantially decrease poverty for those most in need, particularly those dependent upon rain fed agriculture. Indeed, those most vulnerable are finding that there is a great need for restoring the natural environment. Already two-thirds of Africans face water shortages and impacts from desertification increasingly due to climate change and global warming. Many of the deserts around the world were once forested; but as they are cut and the trees felled, it becomes increasingly difficult to regenerate them and likewise to grow crops on or near them. The fields dry out, soil fertility and ground cover are lost, and the land becomes increasingly vulnerable to run-off and floods.
- As has been found with the Sahara Green Wall project, it is possible to restore the natural environment in desertified regions, restore natural water cycles, increase biodiversity, and in the process create life supporting landscapes and ecosystems.
- Studies have shown that we have lost more carbon to the atmosphere since the dawn of agriculture from land degradation, destruction of the natural environment, and poor agricultural practices than from all of the fossil fuels used to date. But this loss now provides us with an enormous opportunity to re-sequester this carbon in plants and soils while raising water tables, creating healthy streams and rivers that can once more flow to the seas, and providing access to water in dry land regions where it is very much needed and at the same time vastly increasing agricultural productivity and resilience to "natural" disasters.
- Increased focus and funding should be placed on global efforts to restore degraded natural environments, invest in water retention landscapes, adopt restorative and regenerative agricultural practices and reforest the earth.

- These and myriad other diverse best practices to reach all SDGs should be taught at schools and propagated via the Internet and the collaborative/sharing/partnership economy.

TARGETS SDG 1

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

Above, we have looked at how extreme poverty for all people everywhere can be eradicated by connecting all parts of the Earth System and empowering people to work together with one another and with Nature as a whole. Under this target, we shall focus on some best practices that can help build an economy of inclusiveness and generate a basic income for all.

Besides environmental degradation, *money* is often cited as a barrier to poverty eradication. There are a number of ways of generating the funds needed. Most are based on changing destructive ways of treating Nature and at the same time generating financing to alleviate poverty. Some are already widely used others are still to be implemented. They will be used further in the Report to show how such diverse mechanisms can be adjusted to target a variety of challenges.

Best practices to build an economy of inclusiveness and generate a basic income for all:

- *Pigouvian Taxes:* Taxes placed on a negative externality to correct for a market failure.
- For example, a factory does not take into account the damage their emissions cause to the air, since there is no market for air pollution. By imposing a Pigouvian tax a government can artificially create a cost for such activity, a cost equal to what the price would be had a market for such activity existed, or a cost so high that it deters the activity all together. Tax revenues are then returned to the local community in which the issue exists.
- An alternative form of Pigouvian tax would add that those perpetrating the harm can be required to restore the damage they have caused as well as pay the tax. Revenue from such taxes can be used to restore damage done the environment or society. If the taxes are high enough, they could take the place of tax on income—at least until people are no longer tempted to do this harm. Income from Pigouvian taxes could go to the Global Fund for Sustainable Development and a basic income for all people.

A Global Fund for Sustainable Development, (also referred to as a Global Resource Fund):

- This Fund could be fed by a number of activities, such as Pigouvian taxes and from other fines for unsustainable activities, such as income derived by shifting tax from income to a small rental fee for the use of natural resources. The implementation of Fund operations would begin immediately upon adoption of its Charter.

- Start-up funds to pay for free access to the Fund's market and credit transfer program are authorized by the Charter. Its funds would be applied to:
 - Compensation for communities who suffer from the exploitation of resources under their jurisdiction.
 - Restoration of the global commons;
 - A basic income for all people to be used for the implementation of article 26 (2) of the Universal Declaration of Human Rights.

Commons Rent /Land Value Taxation:

A method of raising public revenue by means of an annual charge on the rental value of land.

- This tax encourages valuation based on the value of the land itself rather than land improvements, thus strengthening the local economy and discouraging destructive land uses.
- Funds generated could be used to provide a basic income for the areas where it operates. See www.LandValueTax.org and also The Vancouver Action Plan -- the 1976 founding document for UN HABITAT (UNCHS).

The Norwegian Government Pension Fund:

- The purpose of the Government Pension Fund is to facilitate government savings to finance rising public pension expenditures and support long-term considerations in the spending of government petroleum revenues.
- The strategy for the management of the Fund is designed on the expected long-term effects of different investment choices, thus giving the fund the potential to greatly influence the corporate governance market in Europe.

Self-financing World Marshall Plan

- A way of creating and financing a supplementary income for all people worldwide, endorsed by Noble Prize winner Jan Tinbergen.
- See *the Ideal Self Image* by Pieter Kooistra (available in English and Dutch), sponsored by the Dutch Government.
- See *the Year 2000: Crossroad for Mankind* by Dr. Lisinka Ulatowska (available in English and Dutch), describing ways to finance a basic income for all women, men and children and a World Marshall Plan for the Earth.
- *Use of alternative local currencies, including the LETSystem*
- *The LETSystem:* The best-known local alternative currency. Those participating make a list of goods and services they are interested in providing and how much these would cost in the local currency. Each participant in the LETSystem has a list of goods and services available through the LETSystem. Members are then paid by check in the local currency. At regular intervals the

checks are sent into a central administrator who credits and debits participants' accounts accordingly.

- *Time Dollars*: This system is similar to the LETS system in that a local exchange of goods and services is encouraged. Instead of setting prices for individual goods and services, participants exchange services in time increments. In this way an hour of massage would be equivalent to an hour of baby-sitting or an hour of psychotherapy.
- *Use of local currencies*: Variations of this system are particularly valuable to regenerate areas where the economy is flagging and to stimulate employment. This is being used in countless locations in both rich and poor nations around the world.

Products and services provided for free by Commons communities and networks.

- Commons are groups and networks of people who jointly manage one or more resource in such a way that all stakeholders benefit equitably. Many of the resources they provide are free.
- Commons are meeting a wide range of their own and community needs from local to global levels and contribute greatly to poverty alleviation. Many focus specifically on sustainable development and so also help to conserve Nature. They include sustainable communities, education at all levels and in quite diverse fields. Wikipedia is an example of a commons.
- *Local to regional commons*: groups dedicated to such activities as water preservation and management, and for long term legal protection; groups for managing fisheries, forests and irrigation.
- *Entrepreneurial clusters*: include groups that repurpose and up-cycle waste into new products. Examples include artists' cooperatives tapping landfills for production energy needs or for materials for they can use for their art; Brazilian Recycling Co-ops where marginalized people who sort garbage can be empowered to organize through Participatory Sustainable Waste Management models for income opportunities.
- *Business Cooperatives*: Owner operated businesses, attracting one billion members worldwide. Cooperatives tend to do well even in times of economic downturn, because the owners/workers all share in the profits.

Micro-financing institutions:

- *Grameen Fund, Bangladesh - Women's Fund*. This fund provides small loans to women. Once loans are repaid, subsequent projects are funded for the same borrowers.
- *The Trickle Up project*. Similar to the Grameen Fund in that amounts of US\$100 are made available to people in developing countries who want to begin, say, a cottage industry. Once this is operational and the funds are repaid, the next initiative can be financed.

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

Both lack of money and environmental degradation are often cited as two major barriers to poverty eradication. However, there are a number of alternative ways of generating the funds that can lift people out of poverty, most of them based on a two-pronged approach that involves changing destructive ways of treating Nature and at the same time generating financing to alleviate poverty. Some are already widely used others are still to be implemented.

Poverty is a vicious cycle (vs. the virtuous cycle of development). Dr. E.F. Schumacher, in his renowned book *Small is Beautiful*, helps us recognize that people are not inherently born poor, it is the economic environment and market capitalism, which is making them poor. Poor health and no resources make investment unattractive. No investment means no development. No development means organizations (individuals, households, firms, NGOs, governments) are likely to stay poor. To correct it, the new economy must reconnect people with their own concerns of life.

Above, under Target 1.1 - "*Best practices to build an economy of inclusiveness and generate a basic income for all*" are some best practices that can be implemented in such a way as to help achieve both financial relief *and* environmental remediation for all, including those currently living in poverty.

The actions listed above can not only provide much needed financial relief for those in poverty but can also facilitate an inner shift from a "mindset of poverty" to one of "abundance for all".

There is an old saying - "Give a person a fish for one day, you can help him for just one day. Give him a fish for several days, you help him for several days. Show him how to fish, how to tackle, and repair his fishing nets, and you have helped him to become self-sufficient, self-reliant and independent." And in turn, he becomes a greater asset to his whole community. It is important that there is a job for everyone, and that no one is left out of the circle. Each job is important even if the task seems small.

Truly, everybody has their own strength, and everybody's strength should be celebrated.

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

Some countries that have social protection services to protect and empower people from birth to grave find these systems being eroded. This is often because those who are employed no longer wish to fund them, believing that some beneficiaries of such systems do not respond as intended. The unemployed or underemployed beneficiaries of financial assistance are often seen to use social assistance as a way to remain inactive or to engage in avocations that are not remunerated financially. This

causes ill feelings among those who are working and reluctance to help fund those benefitting from the system.

This problem can be in part resolved taking the following steps to awaken the motivation of those not adequately employed and to rekindle faith in the system among those that fund it:

- Implement career assessment tools and activities to establish the personal qualities, talents and skills of those who are un- or underemployed.
- Provide financial assistance and training to develop relevant new skills.
- Provide them with community service activities or other related jobs to repay the community while they are developing their skills.
- For those without employable skills or who are collecting benefits while caring for their family, allow them to collect benefits while doing community service in areas connected to their preferred activities, as is done in parts of Spain. Increasingly, people have avocations with which they are unable or disinclined to earn a living. Through limited benefits and community service they can indirectly contribute to the social/partnership/collaborative economy— already a huge contributor to nations' GNP.

In a world where automation and AI are increasingly taking over work from human beings, it is important to find alternatives that allow people to undertake activities that are of interest and meaningful to them personally. This will shift the global economy from one where people focus on meeting basic physical needs to one in which physical needs are met by machines and AI and an immaterial economy develops to meet people's needs for immaterial development including their creativity, cultural pursuits, spiritual and intellectual development etc. By allowing this side of human beings to flourish a new economy will grow that has to do with the creation of "immaterial" goods and services that lead to deep inner satisfaction, accompanied for many by benevolence. This economy will be as valid as and more satisfying than the present one where people are forced to work at jobs that do not interest them. We see this already developing in the form of the social solidarity economy that is growing fast with the help of the Internet. Here a basic income for all people can help to jump start this new phenomenon. (See under 1.1.)

The ILO provides services to help nations build a system that provides social services for their people. Once social services are provided and people have sufficient to live on and develop their potential, people will find time and interest to deal with the issues that are threatening humanity. But challenges will always exist, and human creativity will always be required. "Getting ahead" in terms of earning more than is necessary to meet day to day living needs becomes no longer an issue.

As governments prepare to implement their national sustainable development plans, the following steps can help nations which do not yet have a necessary infrastructure plan providing way to develop and implement social protection plans:

- Consult with those in the UN System and/or with other governments with similar challenges for innovative ideas to develop their national sustainable plans, including all of the infrastructure needed: roads, transport, social protection, and other.
- Make full use of experts from abroad who can perform tasks at a distance (such as medical professionals who can treat patients via Skype or other similar technology, even in emergency wards) while the country is preparing to fill these posts.
- Appeal to the diaspora, as done by the African Development Bank, by increasing interest rates to encourage these to invest in the region.
- Determine precisely which talents, skills and interests the un- or underemployed in their country have and match the vacancies with those available to do the best job, using the two-pronged approach mentioned above to help the un- or underemployed to gain the necessary skills and then find their ideal employment. The UN System and the sharing, collaborative, partnership economy can help if people are given access to the Internet.
- Publicize successes to motivate all to contribute to the emerging system.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance

When we consider access to wealth, it is important that we both free up resources and prepare both "donors" and "recipients" to ensure that the changes remain durable. It is thus important to:

- Commit to making better use of the resources we have by creating zero waste.
- Prepare all those who already own resources and those that have not held property or assets before for ownership so that they know how to use, honour, manage and grow their resources without harming other people or Nature.
- Use funding mechanisms that deal with the roots of poverty eradication. Here Nature can point the way, for there is no waste and no exclusion in Nature. All elements are in constant interaction with the whole Earth System and all species contribute to the health of the ecosystems. This can also be the case with the human community if we follow Nature's example.

ACTIONS

1. Safeguard Nature and then ensure that access and stewardship of the global commons is guaranteed equally to all people, rich and poor.
2. Provide Nature with constitutional rights so that crimes against Nature can be prosecuted under universal jurisdiction by law courts in all nations to protect her from harm by human beings. Ecuador and Bolivia are leaders in this regard.
3. Institute governance to protect Natural systems, using bioregions as the basis.
 - People's cultures and livelihoods are often formed through appreciation for and in interaction with the natural environment where they live. To increase support by people for their bioregion, each person inhabiting a bioregion can be kept abreast of the health of a bioregion via the media, much as we now have weather forecasts. For example, in the Netherlands the nation is divided into "water districts", each with its own administration wherein all inhabitants pay for the cost of maintaining the quality of water in their district. Everyone also pays their fair share of the upkeep and usage. The poor and most marginalized can be included in local governance and thereby also conservation of their bioregion.
4. Publicize the essential role of diverse plant and animal species to human survival.
 - This will increase appreciation of people for the role of all parts of society and Nature, including the poor. It will facilitate cooperation among people and the introduction of laws that empower the poor and help to ensure that all people's fundamental rights to resources are implemented.
5. Level the playing field between rich and poor.
 - Ensure all have access to both international agreements and guidelines for living in harmony with Nature. See UN website: www.harmonywithnatureun.org
6. Give the poor and the marginalized means to access the Internet, and thus the global sharing/partnership economy, erasing the digital divide.
7. Create and implement laws that ensure that the commons can be stewarded by all people for the benefit of all people and Nature. This would give all people including the poor and the disenfranchised equal access to these resources and provide them with access to enforcement mechanisms, so that they can make sure that the global commons is stewarded for the wellbeing of all.
8. Provide the poor and disenfranchised with equal rights to help steward and manage commons lands by creating a land lease system in countries with significant amount of lands not yet in private ownership. This system can be based on "land value maps" rather than selling land into speculative and inequitable land markets, promoting a system of direct democracy whereby the people on these lands vote for their preferred use of the lease fees.

9. Publicize the important and often indispensable roles played by diverse groups of people and nations, rich and poor, to their own societies, and/or globally through the innovations they introduce, their systems of social solidarity, and cultural enrichments.
10. Employ ways to shift from a culture based on the survival of the fittest to ones for society-wide mutual empowerment: Essay competitions in schools, art exhibits, solutions offered via the Internet to poverty alleviation. The various submissions to these competitions as well as the winners themselves can receive broad acclaim and wide media coverage. Where the concept of “success” is shifted from “the survival of the fittest” to “mobilization of mutual empowerment”, the joy associated with the latter will also significantly increase. In addition, the paradigm of mutual empowerment builds collaboration, increases gratitude and appreciation among people, and thereby people will derive fulfilment at many different levels - psychological, interpersonal, social, and financial from working toward these new ideals.
11. Implement the financing mechanisms mentioned under Target 1.1 (See: *Best practices to build an economy of inclusiveness and generate a basic income for all*) in such a way that these protect the environment.

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

Building resilience requires balance in give and take between people and between people and Nature. In providing resources to empower others and build a more resilient environment, we are helping to create a safer, more resilient world for ourselves, future generations, all peoples and the whole of Nature.

Only when our fundamental way of seeing our relationship to one another and Nature has changed can we take effective measures to help those most in need.

ACTIONS

1. Implement governmental awareness campaigns on potential natural disasters including those due to climate change. These can include:
 - Placing warning signs in Tsunami Danger areas.
 - Providing details on what to do if there is a Tsunami alert. Bangladesh for instance has instituted evacuation procedures that has proved to save great numbers of lives.
 - Provide and publicize instruction on how to aid the most vulnerable, including young people, the elderly, and people with disabilities so that all people in a community have the basic skills necessary and can thus respond usefully.

- This will require work at the family and community level, as well as national legislation relating to social services.
2. When it comes to being sure that the most vulnerable are not left behind. Family members, etc. of the most vulnerable would be a great asset, since they see the essential value of the vulnerable as human beings from close by. They can communicate this most convincingly to others who might not have direct experience with them. They will be most invested to provide a safe and nurturing environment, ensure that there are escape routes and other protection for the most vulnerable where they live, and that others take their particular vulnerabilities into account. They can also advocate municipal, national and global reforms that can protect them when disaster hits. This will require work on the family and community level, as well as national legislation relating to social services. Those with children, elderly people, or people with disabilities in their home, must be given special help to ensure that such houses are well equipped with suitable escape routes and family members can aid in their escape.
 3. The media, including the social media, should be used as a powerful source to help educate people at local and national levels and to encourage civil initiatives to help the most vulnerable.
 4. All Nations must implement the Economic and Social Covenants. Here peer support can help Governments so that they can see how these can be implemented and paid for. Regular visioning sessions between people in government responsible for this can be extremely useful.
 5. A basic income for all people would be a way of empowering people to help themselves.

Address the related issues of Poverty and Pollution

6. Poverty and pollution are inextricably linked. Pollution contributes to the poverty cycle and can make it more difficult for children and future generations to escape this cycle. Pollution causes life-long disability and early death.
7. Poor populations are the most vulnerable to exposures from hazardous substances due to factors such as where they live, the types of livelihoods in which they are engaged, their low level of education or awareness of toxin-related risks, their lack of or limited access to health care, and their poor levels of nutrition. Poor health and nutrition, typically associated with poverty, can magnify the impacts of exposure to toxic pollution. For example, children with nutritional deficiencies in calcium and iron have higher blood lead levels than peers with sufficient amounts of those nutrients. (See Poisoned Poor report by GAHP https://gahp.net/wp-content/uploads/2017/02/GAHPPoisonedPoor_Report-Sept-2013.pdf)
8. Exposure occurs at home and at work, or in contaminated public spaces. The consequences can range from contracting diseases that may interfere with an individual's ability to retain employment to severe illnesses causing long-term disability. In urban settings, the poor often reside in areas close to landfills, incinerators, hazardous or other wastes dumping sites, or other industrial

zones/polluting activities. The WHO estimates that 98% of adults and 99% of children affected by exposure to lead live in low- and middle-income countries.

9. The informal recovery of lead from car batteries and the open burning of lead-containing wastes are serious sources of environmental lead contamination in low-income countries.
10. Poor children are more likely to be affected by lead exposure, since they are more likely to be malnourished; a diet low in iron and calcium allows more lead to be absorbed by the body.
11. Safety of people engaged in livelihood activities where chemical exposures are significant (e.g., e-waste recycling of domestically generated waste, pesticide use in agriculture, small-scale and artisanal mining, lead acid battery recycling, chemicals manufacturing, tanneries, etc.) need to be ensured. Recognizing the economic significance of these activities for the poor, emphasis should be placed on finding ways to reduce or eliminate toxic exposures from these activities.

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

The process of mobilization of resources is already happening at three levels, through:

1. Person to person sharing via the fast-growing sharing/collaborative/partnership economy between people who are moved to share goods, services and expertise including with people in poorer circumstances.
2. Organizational giving: by civil society, including the private sector, especially cooperatives whose giving to the local communities where they are situated and global development assistance is a part of their cooperative identity; and
3. International development assistance: where for decades there has been a resistance to provide Official Development Assistance promised, a shift seems to be taking place as most recently the UK joined the Netherlands, Luxembourg, Sweden and Denmark as having surpassed the 07% ODA target and the EU's pledged special support for the Small Island Developing States.

The process of “giving from the heart” is also at times abused, undermined or directly opposed when (as we saw in the introduction) donors and/or recipients

- Act from a conflicted sense that it is "either us or them",
- Are subject to spiritual poverty and feel they never have enough;
- Fear reprisals for changing the balance of power; or do not believe change is possible.

In the introduction suggested actions are listed to overcome systemic changes.

ACTIONS

Here are additional actions we can take:

Ways of mobilizing resources:

1. Require official donor organizations, whether civil or governmental, to publicize their year-end financial statements.
2. Publicize widely any misappropriation of funds so that these are subject to world public opinion and those responsible for abuses can be brought to justice.
3. Force those found guilty of corruption to truly mend their ways as follows:
 - Use legal action to force them to repay the funds they embezzled or came about illegally
 - Publicize the details of their embezzlement in their personal and business environments.
 - Mandate that they do community labour, living in the communities they have wronged instead of being locked up in white-collar prisons. This will be a hard penalty for some, and it will deter others from taking jobs in the donor community to enrich themselves.
4. Encourage donor organizations to coordinate their efforts so that those collecting funds, gathering resources, providing professional assistance, or providing transportation can be encouraged to work together. This will streamline the giving of aid and save vast sums by cutting out redundancy.

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

In Nature, all aspects of the Earth System interact within ecosystems in a balanced process of give and take which enables all aspects to thrive together. Plants and animals go through phases of life which tend to move from the need for protection of the very young, to positions of power with the task of caring for those who are weaker, and finally old age where they often play supportive roles before making way for a new generation. Actions to take care of those who are weaker come naturally within these natural cycles.

Within Nature there is a mindset that is centered on both the wellbeing of the individual and that of the group. Both aspects are necessary if the group is to remain strong enough to benefit both the individual members and the species itself.

Is it possible for human beings to recognize the benefits when individuals, families, communities, nations and the global community, including the poor and both genders, are able to fulfil their potential?

Examples exist where this is common practice:

- Among indigenous people's individuals are born into specific roles within their communities; or undertake a vision quest as they become adults to establish how to allow their talents to blossom with full community support.
- In schools and universities that promote student centered education, some, like the Waldorf and Rudolf Steiner Schools, root their practices deeply in the principles of Nature.
- In the sharing/collaborative/partnership economy, which is burgeoning on the Internet.
- In cooperative businesses based on caring, sharing and a sense of community. The international Cooperative Alliance (<https://www.ica.coop/en>) with one billion members worldwide honours the Cooperative Identity where members give back some of their profits to the communities where they are situated and also to global development. The form cooperatives take can be compared with Nature's ecosystems in that all contribute to the whole and benefit from the whole.

Such examples are inclusive of all who participate and so it is not necessary to implement gender sensitive or pro-poor legislation.

This is not necessarily so in the rest of society. Here, to create sound policy frameworks to support accelerated investment in poverty eradication, actions must both transform the mindset whereby people compete for domination while at the same time bringing about a shift in legislation that is pro-poor and does not discriminate against youth, the elderly, people with disabilities or with regard to gender, religion, culture or race, etc.

ACTIONS

Here are actions to support accelerated investment in poverty eradication:

1. Combine pro-poor and gender-sensitive legislation with wide educational campaigns. These could embrace education at all levels and in all fields, media reports and stories that speak to the heart. They should foster the interest in the deep inner sense of fulfilment to alleviate spiritual poverty, while at the same time developing a social consciousness and the interest in coupling individual fulfilment with the well-being of society.
2. Create campaigns that focus on ways to ease social and economic tensions as formerly estranged groups get to know and respect one another; and thereby counter the negative effects of what seems hopeless misery.
3. Include content to speak to the important role that all genders, sexual orientations, ages, all abilities and disabilities, cultures, religions, play in society. Each educational segment can focus on one particular group. The overriding message will be one of tolerance, compassion, value of each individual, and the benefit of interaction among people with different perspectives and life experiences.

4. Show the benefits of poverty alleviation to the whole of society, including increased creativity and “thinking outside of the box”; that comes about with a more diverse workforce.
5. Promote best practices that build goodwill between diverse social groups resulting from the indispensable contributions that are already being made through full economic and social integration of women and the formerly poor people
6. Allow hope to flourish that will ease hardened interpersonal, social and economic relationships, and transform social and economic unrest. Help people recognize that crime, conflicts, sabotage, and even terrorist acts are dead ends. Such first steps have been taken in countries like South Africa, Rwanda and Columbia. We are beginners at this process, but we must constantly learn and adjust the process as circumstances change always building benevolence as we aim for success.

NO HUNGER

SUSTAINABLE DEVELOPMENT GOAL 2:

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Agriculture

TARGETS

- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.
- 2.2 By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.
- 2.3 By 2030, double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.
- 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality.
- 2.5 By 2020, maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed.
- 2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks to enhance agricultural productive capacity in developing countries, in particular in least developed countries.
- 2.b Correct and prevent trade restrictions and distortions in world agricultural markets including by the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.
- 2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives, and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.



EXECUTIVE SUMMARY

The Earth System is one gigantic food-producing organism, which uses the ongoing interaction between all of its subsystems - the geosphere, the hydrosphere, the atmosphere, the biosphere and the noosphere - to feed all of life on the planet, including humankind.

Human beings are complex and depend on this process of give and take between a large number of life forms for nutritious foods and their food security. Recognizing this is essential if we are to have sustainable agriculture.

Healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species and enable these species to grow strong through the diversity of other species they interact with. Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend.

Unfortunately, many humans have come to believe that it is a matter of the “survival of the fittest” when it comes to their relationships with Nature and are eradicating whole species and destroying ecosystems in an attempt to “safeguard” food for human and too often their own individual consumption.

*Small-scale food producers, Indigenous Peoples, family farmers, pastoralists and fishers have had to live in tune with Nature since time immemorial in a balance between give and take. They have retained this capacity even after other people(s) lost this sense and began to assume the attitude that their survival depended on having **power over** Nature and indeed also over other people(s). It is this attitude that is both causing destruction of lives and livelihoods of **all** people and preventing those who have retained the wisdom and skills from helping humankind to reverse the dangerous imbalance we are creating and teach us how to live in harmony with Nature.*

In addition, those whose rapport with Nature and inclusive social practices would have the capacity to help us find our way back to living in harmony with Nature, have all but become eclipsed by economic migrants, and with this has come increasing urbanization.

*In this Report, we shall explore ways in which we can plan and implement our policies with regard to SDG2 bearing in mind first and foremost the imperative to **live in harmony both with our fellow human beings and the rest of Nature**. A large variety of actions and best practices are recommended in the areas of Education to bring about a mental shift: Agriculture for the production of sufficient, safe, nutritious foods all year round; Empowering more people in the production of such food all year round; Ensuring that those often neglected have access to food; Providing widespread awareness of what constitutes safe and nutritious food; Ensuring that those often neglected have access to food; and Two-way exchanges of know-how between developed and developing communities.*

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Agriculture

The Earth System is one gigantic food-producing organism, which uses the ongoing interaction between all of its subsystems --the geosphere, the hydrosphere, the atmosphere, the biosphere and the noosphere-- to feed all of life on the planet, including humankind.

Here plants and animals form food chains and food webs whereby less complex organisms sacrifice some of their own to provide food for more complex life forms. All, when they die, return to the Earth and so their remains become once more a part of the giant food-producing Earth System that maintains all forms of life, including human beings.

Human beings are complex and depend on this process of give and take between a large number of life forms for nutritious foods and their food security. Recognizing this is essential if we are to have sustainable agriculture. For instance, where humans have harmed the environment by causing desertification or loss of topsoil due to clear cutting of forested areas, the land has dried out, lost its fertility and has become difficult to farm. However, when surrounding eco-systems are left intact, they provide a large reservoir for holding water and slowly releasing it throughout the year, thus creating the type of environment and access to natural resources that agriculture for human consumption needs to thrive.

Unfortunately, many humans have come to believe that it is a matter of the “survival of the fittest” when it comes to their relationships with Nature and are eradicating whole species and destroying ecosystems in an attempt to “safeguard” food for human consumption. In the process, they are also depleting and poisoning the air, water and soils. Conventional farming causes 25% of the greenhouse gases that are released into the atmosphere - run-off from fields causes eutrophication of our water courses, siltation, and the development of large dead zones in the sea. Although the rate of forest loss is decreasing, large tracts are still being cut down to make way for agriculture.

Human activity is largely responsible for the loss of 150-200 species of plants and animals each day and is endangering the Planet’s capacity to maintain human life in almost all areas covered by the Sustainable Development Goals.

The Food and Agricultural Organization's (FAO's) **2015 State of Food Security in the World Report** that assesses the world's progress toward addressing food security as the world moved from the Millennium to the Sustainable Development Goals cites “protracted crises, due to conflict or natural disasters” as the reason that not more headway has been made. In the article, **Planetary Boundaries: Guiding Human Development on a Changing Planet**, the authors indicate that we have overstepped the planetary boundaries necessary if the Earth System is to support human life through the rapid loss of biodiversity, climate change, and the imbalances in the Phosphorus and Nitrogen cycles. See <https://scripps.ucsd.edu/labs/ramanathan/>

We must therefore adopt sustainable life-giving agricultural practices in all nations by building on the example of Nature, if we are to assure food security, optimal nutrition, and an end to hunger.

Life-giving in this context means agricultural practices which bring life and vitality to the ecosystem within which our agriculture takes place. This includes all those who are involved in agriculture - from the grower, to those who package and ship, to the consumer - thereby reinforcing a mind-set based on cooperation between people and people with Nature.

We may have to compromise in the spirit of cooperation and give up some of our freedoms to end hunger as well as for the ongoing survival of our own species. We cannot compromise on the agricultural practices we employ going forward - they must all be in alignment with life-giving protocols. An ecosystem approach to agriculture can be a great asset in producing sufficient nutritious food all year round.

There is no space for the use of toxins or practices which have brought us to overstepping the planetary boundary to do with species loss. Nor may we ignore the long-term viability of the land, the waterways, the air, the earth, plant and animal species and indeed humankind. We can no longer continue using agricultural practices for the short-term gain of a few and the long-term detriment of all life. This imperative applies to governments, businesses and individual people.

Life-giving sustainable agricultural practices are based on a natural respect for the care of soil, plants and animals which give their lives to feed us. The Earth itself is the biggest giver of life and treated with care, respect and careful thought as to which practices support the good of all of life will help us to end hunger and produce sustainable nourishing life-giving foods for all into the future.

ACTIONS

Education to bring about a mental shift:

1. Implement formal and informal education which clearly illustrates the impact on the individual lives of each person. This can be done through documentaries and media entertainment, speaking to their hearts and feelings and which move people to act. Specifically highlight:
 - How human beings depend on Nature for their food;
 - The specific consequences of any actions we take that ignore that fact;
 - Ways in which we can reconnect with Nature.

Here are some examples of important themes that should be mainstreamed through all forms of education:

- Human beings are inextricably linked to the rest of Nature through the air we breathe, the water we drink, and how these together with the minerals, plants and animals form an all-encompassing web of life that provides the complexity of nutrients we each need to survive.

- It is therefore impossible to stand apart and “manage Nature from the outside”, and our attempts to do so are leading to an impoverishment of our food sources, including through crises and disasters due to climate change, the pollution of air, water, and soils—all of which are impoverishing the quality and quantity of food needed for our survival.
No one can escape the consequences of our attempts to place ourselves outside of Nature.
- It is imperative that we become sensitized to how Nature works and use the power that is unleashed when we live in harmony with Nature to boost both the nutritional value and amount of food we produce.

Here are some things we can do:

- Overcome the limitation of living far-away from the site of food production where the illusion is created that food production is at most peripherally connected to Nature. This can be done through stays in the wild where principles of how Nature thrives can provide important insights in how we humans can resolve many of the challenges we face today.
 - Provide opportunities for students to learn from and care for Nature, such as developing school, community, and city gardens where they can learn about permaculture. Examples of such projects are provided by ReScope in Southern Africa and by the Zimbabwe Institute of Permaculture, etc.
2. Provide opportunities for students to experience deep reflection in a natural environment, much like the Indigenous Peoples “vision quests”, fostering the experience of Nature communicating with us through insights, hunches, etc. Such education is, for instance, available through John F. Kennedy University, CA, in the USA (<https://www.jfku.edu/>)
- Cultivate a sense of connectedness of all that is: how all systems of Nature and society are interconnected and that people, their waste, etc. are a part of the one Earth System, and how being integrated consciously has brought about a large variety of valuable ways of creating balance between people and between people and Nature.
 - As an extension of experiencing cooperation with Nature, include from an early age, education in living in harmony with one another by teaching conflict resolution, and illustrating how acting from a sense of peace/happiness/calm can produce more sustainable solutions.

For example, at the Montessori School in Berkeley, CA, USA, students were taught at the age of 8 how to resolve their own conflicts peacefully. When a conflict would break out, say, between two students, the teacher would request them each to choose an “ally” and then the four of them apply the techniques they had learned outside of the classroom on a “peace carpet” especially placed there for that purpose. They would return to the larger group when they had succeeded.

TARGETS SDG 2

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round

This target consists of three seemingly distinct challenges:

1. The production of safe, nutritious and sufficient food all year round.
2. Ensuring access to nutritious food by all people, in particular the poor and those in vulnerable situations such as infants.
3. Feed more people while using the same available space that we have today.

These can only be met if we change our mind-set from one based mainly on the survival of the fittest to one that recognizes that in a larger context all subsystems are interconnected parts of one gigantic food producing system based on cooperation between the whole of the Earth System.

1. The production of safe, nutritious and sufficient food all year round

When we observe Nature, we realize that the production of safe, nutritious and sufficient food all year round is a much more comprehensive process than merely planting, harvesting, and distributing food. Animals are, for instance, integral parts of food-producing ecosystems and also increase the diversity within an ecosystem in other ways, for instance by migrating from one to another and transporting other species with them. All these elements contribute to the nutritional value of foods and the amount available to feed the members of both the plant and animal kingdoms, and thereby provide the amounts and types of food that are nutritious to large numbers of human beings.

The quality of food is made up of the combinations of many facets. Each facet of a plant, animal and mineral -taste, sounds, movements, fragrance- all contribute to the abundance found in each ecosystem and contribute to the capacity of food to nurture the whole being. For instance, just being in Nature is healing, rejuvenating, refreshing and inspiring. It resonates with all aspects of who we are and reminds us of what life in all its diversity is all about. Being in Nature nurtures much more than the physical body. It nourishes and enlivens the whole of who we are. It is also a way for us to get to know Nature, marvel at her and re-establish a more constructive working relationship with all of life.

Responding to the wealth of sensual input coming from Nature, enables members of one species either to provide nurturance, and protection, or to kill and eat members of other species in a circular dynamic of give and take.

The process by which members of species are tuned into members of other species empowers them and helps with the provision of food for both the “strong” and “weak”. Ecosystems might become less active in the winter, but they do not stop their activity, for each season is necessary for the full development of plants and animals. So, ecosystems produce food all year round and contribute to the available nutritious food for human consumption.

If we, human beings, nurture and care for the trees, plants, animals and planet by universally adopting life-giving agricultural practices they will continue to grow and flourish - when they are thriving so too can we.

For these reasons, an ecosystem approach to agriculture can be a great asset in producing sufficient nutritious food all year round. It is therefore no coincidence that the ancient approach of permaculture which is based on an ecosystem approach is being rediscovered today and being increasingly used for small scale food production.

State of the World's Forests 2016

states:

“Forests and agriculture: land-use challenges and opportunities”

Forests and trees support sustainable agriculture. They stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people, for whom they are important sources of food, energy and income. Yet, agriculture remains the major driver of deforestation globally, and agricultural, forestry and land policies are often at odds.” It is essential that we halt destructive agricultural practices and harness the powers inherent in Nature.

ACTIONS

Examples of best practices: Agriculture for the production of sufficient, safe, nutritious foods all year round

1. Refrain from all Nature-degrading practices. Important examples include:

- Change our farming practices to be more in tune with Nature.
- Where possible use an ecosystem approach to feed ourselves and one another.
- Nourish the earth first, so that it will be able to feed human beings.
- Promote the eating of more vegetables, fruits, seeds and grains, as opposed to meats. Our livestock and animal husbandry practices will have to be changed in order to restore the health of ecosystems, particularly grasslands. The rearing of cattle is ravaging the environment; the slaughter of cattle is often done in inhumane ways; rainforests are being cut down and large amounts of water are used to cultivate crops to produce cattle feed; in addition, the costs of transporting meat to the areas where most is eaten both increases the use of fossil fuels and pollutes both the waters and the air. Agroforestry and other such integrated systems combining agricultural diversity, animal husbandry and natural habitats would be a way of building more on a natural ecosystem approach.
- Make all aware how monocultures are destroying Nature and that they should therefore be avoided, including that mono-cropping to grow cattle feed—one of the most destructive types of farming practices, that is negatively affecting soil health. The United Nations’ Food and Agricultural Organization (FAO) says that

if we continue with conventional agricultural practices as we have been the world's topsoil will be gone within 60 years. By switching to more of a plant-based diet and changing how we raise livestock we can greatly reduce this problem.

2. Implement relevant agricultural and other policies:

- Determine with care how to deal with the underlying factors of agriculture. For instance: making a choice between weighing the benefits of food price stability against the need to ensure that the land needed for agriculture is sustained. Or weighing the cost of water as an investment for food against the cost of water for other purposes. Countries can choose to import food as opposed to importing water to make areas with insufficient land surface of fertile soil more suitable for agricultural purposes; or they can decide to invest instead in creating healthy soils, water retention landscaping and regenerative landscapes in order to restore the health of hydrological systems and boost productivity.
- Create a framework that provides entry points to government to ensure foods are fit for human consumption in all their forms, for all food businesses ranging from small to transnational.
- Governments can strengthen Nature-inspired approaches mentioned above by providing high-quality seeds.

3. Empower more people in the production of sufficient safe and nutritious food all year round.

4. Provide goodwill and universal access to the Internet.

- Internet access provides a more level playing field for all people, including the poor and marginalized, to contribute in an informed manner to the provision of food, aided by the information, education and other help they need, including access to market information.
- The digital divide between urban and rural areas will be reduced, thus equipping new industries (small and light food industries), dwellings, schools, post and telecommunication services with information and resources to help protect the environment (earth, water, land, air), including against global warming.

5. Encourage homeless people to move or return to the countryside to reduce the desertification of rural areas; so too unemployed people can also be given this opportunity. As more and more people are flocking to cities to stay in the slums, rejuvenating the countryside with a reverse trend of migrants from cities to the countryside can provide incentives to businesses, civil societies and governments to promote a rural governance with the help of new telecommunications and Information Systems to help with education and services. Such a move would provide an array of different and necessary types of work for people who are unable to find work in the cities, ranging from restoring the land and ecosystems to providing the necessary infrastructure for the well-being of those living there and to promote the effectiveness of their endeavours. It will provide a greater distribution of people, as well as increase land for food production. In this way, people who are homeless or unemployed would be empowered to help themselves and many other people. Costa Rica has undertaken action in this vein, thereby

empowering the poor by giving them land to farm sustainably and encouraging women to become fishers.

6. Provide help to people at the grass roots, by providing agricultural equipment, constructing roads that connect farms with one another and with markets, and making sure every community benefits from pipe-borne water and clean energy for each household, and basic education opportunities for their children. NGOs that are helping with these processes should be empowered by providing salaries for their staff.

As we take the above steps to provide all people with safe, nutritious, and sufficient food all year round, we have an enormous opportunity to sequester giga-tons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, and providing conditions that are much more favourable to dryland, rain-fed areas, subsistence and family farmers - particularly those living in regions of degraded farmlands and ecosystems. And so, by ***working with, instead of against Nature***, we will find that we have befriended a powerful ally.

2. Ensure access by all people, in particular the poor and people in vulnerable situations including infants, to sufficient nutritious food all year round

Social animals tend to have strong nurturing instincts. They often feed and care for young who are orphaned and have even been known to nurture the young of other species. Humans are ALSO social beings. We tend to appreciate other human beings for their physical, mental, emotional, social and spiritual qualities and the qualities of caring and nurturing they elicit in others. Expressions of this appreciation by humans for the well-being of all human beings are stressed by such global standards as the Universal Declaration of Human Rights and all the agreements that have developed from this - social solidarity economies whereby the society as a whole cares for those who are disadvantaged and in need, and the fast-growing sharing economy found mainly on the Internet, whereby people spontaneously give what they have to offer for free or for a small fee and can choose from similar offers of sharing from others worldwide. That these constitute social norms that must be implemented is stressed by the ***2030 Agenda for Sustainable Development: Transforming our World***.

Unfortunately, as mentioned under 2.0, both our connection with Nature and the relationships between human beings among themselves have been fractured through conflict.

This came about as we began to relate to the world around us through the intellect at the expense of our more connective faculties such as "feelings" and intuition. As a result, the illusion has grown that instead of being integral to the systems of Nature, we must compete with Nature and other human beings to individually survive and prosper. This often leads to people(s) killing one another and eradicating whole species so as to enable themselves to survive and prosper at the expense of others. And in so doing and/or allowing this to take place, instead of benefitting from the food-producing capacity of Mother Earth, we are depriving ourselves and destroying the resources we all need.

As a result, our conventional and/or industrialized agricultural practices have led to both severe degradation of the natural environment and the marginalizing of our fellow human beings.

Moreover, those still living in harmony with **natural** ecosystems whose rapport with Nature and inclusive social practices would have the capacity to help us find our way back to living in harmony with Nature, have all but become eclipsed by economic migrants, and with this has come increasing urbanization.

When a phenomenon ceases to play a balanced role in Nature's process of give and take, it is released by the system and will die, be “recycled”, or be forced to move away to an area where it can play a more harmonious role in this process of give and take. In this way, the nurturing qualities of all else are maintained. Since humans are integral to Nature, and depend on her for the air we breathe, the water we drink, the plants, animals and minerals we eat, this means that unless we reverse the effects of our actions, human survival is at stake.

It is by no means an easy task to reverse how we think, feel and act with regard to the world around us and so we must be prepared for a gradual process of increasingly building a sense of community with Nature with attitudes of love, caring, and sharing with other people, as we face the difficult learning process of using organic methods of working the soil, producing our foods and sharing with other people.

As we make these changes, the sense of lack and despair that so often accompanies the competitive approach are likely to gradually be replaced by hope and an openness to see further possibilities and opportunities, etc. For it often takes several years to be able to grow food easily using organic methods and to rekindle our understanding of how Nature produces bounty.

ACTIONS

Ensure that those often neglected have access to food

1. Governments at all levels and the UN System can take the following actions:
 - Analyse global, national, and local policies for the sustainable production and equitable distribution and management of sufficient safe and nutritious food as these relate to technology, the ecology, economies, societies, and markets. Do this with the help of relevant organizations and people at the grass roots level, possibly using Geographic Information Systems (GIS). This would bring many hands-on deck and lead to a more detailed and accurate outcome. The next step would be to propagate best practices both within countries and across borders to ensure that all, including those who are often neglected, have access to safe and nutritious food all year round.
 - Encourage Ministries of Health, Housing, Agriculture, Commerce and Social Protection, in consultation with civil society, to
 - Develop, revise, cost, and implement national plans for food security, water and health with regard to ensuring that sufficient nutritious and safe food is available to each person.
 - Create an enabling environment to oversee the implementation of the policies.

- Ensure that there are robust safeguards at various levels of the City Smart commitment for vulnerable persons (A **Smart City** is an urban development vision to integrate information and communication).
- Create a healthy balance between rural and urban lives at the periphery of city centres.
- Maintain organizational continuity by adapting decision making processes to embrace land planning, food and waste recycling, and building a Smart Sustainable City environment.
- Customer Relationship Management (CRM) is likely to show an increase in numbers of farming and agricultural jobs and other decent work as such changes in the global architecture take place.

All these measures in turn, will improve the micro economy as societies become connected with global markets (cities) through the logistics of the food supply chains. These processes can lead to a source of employment, poverty reduction and prosperity for all in this changing world.

2. Implement social protection floors with the help of Inter-Governmental Organizations, such as the International Labour Organization (ILO).
3. In addition, here are some other measures that can be taken by other sectors of society:

Enact measures and policies to:

- Provide access to food waste that is still safe and wholesome from stores and producers to homeless people and others in need. This can be done with the support of NGOs and the sharing economy.
- Encourage charities and organizations of homeless people to collect food before it is wasted. Good cooks with a quality kitchen can still find valuable resources to feed starving people. Such initiatives are already providing food for increasing numbers of people and reducing the number of hungry people in Paris, France. They can be replicated worldwide. More such best practices can be encouraged by paying people to do this work.
- Work with the resources that pre-exist within the environment of the people requiring nutritious food.
- Promote farmer's markets and foodbanks.

Provide widespread awareness of what constitutes safe and nutritious food.

4. There is much waste. Meanwhile poor nutrition, overeating of unhealthy snack foods, and lack of exercise is resulting in obesity and deaths from cancer, diabetes and other health-related diseases.
 - Promote an interest in eating both safe and nutritious food
 - Create an interest in eating both safe and nutritious food by providing widespread education on what constitutes a health promoting and sustainable lifestyle and diet through formal and informally accessible education via the internet and other media.

- Stress why specific foods are important for their nutritional value; and some can be detrimental to our health. This will help mothers provide better nutrition for their children and to consciously use the medicinal qualities of diverse plants to improve their health.
- Discount food on the shelves where the date on the label is close to expiration. Businesses could claim tax refunds in exchange for the donation of such foods.
- Cultivate a more mindful approach to the creation, distribution and eating of our food. Where a child can be raised away from the influence of advertising, allow each child to learn to determine what its body is asking for so that it learns to consciously use its inborn connection with Nature to meet its unconscious nutritional needs.
- Promote awareness of our connections with our food sources and how foods are grown and distributed. Institute the practice of asking questions of vendors, and stores about how food is produced.

3. Feed more people while using available space to do so

Although for a time, our agricultural productivity seemed to contribute to our capacity to feed a rapidly expanding human population, it is now widely recognized that to feed all people we will have to dramatically increase agricultural productivity. We would be wise to make more productive use of the space we still have available for farming by integrating food growing with natural healthy ecosystems and sustainable farming methods such as Permaculture. Food can also be produced in small, poorly used plots of land for local communities, such as in empty lots, spaces around homes, businesses, and even rooftop gardens. With care and attention, it is amazing how much food can be grown within a single square foot of space when following an ecosystem model.

Unfortunately, it is precisely those regions of the world where those relying on subsistence agriculture for their very livelihood are facing the largest increases in population, which in turn negatively affects the environment and is one of the reasons why the people living there are one of the most vulnerable groups worldwide. They are also among the most vulnerable to climate change and environmental disasters — for example, two thirds of the lands in Sub-Saharan Africa are degraded. Moreover, the places where hunger is most endemic are often areas where it can be the most difficult to increase agricultural productivity. These areas face some of the highest levels of ecosystem degradation and the most challenges in bringing in food resources from elsewhere. So, even when there might be enough food for everyone it can be challenging to get it to those that need it most.

ACTIONS

It is essential that the international community:

1. Ensure that the health of the soil and well-being of Nature are restored, particularly in those regions where poverty is the greatest.
 - Develop a broad and ambitious program of support to provide the people living in impoverished areas with the resources and educational opportunities they need to be able to transition to sustainable agricultural practices, while at the

same time substantially increasing productivity and integrating Nature into their agricultural practices.

- Take into account that this might encourage people to revive ancient native practices.

This must be done in a concerted and cohesive manner addressing the desires and needs of all stakeholders and agricultural practitioners.

2. Implement integrated land-use planning to balance land uses and underpin this with the right policy instruments to promote both sustainable forests and agriculture. State of the World's Forests (SOFO) 2016 shows that it is possible to increase agricultural productivity and food security while halting or even reversing deforestation, highlighting the successful efforts of Costa Rica, Chile, Gambia, Georgia, Ghana, Tunisia and Vietnam.
3. Heed the findings of small scale and organic farmers as well as from agro-ecology that productivity increases substantially as soil health improves, as the natural environment is restored, and our agricultural practices are integrated with the rest of Nature; and as we eliminate our use of pesticides, herbicides, and artificial fertilizers all of which destroy soil health in the mid to long term.
4. Eliminate food waste through reusing, recycling etc.
5. Create food sharing programs within communities whereby neighbours can share excess food. Create an awareness that there are already apps that help people share their excess food such as **Olio** <https://olioex.com/> or **YoNo Desperdicio** <https://yonodesperdicio.org/> in Spain.
6. Promote good business practices and Corporate Social Responsibility in hospitality management, and water, food, and beverage industries. This should include: the training of food operators in hospitality management to apply due diligence and the sharing of risks in the workplace by careful and thorough organization and planning, training of shelf keepers to manage the food shelves, clear labelling, organizing food quantity, and managing leftovers. Ensure that food managers have a good grasp of forecasts and creative prospective in times of uncertainty and when there is an abnormal situation.
7. Stress that because cities are so crowded, vertical as well as rooftop and community gardening are critical and that it is important and rewarding to use space creatively for food production, especially using permaculture which is a form of agriculture based on an ecosystem approach.

2.2 By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons

A community is strong to the degree it cares for its young and vulnerable. A poverty of nutrition is the result of a poverty of love for our fellow human beings and life itself. When we actually experience the interdependence between all people as well as people and Nature, we realize that caring for others is in essence also caring for ourselves.

Nature provides important nutrients of all kinds. These are often hiding in plain view, as for instance the ***mag meal*** that is now being developed for animal feed and which makes use of waste to breed protein rich maggots. This builds on the recycling processes that are found throughout all of Nature. Similar processes can be applied to the production of protein rich food to overcome malnutrition, and to counter stunting and wasting.

Governments have an important role to play in preventing and dealing with malnutrition. For instance, during World War Two, the British Government, among others, supplied all children with milk, cod liver oil, and orange juice concentrate. It can be argued that that important measure helped prevent malnutrition in upcoming generations. Such measures are often discarded because of their cost. Yet such governmental actions to protect young children, adolescent girls, pregnant and lactating women and older persons, in the long run, save huge medical and social costs to the country as a whole. At the same time, this empowers the young to become healthy and well-functioning adults that contribute to society. Governmental supply of necessary food supplements can be seen as a cost-saving action.

ACTIONS

Governments can take the following actions:

1. Raise awareness among the population as a whole that it is in the interest of everyone that we care for all members of our societies, especially the vulnerable and weak. This point can be brought home using graphic examples that illustrate that when we care for individual people and Nature, this has direct advantages to ourselves. Prosperity to the whole of the population is increased, crime and conflict decreases, and constructive relationships between all sections of the population have a chance to blossom. It is important to realize that malnutrition occurs in developed and developing countries, frequently also through ignorance as to what constitutes nutritious food.
2. Use all forms of education, including the story-telling of elders, various forms of media, and community educational classes and events, to recognize the unique nutritional needs of diverse age groups.
3. Educate women, as the progenitors, on the proper way to feed their own bodies and on the proper nutrition of their progeny, including where possible, the benefits of breast feeding.
4. Implement life enhancing practices mentioned above for the growing of all foods, including caring for, protecting and nourishing the soils and the water through sustainable, chemical-free, bio-diverse, practices so as to produce nutrient-dense foodstuff that will fulfil caloric and nutritional needs.
5. Distribute the nutrient dense-food through programs; explore the use of new forms of food. Capsules with concentrated nutrients might be used as a dietary supplement for those most vulnerable to malnutrition.
6. Recognize the importance of good quality, safe and fresh drinking water, and invest in the means to source, clean, and provide water.

2.3 **By 2030, double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, know-ledge, financial services, markets, and opportunities for value addition and non-farm employment**

Secure and equal access to land and waters is an important step that, if guaranteed, is likely to contribute toward the above-mentioned groups becoming much more productive and also increasing their own incomes. Women, indigenous peoples, pastoralists and small-scale farmers and fishermen are constantly having to defend the lands under their jurisdiction due to the lust for resources, land, and waters, by much larger and more powerful interests, often backed by wealthy corporations and whole governments. These more powerful interest groups are taking possession of the areas under their jurisdiction and mining these or otherwise destroying the soils and water quality for the benefit of a few and to the detriment of the planet as a whole. Before “doubling agricultural productivity” and the incomes of the above-mentioned groups, a mental shift must take place globally whereby all recognize that the scramble for more power over other people and Nature is what is an important factor causing the challenges to human survival faced by both this target group and the rest of humanity.

Within Nature, reciprocity is key — living in partnership with the Earth in healthy, organic ways.

Small-scale food producers, Indigenous Peoples, family farmers, pastoralists and fishers have had to live in tune with Nature since time immemorial in a balance between give and take. They have retained this capacity even after other people(s) lost this sense and began to assume the attitude that their survival depended on having **power over** Nature and indeed also over other people(s). And it is this attitude that is both causing destruction of lives and livelihoods of **all** people and preventing those who have retained the wisdom and skills from helping humankind to reverse the dangerous imbalance we are creating and teach us how to once again live in harmony with Nature.

For several centuries there has been a fight often to the death between those who conserve Nature as a way of life and those who seek to take natural resources for their own use and/or degrade them. Those whom this target is attempting to help - especially Indigenous Peoples - too often contend with violence, corruption, fraud, appropriation of territories, and militia actions by those wishing to appropriate their lands and waters. This prevents small-scale food producers, family farmers, pastoralists, fishers and Indigenous Peoples from the following:

1. Safely accessing healthy ecosystems, especially within Indigenous territories, and show that they have food production skills when they are able to live their lives in keeping with their understanding of Nature.

2. Assuming the position of leadership and guidance with regard to the rest of humanity who so badly need to benefit from their expertise to live in harmony with Nature. It is essential to realize that this targeting of especially Indigenous Peoples lands for the enrichment of the few (be they individuals, corporations or governments) and to the detriment of Nature and people in general can only continue to be met by resistance, since for Indigenous Peoples and others who live close to Nature, it is a no-win choice: to die while defending their rights to steward their lands and live in harmony with Nature, or to die through the depredation of Mother Earth.

The challenge we must confront in implementing this target, besides bringing about the mental shift discussed under 2.0 and 2.1 is to

- recognize the value of this target group to the rest of humanity
- build on this recognition
- see that its members have access to the necessary resources
- allow and empower them to live in keeping with their own values; and
- if they are willing, allow them to contribute their unique wisdom which is so badly needed to the rest of humanity.

It is possible to double the agricultural productivity and the incomes of this target group by providing guaranteed secure and equal access to land their families have often farmed and/or had jurisdiction over for centuries. This will free much of their capacity to produce their own food, using the expertise that has stood the proof of time and to access the resources they themselves see they need as they share their knowledge to help other people live more sustainably.

In the interest of us all, it is essential that we adopt this approach that supports this important target group in having the ability to build on their own wisdom and culture as they are given access to other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment, should they require this. It is in the interest of humanity as a whole that they should not be made to join the culture of those who are destroying the very resources we all need. Providing the access to any additional resources they need should empower them to show others how these resources can be used sustainably according to their age-old wisdom.

In order to successfully implement this target, we must meet a double challenge: to recognize the need for reciprocity both with regard to Nature and among people(s).

ACTIONS

When taking actions, it is important to bear in mind that people are often most strongly motivated to take action when their own individual well-being is at stake. Hence the rationale of the actions that follow.

Educational

1. Bring about a shift in mind-set from seeing ourselves as “masters over” other people and Nature to seeing that we are integrally related with one another and the Earth System, and that our survival demands reciprocity. Please see the actions under Target 2.0.

Technological

2. Increase the capacity of the target groups to communicate more widely with the rest of the world through, for instance, access to the Internet, so that they can determine themselves how to integrate resources that are accessible among others through the Sharing Economy with their own cultural norms and insights to greatest effect. The UN System can organize courses via the Internet, given by those living close to the land for the benefit of all seeking to live and farm more sustainably.

Social

3. Create ways in which those with the knowhow and understanding of living in harmony with Nature can pass on their knowledge. For example, providing schooling for students from around their nation and possibly from around the world. They can teach "hands on" or also via the Internet and will require just remuneration for this highly specialized knowledge. This, in turn, would give them the necessary means to increase their food production, etc. as needed in ways that are in harmony with Nature, as well as with their own Nature-inspired cultures.

Legal

4. Bring to justice those attacking and appropriating what belongs to others, especially the target group, using a multi-faceted approach:
 - Show the harm they are doing to all people by attacking the target group. This can be done, for instance, by publicizing both stories about the wisdom and invaluable contributions made by the target group.
 - Publicize which actions are being taken by those pursuing corporate interests illegally - their monetary gain, the hardship and suffering visited upon the target group, the loss to humanity as a whole due to their actions, and to which degree the punishment for these acts is commensurate with their crimes. Powerful interests depend for a large part on the power and respect given them by potential customers, clients and people in general. Even the most powerful corporations and governments will be brought to become more socially responsible if they notice that their business or governance practices are no longer supported by the people as customers and/or citizens.
 - Bring those harming lives and livelihoods to justice through every possible channel. Ecuador, for instance, has laws that permit prosecution of crimes

against Nature under universal jurisdiction; many other parts of the world have laws that can prosecute those who harm a specific aspect of the environment. Also, there have repeatedly been attempts to introduce a World Environmental Court.

For laws that provide Nature with rights see: www.harmonywithnatureun.org. Where people(s) are harmed, the Human Rights Council can be brought into play, or in cases of genocide, the International Criminal Court.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality

Above (under 2.0 and 2.1), we noted the importance of using an ecosystem approach to bring about sustainable agriculture. The natural interactions of large numbers of plants and animals tends to boost productivity and production and create resilience while producing sustainable and nutritious food for the long-term. Permaculture is based on Nature's ecosystem approach where each element strengthens all others as it goes through its life cycle. It has been used for thousands of years and is now being rediscovered. Since in permaculture each element is nurtured from multiple sources, it is maximally resilient. Moreover, well populated ecosystems tend to help retain, fertilize and rehydrate topsoil, anchor plants and trees using Nature's own approaches, thus helping to protect plants and animals from the disasters caused by climate change extreme weather, drought, flooding and other disasters, while progressively improving land and soil quality. While permaculture requires us to integrate agricultural practices with all other development practices and considerations found in the local area - and this makes it more challenging to implement on a large agricultural scale - it is well suited to involving people individually or with the help of small town gardens to grow their own food, as well as to be used by larger growers. At the same time permaculture on a small scale has the advantage that people can have access to the types of food they need and want.

Under 2.1, we also recognized the need to provide food for many more people than are living today using the same available space. In fact, possibilities for food production abound everywhere where there are communities and individuals living and working: grounds around buildings, living spaces, along streets, and even rooftops can be utilized for efficient production. We can plant food-producing trees and food-producing shrubs amid decorative trees and utilize diverse forms of ground cover to feed populations. We can use the concept of plant communities which complement each other's nutrient and water utilization, sun and shade needs, root distribution and harvest times. In this way, the fact that permaculture is well suited to small scale agricultural production is an advantage. It increases productivity in areas where it is most needed.

There are numerous places where a variety of new sustainable forms of living can be explored. Green Tech, an exhibition that took place in Amsterdam in the Netherlands from June 12-14, 2018, is just one example. Ways are being explored of how to marry

the wisdom of the Indigenous Peoples and the information of science to contribute to the well-being of all life and allow movement from congested populations to smaller communities, while still having international business, social and economic connectivity and communication, eco-friendly ways of food storage that allows food to be stored longer, and available during the lean months. (See for instance: www.ecofriendlylink.com/blog/foodstorageproductstheeco-friendlyway/)

We can use technology as an enabler to distribute food, so that it reaches the beneficiaries sooner. There are driverless cars and drones these days. Perhaps we can eventually use these modes for food distribution to the areas where there is scarcity. Homeless and unemployed people can be better incorporated into the community by being given responsibilities to maintain and nurture the food production.

With regard to things we must still discover, Nature can act as an example for sustainable living. This is important because when things get too far removed from Nature, a separation develops between the goal of food production and caring for the needy or those in the most danger of devastation. The resulting insecurity is then likely to revert back to the presumed security that goes with making money instead of harvesting the fruits of our labours and caring for both people and Nature.

We will benefit greatly from moving with an easy flow, in which we also work and create with ease. When we start with an attitude of peace and love, we can let go of our frantic efforts to produce, consume and distribute and realize the deep connections we have both to Nature and our fellow human beings.

2.5 By 2020, maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed

As noted above under 2.1, genetic diversity is absolutely essential for the survival of all. Nature takes care of plant and animal evolution in its own time and pacing. The evolutionary wisdom of Nature in this capacity assures longevity and balance amongst all species. Mono-culturing of species is therefore short-sighted and limits survivability. And so, too, the cultivation of individual genetic strains from the perspective of human use can be destructive for the rest of the ecosystem. As discussed under 2.0, to limit the diversity of the ecosystem is ultimately destructive to the human population.

The management and saving of seeds is not just prudent - it is a measure of honouring and celebration of the very foundation of life. Life belongs not just to the humans or for humans, but for every animate and inanimate being on the planet. The technologies and systems geniused and utilized by humans is effective to the degree these serve the betterment of the entire planet.

Healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems provide or produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species and enable these species to grow strong through the diversity of other species they interact with. Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend.

Interconnected and mutually nurturing ecosystems also have the following advantages:

- because the genes have been created within a Natural context, they are sustainable and are less likely to have unexpected repercussions
- there are no strings attached to their use
- they can propagate naturally and do not require permits for use.

At the same time, it is important to bear in mind that international cooperation and investments in agricultural research, technological development, and even in agricultural productivity - whether in developed or developing countries - are not always constructive. If we think of how the "Green Revolution" that seemed so promising in the early 1970s has also had negative consequences in the long run, we realize that even when investments are made with the best intentions, these can backfire when Nature is not fully taken into account. In addition, there are many investments made whereby the investor gains at the expense of those who are meant to benefit. Now that international cooperation is increasingly available in our interdependent world, we have a choice who to work with, bearing in mind that it is important that we learn from the balance inherent in Nature while taking our own (nation's) needs into account.

Some questions we can ask:

1. Is the help being offered, by experts who are working in harmony with Nature? If not, it is quite possible that the help will have unexpected and unwanted repercussions. Indigenous Peoples, small-scale farmers, many intentional communities and those Civil Society Organizations and others that live close to Nature are increasingly helping to regenerate Nature and even offering their services internationally. (Examples www.earthembassy.org, Global EcoVillage Network, peer to peer help.
2. Which values do the donors espouse?
 - Is the help being offered exclusively for financial gain? For instance, are there strings attached, such as having to buy new seeds year after year, because the seeds are infertile?
 - Do the seeds take over from natural species thereby depleting the diversity of species in the area?
 - Is the aid made available in such a way that more money/resources are taken out of the surroundings of the recipient than are provided by the donor?
 - Does the use of the offered technology and genes allow the agriculture to develop freely or does the beneficiary become captive of the provider of the help?

Conversely:

- Do the seeds enrich the environment?
- Are the donors open to barter?
- Is alternative help available through the sharing/ participative/partnership economy?
- To which degree do those offering the help and collaboration also bring benefit to a larger context? Some businesses, such as cooperatives, are obliged to give both to the community where they are based and also to the international community, as a part of their Cooperative Identity. For this reason, these tend to provide aid that is balanced in terms of giving and receiving.

(See International Cooperative Association, <https://www.ica.coop/en>)

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks to enhance agricultural productive capacity in developing countries, in particular in least developed countries

When it comes to human connection with Nature, international cooperation can benefit from the input of technologically less advanced and at the same time more community-oriented cultures. For many innovations do not necessarily require a great financial investment and more technology is not necessarily better when it comes to the development of a more sensitive relationship with Nature.

ACTIONS

Two-way exchanges of know-how between developed and developing communities

1. Gather and promote the exchange of best practices from both technologically advanced communities and those living closer to Nature. Give credit to, remunerate and, where appropriate, upscale best practices.
2. Ensure that best practices with regard to the building and keeping of gene banks and the improvement of infrastructure are made available worldwide, including through the sharing economy. Reward those using a cooperative approach which can be up scaled. Publicity can be given using awards and prizes.

2.b Correct and prevent trade restrictions and distortions in world agricultural markets including by the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

Many countries have offered their concerns over trade restrictions in agricultural markets that potentially have negative impacts.

For instance, Canada emphasized the critical importance of improved transparency on export financing (which covers export credits, export credit guarantees and insurance programmes), agricultural exporting state trading enterprises (STEs), and international food aid. Canada also suggested reducing the current maximum limit on repayment of export financing, and that members should continue working on improved disciplines on international food aid, including a possible ban on export restrictions for food aid purchases.

Japan, with Israel, Korea, Singapore, Switzerland and Chinese Taipei, drew up a paper that describes the situation in relation to transparency and duration of measures. They said export restrictions impact markets and make them more volatile by reducing supply. This has a negative impact for both importing countries in terms of higher prices and greater food supply insecurity as well as the exporting countries themselves, where some groups lose income from the restrictions.

Singapore offered that prohibitions/restrictions lead to significant inefficiencies in humanitarian food assistance delivery by the WFP (World Food Programme); the result is increased amount of time to deliver food, increased risk of food being lost due to longer transportation, increased administrative, transportation and distribution costs, and ultimately fewer beneficiaries receiving food from the WFP.

These discussions are important and need to be continued and resolved with the ongoing intention of a sustainable world economy for a thriving, inclusive, sustainable planet.

2.c Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

Here universal access to the Internet would be useful. The technology is available and even countries such as land-locked developing nations, such as Rwanda which is still suffer from the consequences of a crippling civil war, have achieved this. The UN could train a few people from each country to help those in their respective countries who are (Internet) illiterate to use the Internet as a tool to search for ways of meeting their diverse needs. These national facilitators can then develop courses in their own national languages so that people from each area in their country can have their own facilitators to help all who so wish in local areas to access the Internet. This will provide a huge boost to local economies and to the tools necessary for food production, including knowhow regarding commodity markets, their derivatives, and facilitate timely information to market information.

HEALTH & WELL-BEING

SUSTAINABLE DEVELOPMENT GOAL 3:

Ensure Healthy Lives and Promote Well-Being for All at All Ages Targets

TARGETS

- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- 3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
- 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
- 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
- 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.
- 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.
- 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.
- 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
- 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
- 3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.
- 3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.
- 3.c Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.



EXECUTIVE SUMMARY

Nature is integral to human health and well-being. When we have a mutually beneficial connection with Nature, we have plenty of energy, feel happy, and our bodies, minds and psyche function optimally. When our connection with Nature is fragmented, we lose the energetic connection with the world around us and our social interactions suffer, conflicts flare up, epidemics can more easily take hold, and the economy suffers. So, besides the physical and mental health of individuals, the health of societies and economies are rooted in a healthy relationship with Nature. At the same time, the more our societies and economies lack sensitivity to the rest of Nature, the less Nature can support human health.

It is useful to bear the following principles in mind when integrating Nature in SDG 3:

- *Where possible, return to the natural state of association to the natural elements of life.*
- *It is important to maintain focus on the community as a whole, the country as a whole and the planet as a whole.*
- *It is useful to study the practices within the country and learn what changes need to be made and make them in such a way that sustainable health-giving practices are employed.*
- *It is vital that we place value on Health. Since we are all interconnected, humans, animals and nature, creating “Health” must include attention to all of these entities.*

Actions are recommended that can be taken with the help of education, law, and the private sector.

The targets stress:

- *The larger familial, social, and economic factors that influence maternal and infant mortality.*
- *The advantages and disadvantages of taking an allopathic versus a homeopathic approach to health in terms of cost, effectiveness, and their relationship to local conditions.*
- *The effectiveness and cost of building a local healthcare workforce.*

Finally, ways are discussed in which Nature can help us to develop more sensitive early warning systems.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Nature is integral to human health and well-being, for Nature and humans are inextricably one. The air we breathe, the water we drink, the minerals, plants and animals we eat nurture and revitalize each cell of our bodies and help to determine our life's energy, which in turn influences how we think and feel. So, the more we cultivate a state of vitality in Nature, including with our own bodies and minds, the more Nature “within us” and “outside of us” fosters human health and well-being.

When we have a mutually beneficial connection with Nature, we have plenty of energy, feel happy, and our bodies, minds and psyche function optimally. We tend to feel more benevolent and open to others, our well-being increases, inspiration and creativity can thrive with the result that both society and the economy tend to flourish.

When we lack minerals, fresh air or water, or these are out of balance, our life energy diminishes, we lack lustre and we might feel depressed. We lose the energetic connection with the world around us and our social relations become fragmented, conflicts flare up, epidemics can more easily take hold, and the economy suffers.

So, beside the physical and mental health of individuals, the health of societies and economies are rooted in a healthy relationship with Nature.

Inherent in Nature is a Will for survival. But Nature also exemplifies an inherent balance that is finely crafted to make all systems work.

For example, if we have a healthy pond in a clearing, there is a perfectly balanced system at play where the sun feeds the algae which feed the fish. Larger birds come to prey on the fish. Frogs and small birds keep the mosquitoes in check. The deer find shelter in the trees and forage on the grasses and plants that are fed by the pond. The pond is kept oxygenated (which feeds the fish, etc.) by a steady stream of fresh water from the creek running in to the pond on one end, and the out flow on the other on its way to the river, then on to the ocean. But should there be a wind and lightning storm, striking down trees which fall upon the inlet and the outlet of the pond, then the cycle that keeps the pond in a healthy state is disrupted. The pond water is trapped in a stagnant state. Algae will grow out of control, faster than the fish can keep it down. The mosquitoes will multiply, and the pond will choke out the fish. The system becomes stagnant and unable to correct itself, and eventually will dry up and die. The solution here is not to eradicate the mosquitoes, or even the algae, although doing so may slow down the current trajectory, but it will not cure the sick pond. The cure lies in the reversal of the original disruption – the logs blocking the free flow of fresh water.

When we apply this principle to human health and well-being, we would do well to consider whether it is more sustainably effective to treat whole systems, or whether to focus on the symptoms, or focus on both. When taking Nature into account in implementing SDG 3, we suggest a shift in perspective to help us make this decision, as follows:

1. Look at “wholes”.

- Where possible, return to the natural state of association to the natural elements of life – clean water, clean air, sunshine, hygiene, appropriate nourishment, and rest. For, as with the pond, first and foremost, our harmonious connection to the natural systems as a whole helps the prevention and curing of diseases. If every human were provided with these fundamentals, then it is likely our health would be better. In addition, there are of course many cases, as with a broken arm, for instance, where additional attention will be required to deal with individual symptoms.
- There are great advantages to focusing on the whole. Besides relating consciously to all-natural systems, it is important to maintain focus on the community as a whole, the country as a whole, and the planet as a whole. When health becomes the priority communitywide, countrywide and finally globally, many of the health challenges will disappear, because products and practices which weaken and destroy the immune systems of humans that are not contained by human-made boundaries are eliminated. The continued survival of the human species - and all species - becomes priority over short-term financial gain.
- While moving toward this global situation, it is useful to study the practices within the country, and to focus on the specific changes that must be made and then to use sustainable health-giving practices that are rooted in that nation's culture. Working in this focused manner will lift the immune system of the nation, its people, and all other expressions of life. Everything will be more resilient including people's minds, their ingenuity, creativity, and joy in living.
- Any one country - no matter its size - can be a leader on the planet in this way, and an inspiration to all other countries. Once harmful practices and procedures are terminated, region by region, specific health challenges will be easier to manage. Many will simply disappear. Everyone will have a higher level of functioning and this will give rise to an entirely new experience of well-being on the planet.

2. Change the perception of disease into a disturbance of the “whole” system.

- What we label as “Disease” is often the physical manifestation of imbalance and internal toxicity, both within an individual organism and in every type of system. We tend to look at “disease” as an external intruder that attacks what is otherwise healthy and whole. Seen through this lens, it seems that the way to restore health is through destruction of “the invader”. This can often be compared to classic case of “winning the battle and losing the war”. As with all forms of violence, there are no true “winners”. A key to improving health and promoting wellness is to be able to discern what to keep and what to throw out. We can learn from observing the wisdom of Nature and the wisdom of those who are living in harmony with Nature's systems. Nature, for instance, uses an ecosystem approach.

3. In addressing imbalance, we must first look beneath the surface:

- Explore the source of the imbalance and toxicity.
- Educate people about the damage of imbalance and a lack of harmony.
- Take steps to eliminate the imbalance and toxicity in the environment, individually and collectively.
- Part of what creates the imbalance in modern societies is our “mind set about work”. Shifting from survival mode to an easier flow and greater sense of joy about work will bring about greater health. We under-utilize our human ability to create a more positive proactive attitude. By encouraging people to be motivated by what they love to do, we are mustering powerful energies available to each of us for health and success.
- These shifts begin with awareness. Each individual must take responsibility for their own part. This will require education and encouragement about the possibilities and the potential harm of not doing so. People are best reached with sensitivity, compassion, and caring through their emotional core.

Education

Education in every context can help people to live more in harmony with Nature and in so doing to achieve the following:

- Letting go of old unhealthy habits which increase stress and disease.
- Embracing new healthy habits which lead to greater ease and well-being.
- Becoming good stewards; aware of, attuned to and harmonized with our own bodies and the planetary body.
- Eating and drinking what is natural and nourishing, getting adequate sleep and exercise, breathing fresh air, bathing in salty sea and sun, listening to harmonious music, dancing to the rhythms of Nature.
- Using natural products which keep our air, water and earth clean.
- Clearing the clutter and toxic materials from our bodies and our environment. Recycling allows Nature to reclaim and purify that which we do not need, such as trees turning carbon dioxide into oxygen and dead leaves adding nutrients to soil.
- Creating beautiful gardens and parks to expand beauty and build community to feed the senses, promote connection with Nature and each other, fostering relaxation and well-being.
- Following the natural laws of human biochemistry and physiology.
- Utilizing the medicines that the Earth naturally provides in a sustainable and conscious way. Recognize that the medicines of the Earth in the form of water, food, herbs, and healing arts such as homeopathy and acupuncture have been utilized and sustained life and health for thousands of years. And that these are in keeping with the principle of living in harmony with Nature.

ACTIONS

By and for the private sector

Here are some ways in which businesses can help to fuel SDG3:

1. Prioritize humanism over profit making, while maintaining a focus on performance and high output management.
2. Invest in the organization in such a way as to increase both resources and the health of workers.
3. Provide a balance between leisure time and working time.
4. Encourage life-long learning. This will produce increased energy as the student engages in activities that involve their whole being - their interests, enjoyment, creativity, involvement in what they are studying - providing hope for the future, opportunities in the workplace, increased life-expectancy, and an upward spiral as opportunities are used to the full contributing to a reduction in poverty and the promotion of prosperity in a changing world.
5. Promote the "risk-sharing society" with educational, sport and youth training that can develop autonomous behaviour and reduce dependencies at all ages and for all backgrounds.

Legal

6. Implement strict codes of conduct backed by enforceable laws to ensure that all have access to clean water and air, and that the soils remain fertile and the harming of any species of animals or plants can be prosecuted under universal jurisdiction.
7. Implement fundamental human rights.
8. Ensure that communities provide as many local health services as possible. Where services do not exist locally, connect to them on-line, as is increasingly done worldwide.
9. Ensure that all have access to the Internet so that when information, goods, and services are not available locally they can be accessed from afar, meanwhile safeguarding the stability and all-round provisions of local communities.

TARGETS SDG 3

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

This target has the focus to tremendously decrease the number of maternal mortalities by the year 2030. Here we expand upon that goal to not only keep these mothers alive, but to actually contribute to the quality of their lives from the understanding that their children are truly *our* children. They are our future and how we are with them makes a difference.

Here are some ways to decrease maternal deaths as well as infant mortality:

1. Create a secure, loving atmosphere for women who are pregnant and those who are in the process of giving birth.

2. Foster awareness and responsibility in people that children are the responsibility of all people because they are the future of our species. Therefore, the well-being of mothers and children are important to us all. Each person truly is responsible for children and can make a difference when this is realized. We can learn from the wolves who work together as a pack to care for wolf cubs. One female may have cubs each season so that all the adult and juvenile wolves can work together as a community to be sure these cubs which are the future of their species are safe and nourished. Community is absolutely essential to their survival and so wolves who are not even related to the pups will bring back food for the pups. The pups are the main focus and priority for the entire wolf community.
3. Maternal mortality rates are much higher in poorer countries. Toxic pollution is many times higher in these areas, along with contaminated water, untreated sewage, etc. Women in these regions often have to walk miles to fetch water and firewood; they breathe smoke from cooking fires; they have the stress of being poor with no safety net, and lack access to healthcare and birthing assistance as well as a lack of adequate diet. If they have access to healthy food, housing, and clean water in addition to the emotional support and services of the community this could make a world of difference for their lives and our future.

This is easier to do in smaller more intimate communities, as found often in developing countries where intergenerational family constellations and cultural and religious cohesion are frequently more intact than in large, industrialized cities. The synergy found in such communities is an invaluable asset.

4. Totally eliminate toxin-producing practices on the planet. This will further the cause and sustain any advancement in reducing maternal mortality and the amount of disease and death in all parts of the population. Also, the immune systems of all people will be elevated.

3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

The points listed above under Target 1—maternal deaths—also apply to infant mortality, including:

1. Creating a natural support system for pregnant women, and women with children such that they are taken care of.
2. The education of the “whole” child can be the focus of the mother, and the community, is of more concern than the mere survival of the child.

ACTIONS

Education, which will be different for diverse cultures:

1. Provide education for the preparation of what is involved in having children - emotionally, physically, socially, psychologically – such things as how to help a child grow into maturity and to develop their full potential, as well as instilling the understanding of the consequences when an infant dies, and what is needed for child bearing to be successful. Such education can best be given via media (such as podcasts, video, film and theatre) where the recognition of the consequences will be most likely to affect the subsequent behaviour of the parents.
2. Emphasize the important role of mother, father, family and community for an infant to fully mature.
3. Develop a new level of respect and care towards our women and children as being of utmost importance to the survival of our species and the joy of our future. If the community prides itself in its children, then all people would be involved and in a way the children would have many parents and many grandparents. Community members would see themselves as leaders and influential in the lives of the local children and therefore perhaps hold themselves to a higher standard to make a difference for the children and society as a whole.

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

In Nature, animal and plant species survive in a balanced give and take with the rest of Nature. Each species contributes to other species' shelter, food, protection, etc. Where imbalances occur, say through diseases, these can cause huge upheavals until eventually a new form of balance comes into being.

Humans on the other hand, have the potential to eradicate whole diseases. Take, for instance, the eradication of smallpox. The paradigm involves one species (human beings) in conflict with a series of others, most of which can and do mutate and then do "become resistant" to the drugs with which humans try to combat them.

Each approach has advantages and disadvantages. And humans have the luxury of being able to combine the two approaches.

ACTIONS

1. Fortify people and their living conditions and lifestyle in such a way that people are less susceptible to disease and human habitation is less accessible to disease agents.

Advantages:

- In developing countries where people are exposed to a myriad of diseases, those who are able to resist falling ill are often immune to a larger number of diseases than those in wealthy environments that are more antiseptic.

- To fully meet this target everyone's fundamental human rights would have to be implemented. While this requires a far greater investment of time, energy and finances, it would bring about much needed lasting change and a spurt in sustainable development while leaving no one behind.
- This target requires a deeper interspecies understanding to be able to fortify living conditions against disease agents and will bring human beings closer to living in harmony with Nature.
- This is an alternative to using pharmaceuticals that have been developed by human beings, the full impact of which is often not understood, and which are moreover often known to be toxic to humans and the environment.
- People will be inclined to use forms of medicine that are more in harmony with Nature, such as naturally wholesome foods, healing approaches that align the body and mind as a means to achieving greater physical, mental, and spiritual health and well-being, and increasing natural resistance to disease.
- This form of action would be in harmony with Nature where species survive because they are strong and well adapted to the rest of Nature.
- It would not require further extinction of species.
- It would prevent the ever-escalating resistance and virulence of harmful infectious organisms.

Disadvantage:

- Because this approach requires involving all people and sweeping social and economic changes, it will take time to implement. While research and development of pharmaceuticals takes much time, the time involved potentially can be shorter during the period required to bring about the required social, economic and other changes.
2. Allow and promote widespread use of natural herbs, nutraceuticals, homeopathics, and less invasive methods of health and wellness care.

Advantages:

- Natural medicines and practices have been in use for thousands of years, far longer than modern day pharmaceutical drugs, and have proven to be effective and less harmful than the majority of pharmaceuticals.
- Natural medicines come at a much lower cost, making more affordable for widespread use.
- Natural medicines and practices work in harmony with the human (and animal) physiology, promoting health and wellness in the long run by correcting underlying imbalances and restoring proper function, unlike pharmaceuticals which tend to ignore underlying causes, merely masking the symptoms, often creating a deeper-seated disease state.

Disadvantages:

- Natural medicines and practices have very low profitability, making them not of interest to large companies to do research with them or to market them.
- Sometimes Natural approaches require diet and lifestyle changes as well, making them less appealing to those unwilling to make the changes.

The best option would be to combine both approaches.

1. Create pharmaceuticals that can eradicate the organisms this target aims to combat by producing drugs that can potentially eradicate their whole species; and being prepared, if the disease re-emerges, to then develop new drugs to combat the new form of the disease agent.

Advantages:

- It could be successful. Human beings have eradicated smallpox, for instance, although it is also argued that it was a self-limiting epidemic regardless.
- A huge industry is maintained that produces both employment for large numbers of people and helps to stimulate economies.

The pharmaceutical industry is maintained in two ways:

- Making medication as long as they are effective and
- Developing new medication as disease agents become resistant.
- A percentage of lives could be saved.

Disadvantages:

- Where the disease agents are bacteria, these are likely to mutate, since there is an instant transferal of knowledge when these are in contact with one another.
- Not everyone will have access to medications or be able to afford them.
- Species loss is an issue: We are transgressing the planetary boundary with regard to the rate of biodiversity loss. The question arises whether the approach of eradicating further species is wise.
- In Nature, with the exception of humans, one species does not eradicate other species. Nature thrives on diversity.
- There is a tendency for the companies that manufacture pharmaceuticals to put unnecessary and harmful ingredients in their products, such as the adjuvants in vaccines, thus rendering a good medicine extremely harmful.
- Agencies and companies that manufacture pharmaceuticals often see great profits in the products they produce, therefore fast-tracking products without adequate safety or efficacy testing, utilizing scare tactics to promote widespread use.

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

We often see Nature as allowing those plants and animals to perish that are weak. In fact, if we take a closer look, we find that when it comes to species, each one has its individual strengths and weaknesses and that those that survive have found a niche within the network of life where they perform an unique and important function within the systems of Nature.

As people, we also recognize that physical weakness in humans is frequently offset by emotional, mental, social or spiritual strengths and the role they play in their relationship with other human beings that is irreplaceable.

Increasing the resilience and decreasing the challenges for those who have a non-communicable disease or are so-called “disabled” in any way has great benefits for all concerned in that all who relate to the disabled person will then also be able to benefit for a longer time from what they have to offer.

One reason why some people succumb to a non-communicable disease and others do not, is, besides heredity, the amount of resilience they build up through their caring connections with their environments, especially in very early childhood.

ACTIONS

1. Strengthen the foundation for health and resilience within the person who has the disease through unselfish love from family and community members.
2. Recognize that those who are disadvantaged in one way often have counterbalancing strengths in other ways that bring great rewards to caregivers, employers, and others they come into contact with. For instance, people who are ill and/or have other disabilities often have greater compassion for others who are also disadvantaged. People with Downs Syndrome are known to bring great love and acceptance to those they are with. People who are autistic can sometimes stand out through their intellectual brilliance.
3. Promote bonding in early childhood, since that shows a child how to connect and helps it recognize and appreciate what brings fulfilment between people. This can best come from those who bring up the child and the earliest possible relationships.
4. Empower the child to develop its own potential.
5. Provide training in skills that enable each person to develop positive connection within their communities. This integrative approach will moreover enhance mental health and well-being.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

Addictions consist of the interaction of a vast array of factors. They have physical, mental, psychological, heredity, social, economic, and spiritual causes and

ramifications. Human beings often use and “push” drugs to make up for emptiness and lack of fulfilment.

Despite their complexity, there are many diverse approaches within different cultures that are actually helping individuals to overcome these complex diseases.

Nature does not encourage addiction. For among many other things, it involves over consumption, and overconsumption by one element of an ecosystem is detrimental to all parts.

ACTIONS

Education

1. Promote a global sharing of ways of combating addiction.
2. Promote forms of education that allow people to touch on the natural well-spring within to bring satisfaction into their lives and to develop their own potential. Here student-centred education can be an invaluable tool.
3. Create community and connection.
4. Foster and reward ingenuity and creativity.
5. Teach to feel and express emotion in a balanced healthy way.
6. Teach to be aware of and release shame.

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

Although animals travel vast distances for feeding and breeding purposes, their everyday activities of foraging take place as they travel. So, in that way, everything is “localized”.

More and more humans commute over long distances for work and much of that is by road. Ford's goal of one car per person has not even been realized in the USA and already the great limitations of road travel are becoming apparent. All the advantages of traveling by road are detracted by the prevalence of road accidents, air pollution, wasted time spent in traffic jams and in commuting that can be used more constructively during commutes by bus and train. The high volume of gas-powered vehicles also creates a negative effect on human and Nature's health, and lessen the capacity to survive brought about pollution, climate change, and the conversion of viable land into paved roads and highways.

There are increasing efforts and opportunities to encourage people to limit their activities to their local communities. This would decrease the number of cars on the roads and thereby the number of global deaths and injuries from road traffic accidents.

ACTIONS

1. Reduce the numbers of cars on roads by
 - Increasing the opportunities to work from home.
 - Creating more self-reliant, self-sustainable, self-contained communities where people participate in their daily activities close to their home.

- Implementing technologies for small ecological vehicular transport for within these communities for short to moderate distances.
- Encourage flexible work/life balance to decrease stress-related distraction and hurried impulses.
- Create systems for mass transit that are convenient, ecologically sound, and enjoyable.
- Implement effective campaigns to promote the benefits of public transportation, including its importance for combating climate change.
- Increase the capacity for people to work peacefully on busses and trains with WIFI available.
- Implement and improve on current technologies within the vehicles for hazard and distraction detection.
- Create flexible working times so that people commute throughout the day and not all at the same time, making it easier to find a seat when using public transportation, and to decrease the number of private commuter cars creating “rush hours”.
- Provide bonus travel for commuters who use public transportation, so that they can take their families on free trips on days off or in the holiday season as a reward for being a regular user of public transportation.
- Have snacks on board, and ways in which people can meet and get to know fellow commuters better. Some people take busses and trains from the same place of boarding daily and it can be a pleasure to meet and have a brief chat with the same people every day for those who are inclined that way.
- Provide tax incentives for those using public transportation and able to prove it by, for instance, sending in their used tickets with their tax returns every year.
- Discourage use of cars through increasing the taxes paid on fuel.
- Require high fees for carbon emissions and use the resulting income to expand the public transportation system.
- Build public opinion in favour of public transportation so as not to create a “privileged” class who by virtue of their financial capacity might use road travel and thereby aggravate social divisions.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

In Nature, there are natural constraints to overpopulation of one species in their relationships with others. In human society we are experiencing similar constraints, such as poverty and the inability to provide quality care for each member of society. At the same time, we do have ways in which people can pull together to achieve common goals.

It is increasingly accepted that access to information and education and sexual and reproductive health-care services, including for family planning, are critical for the empowerment and education of women and girls to participate at all levels of society. This, in turn, benefits the society as a whole. Among other things, it has a significant effect in decreasing the rates of population growth, particularly in poor regions where population growth tends to be the highest.

At the same time, while governments have agreed to implement this goal, it is likely that the implementation of this target will meet with resistance in some parts of our societies; the numbers of children born and the sex of those allowed to survive in a family depends on the culture and religion of the family and is often influenced by considerations of economic and social power. Women are often prevented from access to sexual and reproductive health-care services by their husbands or partners, since fertility and virility are connected in the minds of some. Here education can play an important role.

ACTIONS

1. Create a shift from a society where individuals are left to fend for themselves to one where fundamental human right are implemented and the society as a whole ensures that all can live fulfilling lives.
2. Provide education in the principles and advantages of sexual and reproductive healthcare in schools from an early age and show the disadvantages that occur when that is not put to good use.
3. Ensure that physical and verbal abuse and intimidation of women is reported by all who are aware of it - neighbours, teachers, medical personnel and social services.
4. Ensure education from the first school year shows boys and girls to be equal.
5. Provide education at schools to show the advantages of societies where there is gender equality within families, societies, and the economy.
6. Provide media programmes that show the advantages of gender equality to all members of the family.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

Creating a program which provides universal health coverage for all people globally would have a number of advantages.

Above all it would lead to a concerted global effort to do away with agents that create diseases that cannot be contained through national borders. For instance, many diseases begin in one locality and spread from there through contact between people internationally including via the transportation systems.

Also, many diseases are a result of toxins in the air, water, land and food sources. Approaching this as a part of a global effort would do much to decrease this hazard.

The more cared for, respected, and clean the environment, the less environmentally induced illnesses occur. The more knowledgeable people are about hygiene and how optimal health is achieved and maintained worldwide, the fewer diseases we shall have to contend with, and the more affordable healthcare can be.

One barrier to universal healthcare is often seen as its affordability.

Here are some examples of how Nature can help alleviate this problem:

The human body/mind/spirit can be significantly regenerated and strengthened where people are open to being infused by the health-giving effects of their natural environments. This has among others the following advantages:

1. One is aligning with natural systems that have developed self-healing capacities since the beginning of life.
2. One is aligning with systems both inside and outside the body which together form forces more powerful than if we treat just a single aspect of a person's health.
3. Although allopathic medicine clearly has many important benefits, natural and more holistic forms of healing can be used both in tandem with allopathy and in its own rights for a large number of conditions. The latter tend to be more cost effective than using methods that have required many years of R&D, etc. Here are some ways of increasing the proportion of natural healing used both by the patients themselves and with the help of healing professionals:
 - By encouraging "patients" to relax in green spaces, by streams and lakes, and in parks in cities. These exist in many parts of the world and such recreation is for many low in cost.
 - By using forms of medicine that align the body/mind/spirit with its natural connection to natural forces. Such approaches are used widely in much of the world. Here are some examples:
 - Approaches to medicine that open the meridians – the energy channels of the body (acupuncture, acupressure, shiatsu, polarity, etc.) - and thereby allow healing of the body/mind to occur through opening the systems that are in harmony with those of Nature as a whole.
 - Approaches to mental health such as meditation of all sorts, or diverse forms of yoga, the martial arts, etc. that induce similar positive effects.
 - The use of physical/spiritual energy of the healer to heal the patient (hands on healing, distance healing, polarity, attunements, etc.) can have similar effects.
 - Diagnosis that uses the natural (often unconscious) energetic response of the patient's body to specific substances to establish the effectiveness of that substance in healing him/her (such as Touch for Health).
 - Natural forces, such as solar energy, healing waters, herbs, hydrotherapy, nutrition, are also frequently used in healing.

- Homeopathy has been a prominent, low cost highly effective medicine in use all over the world over a couple of hundred years.
- Many other ancient healing practices that are still in use such as Ayurveda.

The great advantage of natural approaches is that:

- The treatment costs little or nothing except the fees of the healer. Even though the training of such healers can require at least as much time as do those who use allopathic medicine, the latter uses more expensive diagnostic instruments and industrially produced pharmaceutical drugs and are moreover often more expensive than many people can afford.
- Natural approaches typically avoid or minimally utilize the skyrocketing costs of R&D, industrial manufacture, the cost of middle-men and advertising.
- Natural approaches can be used in disaster areas which often cannot be reached when the disaster first strikes and immediate first aid is required.
- Many of these approaches to healing have proved effective over millennia - much longer than allopathic medicine.

There are some industrial countries where such treatments are discouraged or not well understood. Here are some possible reasons:

- They use intuitive capacities as an integral facet of holistic mental functions for diagnosis and treatment. While holistic approaches to healing are fast being recognized in the West, they are still less well developed through educational institutions in industrialized nations than linear thinking; and so, their value is less well recognized there.
- Pharmaceutical companies play a dominant role in most industrialized nations and are large and financially powerful entities that have little interest in anything that may change or affect their status and strong hold; they will resist and fight anything that threatens their financial interests.
- Those within the standard western model of medicine are not trained to have the understanding of how these natural approaches to health, wellness, healing, and alternative medicines work, nor do they have the experiences with it to know the effectiveness. Further it is has been proven to be human nature to resist that which we do not understand.
- This carries into the general “consumer” population who rely on their medical professionals who are not informed on these modalities, and therefore cast negative aspersions colouring the popular opinion of those who would benefit from natural healing modalities.
- It would require extensive re-training (actually a whole paradigm shift), within the Western medical community – including pharmaceutical companies,

medical doctors, hospitals, etc., in order to embrace and reframe how and what they do to include natural healing modalities.

- Utilizing natural remedies and healing traditions require much less research to develop and so fewer people would be employed for research and development in the ways that are currently dominant. This could contribute to a rise in unemployment, although new jobs would also be created.
- A decreased monopoly of the Western pharmaceutical industry in industrialized nations and worldwide would cause somewhat of a reorientation of industrialized economies, given the powerful role that they play.
- Using natural approaches requires education and training and thus a reorientation of the curriculum of medical schools.

The solution to the above contrasts would be to use the best of both orientations by creating internationally recognized medical accreditation for medical professionals having received their medical qualifications at schools and universities that teach either allopathic or naturopathic approaches to medicine and healing, or both. This would be a natural step in a world where medical services are already being provided internationally with the help of the Internet. Pay parity should be provided to medical practitioners - both allopathic and naturopathic.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic and exponential consequences.

Ever increasing population and focus on individual wealth and control are changing the conditions on Earth that are necessary to support human health and wellbeing to conditions that do not support health and wellbeing - for any species on the planet. Brilliant inventions and advancements in technologies such as the combustion engine, pharmaceuticals, and plastics revolutionized our transportation industries, manufacturing, packaging, and medicines, changing the landscapes of our minds, habits, and the planet. While there is so much good that has taken place through human breakthroughs and inventions and practices, it has been done with little fore thought to the unhealthy consequences in the way of pollution, contamination, and depletion. The unprecedented pollution of our air, water, and soil is altering the very fabric of life, in some cases irreversibly, causing grave illnesses, and even death. The changes necessary to stop these harmful practices will require the effort and commitment of every person, and every nation.

We needn't villainize individuals or inventions, but we do need to diligently scrutinize, re-evaluate, and re-create what we have done and move towards increased sustainability for all life. We can evaluate results and adopt/subsidize practices which nourish rather than harm life on the planet as an end result. For example, on one hand

plastic packaging is utilized to keep food products from contamination and spoilage, but on the other hand has created great damage to every aspect of our health and the health of the planet and all its inhabitants.

Teaching our young to attune with Nature and their own intuition is essential to healing human experience and to cleaning up our air, water and earth. Humans need to learn to be in tune with and support practices which support all life and quality of life. This means we need to shift our focus from independence, wealth and position to our web of connection, interrelatedness and interdependence.

Another essential issue in cleaning up our water, air, and soil is shifting priorities and stopping practices which pollute and poison our air, water and earth. All nations need to stop supporting and protecting the interests of corporations creating hazardous chemicals and polluting the planet, including pharmaceuticals which are finding their way into our precious water supplies, and harming. Politicians and policies need to stop protecting big business and blocking creative innovators who present healthy solutions but are focused on increasing wealth. Policies and practices need to focus on supporting and subsidizing those implementing sustainable practices leading to the health and wellbeing of all life.

It is important that communities and governments focus instead on supporting and subsidizing individuals, organizations, and corporations that are developing practices and products that are in tune with Nature and beneficial to the planet in order to clean up our soil, water and air. For example, incentivize organic and biodynamic farming instead of monocultures requiring heavy herbicide and pesticide use, encourage lifestyles and natural medicines that support wellness instead of pharmaceuticals that are ending up in our water, and packaging that is truly biodegradable, reusable, or recyclable. This is a time to clean up the pollution and contamination that exists, end further polluting and contamination, as well as to build up the health of the water and soil for increased nourishment of all life.

This is a global/planetary issue. We are currently weakening all life on this planet. It will take the cooperation of all peoples, incentivizing and adopting practices which clean up and nourish the air, water and earth to begin to increase health and wellbeing for all life sharing this earth. Sharing with each other those practices which are effective and sustainable and working to assist each other and implementing what is working to sustain and nurture all life on this planet.

ACTIONS

1. Levy heavy fines for entities that are polluting or poisoning air, water and earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
2. Require entities with infractions to suspend any business until they have executed a full clean-up effort.
3. Incentivize Organic and Biodynamic farming, solar power, wind energy.
4. Subsidize and promote natural healing practices and medicines.
5. Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.

6. Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
7. Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
8. Create environmentally friendly packaging.
9. Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

Above, under 3.3, we discussed advantages and disadvantages of choosing *allopathic* as opposed to *naturopathic* approaches to combating disease. Each one has advantages and has had its successes. To ensure that the preference for one form or another is based on real merit as opposed to the profit motive for some, here are some actions that can be taken:

ACTIONS

1. Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
2. Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
3. Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.

4. Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
5. Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.

Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

Human health is multi-faceted – it has social, economic, psychological and spiritual facets, all of which have a significant impact on physical health. If all facets were brought into play to foster human health and resilience, the physical aspects would play a much smaller role than they do today – especially in the western industrialized regions. There is great advantage to societies providing more choices with regard to the types of health care they can best use. Offering a balance of cost options is also prudent. For instance, the cost of most pharmaceuticals can be beyond the financial means of many individuals and are often based on a model that supports lifelong dependency. For those who choose a more nature-based approach to healthcare which is based on a model of reversing illness through the support of wellness, can enjoy healthy outcomes typically at much lower cost.

The greatest resources of a nation, city, town, or family are the natural resources of that area, and the people that live there. A community's health is very much influenced by the degree to which the population lives in harmony and respect for its natural as well as natural resources. It is advantageous to build local healthcare workforces based on local cultural and indigenous knowledge. Likewise, in the current exciting and rich time of diversification and cross-acculturalization, there is so much to be gained from the sharing of health practice knowledge, methods, and medicines.

While the establishment of professional standards will be extremely important in all aspects of medicine and involve costly lifelong learning in many cases, combining approaches to medicine (as mentioned above) will decrease the overall costs and increase effectiveness.

These diverse approaches to human health should be made available to people along with, as necessary, the "Western" approaches that hold sway in many countries today. This larger choice of healing modalities will decrease the cost of people's healthcare since many will opt for less costly approaches that implement a multi-faceted form of health care. Such a broadening of recognition that other forms of healing are relevant will also give legitimacy to healing modalities used in developing countries worldwide.

Expanding the national health industry to embrace practices indigenous to that nation as well as others will provide jobs and also a niche in the market for developing countries. This can also be of interest in industrialized nations where people are increasingly looking for alternatives. It could help to free developing countries from domination by others and place them more on a par with the health industry in wealthy nations.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby save the costs of health-care provision.

ACTIONS

1. Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
2. Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
3. Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
4. Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
5. Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
6. Recognize that there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
7. Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.

8. Respect, honour, and allow the use of healing modalities indigenous to that area.
9. Elevating-the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
10. Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.
11. Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated.

3.c Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Early warning systems are available in the shifts in subtle energy systems of Nature. Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timelier. Universal energy systems are always in flux. As human beings, it is to our advantage to learn to differentiate between healthy and necessary energy shifts, and those which are in response to human generated changes to natural systems.

It is critical for human beings to take responsibility for the shifts taking place due to human influence that may be detrimental to other aspects of Nature and humans alike. This will empower people to avoid human-generated catastrophes. It is important to respond to natural shifts in ways that maintain what is healthy for the earth, instead of blocking it.

At this point in time, we are well beyond the point of early warning signs of national and global health risks. The Earth is more than capable of providing enough food, water, and shelter for every human being, even for the presently large and ever-growing world population. And yet, people are starving, deprived of clean and plentiful water, suffer and die from preventable diseases due to poor sanitation and nutrition. These problems are even occurring in developed countries where you would think they would not. This is compounded by the ever-increasing rates of chronic illness caused by lack of exercise, over-consumption of processed foods stripped of nutrition and laden with chemicals toxic to the human body, toxins in the air we breathe and water we drink, and the overuse of pharmaceuticals and antibiotics. All these things have an immediate impact on human lives, but also are impacting the natural environment and cycles of life – the insects, the animals, the plants, soils, microbes, and fish in the seas – all of which we are also dependent on. We no longer die from old age; after years of suffering with chronic diseases, our populations die from heart disease, cancers, Alzheimer's – diseases resulting from long ago bypassing the warning signs, only to continue with detrimental actions.

Every SDG speaks to the need for sustainable actions. These have been developed in part as a response to not just the early warning signs, but to the life-threatening results consequences we are seeing around us every day. This target is a like a final call to action to wake up and see how we have been contributing to our own demise, and to take swift, global, Nature-loving responsibility to correct our trajectory, reverse our damages, refresh our relationship to Nature and to each other, and to restore, renew, and recover the exquisite perfection of our home, planet Earth.

GENDER EQUALITY

SUSTAINABLE DEVELOPMENT GOAL 5:

Achieve Gender Equality and Empower All Women and Girls

TARGETS

- 5.1 End all forms of discrimination against all women and girls everywhere.
- 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.
- 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.
- 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.
- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed, in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.
- 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.
- 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
- 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.



EXECUTIVE SUMMARY

This report discusses best practices for achieving gender equality and empowering girls and women through the integration of women and men as whole people, each with their own vital role in society. The document discusses ways in which this integration can be reinforced through legislation, education, and active participation by both women and men to end discrimination against women.

Target 5.1 describes violence against women and girls as a systemic issue where people at all levels and all sectors of society, often in secret, derive feelings of satisfaction at the expense of women and girls benefit. This document offers a variety of actions to change this system through increased exposure, not only to the pain and suffering it causes but also through increased exposure of all those who benefit from these abuses. A number of best practices are enumerated.

Harmful practices against women and girls can be seen as an anomaly in Nature. This report proposes actions that will enable powerful natural law to reinstate itself. If, for example, women's work in caring for the home and family is to be valued, its actual value to all concerned must be recognized. A number of actions are proposed to help accomplish this.

The Internet can be an invaluable tool to enable women to have full and effective participation in leadership positions, helping to bring about the required changes in human socio-economic structures. As well, increase education is the key to giving women access to sexual and reproductive health and reproductive rights. Targets 5 a, b, and c provide lists of best practices to implement this goal.

GOAL 5

Active Gender Equality and Empower All Women and Girls

There are strong natural evolutionary forces working inside of the natural order and within people individually. These are constantly encouraging humanity to form a well-integrated global community in which all can come into their own, including both men and women. This evolutionary process has been in evidence since the Big Bang with the development of matter, life, new species, and, ultimately, human beings.

At this critical planetary juncture, humanity is attempting to come into a new, integrated form through these same evolutionary pressures. One of the strongest evolutionary forces now coming to the fore is *gender equality*. If humankind is to create a sustainable future, there must be far greater understanding and valuing of the crucial role that women and girls can play in all aspects of maintaining and sustaining our species. This increased valuing of women's roles can be reinforced through:

- Legislation and education on the importance of women inside the family as well as within a society at all levels; and
- Active participation by both women and men in this movement to end discrimination against women.

When we look at Nature, we see clearly that females of the species are powerful forces to be reckoned with. Their power is derived from respect rather than fear. There is nothing more dangerous than an animal in a state of fear. Fear engenders aggression

and inhibits compassion. In the "human kingdom", power is often obtained through fear-based tactics.

To empower boys/girls, men/women, we need policies and programs at all levels, in addition to laws, that foster mutual respect rather than fear. Females and males have different biological imperatives, and these are critical to the survival of the human species. Humans can acknowledge and celebrate these differences, without judgment, rather than use them to diminish or control either gender.

Fear is used as a means to achieve a variety of ends. These include social dominance, power over others (men over women and boys, women over men, etc.), or as is often the case when it is a matter of rape, to relieve feelings of inadequacy or suppressed anger and frustration. Such causes require a multidimensional approach, which will bring to the fore the value of each person individually and to take away the focus on gender and sex.

While sex has, on the one hand, a biological function, the stark definition of males and females in a species does not have to be extended to the role an individual play socially, be they male or female. In Nature, depending upon the species, males and females often share or exchange roles when it comes to nurturing the young, gathering of food, and guarding against predators. Male and female artistic capacities of colour display, home building, dancing, etc. - both in humans and in other animals - speak to the senses of all concerned and go far beyond the function of procreation. Life within Nature is, if anything, intricate, complex and multidimensional, as are the roles of the males and females in various species. This is also the case in diverse human cultures where in some, women tend to take on the nurturing role of staying at home and caring for the family, while the man ventures into society as the breadwinner. In others, women take on hard physical labour like working in the fields, making and mending roads, or being the breadwinner while men stay at home, sometimes as househusband. The subtle differences between human beings rather than the stark contrast between two sexes is further emphasized by the activities of the LBDT movement. Recognizing and deeply appreciating the beauty of subtle differences between people is essential if equity between sexes is to be realized,

The Imperative to Balance Power Differentials

In the human species, females are often subjugated to males through socio-economic, religious, cultural and psychological structures. The more girls and women are stunted in their unique personal development, the more the family, community, nation and the human species suffer, as does Nature herself.

Given the biological role of their gender, females are often attributed (exhibit) qualities such as receptivity, nurturing and the need to foster connection and cohesiveness. While these attributes exist in both females and males, they have been devalued and lost to some extent in both genders. The increased tendency to devalue these important nurturing attributes can be explained in part by their negative association with "females" and "primitive peoples".

With the loss of what was considered feminine characteristics, the cohesiveness between people has diminished. This, in turn, has led to a range of problems, including

further fragmentation and cut-throat competition, destruction of the environment, and the loss of nations' young people to terrorist organizations.

Achieving gender equality and empowerment for all women and girls will require a paradigm shift - a new perspective that values all beings regardless of gender. This will mean a change in education, a shift in media depictions of females *and* males as well as new policies that support this shift.

By creating gender equality and empowering both women and girls, we can help to advance the full development of the human personality in both females and males, while fostering global community in which new and meaningful bonds can be formed across existing geographic, cultural, economic and gender boundaries. This will enhance rather than undermine our globalizing world.

It will help form more humane and nurturing situations in schools, organizations, corporations, communities, nations and our world as a whole. Once girls and women have been empowered to develop their own feminine characteristics and are respected in that role, both genders will be liberated to express these traits. At the same time, the cohesiveness between people will help build a human society that can live in greater harmony with itself and with Nature.

ACTIONS

1. Educate all people on the essential purpose of these gender differences.
2. Foster insight and appreciation for the uniqueness of individuals within both genders.
3. Organize informal mixed-gender groups, in which members switch off positions so that all develop an understanding and respect for the different perspectives of each gender.
4. Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
5. Educate through formal education and via media and diverse forms of sports and entertainment), on the essential purpose of gender differences at the biological level emphasizing that these do not necessarily extend to other contexts.
6. Foster insight and appreciation for the uniqueness of individuals within both genders.
7. Organize informal mixed-gender groups, in which members switch off positions so that all develop an understanding and respect for the different perspectives of each gender.
8. Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
9. Implement the Universal Declaration of Human Rights (UDHR) 26 (2), the development of the whole human personality, both legislatively and via the curricula of all formal educational institutions. This will empower girls and women in their relationship to men and boys and eliminate the need for males to forcibly subjugate females UDHR 26 (2) will require:

- Inner development of our faculties, including intuition - which is the human umbilical cord that connects each individual with Nature - and the capacity to be aware of feelings both within ourselves and others.
 - Development of skills in peaceful assertiveness and training in one's individually chosen profession.
10. Develop forms of education that foster intuition, including:
- Reflection and meditation, which opens the receptive aspects of the mind.
 - Artistic activities that afford people a sense of wholeness and involve both genders in generating creative projects to foster innovative thinking and new perspectives.
 - Learning through socially relevant group projects that encourage people to act in keeping with their own strengths, become team players, and work for the betterment of society
 - Learning to communicate with Nature, which requires self-awareness and deep listening for what Nature wants to communicate in order to develop harmony with the Natural Order. (For more detailed information on education in communicating with Nature, please refer to: *Best Practices on Integrating the Environmental Perspective into the Implementation of the Sustainable Development Goals: SDG 4.*)
11. Foster education and experiences that connect humans to Nature.
- Model respect for the interconnection of all life.
 - Develop programs that value all life forms.
 - Teach discernment in balancing respect for others with needs of self.
12. Develop curricula that teach:
- The ability to balance gentleness and acceptance with strength.
 - The distinction between aggression and assertiveness.
 - The value of welcoming each new being with curiosity, wonder and awe.
13. Create education, policies, entertainment and technology that empower individuals to share their unique gifts with the world regardless of gender.

TARGETS SDG 5

5.1 End all forms of discrimination against all women and girls everywhere

Boys and men also suffer from discrimination against women. In fact, past inequalities create confusion and challenges for *all* children today. Addressing the situation by focusing solely on equality for girls/women maintains the premise that boys/men are treated ideally and that we should compare the treatment of girls/women with the treatment and opportunity for boys/men as a way to achieve equality. This approach keeps us in continual conflict since the basis of the problem for women originates from an underlying foundation of inequality, wrong-doing and blame.

Rather than trying to fix a broken system that is not helpful for either gender, it will be more effective to create a new way for people to view *all* children, whether girl or boy, honouring each one as a precious new member of our species with untold qualities and gifts. This new thought movement can be introduced by national leaders, teachers and community leaders to increase awareness of the importance of the Planet's children.

With this awareness, people will seek out the unique characteristics of each child and take pride in being a part of their careful development. A community as a whole truly can raise a child. Changing our view of children so that each is considered "our own precious child" will give them the freedom to blossom. In a system that values *all* children, gender inequality cannot exist. Considering the brilliance and adaptability of our human species, this is a real possibility.

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

Violence against women is rooted in fear, rage and feelings of powerlessness. Meeting violence with more violence is not the answer. We can meet this violence with peace, love and compassion—a *"fierce compassion" that sees and understands the reality of what is and sets an intention to shift to greater love and compassion*. This will require females and males of all ages to join together. Violence against women is not a "female issue". It impacts all of us. Males must, of course, play an active role in this shift.

The basis for ongoing trafficking and other types of exploitation is intricately related to economics. If there were not buyers, there would not be sellers and all those with a role to play in between. And conversely, if it were not for sellers there would not be buyers. As it stands, even some parents and other family members participate, thinking of their girls as possible money earners for the family in these ways. In many cases, these families' actions are based in desperation for survival, but such practices are now increasingly common when survival is not the reason. It is a total system that must be addressed as such. While partial solutions can be helpful to provide immediate counter measures, ultimately the entire system must be changed to bring about a final end to this violence against girls.

Real change is only possible by dismantling the system. The operators who work as middlemen/women are the foundation of the business. They have powerful structures, which protect them from being affected by any campaigns to fully end these operations. They often are well-respected people and leaders who view trafficking and exploitation as simple business ventures. They fail to appreciate the pain they cause and instead focus on the money they make. Breaking down these systems will require transparency in bringing these leaders' involvement into public awareness. This is key to solving this issue and, going forward, to creating a new way of viewing our children as precious gifts rather than financial resources, as suggested above in 5.1.

ACTIONS

1. Work to understand the economic drives of those participating in the system that perpetuate violence against women; implement alternatives for those who contribute out of perceived need.
2. Stop promoting violence in media, advertising, and play.
3. Model peace and mutual respect in books, magazines, TV, movies, games.
4. Teach problem solving, conflict resolution, mediation, and non-violent communication.
5. Organize a worldwide peaceful march in support of eradicating violence against girls and women. The communal energy released in this process could be a powerful force in creating change.

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.

Love and appreciation of each woman in her own right and for what she can contribute to the wellbeing of a whole community/society is the true basis for change. In Nature, individual species are able to survive and thrive only to the degree that each contributes to the whole and is nurtured by it.

In our human society harm of women has brought humanity out of sync with the laws of Nature practiced by all other species. It is important to remember that disempowerment and abuse of women is kept alive by *both* women and men.

Change has begun through the adoption and implementation of SDG 5 and targets 5.1-5.6 and 5a-c) on gender as a global standard and policy. As a next step, the recommendations made in this report should be translated into enforceable national and local laws.

But durable change will only take place once these predatory behaviours have truly been eradicated in both men and women and all can experience for themselves the benefits of a society where both genders (and indeed all people) can come into their own without being stunted by violence.

At that point,

- The natural laws will be able to operate fully within the human species; and
- The resulting experience of benevolence and well-being that will make genital mutilation and forced marriages unthinkable.

Harmful practices such as child, early and forced marriage, and female genital mutilations are possible because of a belief that female children and adults are a commodity with potential value to influence or in trade. There is also a basis of fear in general with perpetrators, including fear and superstition about females and fear for survival. Understanding what drives parents and perpetrators to acts of forced early marriage and genital mutilations is key to eliminating these acts. This can be done through creating a new way to view all children.

ACTIONS

1. Develop groups that include both boys and girls and enable them to work in harmony with one another with the same mission, equally sharing the benefits.
2. Bring true equality to education and daily life by introducing innovative ways of understanding and interacting with one another to create greater appreciation of the intrinsic value of every life, rather than the perception that some lives are worth more or less as compared to others.
3. Create special education for girls and boys that includes formal training in traditional subjects that will prepare them for work and offer them more options, while at the same time trainings designed to build their self-esteem and empower them to move beyond their current limitations.
4. Stop glorifying and promoting substance abuse and pornography. Create and support - with finances and policies - entertainment, products and activities that promote mutual respect, problem solving, conflict resolution, healthy sexual attitudes, and healthy connections between humans and with Nature.
5. Bring about a new movement that supports all that we as humans wish to experience and share in our lives.
6. Back this with access to the Internet, mediated in each community where there is (Internet) illiteracy.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity.

If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and

children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties.

ACTIONS

1. Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
2. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
3. Promote mutual respect with policies, funding, education, the media and technology.

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.

Females of many species, including humans, have shown their capacity for leadership to be equivalent to that of males. In the human species, gender equality will require change in the socio/economic power structures that are currently supported by both genders. It will require shifts in individual consciousness, training in self-assertiveness, and support of both genders within one's own culture and in other cultures where greater equality has been achieved.

This can be greatly helped where women and girls, universally, have access to the Internet. (See 5.0; and 5b). People in many countries have made great headway in this effort, changing power structures to maintain gender equality through the law as well as through social and peer pressure. Eventually there will be a tipping point that will enable legal protection of gender equality to become a global reality.

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed, in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.

The implementation of 5.6 is essential to nearly all other goals; education is the key. In addition, it is suggested that a department of reproductive health and education be developed to

- Train educators for sexual and reproductive health and rights and make them available worldwide from the smallest village to the largest cities.

- Make education and health services available for both women and men, and young people as well, so they can become new leaders, teaching others in the community.
- Align policies, education and funding with this goal.

In many cases, lack of education and health services have contributed to the challenges, misunderstandings and abuses seen today. Making sexual health education and health services available and acceptable will serve to unify women and men in understanding. A movement of education to develop new leaders in this field, bringing in trainers from other areas when necessary, is important.

Training can also occur via the Internet. Individuals interested in becoming experts in sexual reproductive health and reproductive rights can be developed to give community workshops, classes and presentations. Making these education and services available and popular among men and women and young people is key. This would mean showing the advantages to all specifically of implementing both SDG5 as a whole and this target.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

ACTIONS

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.
- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.
- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technology, media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature as well.

ACTIONS

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against and others who have had no access. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access. Trainings can be given to people from each country by UNOs (Including UNESCO and ITU), using the Internet to make these more accessible to all and inexpensive to give to large numbers of people. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.
2. Develop technology and training in equality and inclusivity.
3. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
4. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest.

ACTIONS

1. Provide training and opportunities for both genders to foster a new basis of equality.
2. Embrace youth to create a future with myriad possibilities for all.
3. Create unity and cooperation through inclusiveness to generate a spirit of new unlimited potential for life.

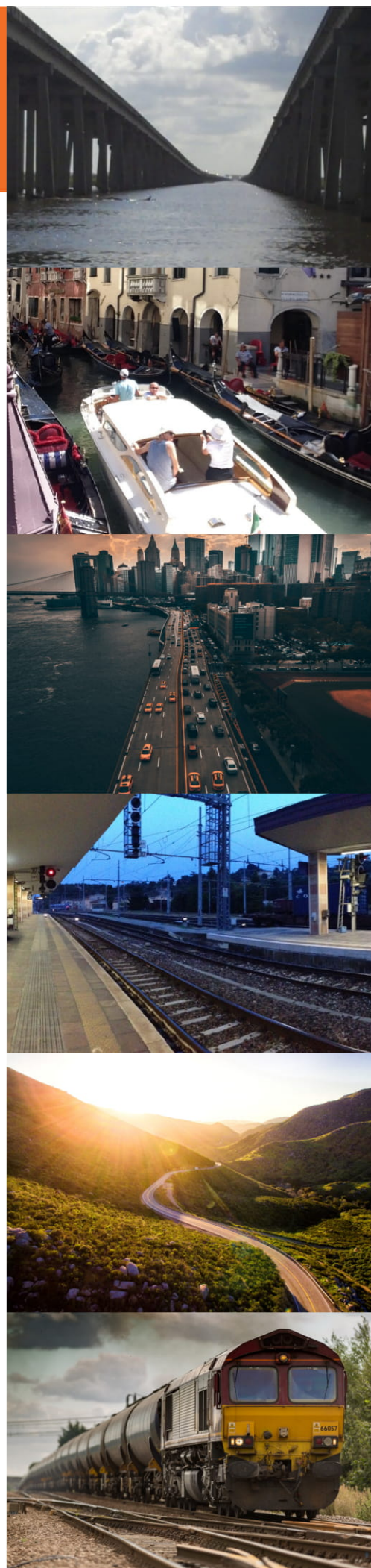
INDUSTRY, INNOVATION, INFRASTRUCTURE

SUSTAINABLE DEVELOPMENT GOAL 9:

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

TARGETS

- 9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- 9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.
- 9.3 Increase the access of small-scale industrial and other enterprises, especially in the developing countries, to ease access to financial services including affordable credit and their integration into value chains and markets.
- 9.4 By 2030 upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, all countries taking action in accordance with their respective capabilities.
- 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, particularly developing countries by 2030, encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending.
- 9.a Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS.
- 9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.
- 9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.



Executive Summary

Both to fulfil the SDGs by 2030 as well as to build truly loving, and thus sustainable relationships with all Beings with which we share the Earth, a paradigm shift that touches all aspects of our living on this planet is required. We need to re-evaluate all of our foundational systems: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing. We need to break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.

Building basic socio-economic frameworks and systems and using our resources sustainably demands the cooperation of all humans with one another and with all of Nature.

Humans need to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

Technological advances in communication, including the internet, have increased the migration of ideas by facilitating greater communication between people, diverse cultures, approaches to problem solving, and forms of expertise. This has resulted in the fast-growing sharing economies based on cooperation and communication between diverse people and provided a unique opportunity to reach the SDGs using the full creativity that lives in and among human beings from multiple cultures. The internet is a key to connecting individuals and individual businesses globally.

The physical movement and intermingling of peoples `create a cross-culturalism, introducing a wealth of new perspectives, skills, and expertise with which to address the emerging local and global problems. It tends to lead to an infusion both with new thought and the remembering of ancient wisdom. For instance, a person from a culture where a number of generations live together might enjoy a depth of experience when allowed to care for the elderly, while the joys and privileges might not be recognized by those who do not share their lives with other generations. In addition, there is a tendency for newcomers to enthusiastically take on jobs that have become less desirable within the adopted country.

It is a challenge to assimilate diverse peoples, with all the varied interests and intentions under one umbrella. Diversity itself can be a goal, welcoming the gifts and input of all. Of course, it will need to be organized in some sort of a matrix, keeping track of the needs and registering all offerings. Building effective computer programmes to manage the information may be complex. This system should be shared out among the countries, to make it possible in all countries – rather than each one having to go through the development and implementation by themselves for each local or national context. If many arms help with the lifting, it will make it much easier for all. The money put into sharing this information out will come back manifold once

it is in place in all countries. This may be a computer system that can be accessed by all, or an app, or a website with all the needed functions.

It is important to focus on the new growth and increased resilience that takes place within recipient countries after an influx of people from outside has been accepted and integrated. To realize SDG 9, we need to see the new life and potential of these intermingling of cultures and movements of peoples. More often than not, revitalization, diversification and strengthened resilience and growth is experienced by the culture as a whole. Globalization, from a human perspective, increases opportunities for personal and community growth.

Globalization means increased migration not just across national boundaries but across ecosystems, allowing for transport of and exposure to organisms outside of their natural ecosystem. Nature does not acknowledge the same boundaries of land and human communities that have been created through political and national territorialism over thousands of years, but it is defined by varied ecosystems.

It is one thing to have cross-culturalism, and another to have cross contamination. As we often see, a transplanted organism without its natural environment may not thrive, and likewise, if not more so, may become invasive without its natural antagonists to keep it in check. People may not have the protective immune system to properly recognize and counteract certain organisms in a new land, or those in which individuals bring to their new location. During this time of expansion and globalization, great diligence is needed in protecting the physical health and safety of both humans and all of Nature.

It can seem an almost impossibly daunting task, like climbing a mountain. But mountains can be scaled if we focus on the goal and use the right tools and equipment. Sharing wisdom, tools and equipment, lending a helping hand creates a supportive community. There are many perspectives, many solutions, and many paths up the mountain. Keeping each other informed of successes is inspirational and encouraging. The best suggestions may come from children, animals or even insects. We must be open, watch for solutions and let life surprise us.

ACTIONS

1. Establish avenues, such as local town hall meetings that are open for all to participate, for the innovative, creative ideas to be heard and implemented by political leaders at various levels of governance.
2. Publish success stories about the integration of refugees and migrant workers.
3. Set up methods for mediation to address and resolve issues arising between natives of a recipient country and immigrants and refugees to create better understanding and broaden perspectives.
4. Establish win-win policies for assimilating immigrants and refugees into a culture. See: Why accepting refugees is a win-win-win formula:
<https://www.brookings.edu/blog/up-front/2018/06/19/refugees-are-a-win-win-win-formula-for-economic-development/>

5. Increase safe screening of non-native organisms for migrating people and transported plant and animal materials out of native territories.
6. Provide non-toxic, sustainable, and eco-friendly solutions for the inadvertent transport of organisms into non-native territories.
7. Make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all.
8. Provide ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

TARGETS SDG 9

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

These infrastructures must promote ethical and sustainable production and consumption. Policies and actions need to stimulate growth, create wealth, as well as preserve and conserve resources while supporting the wellbeing of all Beings. Production of goods and services should be done locally, such as by using organic food, bio food, and seasonal foods to work in sync with Nature, to reduce global warming and our carbon foot print. Recycling and using 2nd hand equipment and materials will reduce our impact on the environment as well as our carbon footprint.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations. Governments at all levels can institute incentives and awards for those who are serving the wellbeing of the whole, providing support for their initiatives, and publicizing via social media and mainstream news the full extent of their effect on people and the Earth widely. The internet provides cross border infrastructure which allows human beings to connect according to their interests and to follow their bliss. This allows trends to emerge based on people's passions. It remains critical to make sure that the purpose serves the highest purpose for all. This is a Nature-based ethic. Every day new infrastructures are emerging based

on peoples' interests and needs. The joy associated with these, spreads good news, hope, and inspires creativity. It allows new visions to emerge, take root and grow.

The most universal promoter of human wellbeing is living and working within a close proximity to Nature, be it through rooftop gardens, converted empty urban lots, tree-lined streets, clean waterways, or fresh vegetables from one's own garden. If every building, street, home, and business were required to install and maintain a Minimum Nature Requirement, our communities would become safer, cleaner, and more beautiful. Nature promotes healthier and more sustainable environments, communities, and a more positive emotional and psychological balance. Creating gardens, Naturescapes, food production, recycling systems, and low-cost green energy production conversions within communities also creates reliable employment for those who become the caretakers.

ACTIONS

1. Recycle and find new uses for used equipment and materials
Create new systems to make local production and sales of goods and services a viable option
2. Reduce packaging and plastic bottle use by creating new alternative investment opportunities
3. Promote sustainable and local options for popular and needed products such as fast fashion which otherwise promotes consumption of goods and services with a short life span, thus leading to waste and high consumerism
4. Subsidize local food growers, restaurants, food carts, and purveyors to offer locally and sustainably produced organic, bio, and seasonal foods
5. Set up free and rental bicycle stations and safe and beautiful bike routes to promote better tourism, increased physical fitness, mental well-being, and reduce gasoline powered vehicles and traffic congestion.
6. Install and maintain a Minimum Nature Requirement for every building, street, home, and business.
7. Provide incentives and awards for businesses, organizations, and individuals who are notably serving the well-being of the whole of humanity and Nature.
8. Use social media and news outlets to emphasize uplifting and inspiring stories about successful implementation of sustainable economic and social infrastructures that lead to the wellbeing of all life on Earth.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs

and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses. These same large industries can turn their reputation around and increase their market shares by implementing eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the well-being of their local community.

For most of these industries, such conversions are a major move that will require the implementation of new technologies. Educating and repurposing their current employees for these new practices will bring them up to date. Governments can subsidize training within communities for ecological, sustainable occupations and practices, making them indispensable to the survival and growth of these industries. This will win back the favour of the general public and ensure all a more stable and prosperous future. Reduce consumption before increasing productivity to reduce need and free up resources needed to support the new sustainable infrastructures.

The main thing is to get started in implementing these goals. It is like building a path – you find the solution for each section when you get to that part of the path. The momentum will bring in new ideas, next steps, and solutions. This is the key to resilience.

ACTIONS

1. Set up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices.
2. Create policies and incentives encouraging industries to implement eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the wellbeing of their local community.
3. Develop education and training to support employees in implementing these new practices.
4. Create government subsidized training within communities for ecological, sustainable occupations and practices.
5. Implement policies and practices to reduce consumption before increasing productivity.

9.3 Increase the access of small-scale industrial and other enterprises, especially in the developing countries, to ease access to financial services including affordable

credit and their integration into value chains and markets

Whereas many large businesses take value out of communities without giving back, small businesses tend to pollute less, serve, and support their communities more.

Working locally is a source of strength and pride for individuals. Allowing everyone to increase creativity and foster the expression of each person and each community's unique gifts benefits the whole. Encouraging local businesses to actively contribute strengthens the network of the local and global community.

Increase the access to financial services by small-scale industrial and other enterprises, in particular those in developing countries. This should include affordable credit and their integration into value chains and markets. Not everything must be globalized. Small businesses are the basis for economy and exchange of services and goods. It is especially important to support small businesses in developing countries. The primary way to save small businesses is to refrain from expanding "global" chains to every corner of the world, and to leave small producers their local niches. This serves the dual purpose of not using fossil fuels and other resources to send products helter skelter all over the planet. That is, the solution is not to create more means of transporting products, nor to create unnecessary products, just to sustain and expand necessary businesses.

ACTIONS

1. Use local currencies to finance local business, such as times sharing, barter or the LetSystem.
2. Explore tapping into the tourist trade.
3. Connect with the sharing/partnership economy using the Internet.
4. Give people grants to start a business, especially in developing countries.
5. Give old businesses grants to pass on their business to the next generation, allowing the next generation to start their lives debt free.
6. Provide affordable credit so there are expanded opportunities for people to express their gifts and interests in a business context, encouraging sustainable economies.

9.4 By 2030 upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, all countries taking action in accordance with their respective capabilities

It is important for industries to see themselves as a part of a community, and to realize that products and services being produced must serve the common good of that community and the world at large. This needs to be done by ceasing practices which pollute the environment and adopting clean and environmentally sound technologies and industrial processes. Communities and governments can incentivize sustainable actions by providing positive publicity and financial incentives and rewards. Companies and industries making good contributions can work together to find, communicate, and make public what works and exponentially create growth from the wealth of good ideas.

Connective infrastructure is important as well, because it opens up relationships and makes them less centered on individual profit by enabling industries to see the advantages of connecting with one another and learn from one another, and to share solutions as is now being done in the partnership economy.

1. It is not a coincidence that the world economy refers to both the wealth and resources of a country or region, especially in terms of the production and consumption of goods and services, but also to the careful management of available resources. This refers to Nature as well, or what people think of as "Natural Resources", or Nature as ours for the taking. Without careful management of our relationship with Nature, we destroy Nature. Without Nature, we have no financial economy. Putting Nature at the center of all industry and all economic interests is, therefore, the only thing that makes sense.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, particularly developing countries by 2030, encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending

The essence of Nature is creation and reinvention. She provides a plethora of innovative ways of dealing with challenges from which humanity can learn. Nature manages challenges and complexities with grace, perfection, wisdom, and sometimes a sense of humour from which we can model and gain inspiration. Nature-inspired solutions are an important source for science and technology to draw from, for people are a part of Nature and have great creative potential as is evidenced by past scientific and technological inventions.

On the other hand, where science and technology proceed along lines that are out of harmony with Nature-based approaches, we find ourselves confronted with the imbalances that lead to the very problems the SDGs are attempting to resolve. Modern, often well-financed scientific and technological developments have in such cases also not foreseen many of the emerging challenges that are confronting us today, since they have proceeded along lines and ways of thinking that have caused the problems in the first place. Financial gain, humans as being "above" or "masters of creation" are but a few such distorting factors. The consequences of such ways of thinking and doing things have often been born by those who are less versed in modern ways of development; many of which live much closer to Nature and have found ways of coping with today's life-threatening challenges and even resolving them.

While modern well-financed scientific and technological innovations must be given credit where this is due, there is an important place for "thinking outside of the box" by people who are not conditioned by higher scientific and technological education but have a fresh way of looking at things.

These would be fertile, hitherto untapped, sources of Innovation. Groups to consider are the most marginalized who are the victims of so many global problems; young people - even children - and people who are affected most by the problems being

addressed by the SDGs. These might in fact help to enhance scientific research, upgrading the technological capabilities of industrial sectors in all countries (particularly developing countries by 2030), encouraging innovation including by contributing Nature-inspired and/or low-tech solutions. This will also increase the number of R&D workers from more marginalized communities per one million people significantly.

There is a growing movement of people willing to work for the public good, many of whom work through the sharing/partnership economy. These include very wealthy sponsors seeking to contribute to a sustainable world, universities and colleges, Nature inspired business and social forms such as cooperatives and commons, which together can form the backbone of an initiative to give the above innovators opportunities to make their innovations useful at a global level.

A lot of precision and innovation is possible without technology and without machines. Research is necessary, but the solutions may not always be in the realm of heavy-duty technology. This task needs to be conducted in the flow and with the rhythms of life, in tune with life on the planet, and in tune with all the other countries if the changes are to be truly sustainable. There is a need for cohesion and collaboration on various levels. Careful consideration of the web of life is important. Acting in one place can affect all the others as well. It is a sensitive area and needs to be accompanied by those who can communicate with Nature. These may be the indigenous people of the world, which should be brought into the projects from the beginning. In fact, they need to be called in for all the sustainable development goals because they have many tools and abilities that will be necessary to attain these goals. Working from the heart, with open eyes and open communication with all nations, all people, all Beings of the world is the new paradigm that will make all the difference.

ACTIONS

To encourage innovation and increase the number of R&D workers and private R&D spending, as well as contributions in kind:

1. Create a group of financiers, including cooperatives, universities and CSOs, all of which are dedicated to contributing their respective strengths to a sustainable and equitable global community for the well-being of all people and Nature as a whole; and especially also to helping with the development of marginalized communities and nations.
2. Describe in simple terms a series of global challenges for which no solution is readily available.
3. Create an award that would give winners opportunities to implement their ideas with the proviso that they would be implementing these for the well-being of all people and Nature as a whole.
4. Send out a simple description of the challenge via participants in the initiative. These should include universities, UNO development organizations, financiers who are seeking to contribute to a sustainable world, CSO's working on development among marginalized populations, schools that are connected with

UNESCO's national commissions and any other schools who wish to participate, universities who are seeking to contribute to sustainable development and are willing to do so without being beholden to for-profit organizations and businesses, commons-based initiatives and cooperatives.

5. Ask for possible solutions or partial solutions to be sent to the initiative. The agreement would be that the winners would be helped to realize their ideas as a part of a larger team for the benefit of all people and Nature as a whole and kept in the public domain. The execution of the project should take place where possible in the communities that stand to benefit especially if these are in developing countries.
6. Those who have created the initiative would then work with the winners to implement their innovations and to make them available and apply them to those most in need and especially developing countries.
7. Publish the solution as widely as possible together with the inspiring story about those working on the initiative and the prize winner in particular to inspire others to create similar projects and to benefit from the solutions. Make the solutions available as widely as possible.
8. Create internships and scholarships based on research and development, and technological innovation with collaboration with Nature, sustainability, and eco-friendly solutions as the focus to attract the interest of younger generations who are widely interested in these fields but are unaware of this new specialty.
9. Keep the benefits of indigenous knowledge and scientific and technological research, and all aspects of the move towards upgrading the technological capabilities of industrial sectors in all countries in order to create a broader awareness and attract the attention and interest of people of all abilities into the field of sustainable R&D that might not otherwise be aware. This movement can be kept in the forefront of the public eye through media, e-newsletters, public forums, college seminars, podcasts and even in themes of TV talk shows, TV documentaries, and movie themes.

9.a Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS

All peoples have their own unique life outlook and abilities for creative problem solving and innovation based on their cultural world view and personal development within that cultural world view. While any particular community, country, or region knows and understands its own needs, strengths, and weaknesses, peoples from outside that community, country, or region may have unique contributions to share in the way of ideas for innovation and development that are only seen by an objective perspective.

Developing countries can enhance their own financial and infrastructure development by balancing their own economic and technological development while honouring their

own needs, desires, and goals as a country. In other words, taking what they see as good and useful, and leaving out what they have seen as destructive and harmful.

Likewise, developing countries sharing their strengths and values as a culture and world view with more developed countries can help reverse some of the less sustainable and destructive practices maintained by the developed countries. The goal is to learn from one another at the crossroads where we all stand as a planet, and make new global decisions that are sustainable, resilient, and friendly to all the earth, Nature, and its inhabitants.

Green infrastructure is essential both for the peaceful and mutually beneficial co-existence of both human beings and other forms of life in Africa. Humans and other life forms appear to be competing for land and other natural resources. In building the green infrastructure, the well-being of all must be considered. It should permit all life to travel, find nurture and habitat and survive peacefully side by side.

Green infrastructure that serves both humans and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems - retain more water, increase the number of plants and animals that can interact and balance the recycling of carbon and other minerals while regulating the climate. The large natural parks and ecotourism show one way in which both can, and in part are, co-existing and benefiting from their co-existence.

ACTIONS

1. (Re)create infrastructure that allows both humans and other forms of life to communicate, travel, find nurture and thrive side by side without the increasing clashes that occur as human settlements encroach on wilderness areas.

- Avoid expanding human settlements onto paths traditionally used by wildlife and give wildlife a wide berth.
- Build adequate defences around human settlements to keep large animals such as elephants at bay.
- Create green spaces in towns--roof gardens, plants growing up houses and on roofs to increase the supply of fresh fruit and vegetables, decrease transport lines, while creating habitat for small animals and insects.
- Build parks in towns where smaller forms of wildlife can thrive, where people can relax and observe and learn about Nature, and connect these small ecosystems with one another using corridors, eco bridges and eco tunnels that can be used by wildlife to increase their living area, and promote increases in biodiversity.
- Create Nature-study areas, including in deserts to attract tourists and educate people in the wonders of Nature and it's amazing diversity and ways of adapting to diverse situations. This will both inspire people, create a deeper bond and

understanding between people and Nature while increasing economic opportunity outside of cities, thus decreasing the move to cities.

2. Reduce the amount of electricity needed to be brought in over long distances.

- Return to the use of traditional building materials and styles that allow houses to be naturally cool in the summer and retain heat in the winter; generate electricity locally using small generators that run on energy from the sun, flowing water and wind. This will also have the advantage of keeping people living in smaller settlements instead of moving to the cities.
- Introduce universal access to the Internet. On a continent that still has areas that are sparsely populated, and which is heading to a rapid increase in population, the Internet has two functions:
 - a) It enables people to communicate without the need for air- or road travel, both of which pollute more than travel by rail or some forms of boats.
 - b) The Internet places education, information, banking and other services and opportunities for exchange and trade at the fingers of the grass roots without the need for physical travel, thus helping to alleviate poverty which is one reason for the depletion of natural resources. It can also help people develop their individual potential, which is an antidote to greed, which contributes to problems of co-existence between people and Nature.
- For the development and upkeep of green infrastructure in keeping with local needs, seek information and the support of the grass roots using Geographic Information Systems (GIS) and local planning and building groups.

3. Conserve Nature by returning to traditional forms of herding and agriculture using locally occurring grasses and crops that are adapted to the local climate, including, for instance, crops that can grow in dry areas.

4. Increase the provision of water so that it does not have to be brought in over large distances; and increase the provision of food and livelihoods by building biodiverse ecosystems and stewarding these until they maintain themselves.
(See the film the Biggest Little Farm.)

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials. It is not always necessary to import goods nor to bathe goods in a multitude of chemicals. Machines can be simple, and they can run on natural power (rivers, streams, waterfalls, wind). All power should, of course, be sustainably sourced.

We can gain much from contemplating the greater picture by asking inspirational questions. What do you really want to achieve? What does your country want to achieve? Greater prosperity, greater harmony, greater health for all beings living there? A healthy web of life? What does that mean for you – for your country? Who are the players, who are the necessary participants? Have you thought of the animals, Nature, the seas? Have you thought of the humans, all the different groups of people in your country? Who is served by this plan? Looking at the bigger picture in this way will help to find the best solutions for all concerned.

ACTIONS

1. Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
2. Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
3. Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
4. Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
5. Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020

Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

Although the Internet can be used to manipulate people, this is likely to become less of a hazard, the more experienced users become. More importantly the Internet can

be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it.

Here the United Nations can play an important role in keeping the cost down and ensuring that the education people get is of high quality.

The computer and internet industry are also environmentally damaging, from mining cobalt to sending 5G waves through the air. Research and development need to focus on advancing the industry in ways that do not harm life or produce waste.

ACTIONS

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in countries worldwide where Internet use is to be expanded, including in LDCs.
2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. There should be a strict ethic of confidentiality.
4. Internet literacy should also be taught in all schools.
5. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm (i.e. 5G waves) methods of technology use and manufacture.

LIFE BELOW WATER

SUSTAINABLE DEVELOPMENT GOAL 14:

Conserve and Sustainably Use the Oceans, Seas, Maritime Resources for Sustainable Development

TARGETS

- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.
- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.
- 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.
- 14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.
- 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.
- 14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU fishing, and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiation.
- 14.b Provide access of small-scale artisanal fishers to marine resources and markets.



INTRODUCTION

Bearing in Mind the Relational Dimensions, Guiding thoughts on Oceans

The Ocean is the lifeblood of our planet. It covers three quarters of the Earth's surface, contains 97 percent of the Earth's water and provides more than 50% of the oxygen we breathe.

It drives global weather patterns, absorbs around 30 percent of human-produced carbon dioxide, and serves as a critical buffer to the ever-worsening impacts of global warming.

It encompasses landscapes every bit as complex and varied as those on dry land. It is home to nearly 200,000 identified species. Humans depend on many of these for their livelihoods. Others are beyond our reach because they inhabit the seabed at depths inaccessible to people. The actual numbers are estimated to lie in the millions. Economists estimate the value of the ecosystem services provided by the Ocean to be around \$24 trillion per year.

Oceans affect every part of the Earth System: the climate, hydrological cycles, biodiversity, while it also acts like a womb where-in new land is created through volcanic eruptions from deep below the ocean floor, thus providing rich mineral resources within human reach. Due to its very vastness and plentiful riches, the oceans and associated resources have largely been seen as inexhaustible, much as land-based ecosystems were seen a hundred or perhaps even 50 years ago.

Fortunately, and perhaps also unfortunately, we are now becoming aware that human activities are resulting in many-fold impacts that are devastating to both the oceans and to all life. Put simply, we are all united by the oceans, and without healthy and sustainable oceans, our place on this planet is in jeopardy.

Science has confirmed our oceans are in a critical state and that urgent remedial action is required. The need for collective action to reverse the cycle of decline in which the ocean is currently caught was recognized by world leaders last year, when they adopted the 2030 Agenda for Sustainable Development. Sustainable Development Goal 14 (SDG 14) sets out critical targets that must be met in order to conserve and sustainably use our oceans, seas and maritime resources. We include recommendations for achieving each of these targets below.

GOAL 14

Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development

TARGETS SDG 14

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution

Oceans are being affected by our impact on all of the Earth sub-systems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes - such as run off from agriculture, dead zones, flushing of oil tankers, and garbage dumps from cruise ships, barges and accidents at sea. These problems are often connected in turn to social problems, such as poverty, lack of education, greed, and perceived economic necessity and are further aggravated by a compilation of actions such as dumping of plastics that pile up into whole islands because of the ocean currents.

Unfortunately, humans often act recklessly, carelessly and without thought for the consequences and impacts on others or of what we may face in the long run. Marine pollution, for example, is bringing about an extinction of species at a rate that is threatening to transgress those planetary boundaries necessary for supporting human life. (Note: *The proposed boundaries for biodiversity loss are 10 per million species per year. The current status is more than 100 per million or thus ten times as much as has been proposed according to the Report: Planetary Boundaries: Guiding human development on a changing planet in Science 347: DOI:10.1126/Science.1259855. Source Will Steffan et al.*)

Common to all these problems, people play a central role both as victims and as perpetrators, therefore it is important to focus on both our activities and capacities to steward nature in the areas we inhabit, from mountain communities and along streams and rivers which flow through both farming regions and industrial areas and on down to the coast. Many people contribute to pollution of the oceans and likewise will continue to be subject to the potential consequences, including those coming from diseases caused by the pollution, unless they can be given the educational and financial means to better steward the areas they inhabit.

As a result, even when we target certain problems, such as dumping at sea, with some measure of success it is likely to be temporary and somewhat tentative, at least until we can change our relationships with other connected problem areas by understanding the interconnections and inter-dependencies among all aspects of the Earth System.

Two types of actions are needed to bring about change. These must target both marine pollution specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

1. To change our mindset with regard to pollution within the seas and oceans.

2. To show that they--and we--are integral parts of an even larger context: the all-encompassing Earth System that we harm at our peril.

A two-pronged approach would be most effective:

1. **Through adopting strictly enforced legislation,**

which recognizes our relationships and position with Nature and how harming Nature actually harms ourselves. "Rights of Nature" Law and Policy are being developed that stress that Nature, far from just being property to be used for human benefit, is in fact a rights-bearing partner with which humanity has co-evolved. Ecuador has led the way by adopting in its Constitution the ***Law of the Rights of Mother Earth***. On March 30, 2011, the first legal case--Vilcabamba River, against the Provincial Government of Loja was settled in favour of protecting Nature.

In 2009, Bolivia introduced the topic Harmony with Nature in the UN General Assembly. This has led to increased activity in this field every year since--UN resolutions, annual celebrations of UN Earth Day on April 22nd, Interactive Discussions, and Reports by Experts - summarized in official documents by the UN Secretary General, etc.

In 2010, Bolivia adopted the Rights of Nature in its own constitution. The **Rights of Nature** articles acknowledge that "**Nature** in all its life forms has the **right** to exist, persist, maintain and regenerate its vital cycles".

A number of Nations have also adopted legislation in a similar spirit at local or state levels, including Argentina, Mexico and the US where beside a number of local laws, the Colorado State Constitution was especially amended.

2. **Through an inspirational approach,**

to change how we humans feel about Nature as a whole, so that we are actively motivated to find solutions where these have not yet been discovered. Through education, our motivation and inspiration to tackle marine pollution can grow, the more deeply we experience the wonders of Nature.

ACTIONS

Legal

1. Develop legislation in all nations to be able to prosecute by universal jurisdiction those who pollute oceans and seas or otherwise harm any aspect of Nature. For instance, addressing the need to stop the devastating impacts on whales, dolphins and other marine life through the use of sonar in the oceans.
2. Since most pollution of the oceans and seas takes place outside of national jurisdiction, it will be important to create an International Environmental Court to enable prosecution by the International Community for crimes against the global commons.

Formal and Informal Education, Science and Technology

3. In addition, formal education, the media, governments and individual people can together bring about a shift so that rather than focusing on the problem, we see Nature as providing solutions. Before the industrial revolution and even before the early 1950's, the oceans were able to process and break up most of the waste dumped into them and to maintain a balance. Removing the surplus of waste could help to restore the re-generative capacities of oceans and seas. Developing such a mind shift as referred to above could be brought about by using both formal education and the media, including through producing and using documentaries, recreational films, etc. Here are some examples for how:

- Inspire action by speaking to the heart in portrayals of Nature:
 - a) Show the beauty and miracle of Nature, her myriad interconnections, how all contrives to restore balance even after ocean dumping, oil spills and run off from agriculture, etc. through myriad disparate forces that are constantly interacting with one another.
 - b) Give examples of how people can aid this restoration process, such as how growing oysters in the polluted waters around New York City is actually purifying the water.
 - c) Emphasize how Nature can thrive once we relieve Nature from the crippling burden of excess pollution.

Inspiration and acting from "wonder" can give people a sense of joy and can help them feel like they are a part of something much larger than when we are driven by fear, guilt and desperation.

Show simultaneously:

- a) Approaches to cleaning up marine pollution to jolt people's inventiveness.
- b) Stories of actual initiatives - people who are taking helpful steps. Even if these are not immediately successful, they can inspire others to build on the ideas of those that went before. Take for instance the work of the Ocean Clean Up initiative founded by a 21 year old at: www.theoceancleanup.com.
- c) Provide publicity and prizes, as well as Quality Certifications, to media and educational institutions for the degree to which they help to inspire solution-oriented thinking and actually come up with and describe much needed solutions. The Dutch Government, for instance, issues a Prize for Innovation.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans

There are a number of critically important problems and challenges that must be addressed as we strive to meet this target. Due to humanity's destruction and depletion of land-based ecosystems, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

As ecosystems are damaged or destroyed the land tends to dry out and with it the water both under, in, and also above the soil and plant matter. The loss of ground cover causes further run-off, erosion, evaporation and even loss of groundwater, thus destroying natural water cycles and causing both flooding and desertification, along with the rising of the sea level as water from the land and air returns to the seas.

There are several hundred ocean dead zones scattered in coastal areas around the world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to quit dumping un-processed wastes into our rivers, lakes and streams.

Similarly, our agricultural practices; disruption and destruction of land-based ecosystems; over-pumping of ground water; and then the resulting climate change are causing whole regions to dry out, weather patterns to be altered, water cycles to be disrupted, and even more soils and nutrients to be lost to the sea. This is causing siltation and the destruction of habitat and breeding grounds that ocean fisheries are dependent upon, salinization and salt water intrusion in coastal regions, acidification of the ocean, and the failure of land-based ecosystems to be able to retain and slowly release water and maintain healthy watersheds and eco-systems - especially as climatic events increase in occurrence, intensity, and severity.

The loss of such processes, water cycles, and healthy eco-systems is causing significant increases as well in sea level rise, which then in turn further threatens these same eco-systems as well as communities and human well-being.

At the same time coastal development is causing the continuing loss of wetlands, more than 64% to date, and marine and coastal species that depend on fresh water are in major decline. Mangroves, mudflats, salt marshes and sea grasses in deltas and along the coast provide millions of people with a vital source of income and can protect them from the ravages of storms and floods when left intact. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

ACTIONS

Formal and Informal Education, Science and Technology

1. There is thus a great need for humanity to undergo a mind shift such that ALL education and practices are rooted in preservation of our natural environment, this should include focusing on the need to:
 - Invest in and create water retention landscapes.
 - Engage in regenerative and restorative agricultural practices.

- Restore damaged ecosystems to protect against flooding and monsoons.
- Create ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.

This would also include teaching about such practices as:

- Agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- The need to eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.

Financing

2. There is also a great need to substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out such activities as are described above and to support businesses in making such a transition.
3. Extension programmes and training courses also need to be established and scaled up in all countries and regions around the world to support such a transition as is described and called for above.

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

The best means to reduce the impacts of ocean acidification is to stop the practices and activities that cause it in the first place. This begins with phasing out and ending our use of fossil fuels, but it also requires changing our agricultural practices and diets and reversing de-forestation. Approximately 70 - 80% of the water we use goes to agriculture, much, if not most of this is to grow feed for animals. To pump and move water often over long distances requires a lot of fuel. Our industrial agricultural practices result in both further loss of water and also increased levels of climate change - thus even further adding to acidification.

In addition, industrial agriculture uses approximately 30% of our fossil fuels and produces an equal amount of greenhouse gases in order to run farm equipment, produce fertilizer, pesticides and herbicides, and to store and move produce to market - thus leading to further acidification of the seas.

Cutting and burning down forests also results in large emissions of carbon dioxide most of which then ends up in the sea causing further acidification. This also leads to a loss of plant life which before could absorb much of the carbon dioxide released to the atmosphere, before it could be deposited in the seas.

ACTIONS

Science and Technology, Agriculture

1. Switch to locally based, organic, regenerative and climate friendly agriculture. This uses far less energy and chemical inputs while greatly increasing productivity especially in the developing world. The practices associated with such agriculture can significantly reduce acidification, although they will need major funding increases, particularly in the developing world. Switching to more plant based and less meat intensive diets will also help.
2. Transition to 100% renewable energy as rapidly as possible.

Forests

3. Invest in regenerating forests and adopt laws requiring sustainable management of all timber lands and conservation of forests.

14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, which are critical to the well-being of all life on Earth. These individual marine species are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food.

When we take actions such as fishing without considering sustainability as a whole, imbalances are created whereby the so-called solution of one problem creates a host of other problems and imbalances. This attitude lies at the heart of un-sustainability.

Even though fish stocks are dwindling, livelihoods are at stake, and despite legislation overfishing - illegal, unreported and unregulated (IUU) fishing - destructive fishing practices are still taking place. This is part of a much larger problem, namely, how we relate to other species, our fellow human beings and the environment we live in.

When we see fish as "things", distinct from ourselves and easily categorized, it is easy to believe that overfishing just one or two species will have few repercussions. If we see fish, as "mere" creatures engaged in a savage fight for survival, we won't mind squandering their lives when we massacre them in our attempts to catch more lucrative species. If, as a mega corporation the profits for our shareholders is threatened or as a small fisherman our traditional way of making a living in order to care for our families and communities is at stake, then it is easy to justify illegal, unreported and unregulated (IUU) fishing and destructive fishing practices.

This compartmentalization of how we perceive "reality" lies at the very heart of un-sustainable fishing practices and of un-sustainability in general. This can be reversed

by creating a mind shift with regard to how we see ourselves in relation to *what is*-- Nature and one another, and by providing information on alternative ways of fishing or of viably making a living.

ACTIONS

Education

1. Through formal and informal education, as well as in media portrayals, move away from a view of reality as consisting of separate, unrelated fragments to one in which all is interrelated; where the water, the air, the earth and life itself are in constant interaction with one another; and where diverse types of plants and animals provide for one another's needs in cooperative communities within ecosystems; where there is also a jostling for position and survival, but seldom does one species eradicate another with the exception of human beings.

This message can be provided in literature, art, and through paradigms that are emerging in biology, chemistry and physics. It can be reinforced by having school gardens where students can see the miracle of life unfolding before their eyes. It will help us to see fish as miraculous and complex beings that are essential parts of a web of life that is essential to human well-being. Where we feel connected to the world around us, it is easier to appreciate it and harder to harm it.

2. Learning to communicate with Nature as is done by those whose livelihoods depend on their right relationship with the land; indigenous peoples; and other nature communicators. This will help people realize that we are an integral part of the complexity and wonder of life, that we cannot stand "apart" and try to oversee the whole, and that we must therefore be guided by Nature to live in harmony with "*what is*". *This will further enable us to feel a part of the world around us and thereby make it more difficult to stand apart and destroy whole species of fish.*

Social Actions

3. Encourage the formation of cooperatives of fisher people to steward diverse types of fish. This will further enhance the experience of connection to both fish species and with-in the fishing industry. In cooperatives, all share in decision making and in the consequences of their actions. It is therefore in the vital interest of all to steward rather than to deplete available resources. They tend to do well even in times of economic downturn. Also, as a part of the Cooperative Identity, they give back both to the local communities where their cooperatives are active and to the global community by implementing sustainable development initiatives that benefit global development.

There are 2.6 million cooperative enterprises with annual revenues of US\$3 trillion that provide 250 million jobs (12% of jobs in G20 countries). There are already one billion members of cooperatives worldwide.

Nobel Prize winner Elinor Ostrom on occasion gave the example of how lobster fishermen in the North West of America revived lobster fisheries in this way. The creation of cooperatives is also mentioned below at local to global levels. Such

cooperative relationships will tend to change the mindset from one of "making a killing" to feelings of mutual appreciation and cooperation.

Legal Actions

4. Strictly enforce agreements geared at preserving a diversity of fish species, while looking for solutions that rely on the regenerative powers of Nature herself.
5. Pass and enforce laws to stop the mass extinction of species, including fish, at all levels and in all localities, even those not directly connected to the ocean. All species are intimately connected to one another's survival and by eradicating some, you also endanger others that are necessary for humans to survive.
6. Enforce such legislation with an International Environmental Court with branches at national and local levels, preferably with punishments that help perpetrators to better understand the consequences of their actions. This will achieve two things:
 - a) It will deter others from such crimes.
 - b) It will help to build a group of people who understand at first hand why a particular law is necessary. These can then be employed in an educational capacity to help inform others. They can also become members of an international group where members learn from one another.

Thinking about the establishment of an Environmental Court has progressed quite far. It seems just a matter of time until an Environmental Court will join the ranks of the International Court of Justice and the International Criminal Court. Support is needed to accomplish this as soon as possible. (See also the proposed action under Target 14.1.)

Science and Technology

7. Regeneration of fish stocks with the help of science but accompanied with the understanding that these insights about this must proceed from the complex understanding of the host of subtle interlinkages among all that is.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus it would be good if countries would set targets that are far higher than 10% especially as we move on beyond 2020.

It is also important to bear in mind that, although the target requires that just 10% of coastal and marine areas are to be conserved, all areas that border on oceans and seas are, as mentioned in various contexts above, interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%.

For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

ACTIONS

International Law

1. Suggest that via the United Nations all coastal areas are proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
2. Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.
3. Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)

Social Development

4. Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together. This can be done as follows:
 1. Encourage them to form cooperatives to manage specific resources in a particular area. These have been discussed under 14.1. Since cooperatives place sharing at the heart of their Cooperative Identity this form of business will encourage their members to share what they know, to make cooperative decisions that benefit all concerned, to financially and otherwise benefit the communities where they are based and provide means for global development.
 2. Encourage cooperatives working with diverse aspects of the oceans to work together using a cooperative format at local and global levels to ensure that the fragmentation does not occur between the insights and concerns of any of these groups.

3. Create an international network of cooperatives that can, in consultation with the members of each of the cooperatives, develop best practices and ways of discouraging destructive ones. This can be backed by the legal mechanism described above.

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU fishing, and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiation

Here we are dealing with moneyed mega-interests both with regard to the subsidies that allow destructive fishing practices to persist and also with regard to the fishing industry itself. They exist because the rest of humanity allows them to do so. Large political and commercial interests depend on their constituents for power. They hold only the power, to the extent this is granted to them by others.

To replace present power interests with a viable alternative, it is necessary to see

1. How these mega interests came about and how they survive
2. Which alternatives exist to encourage citizens and governments to take responsible action for the well-being of all people and Nature.

Here is a brief description of some of the dynamics that led to the present disparity between rich and poor:

The moneyed mega-interests have developed over time and are connected to the debt-based economy whereby banks in some nations are permitted to lend money with just one tenth of the amount as collateral. This means that such banks are induced to continually make loans to make up for their deficit of funds. Borrowers, in turn, are necessitated to sell their goods and services to be able to pay off their loans and this results in massive global advertising campaigns to encourage people to Buy! Buy! Buy. From the perspective of the Banks and those businesses that borrow from them, the survival of their business is at stake. It is therefore critical for those of us who are supporting them to make it clear that if this continues, not just their businesses but also human survival and prosperity is at stake and we can no longer continue to allow this. We have throw-away economies, depletion of natural resources, destruction of the environment due to pollution and mountains of waste, and a growing chasm between rich and poor. Large commercial fishing fleets are rapidly depleting fish stocks, leading to increased levels of poverty for local fishermen.

Two actions are needed to counter such problems simultaneously in the Oceans domain:

1. To stop giving power to those who insist on the subsidies that are causing overfishing and destruction of other marine resources.

2. To create a supplementary economy based on socially, economically and environmentally, responsible and just fisheries practices.

ACTIONS

Eliminating Subsidies by tackling the power structures that produce them.

Social Development

1. A relatively low-risk strategy is to boycott fish products where these have been illegally procured.

To make such a boycott effective it would help to:

- a. Show via the social media, the fishing practices and their consequences as these relate to people worldwide, including the rich and powerful who, among others, purchase the fish.
- b. Make people aware of alternative ways of purchasing fish, for instance, via Fair Trade which provide support for small scale fisheries and use all means possible to show the world how these fisher-people steward their resources.
- c. Provide alternative ways for fishermen to make a living by, for instance, forming coalitions based on collaboration and sharing. Here cooperatives, as mentioned under 14.1 and 14.4 can provide an important alternative. Although this might be less lucrative than surviving from subsidies, it is preferable to starvation through popular boycotts.

Once the hold of moneyed interests is broken and the fishing industry has realized that their only alternative is to adopt environmentally sound approaches, the competition that in the past put small scale local fishermen out of business and led to overfishing can make way for working with the restorative functions of Nature.

2. Encourage the formation of cooperative fishing business models which have the advantage that they share joint care for the "commons", such as marine resources and water quality, and because all members of the cooperative are owner/operators and all share in the profits, tend to do well even in times of economic downturn.

14.b Provide access of small-scale artisanal fishers to marine resources and markets

Science and Technology

An important tool here is: Universal access to the Internet, as has been done by Rwanda. The technology is available and those who are Internet illiterate can be supported in its use by local facilitators.

The UN can also play an important role in training national networks of such go-betweens as follows:

1. The UN provides courses for those who will oversee the training of local facilitators for their respective nations. These top officials would (with support from their teachers at the UN) be responsible for organizing Internet based trainings for local go-betweens who in turn would be responsible for translating manuals into local languages and then helping whoever needs their help to locate the goods and services they need, if possible within the fast-growing global sharing economy.

The technology is available, and the infrastructure can be developed and supported by the UN using the Internet as an effective and inexpensive tool.

APPENDIX ONE:

Oceans, Seas and Marine Resources in their larger contexts

In the above, we have emphasized that oceans and seas are integrally related with the rest of the Earth System: the hydrosphere (that is both fresh- and saltwater), the geosphere, the atmosphere and with all forms of human and other life.

As paragraph 33 of the Declaration of Agenda 2030 states, human social and economic development depends in part upon mountains. And this is particularly true as relates to the oceans and seas. For mountains are the source of rivers which provide oceans with fresh water, necessary to feed and restore them. These same rivers are breeding grounds for fish and other creatures that can only survive by dividing their life cycles between oceans and rivers. In this way both salt and fresh water belong to the same hydro-system.

To maintain these links between the Earth's subsystems it is essential that mountain people, those living around deltas, the fertile breeding ground of so much of the Earth's biosphere, as well as those who use the seas and oceans for transportation and for the resources these provide, are both economically and educationally prepared to steward the bioregions where they live and work and receive the necessary financial assistance to perform their missions well.

ACTIONS

1. To ensure the protection of oceans and seas and the ecosystems that feed them and enable ocean resources to thrive: Issue licenses for each form of activity performed by people with regard to oceans, seas and maritime resources, as well as the sweet water aspects of the hydro cycle. Such licenses for fishermen, miners, crews of transport and passenger ships, as well as pleasure craft, would require those involved to have a high level of proficiency in their relevant skills. They would also require them to *understand the impact of their actions on ecological systems and the requirements these systems have to maintain all forms of life.*
2. Ensure that those mountain people, inhabitants of deltas and other shore areas are trained in stewardship of their bioregion; are conversant with the full life cycles each aspect of the bioregion moves through; how all these inter-relate and, in turn,

affect human beings; and are provided with the necessary financial assistance to enable them to fully carry out their responsibilities.

3. Since oceans, seas and coastal areas must be cared for in the interest of the whole of humanity, courses can be given by the UN and its relevant Specialized Agencies (IMO, FAO, etc.) via the Internet. These can be attended first by national coordinators, who can then adapt them to national and local needs and have them translated into their national and local languages.
4. Create a Wikipedia-type of web platform where people can share lessons learned from the oceans and seas. This can contain sections on best practices, boatbuilding, sea expeditions, science, religion, folklore, technology, maritime law, literature and art and information about human impacts on the seas.

APPENDIX TWO:

Here is the Blue Ecology Practitioners Guide

(1/11/2017)

Blue Ecology Water Cycle is meant to be an intuitive companion to Western Science's analytical hydrologic cycle, which recognizes the integral relationship of the hydrosphere with the geosphere, the biosphere and the atmosphere as subsystems of the Earth System that is one integral, indivisible whole. It was written by a combination of indigenous and western peoples

Blue Ecology Principles

Vision:

Embrace a water-first approach to planning human interventions in the environment. Blue Ecology is an ecological philosophy, which emerged from interweaving First Nations and Western thought, that acknowledges water's (i.e. fresh and salt) essential rhythmical life-spirit and central role in generating, sustaining, receiving and ultimately unifying life on Earth Mother.

Key concepts

- Sustainability is about survival with dignity, rather than progressive development.
- There is no differentiation between fresh and saltwater, they are both important and linked.
- Water is a living organism with a spirit.
- Water is always moving and connecting.
- Water cannot be owned, and in the fluid form, is heavy to transport
- Healthy water meanders in its course.
- Blue Ecology provides a focus -- a good place to start to solve complex ecosystem topologies.

“We are borrowing water from future generations” (Olivia Sam, youth)

The intent of the Blue Ecology vision is to give priority to water, over human’s financial interests. The highest sustainability test is water-first: planned development (e.g. real estate, urban planning, forestry, agriculture, mining, oil and gas extraction) cannot impede the functional delivery of quality water to ecosystems in a healthy rhythm.

The five principles of Blue ecology are:

a) Spirit:

water, fresh and salt, is a living spirit.

b) Harmony:

harmonious sustainability in a functional rhythm engenders healthy bodies and ecosystems.

c) Respect:

water through ceremony, education and giving back, else Earth Mother will retaliate by taking water away.

d) Unity:

water has the ability to connect and unify humans because of our common reliance on this basic unit of existence. It is a proto interest.

e) Balance:

restrained and measured water withdrawals in combination with and giving back (i.e. restoration, monitoring, or ceremony) to watersheds and water.

Blue Ecology Water Cycle

Ask first, how is water affected by this current or planned human intervention?

1. Recognize that access to water is a universal and basic human right (In the UN General Assembly resolution 64/292 of 28 July, 2010, the UN recognizes the right to safe and clean drinking water and sanitation as a human right that is necessary for the full enjoyment of life and all human rights).
2. Communicate and prominently display the Blue Ecology vision and principles.
3. Develop and monitor measurable indicators to audit the implementation of Blue Ecology principles and practices. Invest in real time water quality and quantity measurement systems.
4. Embrace the principle of subsidiarity when designing implementation plans: local people, especially the youth, have a strong interest, as caretakers, in the water that flows through their lives, and so they should be involved in water management at the smallest effective watershed management unit.
5. Mentor and train local caretakers in the Blue Ecology approach to work together among and across watersheds, states and countries.
6. Water cannot be owned, source-to-tap delivery is a state expense and responsibility.
7. Celebrate water in architectural design, urban planning, artistic installations, community and nature parks, and forest visual landscapes, to remind the public of its importance.

Best Practices

A good example of a hydrologic cycle is illustrated above. More can be found at: <http://ga.water.usgs.gov/edu/watercycle.html>

Resources

Four Worlds of the Blue Ecology Water Cycle:

a) Sky world (i.e. spirit world):

The model highlights the rhythmical role of the sun and moon, and how water is a gift from the spirit world (e.g. Creator, God etc.). Balance and harmony are achieved, through respect, recognition of water's spirit and giving back, as well as by the understanding that all four worlds are connected by water.

b) Earth Mother:

All beings on earth are connected to each other by the transitory element, water. Our human health is directly dependent upon the health of the waters that flow through our land and bodies. If the water is sick, so too are we.

c) Water world:

Water has a spirit. Water is always moving and connecting in rhythms. Fish are part of the water, as all aquatic life is, the two are one.

d) Under world:

Water, the lifeblood, seeps, trickles and connects underground, like capillaries under human skin. Water is purified here.

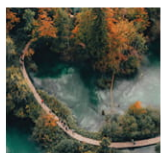
TRANSFORMING OUR WORLD IN HARMONY WITH NATURE

Part II: Means of Implementation to help us reach the 2020 SDGs with a Nature's perspective



IMPLEMENTING SUSTAINABLE DEVELOPMENT GOAL 17:

Strengthening the Means of Implementation and Revitalizing the Global Partnership for Sustainable Development



Environment
and Nature



Culture



Technology



Education
and Research



Economy and
Financing Mechanisms



Policy
and Law



Society
and Infrastructure

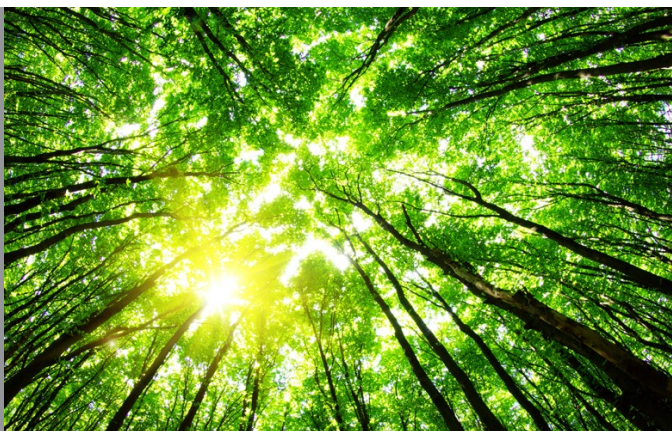


Development



Agriculture

Introduction



In each Part Two of the Trilogy “***Transforming our World in Harmony with Nature, Integrating Nature into the Implementation of the SDGs***”, we bring together details of the Means of Implementing the SDGs that are mentioned in the coinciding Part One.

Since Nature provides all resources necessary for human beings to survive and thrive, living in harmony with Nature is essential in our quest for sustainable development. Over billions of years, Nature has created synergies that enable all elements to collaborate and form a cohesive EarthSystem. It is in this spirit that we offer actions that comprise the ‘Means of Implementation’.

These ‘Means of Implementation’ are organized into the following categories:

- Environment & Nature
- Education & Research
- Society & Infrastructure
- Culture
- Economy & Financing Mechanisms
- Development
- Technology
- Policy and Law
- Agriculture

Environment & Nature, Society & Infrastructure and Economy & Financing Mechanisms are the three dimensions of sustainable development that are fundamental to all SDGs. Actions taken on these fronts promote synergies with those on any of the other dimensions. The remaining 6 areas, Education & Research, Culture, Development, Technology, Policy & Law and Agriculture also impact every human being, regardless of cultural and developmental backgrounds (unless they live in complete isolation). Means of implementation that foster harmony with Nature, on every one of these levels, will embrace human diversity and promote further coherence.

The Means of Implementation, in Part Two of each Book in the Trilogy, have been clustered under the above headings to allow easy access to action items. At the same time, Part Two of each of the books does actually cover the headings mentioned in ***SDG 17, Strengthen the means of implementation and revitalize the global partnership for sustainable development***, as follows:

- Separate chapters are dedicated to Financing, Policy and Technology;

- Trade, Data and Monitoring are covered by various of the actions listed;
- We delve deeply into systemic issues, promoting capacity building and partnerships through the broad
- variety of actions recommended and parts of the global population addressed, as well as the diverse innovative financing mechanisms recommended.

Each successive chapter provides a deepening understanding of those that came before, demonstrating how our connection with Nature pervades each aspect of our existence in different ways.

The objective of Parts Two is to demystify our relationship with Nature and fashion it into a tool that will allow us, as human beings, to gradually take our place in a thriving, mutually nurturing planetary community of fellow beings, living in harmony with Nature. It has been our intention to offer Insight into the role that Nature plays in our everyday lives and professions, within the context of sustainability. This relates to individuals, civil society organizations, business enterprises, Governmental Ministries and local governments.

The action items in Parts Two are developed from best practices concerns and ideas from civil society worldwide and will cross-fertilize grass roots thinking and behaviour worldwide.

UN Member States and Ministries

Given UN General Assembly Resolution 67/290 para 15 d and e, Parts Two of the Trilogy of Books are particularly relevant to UN Member States and Ministries. They describe specific action steps that can be implemented in reaching the SDG Targets. We have forwarded copies of the Trilogy to Heads of State and Government, UN Ambassadors in New York, USA, Geneva, Switzerland, and Nairobi, Kenya.

We respectfully request that they be shared with Ministries involved in any aspect of sustainable development and most specifically the Environment, Education, Social Affairs, Culture, the Economy, Development, Agriculture and Legal Affairs, and relevant departments involved with city and national infrastructure.

The books are also available to Ambassadors of UNESCO, the National Commissions, the civil society organizations connected to the United Nations via the Major Groups and other Stakeholders, including the NGO Major Group and the Common Cluster and groups associated with the UN and UNEP, as well as those associated with the UN via their interests in the economy and financing. Parts Two were created to provide stakeholders with practical means of implementing the SDGs.

We invite you to apply these collections of grass roots experience and expertise to any aspect of your work centered on the well-being of all people and Nature.

Educational Tools

We encourage sharing the links below with libraries and schools. This will make it possible for students to work more closely with their governments, as they integrate Nature in creating sustainable practices.

Education, curriculum and associated tools are covered throughout the three books:

- ***Transforming our World in Harmony with Nature 2020***
addresses SDGs 1, 2, 3, 5, 9, 14, and 17.

<http://www.allwinnetwork.net/wp-content/uploads/2020/04/Integrating-Nature-into-the-SDGs-2020.pdf>

- ***Transforming our World in Harmony with Nature 2018***
addresses SDGs 6, 7, 11, 12, 15 and 17.

http://www.allwinnetwork.net/wp-content/uploads/2018/06/Summary_Final1.5.pdf

- ***Transforming our World in Harmony with Nature 2019***
addresses SDGs 4, 8, 10, 13, 16 and 17.

<http://www.allwinnetwork.net/wp-content/uploads/2019/06/Transforming-Our-World-Web-22-June-19.pdf>



Executive Summary

March 2020

The actions mentioned in each of the reports in Part One can be seen as their Means of Implementation. These fall quite naturally into nine different categories:

- Environment and Nature;
- Education (Formal and informal, including through the Media and Research);
- Society and Infrastructure;
- Culture;
- Economy and Finance Mechanisms;
- Development;
- Science and Technology;
- Policy and Law;
- Agriculture.

These 9 areas are common to the lives of every human being, even those living in the most rudimentary of communities, regardless of cultural or developmental backgrounds. They therefore also tend to be the topics on which government

ministries and civil society organizations tend to focus.

Reading the introductions to each of these nine sections, we get an insight into how Nature relates differently to each of those aspects of our lives and how these are related to one another via our relationship with Nature.

“Means of Implementation” is the subject of the last of the 17 SDGs: *Strengthen the means of implementation and revitalize the global partnership for sustainable development*. In *The 2030 Agenda for sustainable development: Transforming our World*, the section on means of Implementation is subdivided into the following headings, which seem to differ from the above 9 chapter headings:

- Finance;
- Technology;
- Capacity Building;
- Systemic Issues;

POLICY AND INSTITUTIONAL COHERENCE

In Part Two of this book, separate chapters are dedicated to Finance, Technology and Policy, while (Systemic) Coherence exists throughout all actions recommended in this book, since these are rooted in the integrally interconnected subsystems that comprise Nature.

Where we live in harmony with Nature and apply her principles both to the stewardship of Nature and to sustainable and equitable use of resources, we create a coherent basis for a global partnership and build the capacity of humanity as a whole by both promoting the increase of resources available, as well as their just distribution. In this way, the nine chapters of Part Two embrace the subdivisions of **SDG 17: Means of Implementation**.

Each chapter is followed by a section entitled “In Conclusion”. This places the subject of that chapter into the larger insights that can be gained from the trilogy as a whole.

Here are some of the principle points made in each of the 9 chapters together with a summary of the actions from Part One that fit under that heading.



ENVIRONMENT AND NATURE

Each of us is a composition of aspects of Nature, in a constant process of change, as we absorb organic and inorganic matter through what we eat and drink

and the air we breathe. We are also each inspired by life. This provides us with the capacity to perceive, to experience and respond to emotions and to act in ways that increase our life's energy.

We can also each be seen as a meeting point for all of the Earth System's subsystems: the atmosphere, the hydrosphere, the biosphere, the geosphere and the noosphere. So, no matter how we look at ourselves, we are, each one of us, intrinsic to Nature.

We cannot stand outside of Nature, since Nature and each of us is one and the same. Yet we can become aware of our relationship to Nature.

We now find ourselves, as a human species, in a situation where a disturbing amount of aspects of our relationship to Nature are going wrong and threatening our capacity to survive.

We cannot mend these until we know what they are and that requires that we use the whole of our minds: intuition, capacity to name, analyse, find the right cure and then act. Here intuition has to be our first mental tool to find out exactly what has gone wrong. If we start by analysing without knowing the exact cause and the elements involved, we are unlikely to be able to take care of the problem.

In the chapters that follow, we see how each of the topics focused on in Part Two is deeply rooted in our relationship with Nature. As a result, once our relationship with Nature becomes based, from moment to moment, on what is actually going on, solutions to the complex problems we face will rapidly emerge. Since Nature is a fundamental aspect of all of the SDGs, headway made in our relationship to Nature with regard to one SDG will positively affect headway made on all of the other SDGs, too. This will significantly boost our capacity to meet the 2030 deadline.

In the first chapter of Part Two, we focus on actions that can be taken by those working or active in Ministries of the Environment, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in harmony with Nature. This chapter deals with actions relating to poverty alleviation, nutrition, health, how we structure our societies and our activities and reverse the destruction of our oceans.

By implementing the actions in this chapter, government ministries, civil society organizations, including the private sector and any individual is in a position to promote positive headway also on many other SDGs, since living in harmony with Nature is beneficial to the achievement of all of the SDGs.

When it comes to poverty alleviation in all its forms, leaving no one behind, it becomes clear that as many people as possible must be involved. Here education is an important tool and ways of integrating *living in harmony with Nature* into curriculum are made for subjects as diverse as maths, science, social studies, the arts, literature and environmental studies.

In addition, if poverty is to be eliminated the environment and local ecosystems must be restored and allowed to regenerate and become resilient by among other things, maintaining soil and plant health. The natural environment not only provides all basic resources needed for our survival, it also provides us with myriad examples of sustainable development.

Means to support the regeneration of Nature include increased funding in support of agroecology and agroforestry; the application of waste treatment that can also help to produce healthy and productive soils in regions where nutrients are largely depleted and much needed jobs in rural communities, while helping to eliminate water-borne diseases and improve the quality of

drinking water; and then also the use of biological processes that can make water treatment affordable in the developing world, provide a habitat for aquaculture, and boost agricultural productivity.

Equal rights and equal access to resources can be provided to men and women, in particular the poor and the vulnerable by following the principles of Nature, where all species contribute to the health of the ecosystems in a balanced interaction of give and take. For this, it is important to ensure that access and stewardship of the global commons is guaranteed equally to all people, rich and poor. The inclusivity found in Nature is a solid framework for creating the sound policy frameworks mentioned in 1.b.

Not only does Nature provide all of our food. She determines to which degree the food is truly nutritious. So, our capacity to achieve **SDG 2: Food security, improved nutrition and sustainable development** is fully dependent on how we relate to Nature.

We can use healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems to produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species and enable these species to grow strong through the diversity of other species they interact with. Healthy ecosystems naturally maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, mentioned in target **2.5**.

Interconnected and mutually nurturing ecosystems also have the following advantages:

- because the genes have been created within a Natural context, they are sustainable and are less likely to have unexpected repercussions;
- there are no strings attached to their use;

- they can propagate naturally and do not require permits for use.

Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend.

This section discusses targets **2.a** and **2.c**. We detail the actions mentioned there below, when we discuss the chapter on Agriculture.

Nature is integral to human health and well-being, for Nature and humans are inextricably one. So, the more we cultivate a state of vitality in Nature, including with our own bodies and minds, the more Nature “within us” and “outside of us” fosters human health and well-being.

This is the premise that introduces the discussion on integrating Nature into the implementation of **SDG 3**.

When we have a mutually beneficial connection with Nature, we have plenty of energy, feel happy, and our bodies, minds and psyche function optimally. We tend to feel more benevolent and open to others, our well-being increases, inspiration and creativity can thrive with the result that both society and the economy tend to flourish.

Deeply understanding and acting on the role Nature plays in human and planetary health and following her guidance when it comes to the need for inclusivity can be critical when it comes to the (cost-)effectiveness and quality of universal health coverage, the provision of safe, effective, quality and affordable essential medicines and vaccines for all, as mentioned in target **3.8**. Here attention is given to the advantages of combining allopathic and natural and more holistic forms of healing and reasons why this is resisted. This discussion is continued in the context of **3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide**

access to affordable essential medicines and vaccines.

Where we find we are acting out of harmony with Nature, particularly when it comes to man-made hazardous chemicals (target **3.9**) we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. A large number of ways of doing this are mentioned, including through policies and laws, Incentivizing Organic and Biodynamic farming, solar power, wind energy; funding those individuals, groups and organizations effectively cleaning up air, water and/or soil; providing better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health; and, in addition, instituting effective and sustainable recycling practices.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the amounts of health-care financing, mentioned in target **3.c**.

Early warning systems are available in the shifts in subtle energy systems of Nature. Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timelier, thus promoting the implementation of target **3.d**.

Nature provides myriad examples of sustainable infrastructure; some is already applied to meet our needs. To bring about the necessary far-reaching technological, infrastructure and other changes needed for the implementation of **SDG 9**, it is suggested to re-evaluate all foundational systems and infrastructures so that these are in harmony with the natural order; to break out of old patterns of thought and behaviour in order to support the framework Nature already has in place; and to recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to human-generated technology when this is out of harmony with Nature.

Building quality, reliable, sustainable and resilient green infrastructures, as mentioned in target **9.1**, requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. It also requires the prominent introduction of a new ethical standard on a global scale: that of the well-being of all life and the Nature as a whole. When it comes to introducing this in developing countries **9.a** - a number of suggestions are made that are generally applicable, also to developed countries. These include: building green infrastructure that capitalizes on the principles and resources that Nature has to offer which is both durable, cost effective and native to the area; (re)creating infrastructure that allows both humans and other forms of life to communicate, travel, find nurture and thrive side by side without the increasing clashes that occur as human settlements encroach on wilderness areas; and reducing the amount of electricity needed to be brought in over long distances. Each suggestion is accompanied by how it can be carried out in a natural and cost-effective manner.

Ancient ways of living in harmony with the environment, inspired by an intimate knowledge of Nature's ways of resolving

problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Target **9.b** is discussed here. We list the actions under this point when we discuss the chapter on Culture.

Oceans are being affected by our impact on all of the Earth subsystems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes. Therefore, we must target both marine pollution specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

Common to all these problems, people play a central role both as victims and as perpetrators.

Two types of actions are needed to bring about change:

1. To change our mindset with regard to pollution within the seas and oceans
2. To show that they--and we--are integral parts of an even larger context: the all-encompassing Earth System that we harm at our peril

This can both help us *Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development SDG 14*; and *prevent and significantly reduce marine pollution of all kinds 14.1*.

A number of actions are listed that can help us achieve this. They include: adopting strictly enforced legislation, which recognizes our relationships with Nature. **Here Ecuador and Bolivia are leading the way by prioritising harmony with Nature over economic development.** Other actions suggested include developing legislation in all nations to be able to prosecute by

universal jurisdiction those who pollute oceans and seas or otherwise harm any aspect of Nature; creating an International Environmental Court to enable prosecution by the International Community for crimes against the global commons; and changing *how we humans feel about Nature as a whole through an inspirational approach*, so that we are actively motivated to find solutions where these have not yet been discovered.

Target **14.5** is discussed in detail. Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%.

Here are a few of the actions recommended:

- Via the United Nations all coastal areas can be proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory (similar to that of the UNESCO World Heritage Sites).
- There could also be a global fund for their preservation.
- Nations with coastal areas could

work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.

- Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction.
- They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under **14.1**)
- Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together.

These recommendations are followed by a list of suggestions on how these bold actions can be implemented.

By taking the above actions, we will both be promoting the achievement of the SDGs mentioned above and have a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

In Conclusion (and as an introduction to what follows)

Human beings are integral to Nature. She suffuses all we are, think and do. It is not possible to stand outside of Nature and to analyse her “impartially” since we are a part of Nature. She speaks to each one of us through our senses, a heightened energy, and the feeling of

fulfilment as we connect with an aspect of life that nurtures us. This is in evidence in the smile and laughter of the young child and its self-motivation as it grows up.

In an ideal world, each new-born would be welcomed with delight, and supported at each developmental step, as it follows the “spark of its interest.” This, according to developmental psychologist, Abraham Maslow, would take the following steps: *‘physiological’, ‘safety’, ‘belonging and love’, ‘social needs’ or ‘esteem’, and ‘self-actualization’.* We should add that, as the process of globalization progresses another motivation stands out: the need to be a *‘world server’.* Here the inner satisfaction coincides with doing what is needed for the greater good, as humanity evolves. This is, for example, found often among volunteers, many of those working for NGOs, and those contributing to the fast growing sharing/partnership economy. This is the way Nature harnesses our support, as a species, to participate in our own evolution.

Education, besides teaching the skills necessary to function in the world, would ideally support people individually in following this “spark of interest” that accompanies our inner fulfilment. For this is a way to develop our potential in interaction with Nature. Some educational institutions use group projects to allow each student to use his or her strengths to contribute to a socially beneficial project and so education leads to students learning to consciously contribute to their own development and that of society in interaction with Nature.

Social development has proceeded in much the same way. First tribes developed culturally within their own natural environment and much as the child connected with the relationships and experiences, so societies embarked on development into ever-greater units, their technology pointing the way. Tribes

developed human settlements, “city-states”, countries and now one global world is emerging, as people's inner spark led them to discover the printing press, trains, radio, planes, computers, the Internet, social media, etc.

Where this natural development from child to global world is frustrated, the inborn connection with Nature is in danger of being broken and this leads to deep frustration and pain that expresses itself in the many problems which the SDGs are now trying to resolve. The chapters that follow show examples of ways in which problems at that juncture can be addressed.



EDUCATION AND RESEARCH

(Formal And Informal, Including Through The Media)

Education is a powerful tool to help root each one of us individually more consciously in our personal relationship to Nature. With life comes the capacity to perceive, feel and respond to emotions and act, wherever possible, to increase our life's energy.

Connecting with Nature can increase our energy and sense of harmony and inner balance. Intuitive connection can be experienced in a multitude of ways: a feeling of rightness, of recognition, a “spark”, a momentary sense of “coming home” or “following one's bliss.”

Education is linked to the Latin word “educere” which means “leading forth”, implying that the root meaning of education is not “putting into” but

allowing the student to be guided from within by his or her inner life force and inherent relationship to Nature, providing feelings of satisfaction, fulfilment and well-being, which, in turn, tend to produce a sense of benevolence with regard to our surroundings that indeed makes us individually susceptible to doing right by other people. There are a multitude of ways in which the educational process can be used to help solve problems relating to sustainable development.

The following actions are for those working or active in Ministries of Education, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in harmony with Nature through education and/or the media.

This chapter focuses on a selection of actions taken from our chapters in Part One on **SDGs 1, 2, 3, 5, and 14**.

It begins with a list of how Education in harmony with Nature can help “*End poverty in all its forms*.” It can empower students from diverse backgrounds to fulfil their full potential while contributing to society; change our overemphasis on the outer/material dimension of poverty while increasing our emphasis on the inner/spiritual perspective that stresses connectivity: foster the recognition of human interdependence with Nature and its importance for poverty eradication; recognize the need to include all people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities; inform government-sponsored disaster preparedness campaigns, so that people learn to make use of what Nature provides, during a disaster, when they are cut off from their home environments; and promote goodwill among social groups. A wide range of examples are given.

Education and the media can help people recognize that it is essential to

end hunger, achieve food security and improved nutrition for all people and for sustainable development **SDG 2**; and that this must be done in harmony with Nature.

To bring about motivated change, it is important to speak both to people's hearts and minds and to enable students to learn experientially. For instance, students can overcome the limitation of living far-away from the site of food production where the illusion is created that food production is at most peripherally connected to Nature **SDG 2**. This can be done through stays in the wild where principles of how Nature thrives can provide important insights in how we humans can resolve many of the challenges we face today. Education can provide opportunities for students to learn from and care for Nature by encouraging the creation of school, community, and city gardens where they can learn about permaculture.

To motivate people, especially the more privileged, to help to deal with problems, that might not touch them personally, such as those of infants target **2.1**, the stunting and wasting in children under five years of age, the nutritional needs of adolescent girls, pregnant and lactating women, and older persons target **2.2**; or the problems of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers target **2.3**, a more profound mental shift might be necessary that enables students to actually experience the connection between spiritual poverty of those scrambling for empty symbols of power and prestige and the material poverty that results often in the very areas that produce the necessary raw materials. Lists of actions are provided to deal with each of these targets individually.

Education to enable people to live in harmony with Nature can greatly promote healthy lives and well-being for all ages. The following targets are covered, each accompanied by a range

of diverse actions to promote their achievement: *drastically reduce maternal and infant mortality targets 3.1 and 3.2*, and how these should be adjusted to be culturally sensitive; actions to *build resilience in resisting non-communicable diseases target 3.4*; to *counter substance abuse 3.5*, provided by diverse cultures; actions to prepare a culture to give women *access to reproductive health services 3.7*; actions to *reduce deaths from hazardous chemicals and pollutants 3.9*; and the recommendation to use a combination of allopathic and naturopathic medicine to *make medicine more (cost)effective 3.b*.

Here is an example of the range of actions in the area of education and research recommended just to implement target **3.b**. *Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries*:

- Assure the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective;
- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to research and analyse true costs of healthcare as a baseline for decreasing overall healthcare costs,
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Research and then adopt a holistic approach to human health which includes the social, economic, psychological and spiritual. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness;
- Provide education and implement

environmental and health programmes that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature;

- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature;
- Educate people so that they see it is profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature;
- Research beside allopathic medicine, traditional, holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration;
- Teach people to respect, honour, and allow the use of healing modalities indigenous to that area;
- Elevating-the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported;
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.

Target 5 When we look at Nature, we see clearly that females of the species

are powerful forces to be reckoned with. Their power is derived from respect rather than fear. To empower and protect boys/girls, men/women, we need policies and education to bring about a mental shift. Here are some examples:

- Educate all people on the essential purpose of gender differences in the widest sense of the word;
- Organize informal mixed-gender groups, in which members switch off positions so that all develop an understanding and respect for the different perspectives of each gender.
- Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
- Educate through formal education and via media and diverse forms of sports and entertainment), on the essential purpose of gender differences at the biological level emphasizing that these do not necessarily extend to other contexts;
- Foster insight and appreciation for the uniqueness of individuals within both genders and orientations.
- Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
- Implement the Universal Declaration of Human Rights (UDHR) 26 (2), the development of the whole human personality, both legislatively and via the curricula of all formal educational institutions. This will empower girls and women in their relationship to men and boys and eliminate the need for males to forcibly subjugate females. UDHR 26 (2) will require:
 - Inner development of our faculties, including intuition -

which is the human umbilical cord that connects each individual with Nature - and the capacity to be aware of feelings both within ourselves and others.

- Development of skills in peaceful assertiveness and training in one's individually chosen profession.
- Develop forms of education that foster intuition; Foster education and experiences that connect humans to Nature.
- Develop curricula that teach:
 - The ability to balance gentleness and acceptance with strength.
 - The distinction between aggression and assertiveness.
 - The value of welcoming each new being with curiosity, wonder and awe.

Create education, policies, entertainment and technology that empower individuals to share their unique gifts with the world regardless of gender.

We also look at how Nature-based education can help us to achieve **5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation; 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate; 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws; and 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women 5.c Adopt and**

strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

SDG 9 Education can help us to understand how we can learn from Nature's examples how to build strong green infrastructure. Targets **9.1**, *Resilient green infrastructure*; **9.2**, *Inclusive industrialization*; **9.c**, *Increased access to ICT* is looked at in some detail.

Creating green infrastructure requires vision and innovation that welcomes the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

Inexpensive ways are discussed to provide universal access to the Internet, including for people who are (Internet) illiterate.

SDG 14 *Oceans, seas and marine resources* are being affected by our impact on all of the Earth subsystems. As a result, marine pollution is brought about by a host of different causes. This requires a wide range of actions.

Under **14.2**, for instance, the following actions are listed for sustainably managing coastal areas:

- Establish and scale up extension programmes and training courses focussing on sustainably managing and protecting marine and coastal ecosystems;
- Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to
 - Invest in and create water retention landscapes;
 - Engage in regenerative and restorative agricultural practices;
 - Restore damaged ecosystems to

protect against flooding and monsoons.

- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
- Teach and apply agroecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, Targets **14.1**(*reduce marine pollution*); and **14.4** (*end overfishing*) also list a number of actions that can be taken.

Education and Research

In Conclusion

We have seen in the two above chapters how education is a way of drawing out the potential of an individual in interaction with Nature. As we look at the actions mentioned above, we recognize that this form of education is critical to achieving each of the SDG's.

To end both spiritual and material poverty everywhere, each person must be able to develop his or her own full potential in his or her individual ways. So too in determining what types of food our bodies need at any given time and the state of our own health and well-being, all of us must individually be sensitive to Nature within and also outside of ourselves to detect emerging disharmony. And gender equality is a way of ensuring that people are given an equal chance.

The development of green infrastructure requires that we recognize how to create in harmony with Nature, using both existing knowledge and our own intuitive insights of problems that might occur.

When dealing with the oceans and seas, we are confronted with a huge array of issues. Each must be resolved in such a way as to restore the seas' and oceans' inner resilience and this requires that we work at every step in harmony with Nature.



SOCIETY AND INFRASTRUCTURE

Communities that live close to Nature use the full potential of their members to survive. In some Native American communities, young people are sent on vision quests to see what their role in their communities will be. Decisions are made collectively.

Where communities live close to Nature there is a balance between allowing the very best of each member to develop and the contributions each makes to the

group. Such communities in their balance between give and take both within their communities and with Nature have much in common with natural ecosystems that as a form have existed for billions of years. In this way, they are built on a firm foundation.

This does not mean that life is therefore a panacea. Where things seemed to be lacking, human creativity attempted to fill in the gaps. This has at times moved people farther away from Nature and even caused alienation.

Yet, in cultures farther removed from Nature similar eco-system-forms of community are also found. These are referred to as “commons”. Here all concerned in a project share in decision making, in the work that needs to be done, as well as in the benefits and outcomes resulting from their working together.

The advantage of such commons is that participants are deeply motivated to succeed, since they have an opportunity to follow what interests them most and share in all positive outcomes. Commons, as a social form, are also mimicking a form of being together that has survived in Nature for billions of years.

Ministries of Social Affairs, civic, public or private sector organizations or groups, and/or individuals wishing to promote social action in harmony with Nature can make headway on a number of SDGs at once. In this chapter we look at examples with regard to **SDGs 1, 2, 3, 5, 9, and 14**.

Under **GOAL 1**, among a number of things, we look at how we can mobilize people in general to help end poverty. Here are some elements that are discussed in some detail:

- Support the development of individuals' personal potential;
- Encourage people to build on one another's' knowledge;
- Provide education for people from all

backgrounds on what is involved in developing their lives, communities and areas of interest in ways that are sustainable.

Targets 1.4 equal rights to economic resources; and target 1.5 relate vulnerability to climate-related extreme events are also discussed.

Under GOAL 2, targets 2.1 and 2.2 are discussed. Here are some examples of actions from 2.1 end hunger and ensure access by all people to safe, nutritious and sufficient food all year round.

For the production of and increased access to safe, nutritious and sufficient food all year round:

- Encourage homeless and unemployed people to move or return to the countryside to reduce the desertification of rural areas and prepare the land for food production (as has been done in Costa Rica);
- Provide help to people at the grass roots to contribute to the production of safe, nutritious and sufficient food all year round by providing the necessary equipment and infrastructure;
- Recognize the additional benefits of providing all people with safe, nutritious, and sufficient food all year round in that such agricultural practices can help sequester gigatons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, and providing conditions that are much more favourable to dryland, rain-fed areas, subsistence and family farmers - particularly those living in regions of degraded farmlands and ecosystems. And so, by *working with, instead of against Nature*, we will find that we have befriended a powerful ally.

To ensure that those often neglected have access to food, governments at all levels and the UN System can take the following actions:

1. Implement social protection floors with the help of Inter-Governmental Organizations, such as the International Labour Organization (ILO).
2. Enact measures and policies to:
 - a. Provide access to food waste that is still safe and wholesome from stores and producers to homeless people and others in need. This can be done with the support of NGOs and the sharing economy.
 - b. Encourage charities and organizations of homeless people to collect food before it is wasted. Organize people to do this work.
 - c. Work with the resources that pre-exist within the environment of the people requiring nutritious food.
 - d. Promote farmer's markets and food banks.
3. To feed more people while using available space to do so introduce enforceable legislation and motivate the international community to:
 - a. Eliminate food waste through reusing, recycling etc.
 - b. Create food sharing programs within communities;
 - c. Promote good business practices and Corporate Social Responsibility in hospitality management, and water, food, and beverage industries.
 - d. Stress that because cities are so crowded, vertical as well as rooftop and community gardening are critical and that it is important and rewarding to use space creatively for food production, especially using permaculture which is a form of agriculture based on an ecosystem approach.

GOAL 3 Healthy Lives and Well-being

This section suggests actions for all targets, except **3.4** and **3 a**.

Businesses are influential economic forces in societies; and how these function. They can thus also strongly influence how people arrange their lives, the types of education and values they espouse and how and even whether they get the health care they need. Here are some actions they can take to help the achievement of **SDG 3**:

1. Prioritize humanism over profit making, while maintaining a focus on performance and high output management.
2. Invest in the organization in such a way as to increase both resources and the health of workers.
3. Provide a balance between leisure time and working time.
4. Encourage life-long learning. This will produce increased energy as the student engages in activities that involve their whole being - their interests, enjoyment, creativity, involvement in what they are studying - providing hope for the future, opportunities in the workplace, increased life-expectancy, and an upward spiral as opportunities are used to the full contributing to a reduction in poverty and the promotion of prosperity in a changing world.
5. Promote the "risk-sharing society" with educational sport and youth training that can develop autonomous behaviour and reduce dependencies at all ages and for all backgrounds.

GOAL 5 Achieve Gender Equality and Empower All Women and Girls

Here the following targets are discussed:

5.2 Eliminate violence against women and girls;

5.4 Recognize and value unpaid care and domestic work;

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

5.b Enhance the use of enabling technology

5.c Policies and legislation for the promotion of gender equality; and

Here the following recommendations are made:

1. Implement the following within societies at all levels in such a way that they bring about gender balance and empower women and girls;
2. Reform policies, education, laws and funding so that they promote gender equality and empower all women and girls;

Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.

Ensure women and girls are fully trained and have the necessary social and economic support to make land purchases, can manage their finances, inheritance and do all this sustainably.

Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.

Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation, including Targets 9.1 Reliable green infrastructure; 9.2 Green industrialization; 9.5 Enhance scientific

research; 9.a Facilitate resilient green infrastructure; 9.b Support domestic technology; 9.c Access to ICT.

Here in more detail is target **9.a Facilitate sustainable and resilient green infrastructure development in developing countries:**

1. Green infrastructure that serves both human societies and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems - retain more water, increase the number of plants and animals that can interact and balance the recycling of carbon and other minerals while regulating the climate.
2. (Re)create infrastructure that allows both humans and other forms of life to communicate, travel, find nurture and thrive side by side without the increasing clashes that occur as human settlements encroach on wilderness areas.
3. Reduce the amount of electricity needed to be brought in over long distances. Here a range of suggestions are made;
4. Conserve Nature by returning to traditional forms of herding and agriculture using locally occurring grasses and crops that are adapted to the local climate, including, for instance, crops that can grow in dry areas.
5. Increase the provision of water so that it does not have to be brought in over large distances; and increase the provision of food and livelihoods by building biodiverse ecosystems and stewarding these until they maintain themselves. (See the film the Biggest Little Farm.) In this way, societies will be significantly strengthened, empower their citizens to be more productive and feel more fulfilled.

GOAL 14 Conserve and sustainably use the oceans and seas and marine resources for sustainable development Target **14.4** on overfishing is discussed. Here are excerpts from target **14.5** *By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on best available scientific information.*

Conserving just 10% of Nature, as it is currently set up, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that have borders on oceans and seas are directly interlinked with many other parts of the Earth. For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

1. Suggest that via the United Nations all coastal areas are proclaimed "Trust Territories" to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
2. Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.
3. Because marine and coastal areas and the global commons in general

are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)

4. Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together.

This section goes into how this can be done. Such measures will both help to overcome many of the dire problems associated with coastal areas. They will also transform what before have been areas of conflict into a means to build goodwill and cooperation at a supra-national level.

Society and Infrastructure

In Conclusion

The health of human societies involves much more than that of specific groups of people. A society is healthy to the degree that each of its members are both healthy, well-nourished and in a process of developing their full potential. This requires nutritious food, fortified by the bounty that Nature provides and an environment that is wholesome where both humans and all other life forms can thrive. And to make all this possible, requires each person, individually, to be sensitive to their own inner nature and how that is nudging us to develop in interaction with our many environments, including our social and natural environments.

But Nature is no panacea of harmony. It is full of stresses and strains, as is each human being, as we experience the growing pains of our own development and that of the societies we live in. Societies are developing, expanding and building new boundaries as our world expands from societies that formerly were isolated from one another to ones that are in constant communication.

And so societies are healthy to the degree that people are able to come to grips with the growing pains of an emerging global community. Here enforceable policies and laws are needed backed by effective conflict resolution tools that can cope with the growth of societies alternating with periods of hardening boundaries. Ubuntu is one approach to peaceful conflict resolution which stresses the underlying oneness of all and the principles of empathy, sharing and cooperation.



CULTURE

Culture can be defined as the mainly immaterial forms — ideas, customs, and diverse forms of artistic and intellectual manifestations—that allow a people to prosper together. These often grow directly out of the natural environment they share in which people live and where they seek to thrive and survive as a unit.

Cultures are thus rooted in our own inner nature and both our natural and social environments. That makes culture a

powerful force in each human life that can be used for the betterment of all people and Nature. But where culture is thwarted, endangered or destroyed, it inevitably becomes a source of conflict whereby many will lay their lives on the line. For destruction of a peoples' culture leads to social disintegration and at the same time the destruction of many individuals.

So, respecting one another's' cultures is extremely important, since they are related to the roots of who we are.

The growing and intermingling of cultures has been happening since the very dawn of civilizations.

And still, cultural diversity lies at the heart of many conflicts today.

The challenge we face is to allow cultures to flourish without being under siege and without negatively affecting other cultures. Culture can become a tool to implement the SDGs and to grow into our identity as unique beings living in unique constellations of people from diverse cultural backgrounds that strengthen and inspire one another and allow each one of us to develop in our own individual ways.

Here are some examples of actions that can be taken, some by Ministries of Culture, others by those working in private or public sectors or by civil society organizations or even those working in education:

For instance, to help end poverty **SDG 1** the following actions are recommended:

1. Educate people on how to make durable change which can involve building on cultural strengths of people from other cultures.
2. Teach via traditional education both about specific social, economic cultural and political changes that have successfully taken place, together with how and why these were successful and to which degree they were durable. This will give people the ability to bring about constructive change and the means

to do this effectively, without causing intrinsic harm to Nature or parts of society.

3. Provide information and examples on how the disenfranchised have successfully put pressure on those in power—showing how the powerful can profit from such change.
4. Provide examples of how Nature works. For instance, species learn to build on the strength of other species.
5. Provide access to the Internet, which is already leading to a worldwide sharing of knowledge and culture, much of this free of charge.
6. Support the development of individuals' personal potential. This will make people less blindly dependent on their own culture. Ways are discussed in which this can be done In the workplace; and in formal education at all levels.

This section also discusses: ending poverty by changing our overemphasis on the outer/material dimension of poverty and helping people to become aware of the inner/spiritual perspective that both stresses connectivity and fosters an inner perspective that in turn results in benevolence toward other people and society; encouraging understanding of how to activate potential and find personal fulfilment; and ending poverty by mobilizing all people to participate, including the most disenfranchised, youth, the elderly and those with disabilities.

Building a culture of peace is important to *decrease the numbers of deaths of mothers* and children mentioned in **3.1** and **3.2**, and to create a secure, loving atmosphere for women who are pregnant and those who are in the process of giving birth; and nurturing awareness in people that children are the responsibility of all people because they are the future of our species.

With regard to **GOAL 9. Build Resilient Infrastructure, Promote Inclusive and**

Sustainable Industrialization and Foster Innovation, 9.1 Resilient infrastructure; 9.2 Inclusive sustainable infrastructure; 9.b domestic technology; and 9.c Access to ICT is discussed.

Here are examples of points made under 9.b *Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.*

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials; rooting development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically; powering domestic development as much as possible from local natural and renewable sources; taking heed of how local development fits into national, regional and global sustainable development; employing local labour; using and upscaling local solutions; scrutinizing if value addition to commodities is actual value added; giving opportunities for the consumer to interact with the process.

Culture

In Conclusion

The clash of cultures seems to be increasing the more we become globally entwined. At the same time, even in the darkest of times, including during the Cold War, Citizen Diplomacy played a positive role and many relationships

which began then have grown into strong bonds today. Citizen Diplomacy continues unabated in areas of conflict.

At the same time *The Declaration and Programme of Action on a Culture of Peace* was adopted by the [United Nations General Assembly](#) on September 13, 1999. This occurred after ten months of negotiations in the context of preparations for the [International Year for the Culture of Peace](#). This is also supported by numerous grassroots organizations working with the UN.

And so renewal emerges as cultural harmony breaks down in the form of combined action between people at the grass roots and governments at the UN.



ECONOMY AND FINANCING MECHANISMS

Human economies were once based on barter, much like the give and take in Nature's ecosystems. Starting with industrialization, our global economy has become inherently unsustainable: there is now neither a balanced give and take between human beings and Nature, nor between us human beings among ourselves; and we are fast depleting both our social and our Earth's natural resources.

Here are a few issues to be addressed:

- The type of consumerism fostered by debt-based economies.
- Our increasing alienation from the life-giving energy and nurturing, provided by the natural world, which is causing increased consumerism,

as people, in vain, seek solace in mere surrogates symbolizing power and prestige, that lead to a yearning for more and more.

- Goods and services have become identified with money and money, originally a point system to facilitate the exchange of goods and services, has now become a commodity itself, that can be printed at random and traded, thus distorting real value.

The resulting problems include economies spiralling out of control, a growing gap between rich and poor, mountains of waste, destruction and depletion of the natural environment that is so essential to our survival; and the transgression of more and more planetary boundaries necessary for human survival.

And still a powerful part of humanity is fighting on all possible fronts to make as much money as possible from this predatory form of economy.

Our challenge is to restore economic, social and spiritual well-being, rooted in the balanced give and take in Nature as well as Nature's recycling so that nothing goes to waste.

Fortunately, new more sustainable economic forms are emerging. These include cooperatives and the sharing/partnership economy mainly found on the Internet. A possible scenario is that as emergencies and public pressures increase and more and more people see and experience the benefits of these more sustainable economic approaches that the more predatory forms will eventually be relinquished.

In this chapter you will find examples of actions, which can be taken and/or encouraged by governments at all levels including by ministries, including some that can also be taken by public, private or grassroots organizations or local communities to promote the achievement of SDGs 1, 2, 3, 5, 9, and 14.

For instance, here are examples of financing mechanisms, some of which are already widely used, some can be taken in the future to promote the achievement of target **1.1 By 2030, eradicate extreme poverty for all people everywhere**,

- *Pigouvian taxes*: Taxes placed on a negative externality to correct for a market failure, for instance an increased cost for petrol to discourage its use.
- An alternative form of Pigouvian tax would add that those perpetrating the harm, say to the environment, can be required to restore the damage they have caused as well as pay extremely high fines or taxes. Revenue from such taxes can be used to restore damage done to the environment or society. If the taxes are high enough, they could take the place of tax on income—at least until people are no longer tempted to do this harm. Income from Pigouvian taxes could go to the Global Fund for Sustainable Development and a basic income for all people.
- *A global fund for sustainable development (also referred to as a Global Resource Fund)*. This Fund could be fed by a number of activities, each aiming to encourage sustainable development, such as Pigouvian taxes and from other fines for unsustainable activities, such as income derived by shifting tax from income to a small rental fee for the sustainable use of natural resources, that must be available for all people—the global commons, for instance, whereby special arrangements would be made for Indigenous Peoples and subsistence farmers, etc. who live almost exclusively from their natural environments. A Global Resource Fund could finance compensation for communities who suffer from the exploitation of resources under their jurisdiction; the restoration of the

global commons; a basic income for all people to be used for the implementation of article 26 (2) of the Universal Declaration of Human Rights, the full development of the human personality.

- *Commons rent /land value taxation-* a method of raising public revenue by means of an annual charge on the rental value of land;
- A fund inspired by *the Norwegian Government Pension Fund which has the purpose* finance rising public pension expenditures and support long-term considerations in the spending of government petroleum revenues.
- *A Self-financing World Marshall Plan*, developed by Dutchman Pieter Kooistra. This is a way of creating and financing a supplementary income for all people worldwide and a Marshall Plan for the Earth. The approach was endorsed by Noble Prize winner Jan Tinbergen. Sources are mentioned for further information both as to how the plan works and how it might be implemented. A book on the topic was financed by the Dutch Government.
- *Alternative local currencies, including the LETSsystem; Time dollars, etc.*, all of which are particularly valuable to regenerate areas where the local economy is flagging and currency is in short supply to stimulate employment. This is being used in countless locations in both rich and poor nations around the world.
- *Using and providing access to products and services provided for free by commons communities and networks*, often using the Internet.
- *Business cooperatives*, a for profit form of commons, which are owner operated businesses, attracting one billion members worldwide. Cooperatives tend to do well even in

times of economic downturn, because the owners/workers all share in the profits.

- *Micro-financing institutions, such as the Grameen Fund, Bangladesh; and the Trickle Up project.*
- In addition, the following targets are discussed in some detail:

1.2, 1.3, 1.5 , 1.a & 1.b

With regard to **GOAL 2 End hunger, achieve food security, Improved nutrition and promote sustainable development**, it is important to remember that food that has retained its natural vitality both by how it has been produced and the care with which it has subsequently been handled is more effective in helping people to grow into vital, healthy and fulfilled human beings and thus in the long run economically more cost-effective than foods that have, for instance, been over-processed and handled without the due care; for the latter will often result in a greater susceptibility to disease and eating disorders, including obesity and overeating, which tend to take an economic toll on society as a whole. A number of actions are discussed under target **2.1**.

With regard to **GOAL 3 Ensure Healthy Lives and Promote Well-Being for All at All Ages**, two targets are discussed: **3.9**, and **3.b**

Here are some of the actions recommended under target **3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce**:

While ensuring that the healthcare being financed is of the best possible quality, has the best possible results, and is moreover cost-effective and adopts a holistic approach to human health including through the caring and scrupulous implementation of fundamental human rights:

- Establish impartial committees

knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.

- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that are cost effective and have worked over long stretches of time. These were discussed in more detail in the context of target **3.8**.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.
- Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of

medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated and investing in global development.

Here is the introduction to **GOAL 5** Achieve gender equality and empower all women and girls:

In Nature males and females are both fully engaged in strengthening the species as a whole and providing the means for well-being and survival. The strength of human economies increase with the degree all, including all women and girls and people with diverse sexual orientations are empowered to develop their full potential and participate fully in society and the economy.

There is a listing of actions to implement target **5.4**

Bearing in mind that integrating women fully in society and economic activities will, greatly enhance economies at all levels, target **5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land, etc.** suggests steps that can be taken to achieve this.

Under **GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**, there is a discussion of targets **9.1, 9.2, 9.5, 9.b**

Here are some of the actions recommended under **9.3**:

Increase the access of small-scale industrial and other enterprises, to ease access to financial services, Use local currencies; Explore tapping into the tourist trade; Connect with the sharing/partnership economy using the Internet; Give people grants to start a business, especially in developing countries; Give old businesses grants to pass on their business to the next generation, allowing the next generation to start their lives debt free; Provide

affordable credit so there are expanded opportunities for people to express their gifts and interests in a business context, encouraging sustainable economies.

According to the World Wildlife Fund, *the ocean provides us every year with a wealth of goods and services conservatively valued at US\$2.5 trillion.*

With regard to **GOAL 14 Conserve and sustainably use the oceans and seas and Marine Resources for Sustainable Development**, actions under the following targets were discussed: **14.2 By 2020, sustainably manage and protect marine and coastal ecosystems... and take action for their restoration, to achieve healthy and productive oceans;** and **14.5 By 2020, conserve at least 10 percent of coastal and marine areas...** In addition to the actions mentioned above, a number of actions are suggested based on creating cooperatives that are based on equitable sharing with members of the cooperative, the communities where they are based and donations to global development; and scaling these up from local to global levels.

Economy and Financing Mechanisms

In Conclusion

The economy is often seen as the root of all evil. It is said to be at the heart of the present disunity between peoples and their governments, the fight for resources and immigration issues.

At the same time, in this chapter we notice how creatively the grass roots has been dealing with economic problems that are affecting our world. There is moreover a convergence taking place between those in need, and those who feel the urge to give to those in need. Generosity from a feeling of wealth comes from being able to develop what lies closest to their hearts and the deep desire to share this with the world.

Out of the convergence is emerging the fast-growing sharing, partnership economy that connects people and

institutions worldwide. In the area of education alone, information and study opportunities exist for free on the Internet in every conceivable field. The world is also brimming with civil society organizations who make their knowhow and services available to people in need. In fact, each book in this trilogy is made up of their contributions in response to our pleas that went out globally as we prepared reports on each of the 17 SDGs.

A heartening process is taking place: as one aspect of the global economy fails, new ones are emerging to take its place.



DEVELOPMENT

There is a parallel between what education is to the individual and what development is to nations. While true education is rooted in our direct individual connection to Nature, development of a society or a nation is rooted in their culture, which in turn is also rooted in Nature.

Development is often experienced as a process whereby the haves give to those who have less. This way of seeing the process generates an association of “giving” with “giving away”.

As a result, there is the temptation either not to honour aid-giving agreements, or else to provide aid while making the most for oneself.

While developing nations are hesitant to criticize “development aid” in the fear that no aid will be forthcoming at all, development is associated in many

cases with bitterness and broken promises. Development aid and “Common but Differentiated Responsibilities” (CBDR) and the resentment that surrounds these are too often a sticking point in international negotiations.

Material poverty of the poor in both developed and developing countries is in some cases created, in others aggravated by the greed and insatiable desire for possession that too often accompanies spiritual poverty. Spiritual poverty has its root in an inner void, caused by a sense that life lacks meaning which we unsuccessfully seek to fill or compensate for by gathering material symbols of outer wealth. This insatiable craving leads to the depletion of natural resources, mountains of waste, an increasing chasm between rich and poor and much more. Both material and spiritual poverty are found in both developed and developing countries among both rich and poor people.

To come to grips with these challenges, here are some issues to address:

1. Development must embrace all people and all members of every society; and target both spiritual and material poverty, for all people are interconnected.
2. Individuals must be encouraged to find balanced personal fulfilment by reconnecting with Nature, as outlined above in the Introduction to the chapter on Education.
3. We, both individuals and Nations, must without delay adopt financing mechanisms and economic approaches that are rooted in Nature's examples.

Here are examples of actions governments can take, including ministries. Some can also be taken by the private and public sectors and civil society organizations. All actions suggested are rooted in the understanding that, as in Nature all is interconnected, so too are all people, their thinking and actions.

Development must therefore embrace all people in rich and poor countries and at all levels of societies.

With respect to **GOAL 1** *End poverty in all its forms everywhere*, here are ways of mobilizing a wide spectrum of people to participate in development:

1. Promote inner development that will inspire and empower individual people by enabling them to tap into what deeply moves and motivates them. This can be done in the workplace by providing more flexible work schedules so that workers can combine both work and personal satisfaction. It can also be done in formal education. Here, for instance, students can be encouraged to work together on projects in such a way that each contributes their individual strengths to the same project so that all become one another's' teachers and students at the same time. Where such projects focus on social and economic issues, students' work can have great relevance to overall development.
2. Provide a basic income for all people to build an economy of inclusiveness.
3. Include all people in poverty eradication, including the most disenfranchised, in such a way that all can taste the delights of combining the development of their own potential with that of their communities. Here a number of ways are listed that provide people with disabilities, youth and the aging with a specialist role. A large number of ways are discussed of integrating the poor, the most marginalized and immigrants into society.

Targets **1.4 & 1.5** are also discussed.

With regard to **GOAL 3** *Ensure healthy lives and promote well-being for all at all ages*, the actions under target **3.9** and **3.b** on *health financing and the recruitment, development, training and retention of the health workforce* (summarized above under Education.)

Here are a few of the points made under target **3.a** *Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries - provide access to affordable essential medicines and vaccines.*

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

1. Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
2. Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
3. Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
4. Legalize other traditional forms of

healing which in many cases take a more Nature-inspired approach.

5. Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
6. Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

Under **GOAL 5** *Achieve Gender Equality and Empower All Women and Girls*

The following targets are discussed here: Target **5.a** (See the actions recommended under Education;) and targets **5.b** & **5.c**. These are discussed in more detail below under "Technology."

Although **GOAL 9** was briefly touched when we summarized the contents of the Chapters on Nature and on Education, here are some actions in more detail that can be taken to "*Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation.*"

To bring about the necessary far-reaching technological, infrastructure and other changes:

1. Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
2. Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the

centre of everything we say and do.

3. Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

To draw on broad creativity and create a foundation of support, develop the necessary social participation

1. Establish avenues, such as local town hall meetings, that are open for all to participate, to gather innovative, creative ideas to be heard and implemented by political leaders at various levels of governance.
2. Publish success stories about the integration of refugees and migrant workers.
3. Set up methods for mediation to address and resolve issues arising between natives of a recipient country and immigrants and refugees to create better understanding and broaden perspectives.
4. Establish win-win policies for assimilating immigrants and refugees into a culture. See: Why accepting refugees is a win-win-win formula: www.brookings.edu/blog/up-front/2018/06/19/refugees-are-a-win-win-win-formula-for-economic-development.
5. Make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all.
6. Provide ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

The following targets are also discussed in this section:

9.1, 9.2, 9.5, 9.b & 9.c

The two targets are discussed under **GOAL 14 Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development** were discussed elsewhere: Targets **14.2** and **14.5**.

Development

In Conclusion

Development is to nations and communities what education is to the individuals. It involves recognizing that both spiritual and material poverty are intertwined and one cannot be solved without the other.

Yet there is another aspect that is not focussed on in this chapter but speaks to us from this book as a whole: Each one of us is involved in the development of vision and identity as we take our next evolutionary step as members of a global community that also encompasses all living beings and Nature as a whole. And so development encompasses individuals, countries, humanity, our Planet and that in the context of our Universe. Just imagine the forces that are working with us once these relationships are in sync.



TECHNOLOGY

Truly sustainable technology is frequently inspired by Nature's myriad forms and processes which speak to us through our observations, intuitive insights, hunches and dreams, etc.

Nature has gradually created more and more diversity, building on forms and/or processes that have stood the test of time.

Humans, too, as expressions of Nature, have developed ever larger and more complex forms of interaction, so that we are connected globally in a multitude of ways. Here technology is playing a pivotal role in our development as a species.

Technology can rightfully be seen as both a gift from Nature and a tool whereby Nature prepares us for our next evolutionary leap from separate entities to a global community based on the well-being of all people and the whole of Nature.

The following actions are meant for ministries and governments at all levels, the private and public sectors and civil society organizations. This section looks at a few examples of how Nature-inspired technology can be used to implement **SDGs 1, 2, 9 and 14**.

GOAL 1 *End poverty in all its forms everywhere.*

Nature-inspired technology to bring about universal access to the Internet will enable people to connect with the fast-growing sharing/partnership economy that makes, among many things, education at all levels and economic opportunities available much of this free of charge. This will help achieve **SDG 1. End poverty in all its forms everywhere; Target 1.4 ensure that all men and women have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.**

In the section dealing with **GOAL 2** *End hunger, achieve food security, improved nutrition and promote sustainable development*, both the positive and

negative aspects of technology are looked at.

While technological 'advances' in the production of seeds, the fertilization of soils is particularly in the context of industrial farming can undermine **GOAL 2**, universal access to the Internet by contrast would help bridge the digital divide by giving people from all backgrounds access to knowledge, expertise, up to date market, weather and other information and many of the resources necessary to help promote the implementation of **SDG 2**.

In addition, given human ingenuity regardless of economic or other background, universal access to the Internet can be a powerful tool in the long run in implementing targets **2.1, 2.3**. Improved connectivity would also promote the achievement of **2.c - Adopt measures to ensure the proper functioning of food commodity markets and their derivatives, and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.**

Technology can also be a powerful tool when it comes to **GOAL 5 gender equality**.

Here is an example discussed under target **5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.**

Access to technology is key to promoting women's empowerment. In addition, technological development with regard to the media and advances in other forms of communication and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature. Since gender inequality is

deeply ingrained, desirable changes must be supported by strictly enforced policies and laws as well as education. The internet can be most helpful here.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access.
2. Use the Internet to make training more cost-effective globally. This can begin at the global level through courses in broad Internet use if (as needed) people from each country are invited to attend by the UN and its Specialized Agencies (Including UNESCO and ITU), using the Internet to make these less expensive and more accessible to all. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff regional and local centres. Here trainings on gender equality can be made available:
3. Develop technology and training in equality and inclusivity.
4. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
5. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

Many of the actions suggested under **GOAL 9** *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation* have already been discussed above. Those recommended for target **9.a** *Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced*

financial, technological and technical support - were discussed above with regard to Society. Those recommended for target **9.b** *Support domestic technology development, research and innovation in developing countries* - were discussed with regard to Culture; and those under target **9.c** *Significantly increase access to ICT and strive to provide universal and affordable access to internet* - were discussed with regard to Development.

In the introduction to **SDG 9** itself, the following actions were recommended:

To bring about the necessary far-reaching technological, infrastructure and other changes:

1. Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
2. Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place.
3. Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.
4. Provide Nature-inspired ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

With regard to **GOAL 14** *Conserve and sustainably use the oceans and seas and marine resources for sustainable development*, recommendations were made for target **14.3** *Minimize and address the impacts of ocean acidification, including through*

enhanced scientific cooperation at all levels.

The following recommendations focus on building green infrastructure by strengthening that of Nature as a means to implement target 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

1. Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.
2. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:
 - a. Invest in and create water retention landscapes.
 - b. Engage in regenerative and restorative agricultural practices.
 - c. Restore damaged ecosystems to protect against flooding and monsoons.
 - d. Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
 - e. Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc
 - f. Eliminate the use of toxic products, which pollute the oceans and

cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.

- g. Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably manage and protect marine and coastal ecosystems, and more.

Technology

In Conclusion

Technology that is out of step with Nature is causing destruction of whole natural systems threatening the ongoing survival of our species and all others. At the same time, technology that is in sync with Nature by, for instance, increasing connectivity for the greater good can rightfully be seen as both a gift from Nature and a tool whereby Nature prepares us for our next evolutionary leap. Throughout the ages technology that has enabled us to work together constructively in ever greater groups is now preparing us to become a global community based on the well-being of all people and Nature as a whole.



POLICY AND LAW

Policy and law was originally firmly rooted in direct observation of Nature's laws, upon which people depended if

they were to survive. Among these, there are some basic natural laws and principles that have remained fairly consistent throughout the past billions of years, for instance, the importance of cooperation and community in the process of evolution, and Nature's Ethic of *all for one and one for all* (to quote Switzerland's unofficial motto.)

While science in some ways brings us ever closer to Nature's laws, the Nature-inspired human laws, are honoured by a dwindling few. Many of these are fully dependent on Nature for their livelihoods. Human laws have become ever farther removed from their source as human beings became farther removed from the mental, emotional, social, economic and spiritual nurture provided by Nature.

It is now critical to return to Nature-inspired laws that can empower us to create sustainable communities from local to global levels, centred on the well-being of all people, the communities we form and Nature.

These can include those laws, inspired by the way eco-systems operate in Nature. These have gradually developed, starting in the very distant past as humans have come together in ever larger complexity, growing from tribes to city-states to nations. They are still relevant to our present attempts to form a global community. The dynamics of this growth in complexity while fostering cooperation, community and the above-mentioned natural ethic are deeply embedded in the evolution of matter and life over billions of years, from atoms, to molecules, to living cells and then a plethora of plant and animal species. They therefore form a powerful basis for human laws at all levels that promote peaceful human coexistence, solidarity and collaboration.

Such laws promoting peaceful coexistence have had the capacity to bring peace to formerly war-torn human societies. Examples include the

formation of the United States of America from 49 separate states and of the EU that has caused Germany and France, formerly bitter enemies, to become staunch allies.

Policy and law in harmony with Nature has become critical to human survival.

This section is relevant to ministries and governments at all levels, as well as standards that can be adopted and advocated by the private and public sectors and civil society organizations, particularly those working with the United Nations and Inter-Governmental Organizations.

GOAL 1 *End poverty in all its forms everywhere*

To eradicate poverty it is essential to:

1. have well-functioning agreements and enforceable laws at all levels, nationally and internationally, implementing and enforcing all fundamental human rights agreements, the UN Charter, and guiding our work on the 2030 Agenda including all the SDGs.
2. pass and strictly implement laws that celebrate differences and prevent all forms of discrimination. Discrimination marginalizes people, weakens the economy and undermines peace.
3. develop and implement laws, making it unlawful for families, caregivers and communities to neglect those who are vulnerable and bring those who are negligent of their responsibilities and duties to justice, if possible, by finding ways of supplanting callousness with empathy and understanding.

Here are some suggested actions listed under: target **1.4**. *By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and*

financial services, including micro finance.

1. Level the playing field between rich and poor, including by ensuring all have access to both international agreements and guidelines for living in harmony with Nature. See UN website: www.harmonywithnatureun.org
2. Create and implement laws that ensure that the global commons can be stewarded by all people for the benefit of all people and Nature. This would give all people including the poor and the disenfranchised equal access to these resources, provided by the Earth System and provide them with access to enforcement mechanisms, so that they can make sure that the global commons is stewarded for the wellbeing of all.
3. Provide the poor and disenfranchised with equal rights to help steward and manage commons lands by creating a land lease system in countries with significant amounts of lands not yet in private ownership. This system can be based on "land value maps" rather than selling land into speculative and inequitable land markets, promoting a system of direct democracy whereby the people on these lands vote for their preferred use of the lease fees.

Targets **1.5**, and **1.b** are also discussed.

In the context of **GOAL 2** *End hunger, achieve food security, improved nutrition and promote sustainable development*, the following targets are mentioned **2.1** *By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round*, which is mentioned in detail above in our summary of the chapter on Society; and target **2.3**.

GOAL 3 *Ensure healthy lives and promote well-being for all at all ages*:

Societies can play powerful roles in the health of whole populations by adopting

the right laws and policies, providing, of course, that these are in harmony with Nature. Here are a couple of the points made:

1. Implement strict codes of conduct backed by enforceable laws to ensure that all have access to clean water and air, and that the soils remain fertile and the harming of any species of animals or plants can be prosecuted under universal jurisdiction.
2. Implement fundamental human rights.

This section also discusses targets **3.5**, **3.6**, **3.8**, **3.9**, **3.a** & **3.b**.

With regard to gender equality, **GOAL 5**, we touched, in our discussion of the chapter on Nature (above) on a few points relating to target **5.4**: *Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate*.

Here they are in more detail:

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity. If we believe that ***all*** children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we:

1. Change the perceived value of at-home work and child-rearing duties.
2. Create policies and funding to support

shared responsibility for the home and show that education, caregiving and domestic work are highly valued.

3. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
4. Promote mutual respect with policies, funding, education, the media and technology.

In addition, the following targets are discussed: **5.a** *Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws* (also discussed in some detail above under Society; target **5.b** *Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women* (outlined under Technology); and target **5.c** *Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.*

This emphasizes: The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest. This would help implement the relevant policies and laws by motivating people to obey them.

GOAL 9 *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster Innovation*

Green infrastructure is by definition in harmony with Nature. It should benefit all

people and enable all to contribute to and partake in innovation by enabling them to engage in diverse processes that allow them to develop their individual potential, which as we saw, tends to lead to deeper personal fulfilment, feelings of benevolence toward others, greater social cohesion, and greater harmony with Nature. These approaches must be backed by just and strictly enforced policies and laws.

Targets **9.2** and **9.b** are discussed here in detail. These were also outlined above under Education and Culture respectively.

With regard to SDG 14, we discuss actions relating to **14.1** *By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution;* **14.4** *By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics;* and **14.5** *By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on best available scientific information.*

These have been discussed in detail in the contexts of the chapters on Nature, Society and the Economy respectively.

Policy & Law

In Conclusion

Human laws have become ever farther removed from the Nature-inspired laws, from which they stem as human beings became farther removed from the mental, emotional, social, economic and spiritual nurture Nature can provide.

At the same time, we already have a wide range of treaties, laws, policies,

rights and freedoms that are based on inclusiveness, individual empowerment, peaceful relations between nations and other entities; and global stewardship of the global commons—oceans and seas, Outer Space and Antarctica, etc. It is a matter of implementing these.

Where these have been enforced a mental shift is taking place in how we view minorities, women, other beings, etc. For laws sensitively enforced create a situation whereby each person can come into his or her own and shine in their own individual way. And this is equally true with Nature.

This is indicated in the discussion of changing the way we view stay-at-home parents and providers of children's care. The shift is described there as follows:

"If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species. To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties."

In this way, every minority can show its inherent beauty if given a chance. The choice is ours to select the self-reinforcing upward cycle that allows each individual to shine.



AGRICULTURE

Developing agriculture sustainably is one of the most urgent contributions we can make to restoring a healthy and wholesome relationship with Nature as a whole, including our fellow living creatures.

Present practices are devastating the environment and exhibit unspeakable cruelty to animals. They are also causing an increasing transgression of the planetary boundaries outside of which humans are unable to survive.

Large industrial monocultures are just one example of how one aspect of human endeavour can endanger human and other forms of life. Just this one form of agriculture alone is frustrating progress on all SDGs.

Here we list a wide range of actions that can be taken by all segments of the population, including government ministries and the Ministry of Agriculture in particular.

As a way to end poverty (**SDG 1**), best agricultural practices are outlined to restore the environment and local ecosystems. These include:

- a number of best agricultural practices to protect the soils and return vitality to farms and agricultural communities, including through France's 4/1000 initiative which focuses on sequestering large amounts of carbon in plants and soils while improving soil health and productivity;
- ways of treating waste while fortifying the soil;
- organic farming as recommended by the UN's Food and Agriculture Organization; and
- enhancing natural water cycles, increasing biodiversity, and in the process creating life supporting landscapes and ecosystems, following the example of the Sahara Green Wall project.

A large number of actions are also suggested under the targets of **GOAL 2**, most of which have been mentioned in detail before. There is one point made at the beginning of **2.1** ensure access for all people to safe, nutritious and sufficient food all year round.

- Plant Trees. The *State of the World's Forests 2016 "Forests and agriculture land-use challenges and opportunities"*:

Forests and trees support sustainable agriculture. They stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people, for whom they are important sources of food, energy and income. Yet, agriculture remains the major driver of deforestation globally, and agricultural, forestry and land policies are often at odds." It is essential that we halt destructive agricultural practices and harness the powers inherent in Nature.

When discussing the chapter on Society we went into the whole range of other actions suggested under **2.1**.

Technologically less advanced cultures, indigenous cultures and at the same time more community-oriented cultures have an important role to play in restoring the balance in today's world and more technology is not necessarily better when it comes to the development of a more sensitive relationship with Nature. It is possible to increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks and enhance agricultural productive capacity in both developed and developing countries, as mentioned in target **2.a**. This can be done by gathering and promoting the exchange of best practices from both

technologically advanced societies and those living closer to Nature and ensuring that best practices with regard to the building and keeping of gene banks and the improvement of infrastructure are made available worldwide, including through the sharing economy and through the Internet. The internet helps us to more closely approach the connectivity found in Nature. This can help us also implement target **2.c** to ensure the proper functioning of commodity markets and access to market information.

With regard to **GOAL 3** *Ensure healthy lives and promote well-being for all* - among other things, the advantages of both allopathic and naturopathic medicine, are discussed, as well as the obstacles to their combined introduction. Recommendations are made as to how these can be overcome.

Here two targets are looked at in detail: **3.9 & 3.a**.

These targets were discussed under Nature and Development respectively.

With regard to **GOAL 9**, on *infrastructure*, target **9.1** was discussed: *Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all*.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the well-being of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and

the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

Subsidize local food growers, restaurants, food carts, and purveyors to offer locally and sustainably produced organic, bio, and seasonal foods.

Healthy oceans and seas **SDG 14** are critical to sustainable agriculture among other things because of their role in maintaining planetary boundaries outside of which human beings cannot survive. At the same time, we are destroying our oceans and here poor agricultural practices are playing a major role.

A large number of actions are suggested to deal with target **14.2** *By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.*

But only when all challenges to the health of oceans, seas, delta areas, marine and coastal ecosystems and marine habitats are dealt with at their root can these measures truly bear fruit. And that involves radically all forms of agriculture so that these become sustainable. For this reason target **14.3** suggests some of the following measures:

- Switch to locally based, organic, regenerative and climate friendly agriculture. This uses far less energy and chemical inputs while greatly increasing productivity especially in the developing world. The practices associated with such agriculture can significantly reduce acidification, although they will need major funding increases, particularly in the developing world.

- Switching to more plant based and less meat intensive diets will also help.
- Transition to 100% renewable energy as rapidly as possible.
- Invest in regenerating forests and adopt laws requiring sustainable management of all timber lands and conservation of forests.

Agriculture

In Conclusion

The chapter on agriculture takes us far beyond just one branch of human activity. It points to a loss of heart connection between us, our fellow creatures and Mother Nature herself. The resulting unsustainable agricultural practices are an engine behind the destruction of soils, and the pollution of land, streams, rivers, seas and oceans; and a major factor in climate change. Unsustainable agriculture leads to a dire future and for many no future at all.

On the other hand, there are a multitude of examples of actions already being taken, if only on a minor scale. For instance, the planting of forests and trees alone can promote sustainable agriculture, stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people.

It is possible and necessary to increase investment, including through enhanced international cooperation in building rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks and enhance agricultural productive capacity in both developed and developing countries.

Technologically less advanced cultures, indigenous cultures and at the same

time more community-oriented cultures have an important role to play in restoring the balance in today's agriculture as well as our world as a whole.

Here the onus is on us all: On the part of individuals and communities, the public and private sectors and governments at all levels. Here conscientious and

responsible thought and action can support those local and world leaders who ensure that infrastructures are built wisely and in tune with Nature, while human and Nature's rights are implemented to benefit future generations. A global ethic is needed that is centred on the well-being of all people, all life and Nature as a whole.

In Conclusion to the Trilogy

As we come to the end of the trilogy and the wealth of actions it suggests, we recognize that integrating Nature into our lives, involves a number of facets. It involves more even than taking actions, based on the cumulative insights of people worldwide, although that is a good beginning. It involves even more than learning to live according to the principles of cooperation, sharing, caring, community and other aspects of Nature's Ethic, although these, too, are essential. It ultimately involves integrating Nature in our moment-to-moment living. Although many communicate with Nature on diverse topics, a natural starting point for each of us involves discerning, honouring and following the spark of healthy interest as it expresses itself within both ourselves individually and in others in each situation afresh. For everything in Nature is constantly interacting and nothing is ever truly the same

Environment and Nature



Introduction

Each of us is a composition of aspects of Nature, in a constant process of change, as we absorb organic and inorganic matter through what we eat and drink and the air we breathe. We are also each inspired by life. This provides us with the capacity to perceive, to experience and respond to emotions and to act in ways that increase our life's energy.

We can also each be seen as a meeting point for all of the Earth System's subsystems: the atmosphere, the hydrosphere, the geosphere and the noosphere. So, no matter how we look at ourselves, we are, each one of us, intrinsic to Nature.

We cannot stand outside of Nature, since Nature and each of us is one and the same. Yet we can become aware of our relationship to Nature and we do so, whenever anything goes wrong. For instance, when our air is cut off, our food does not agree with us, or we find ourselves in a situation where, instead of enhancing our energy, our energy is ebbing away. In each of these instances, we become aware of a part of our body or mind of which until that situation arose, we might not have been conscious at all.

When such emergencies happen, we are actually directly perceiving our relationship with Nature. In the same way, we can learn to become aware of an inner organ, or how we breathe, or we can learn to strengthen and build a muscle, we never knew existed. So, too, we can learn to consciously perceive our relationship with Nature all the time. Direct perception is that aspect of the mind that is also referred to as intuition.

Once we are aware of the discomfort and experience it consciously, in the examples mentioned above, we (or a doctor or psychologist or other professional) can name it. Once named, our analytical aspects of the mind come into action and we can search for a cure. This same series of mental steps can be applied to problems that occur in our relationship with Nature. In other words, our connection to Nature is in the first instance via our intuition and after that we can begin to bring our other parts of the mind into the problem-solving process. But unless first our intuition has told us what is going wrong, any cure we come up with is likely to be wrong.

We now find ourselves, as a human species, in a situation where a disturbing amount of aspects of our relationship to Nature are going wrong and threatening our capacity to survive.

We cannot mend these until we know what they are and that requires that we use the

whole of our minds: intuition, capacity to name, analyse and then find the right cure. Here intuition has to be our first mental tool to find out exactly what has gone wrong. If we start by analysing without knowing the exact cause, we are unlikely to be able to take care of the problem.

The whole of our relationship with Nature is askew and so the challenges are overwhelming. We are confronted with an escalation of problems on all fronts. Many have reached such proportions before we acknowledge they are there, that we despair at finding a solution. For instance, when it comes to Climate Change, we are looking at coping with the consequences, rather than preventing resulting disasters.

Most of the laws of physics and biology are rooted in scientists' direct perception. Now *ongoing conscious awareness* is needed, if we are to set right our perception of how we are connecting to Nature. Many people quite naturally communicate consciously with Nature all of the time. Others are learning to do so. It is a matter of *becoming conscious* of a natural process that is ongoing all of the time unconsciously.

In the chapters that follow, we shall see how each of the topics focused on in Part Two is deeply rooted in our relationship with Nature, both in similar ways and each in its own way, too. As a result, once our relationship with Nature becomes based, from moment to moment, on what is actually going on, solutions to the complex problems we face will rapidly emerge. Since Nature is a fundamental aspect of all of the SDGs, headway made in our relationship to Nature with regard to one SDG will positively affect headway made on all of the other SDGs, too. This will significantly boost our capacity to meet the 2030 deadline.

While Nature and the natural environment are implied aspects of each of the SDGs, the following lists actions suggested in Part One of this book, where Nature is mentioned explicitly.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Nature and the Environment

With an emphasis on SDGs 1, 2, 3, 9, 14

The following actions are for those working or active in Ministries of the Environment, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

By helping us to recognize our interdependence with Nature and how we can draw on the bounty and wealth of insights this provides.

1. Include the study of Nature within curricula of all subjects, at all school levels to show our integral relationship with Nature, the source of all life, wealth and human well-being. Here it is primary for students to **experience** their connection with Nature. This can be done through the arts and encouraging students to paint, create music, write stories based on their experience and personal interactions with Nature. Once the experiential connection is there, then the other subjects can come to life and their full meaning can be recognized. Here are some ways in which the interconnectedness of all that is can become more evident.

- In Science:
 - Holistic approaches can be emphasized and explored, such as
 - Einstein's $E=mc^2$ which shows that mass and energy are two aspects of the same equation;
 - quantum mechanics which shows that once electrons have been in contact with one another, they remain in communication over time and space;
 - chaos theory where it becomes clear that what seem to be chaotic forms (including fractals) are in fact made up of patterns that repeat themselves;
 - the various field theories, including the zero-point field, the quantum field and the morphogenetic fields; and
 - the implicate/explicate order discovered mathematically by the late Professor David Bohm of Birkbeck College, London

All of these help us see the world as a place where everything is connected. Once we feel connected to the world around us, fear can be transformed into a sense of connection. This is crucial if feelings like empathy and caring both for

our fellow human beings and Nature are to develop.

- *In Environmental Education:*

Activities are often included such as the "Web of Life," demonstrating how there are interconnections within Nature between and among many species that are essential for their mutual wellbeing and success.

- *In Mathematics and Art:*

In painting and music, mathematical relationships like the golden mean, are often found in the natural world and are associated with our sense of harmony; absence of such basic proportions are experienced as disharmony.

- *In Literature:*

The plot themes discussed in literature classes are often rooted in our understanding of Nature.

- *In Social Studies:*

This subject lends itself to learning how social and economic forms (social solidarity societies, cooperatives, commons) are often based on an ecosystem approach and how the resulting sharing makes them effective for poverty alleviation. This discipline also offers the opportunity to show how human beings are integral parts of the natural ecosystem and how, as such, we benefit from all aspects of Nature.

- *Through Nature communication:*

This subject can be integrated into the education model to arouse greater curiosity and wonder in young people's connection with Nature and the sense that even when they feel alone, they can still make connections with other living things.

By helping us to restore the environment and local ecosystems to help eradicate poverty, while also helping to implement other SDGs:

- In rural areas that are largely dependent upon subsistence farming the economic wellbeing of both families and communities depend on the health of the soil and local ecosystems, including hydrological systems. Given that most of the people living in rural areas depend upon subsistence farming in the developing world for their very livelihood and family incomes, it is essential that we maintain soil and plant health while increasing productivity.
- Given the threat to agriculture faced by many family farmers in the developing world due to climate change and global warming, it is essential that new programs and substantial increasing in funding be dedicated to supporting agro-ecology and agro-forestry practices throughout the world.
- Ninety percent of human waste in the developing world flows back into the watershed untreated. This includes a large percentage of "night soil", a valuable resource that could be composted and returned to the earth, such as is done in thousands of ecovillage communities around the world using biological waste treatment facilities and practices. Such affordable processes and practices can help produce healthy and productive soils in regions where nutrients are largely depleted and provide much needed jobs in rural communities, while helping to

eliminate water-borne diseases and improve the quality of drinking water.

- Similar biological processes can make water treatment affordable in the developing world, while supporting biological systems that build up and restore soils and the natural environment, provide a habitat for aquaculture, and boost agricultural productivity.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

Let Nature point the way, for there is no waste and no exclusion in Nature. All elements are in constant interaction with the whole Earth System and all species contribute to the health of the ecosystems. This can also be the case with the human community if we follow Nature's example; and then ensure that access and stewardship of the global commons is guaranteed equally to all people, rich and poor.

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

Allow policy frameworks to be inspired by the balanced give and take in Nature.

In Nature, all aspects of the Earth System interact within ecosystems in a balanced process of give and take which enables all aspects to thrive together. Plants and animals go through phases of life which tend to move from the need for protection of the very young, to positions of power with the task of caring for those who are weaker, and finally old age where they often play supportive roles before making way for a new generation. Actions to take care of those who are weaker come naturally within these natural cycles.

Nature centres on both the wellbeing of the individual phenomenon and that of the group. Both aspects are necessary if the group is to remain strong enough to benefit both the individual members and the species itself. Is it possible for human beings to recognize the benefits when individuals, families, communities, nations and the global community, including the poor and both genders, are able to fulfil their potential?

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Development

Not only does Nature provide all of our food. She determines to which degree the food is truly nutritious. So, our capacity to achieve food security and improved nutrition is fully dependent on how we relate to Nature.

2.5 By 2020, maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed.

Use healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems to provide or produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species and enable these species to grow strong through the diversity of other species they interact with. Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend.

Interconnected and mutually nurturing ecosystems also have the following advantages:

- because the genes have been created within a Natural context, they are sustainable and are less likely to have unexpected repercussions;
- there are no strings attached to their use;
- they can propagate naturally and do not require permits for use.

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks to enhance agricultural productive capacity in developing countries, in particular in least developed countries.

In a natural ecosystem all elements both give to and receive from one another and the whole. This provides balance. So to both developed and developing countries can benefit from one another's best practices. Technologically less advanced cultures, indigenous cultures and at the same time more community-oriented cultures have an important role to play in restoring the balance in today's world and more technology is not necessarily better when it comes to the development of a more sensitive relationship with Nature.

Here are some actions we can take:

Promote two-way exchanges of know-how between developed and developing communities

1. Gather and promote the exchange of best practices from both technologically advanced communities and those living closer to Nature. Give credit to, remunerate and, where appropriate, upscale best practices.
2. Ensure that best practices with regard to the building and keeping of gene banks and the improvement of infrastructure are made available worldwide, including through the sharing economy and through the Internet. Reward those using a cooperative approach. The Cooperative Identity is officially based on sharing

between all participants in a cooperative, the community where they are situated and global development (See <https://www.ica.coop/en>). Publicity can be given using awards and prizes. This enables best practices to be shared while honouring those who bring these to the world.

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives, and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

In Nature everything is interconnected. Humanity now has the capacity to connect all via the Internet. Universal access to the Internet would do much to boost agricultural practices in all countries, build constructive, cooperative and mutually rewarding relationships both in trade and in all other areas worldwide, including through the sharing/partnership economy; and to help close the economic divide as people everywhere get access to the means to develop their potential and bring what they offer to bear on our world.

Goal 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Nature is integral to human health and well-being, for Nature and humans are inextricably one. So, the more we cultivate a state of vitality in Nature, including with our own bodies and minds, the more Nature “within us” and “outside of us” fosters human health and well-being.

When we have a mutually beneficial connection with Nature, we have plenty of energy, feel happy, and our bodies, minds and psyche function optimally. We tend to feel more benevolent and open to others, our well-being increases, inspiration and creativity can thrive with the result that both society and the economy tend to flourish.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Deeply understanding and acting on the role Nature plays in human and planetary health can be critical when it comes to the (cost-)effectiveness and quality of such a system.

Creating a program which provides high quality universal health coverage for all people globally would have a number of advantages. Above all it would lead to a concerted global effort to do away with agents that create diseases that cannot be contained through national borders.

A barrier to universal healthcare is often seen as its affordability.

Nature and Nature-based medicine can help alleviate this problem, since the human body/mind/spirit can be significantly regenerated and strengthened where people are open to being infused by the health-giving effects of their natural environments. This has the medical advantages, that one is aligning with systems both inside and outside the body which together form forces more powerful than if we treat just a single aspect

of a person's health.

Although allopathic medicine clearly has many important benefits, such as speeding up a cure, natural and more holistic forms of healing can be used both in tandem with allopathy and in its own rights for a large number of conditions. It tends to be more cost effective than using methods that have required many years of R&D, etc. The two approaches to medicine tend often to be each effective at treating different types of conditions.

Universal health care can become more comprehensive and provide more all-round and diversified care by combining the two approaches and thereby healing conditions one or other approach is not yet able to address.

The proportion of natural healing in a proposed universal healthcare system would use forms of medicine that align the body/mind/spirit with its natural connection to natural forces. Such approaches are used widely in much of the world.

The great advantage of natural approaches is that:

- The treatment costs little or nothing except the fees of the healer. Even though the training of such healers can require at least as much time as do those who use allopathic medicine, the latter uses more expensive diagnostic instruments and industrially produced pharmaceutical drugs and are moreover often more expensive than many people can afford.
- Natural approaches typically avoid or minimally utilize the skyrocketing costs of R&D, industrial manufacture, the cost of middle-men and advertising.
- Natural approaches can be used in disaster areas which often cannot be reached when the disaster first strikes and immediate first aid is required.
- Many of these approaches to healing have proved effective over millennia - much longer than allopathic medicine.

Here are some examples:

- Approaches to medicine that open the meridians – the energy channels of the body (acupuncture, acupressure, shiatsu, polarity, etc.) - and thereby allow healing of the body/mind to occur through opening the systems that are in harmony with those of Nature as a whole.
- Approaches to mental health such as meditation of all sorts, or diverse forms of yoga, the martial arts, etc. that induce similar positive effects.
- The use of physical/spiritual energy of the healer to heal the patient (hands on healing, distance healing, polarity, attunements, etc.) can have similar effects.
- Diagnosis that uses the natural (often unconscious) energetic response of the patient's body to specific substances to establish the effectiveness of that substance in healing him/her (such as Touch for Health).
- Natural forces, such as solar energy, healing waters, herbs, hydrotherapy, nutrition, are also frequently used in healing.

- Homeopathy has been a prominent, low cost highly effective medicine in use all over the world over a couple of hundred years.
- Many other ancient healing practices that are still in use such as Ayurveda.
- Such approaches might even include encouraging "patients" to relax in green spaces, by streams and lakes, and in parks in cities. These exist in many parts of the world and such recreation is for many low in cost.

There are some industrial countries where such treatments are discouraged or not well understood. Here are some possible reasons:

- They use intuitive capacities as an integral facet of holistic mental functions for diagnosis and treatment. While holistic approaches to healing are fast being recognized in the West, they are still less well developed through educational institutions in industrialized nations than linear thinking; and so, their value is less well recognized there.
- Pharmaceutical companies play a dominant role in most industrialized nations and are large and financially powerful entities that have little interest in anything that may change or affect their status and strong hold; they will resist and fight anything that threatens their financial interests.
- Those within the standard western model of medicine are not trained to have the understanding of how these natural approaches to health, wellness, healing, and alternative medicines work, nor do they have the experiences with it to know the effectiveness. Further it has been proven to be human nature to resist that which we do not understand.
- This carries into the general "consumer" population who rely on their medical professionals who are not informed on these modalities, and therefore cast negative aspersions colouring the popular opinion of those who would benefit from natural healing modalities
- It would require extensive re-training (actually a whole paradigm shift), within the Western medical community – including pharmaceutical companies, medical doctors, hospitals, etc., in order to embrace and reframe how and what they do to include natural healing modalities.
- Utilizing natural remedies and healing traditions require much less research to develop and so fewer people would be employed for research and development in the ways that are currently dominant. This could contribute to a rise in unemployment, although new jobs would also be created.
- A decreased monopoly of the Western pharmaceutical industry in industrialized nations and worldwide would cause somewhat of a reorientation of industrialized economies, given the powerful role that they play.
- Using natural approaches requires education and training and thus a reorientation of the curriculum of medical schools.

The solution to the above contrasts would be to use the best of both orientations by creating internationally recognized medical accreditation for medical professionals having received their medical qualifications at schools and universities that teach either allopathic or naturopathic approaches to medicine and healing, or both. This would be a natural step in a world where medical services are already being provided

internationally with the help of the Internet. Pay parity should be provided to medical practitioners - both allopathic and naturopathic.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public

health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
- Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective. Here, as we have seen, Nature can play an important role.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric

consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Elevating—the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.

3.c Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Early warning systems are available in the shifts in subtle energy systems of Nature. Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timelier. Universal energy systems are always in flux. As human beings, it is to our advantage to learn to differentiate between healthy and necessary energy shifts, and those which are in response to human generated changes to natural systems.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

*Nature provides myriad examples of sustainable infrastructure;
some is already applied to meet our needs.*

To bring about the necessary far-reaching technological, infrastructure and other changes:

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.; and in harmony with the natural order.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation require welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Install and maintain a Minimum Nature Requirement for every building, street, home, and business.
- Provide incentives and awards for businesses, organizations, and individuals who are notably serving the well-being of the whole of humanity and Nature.

9.a Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS.

Build green infrastructure that capitalizes on the principles and resources that Nature has to offer which is both durable, cost effective and native to the area.

Green infrastructure is essential both for the peaceful and mutually beneficial co-existence of both human beings and other forms of life everywhere, including in Africa. In building the green infrastructure, the well-being of all must be considered. It should permit all life to travel, find nurture and habitat and survive peacefully side by side.

Green infrastructure that serves both humans and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems - retain more water, increase the number of plants and animals that can interact and balance the recycling of carbon and other minerals while regulating the climate.

1. (Re)create infrastructure that allows both humans and other forms of life to communicate, travel, find nurture and thrive side by side without the increasing clashes that occur as human settlements encroach on wilderness areas.
 - Avoid expanding human settlements onto paths traditionally used by wildlife and give wildlife a wide birth.
 - Build adequate defences around human settlements to keep large animals such as elephants at bay.
 - Create green spaces in towns--roof gardens, plants growing up houses and on roofs to increase the supply of fresh fruit and vegetables, decrease transport lines, while creating habitat for small animals and insects.
 - Build parks in towns where smaller forms of wildlife can thrive, where people can relax and observe and learn about Nature, and connect these small ecosystems with one another using corridors, eco bridges and eco tunnels that can be used by wildlife to increase their living area and promote increases in biodiversity.
 - Create Nature-study areas, including in deserts to attract tourists and educate people in the wonders of Nature and it's amazing diversity and ways of adapting to diverse situations. This will both inspire people, create a deeper bond and understanding between people and Nature while increasing economic opportunity outside of cities, thus decreasing the move to cities.
2. Reduce the amount of electricity needed to be brought in over long distances.
 - Return to the use of traditional building materials and styles that allow houses to be naturally cool in the summer and retain heat in the winter; generate electricity locally using small generators that run on energy from the sun, flowing water and wind. This will also have the advantage of keeping people living in smaller settlements instead of moving to the cities.
 - Introduce universal access to the Internet. On a continent that still has areas that are sparsely populated, and which is heading to a rapid increase in population, the Internet has two functions:
 - a) It enables people to communicate without the need for air- or road travel, both of which pollute more than travel by rail or some forms of boats.

- b) The Internet places education, information, banking and other services and opportunities for exchange and trade at the fingers of the grass roots without the need for physical travel, thus helping to alleviate poverty which is one reason for the depletion of natural resources. It can also help people develop their individual potential, which is an antidote to greed, which contributes to problems of co-existence between people and Nature.
- For the development and upkeep of green infrastructure in keeping with local needs, seek information and the support of the grass roots using Geographic Information Systems (GIS) and local planning and building groups.
- 3. Conserve Nature by returning to traditional forms of herding and agriculture using locally occurring grasses and crops that are adapted to the local climate, including, for instance, crops that can grow in dry areas.
- 4. Increase the provision of water so that it does not have to be brought in over large distances; and increase the provision of food and livelihoods by building biodiverse ecosystems and stewarding these until they maintain themselves. (See the film the Biggest Little Farm.)

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is actual value added. Not everything that adds cost to the consumer also adds actual value. For example, some types

of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.

- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

Oceans are being affected by our impact on all of the Earth sub-systems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes. Therefore, we must target both marine pollutions specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

Common to all these problems, people play a central role both as victims and as perpetrators.

Two types of actions are needed to bring about change:

1. To change our mindset with regard to pollution within the seas and oceans.
2. To show that they--and we--are integral parts of an even larger context: the all-encompassing Earth System that we harm at our peril.

To achieve this, we can take the following actions:

- Adopt strictly enforced legislation, which recognizes our relationships with Nature and how harming Nature actually harms ourselves.
- Follow Ecuador's example by adopting in all national constitutions a *Law of the Rights of Mother Earth*. "Rights of Nature" Law and Policy are being developed that stress that Nature, far from just being property to be used for human benefit, is in fact a rights-bearing partner with which humanity has co-evolved. Ecuador has led the way. On March 30, 2011, the first legal case -- Vilcabamba River, against the Provincial Government of Loja was settled in favour of protecting Nature.
- Develop legislation in all nations to be able to prosecute by universal jurisdiction those who pollute oceans and seas or otherwise harm any aspect of Nature. For instance, addressing the need to stop the devastating impacts on whales,

dolphins and other marine life through the use of sonar in the oceans.

- Since most pollution of the oceans and seas takes place outside of national jurisdiction, it will be important to create an International Environmental Court to enable prosecution by the International Community for crimes against the global commons.
- *Change how we humans feel about Nature as a whole through an inspirational approach*, so that we are actively motivated to find solutions where these have not yet been discovered. Through education, our motivation and inspiration to tackle marine pollution can grow, the more deeply we experience the wonders of Nature.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%.

For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

- Suggest that via the United Nations all coastal areas are proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
- Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.
- Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)
- Encourage people with an interest in an aspect of the oceans, or in the oceans

as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together.

This can be done as follows:

- Encourage them to form commons and/or cooperatives (the for-profit form of commons) to manage specific resources in a particular area. These forms of organization place sharing at the heart of their identity: their members would share their knowledge, make cooperative decisions that benefit all concerned, financially and/or otherwise benefit the communities where they are based and benefit global development. (See also ica.coop.org CHECK)
- Encourage commons and cooperatives working with diverse aspects of the oceans to work together using a commons/cooperative approach at local, regional and global levels to ensure that fragmentation does not occur between the insights and concerns of any of these groups.
- Create an international network of commons and/or cooperatives that can, in consultation with the members of each, develop best practices and ways of discouraging destructive ones, reinforced by laws and legal mechanisms, developed for this purpose.

In Conclusion (and as introduction to what follows)

Human beings are integral to Nature. She suffuses all we are, think and do. It is not possible to stand outside of Nature and to analyze her “im-part-ially” since we are a part of Nature. She speaks to each one of us through our senses, a heightened energy, the feeling of fulfilment as we connect with an aspect of life that nurtures us. This is in evidence in the smile and laughter of the young child and its self-motivation as it grows up.

In an ideal world, each new-born would be welcomed with delight, and supported at each developmental step, as it follows the “spark of its interest.” This, according to developmental psychologist, Abraham Maslow, would tend to follow the following steps: ‘physiological’, ‘safety’, ‘belonging and love’, ‘social needs’ or ‘esteem’, and <https://en.wikipedia.org/wiki/Self-actualization>. We should add that, as the process of globalization progresses, another motivation stands out: the need to be a ‘world server’. Here the inner satisfaction coincides with doing what is needed for the greater good, as humanity evolves. This is, for example, found often among volunteers, many of those working for NGOs, and those contributing to the fast growing sharing/partnership economy. This is the way Nature harnesses our support, as a species, to participate in our own evolution.

Education, besides teaching the skills necessary to function in the world, would ideally support people individually in following this “spark of interest” that accompanies our inner fulfilment. For this is a way to develop our potential in interaction with Nature. Some educational institutions use group projects to allow each student to use his or her strengths to contribute to a socially beneficial project and so education leads to students learning to consciously contribute to their own development and that of society in interaction with Nature.

Social development has proceeded in much the same way. First tribes developed culturally within their own natural environment and much as the child connected with the relationships and experiences, so societies embarked on development into ever-

greater units, their technology pointing the way. Tribes developed human settlements, 'city-states', countries and now one global world is emerging, as people's inner spark led them to discover the printing press, trains, radio, planes, computers, the Internet, social media, etc.

Where this natural development from child to global world is frustrated, the inborn connection with Nature is in danger of being broken and this leads to deep frustration and pain that expresses itself in the many problems which the SDGs are now trying to resolve.

The chapters that follow show examples of ways in which problems at that juncture can be addressed.

Education and Research

(Formal and Informal Education,
including through the Media)



Introduction

Human beings have developed from Nature and are integrally related with all of the subsystems of the EarthSystem. Education is a powerful tool to help root each one of us individually more consciously in our personal relationship to Nature. As we saw above, with life comes the capacity to perceive, feel and respond to emotions and act, wherever possible, to increase our life's energy. (See the Introduction to Nature and the Environment).

Connecting with Nature can increase our energy and sense of harmony and inner balance. It can be experienced in a multitude of ways: a feeling of rightness, a “spark”, a momentary sense of “coming home”. The late Professor Joseph John Campbell describes in his famous book “The Hero with a Thousand Faces”, what he sees as the archetypal hero. He calls the process of seeking to increase one’s life's energy, “following one's bliss.” Fritz Perls, the noted psychotherapist and developer of the Gestalt Therapy, when speaking about being in touch with health-giving, energizing psychological insights called this the “Aha!” experience.

Education is linked to the Latin word “educere” which means “leading forth”, implying that the root meaning of education is not “putting into” but allowing the student to be guided from within by his or her inner life force and inherent relationship to Nature. In so doing, education is implementing article 26b of the Universal Declaration of Human Rights which states: “Education shall be directed to the **full development of the human personality** and to the **strengthening of respect for human rights and fundamental freedoms**.”

This is significant because not only does “following our bliss” connect us individually to Nature, increase our life's force, provide feelings of satisfaction, fulfilment and well-being, it also tends to produce a sense of benevolence with regard to our surroundings that indeed makes us individually susceptible to doing right by other people.

Student-centred education that re-establishes our individual connection to Nature also leads to constructive and benevolent relationships within societies.

In the sections that follow, we shall read about a multitude of ways in which the educational process can be used to help solve social problems and implement the SDGs.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Education

With an emphasis on SDGs 1, 2, 3, 5, 9, 14

The following actions are for those working or active in Ministries of Education, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in harmony with Nature through education and/or the media. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

In Nature there is a give and take between individual life forms within ecosystems that allows each element to benefit from other elements and the whole. Such a dynamic fosters strong human societies because it allows individual people to develop their full potential while contributing to the whole, so that all are contributing to poverty eradication and the well-being of others. Education is a powerful tool to help bring this about.

Poverty eradication through education, whereby students from diverse backgrounds fulfil their full potential while contributing to society:

1. Educate people of all ages on how to make durable change:

- Teach via formal education both about specific social, economic and political changes that have successfully taken place, together with how and why these were successful and to which degree they were durable. This will give people the ability to bring about constructive change and the means to do this effectively, without causing intrinsic harm to Nature or parts of society.
- Provide information and examples on how the disenfranchised have successfully put pressure on those in power through passive resistance, strikes, formation of pressure groups such as trade unions, popular uprisings, etc. and how the powerful can profit from such change. Support in learning and implementing such approaches to change can also be provided by civil society organizations with the relevant change as their objective.

2. Generate internal motivation.

Like other species faced with challenges to their survival, humans have the capacity to tap into amazing founts of creativity and strength when their survival is at stake. An educational tool sometimes used are “survival camps”, where young people are sent out into the wilderness to survive for a few days with just rudimentary equipment.

Here are three examples that illustrate how groups of people tapped into strengths they did not realize they had:

- A strong lobby by the disabled in Berkeley, CA, USA, was formed when one person, paralyzed from the neck down, who was seemingly totally dependent on his official caregiver to undertake the most basic survival tasks, tapped into a huge fount of energy and creativity when he was left in the lurch once too often. Somehow, propelled by the anger he felt, he overcame the sense of helplessness and found unexplored ways of caring for himself. He then set up self-help groups to help others with disabilities to tap into this “survival” energy; and then formed a powerful political lobby by and for the disabled.
- African countries, after decades of empty promises of development assistance, decided to generate their own resources without giving up on what should have been rightfully coming to them through official development assistance. They raised the interest rates offered by the African Development Bank to draw savings from the extensive African diaspora worldwide, decided to take back their natural resources from those exploiting their dependence on outside help, and among many other such actions, they created and agreed the African Sustainable Development Goals.
- Street children who were being targeted for their organs, have formed street gangs both for their day-to-day survival and to prevent this terrible practice.

3. Build on others' knowledge.

In Nature, species learn to build on the strength of other species: they become sensitive to others' warnings of impending danger and learn by example about new tools and ways to meet their needs. Humans have this same capacity.

Access to the Internet is already leading to a worldwide sharing of knowledge, much of this free of charge. Once all people have access to the Internet, the poor and vulnerable and those who are dedicated to supporting them, will have access to a fount of information that can help change the mindset that is sabotaging poverty eradication.

4. Support the development of individuals' personal potential.

- In the workplace:
 - In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.
- In the educational system:
 - To work on poverty eradication many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of the other students they are working with, as they share what they are doing to promote the project and they become each other's' students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole. This process of give and take has much in common with how an ecosystem works and can have great social benefits:

- The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team.
- Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be implemented in society.
- Where people and students are asked to consider the SDGs in the implementation of such group projects, solutions can be found to the web of problems that contribute to unsustainable social relationships and relationships with Nature.

Poverty eradication through education to change our overemphasis on the outer/material dimension of poverty while under emphasizing the inner/spiritual perspective that stresses connectivity:

1. Foster an inner perspective:

Encourage understanding of how to activate potential and find personal fulfilment:

- In educational institutions: by introducing self-reflection in curricula; through student centred education; and group class projects where every student develops his or her own specific skills and contributes both as student and teacher to fellow students in that school project.
- Using the media: by developing advertising that offers a truthful education on the value and uses of products and services, rather than an incitement to buy at all costs; and programming that stresses the multiple ways to find and enjoy personal fulfilment.
- By assessing and rewarding educational institutions and the media for their capacity to promote an understanding of our need for both inner and outer fulfilment.
- By providing prizes and awards to businesses and banks that foster development not based on a debt-based system. There are a number of such banks that are run along cooperative lines: such as the Desjardins Group in Canada and Florida, community-financed banks; national banks such as the Triodos and ASN Banks in the Netherlands which focus on building sustainable development.
- Provide permits for advertising and legislate severe fines for misleading and biased advertising.
- Provide a basic income for all people. (See next section: *Build an economy of inclusiveness*).

Education to include all people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities:

- View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
 - Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs of others and possibly above average when it comes to innovation and creativity.

- Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.
- Bring together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a lifetime of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.
- Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
- Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
- Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature.

Poverty Eradication by fostering through education the recognition of human interdependence with Nature:

1. Include the study of Nature within curricula of all subjects, at all school levels. Here it is primary for students to **experience** their connection with Nature. This can be done through the arts and encouraging students to paint, create music, write stories based on their experience and personal interactions with Nature. Once the experiential connection is there, then the other subjects can come to life and their full meaning can be recognized. Here are some ways in which the interconnectedness of all that is can become more evident:

- *In Science:*
Holistic approaches can be emphasized and explored, such as
 - Einstein’s $E=mc^2$ which shows that mass and energy are two aspects of the same equation;
 - quantum mechanics which shows that once electrons have been in contact with one another, they remain in communication over time and space;
 - chaos theory where it becomes clear that what seem to be chaotic forms (including fractals) are in fact made up of patterns that repeat themselves;
 - the various field theories, including the zero-point field, the quantum field

and the morphogenetic fields; and

- the implicate/explicate order discovered mathematically by the late Professor David Bohm of Birkbeck College, London

All of these help us see the world as a place where everything is connected. Once we feel connected to the world around us, fear can be transformed into a sense of connection. This is crucial if feelings like empathy and caring both for our fellow human beings and Nature are to develop.

- *In Environmental Education:*

Activities are often included such as the "Web of Life," demonstrating how there are interconnections within Nature between and among many species that are essential for their mutual wellbeing and success.

- *In Mathematics and Art:*

In painting and music, mathematical relationships like the golden mean, are often found in the natural world and are associated with our sense of harmony; absence of such basic proportions are experienced as disharmony.

- *In Literature:*

The plot themes discussed in literature classes are often rooted in our understanding of Nature.

- *In Social Studies:*

This subject lends itself to learning how social and economic forms (social solidarity societies, cooperatives, commons) are often based on an ecosystem approach and how the resulting sharing makes them effective for poverty alleviation. This discipline also offers the opportunity to show how human beings are integral parts of the natural ecosystem and how, as such, we benefit from all aspects of Nature.

- *Through Nature communication:*

This subject can be integrated into the education model to arouse greater curiosity and wonder in young people's connection with Nature and the sense that even when they feel alone, they can still make connections with other living things.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

Here Nature can point the way, for there is no waste and no exclusion in Nature. All elements are in constant interaction with the whole Earth System and all species contribute to the health of the ecosystems. This can also be the case with the human community if we follow Nature's example.

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Increase disaster preparedness:

- Implement governmental public awareness campaigns on potential natural disasters including those due to climate change.

These can include:

- placing warning signs in Tsunami Danger areas;
- providing details on what to do if there is a Tsunami alert. Bangladesh for instance has instituted evacuation procedures that has proved to save great numbers of lives;
- publicizing instruction on how to aid the most vulnerable, including young people, the elderly, and people with disabilities so that all people in a community have the basic skills necessary and can thus respond usefully;
- including all in implementing these, including at family and community levels, as well as national legislation relating to social services.

Family members, etc. of the most vulnerable would be a great asset, since they see the essential value of the vulnerable as human beings from close by. They can communicate this most convincingly to others who might not have direct experience with them. They will be most invested to provide a safe and nurturing environment, ensure that there are escape routes and other protection for the most vulnerable where they live, and that others take their particular vulnerabilities into account. They can also advocate municipal, national and global reforms that can protect them when disaster hits. This will require work on the family and community level, as well as national legislation relating to social services.

- Ensure children, elderly people, or people with disabilities in their home are given special help to ensure that such houses are well equipped with suitable escape routes and family members can aid in their escape.
- Use the media, including the social media as a powerful source to help educate people at local and national levels and to encourage civil initiatives to help the most vulnerable.
- Work with other governments to learn from one another how the Economic and Social Covenants can best be implemented and paid for.
- Use visioning sessions as are also inspired by some indigenous peoples as a tool for people in government responsible in this area.

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

Build on Nature-inspired practices to both awaken the deep interest in society to allow all, including the poorest to come into their own and enable these to develop their potential:

- Among indigenous peoples individuals are born into specific roles within their communities; or undertake a vision quest as they become adults to establish how to allow their talents to blossom with full community support.
- In schools and universities that promote student centred education, some, like the Waldorf and Rudolf Steiner Schools, root their practices deeply in the principles of Nature.

Increase motivation and support for accelerated investment in poverty eradication:

Combine pro-poor and gender-sensitive legislation that prohibits discrimination against the poor and on the basis of gender with wide educational campaigns to show the necessity and the advantages to all. These could embrace education at all levels and in all fields, media reports and stories that speak to the heart. They should foster the interest in the deep inner sense of fulfilment to alleviate spiritual poverty, while at the same time developing a social consciousness and the interest in coupling individual fulfilment with the well-being of society.

Create campaigns that focus on ways to ease social and economic tensions as formerly estranged groups get to know and respect one another; and thereby counter the negative effects of what seems hopeless misery.

- Include content to speak to the important role that all genders, sexual orientations, ages, all abilities and disabilities, cultures, religions, play in society. Each educational segment can focus on one particular group. The overriding message will be one of tolerance, compassion, value of each individual, and the benefit of interaction among people with different perspectives and life experiences.
- Show the benefits of poverty alleviation to the whole of society, including increased creativity and “thinking outside of the box”; that comes about with a more diverse workforce.

Promote best practices that build goodwill between diverse social groups resulting from the indispensable contributions that are already being made through full economic and social integration of women and the formerly poor people

Allow hope to flourish that will ease hardened interpersonal, social and economic relationships, and transform social and economic unrest. Help people to recognize that crime, conflicts, sabotage, and even terrorist acts are dead ends. Such first steps have been taken in countries like South Africa, Rwanda and Columbia. We are beginners at this process, but we must constantly learn and adjust the process as circumstances change always building benevolence as we aim for success.

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Development

Education is a means to bring about a mental shift whereby all are aware of the imperative of ending hunger, achieving food security and improved nutrition for all people and for sustainable development; and doing this in harmony with Nature.

Implement formal and informal education which clearly illustrates the impact of this issue on the individual lives of each person. This can be done through documentaries and media entertainment, speaking to their hearts and feelings and which move people to act. Specifically highlight:

- How human beings depend on Nature for their food;
- The specific consequences of any actions we take that ignore that fact;

Here are some examples of important themes that should be mainstreamed through all forms of education:

- Human beings are inextricably linked to the rest of Nature through the air we breathe, the water we drink, and how these together with the minerals, plants and animals form an all-encompassing web of life that provides the complexity of nutrients we each need to survive.
- It is therefore impossible to stand apart and “manage Nature from the outside”, and our attempts to do so are leading to an impoverishment of our food sources, including through crises and disasters due to climate change, the pollution of air, water, and soils—all of which are impoverishing the quality and quantity of food needed for our survival.
- No one can escape the consequences of our attempts to place ourselves outside of Nature.
- It is imperative that we become sensitized to how Nature works and use the power that is unleashed when we live in harmony with Nature to boost both the nutritional value and amount of food we produce.

Here are some things we can do:

- Overcome the limitation of living far-away from the site of food production where the illusion is created that food production is at most peripherally connected to Nature. This can be done through stays in the wild where principles of how Nature thrives can provide important insights in how we humans can resolve many of the challenges we face today.
- Provide opportunities for students to learn from and care for Nature, such as developing school, community, and city gardens where they can learn about permaculture. Examples of such projects are provided by ReScope in Southern Africa and by the Zimbabwe Institute of Permaculture, etc.
- Provide opportunities for students to experience deep reflection in a natural environment, much like the Indigenous Peoples “vision quests”, fostering the experience of Nature communicating with us through insights, hunches, etc. Such education is, for instance, available through John F. Kennedy University, CA, in the USA . <https://www.jfku.edu/>

- Cultivate a sense of connectedness of all that is: how all systems of Nature and society are interconnected and that people, their waste, etc. are a part of the one Earth System, and how being integrated consciously has brought about a large variety of valuable ways of creating balance between people and between people and Nature.
- As an extension of experiencing cooperation with Nature, include from an early age, education in living in harmony with one another by teaching conflict resolution, and illustrating how acting from a sense of peace/happiness/calm can produce more sustainable solutions.

For example, at the Montessori School in Berkeley, CA, USA, students were taught at the age of 8 how to resolve their own conflicts peacefully. When a conflict would break out, say, between two students, the teacher would request them each to choose an 'ally' and then the four of them apply the techniques they had learned outside of the classroom on a "peace carpet" especially placed there for that purpose. They would return to the larger group when they had succeeded.

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

Provide widespread awareness of what constitutes safe and nutritious food. There is much waste. Meanwhile poor nutrition, overeating of unhealthy snack foods, and lack of exercise is resulting in obesity and deaths from cancer, diabetes and other health-related diseases.

- Cultivate a more mindful approach to the creation, distribution and eating of our food. Where a child can be raised away from the influence of advertising, allow each child to learn to determine what its body is asking for so that it learns to consciously use its inborn connection with Nature to meet its unconscious nutritional needs;
- Create an interest in eating both safe and nutritious food by providing widespread education on what constitutes a health promoting and sustainable lifestyle and diet through formal and informally accessible education via the internet and other media;
- Stress why specific foods are important for their nutritional value; and some can be detrimental to our health. This will help mothers provide better nutrition for their children and to consciously use the medicinal qualities of diverse plants to improve their health;
- Discount food on the shelves where the date on the label is close to expiration. Businesses could claim tax refunds in exchange for the donation of such foods;
- Promote awareness of our connections with our food sources and how foods are grown and distributed. Institute the practice of asking questions of vendors, and stores about how food is produced.

To feed more people while using available space to do so introduce enforceable legislation and motivate the international community to:

- Develop a broad and ambitious program of support to provide the people living in

impoverished areas with the resources and educational opportunities they need to be able to transition to sustainable agricultural practices, while at the same time substantially increasing productivity and integrating Nature into their agricultural practices.

- Take into account that this might encourage people to revive ancient and inclusive native practices in a concerted and cohesive manner addressing the desires and needs of all stakeholders and agricultural practitioners.
- Heed the findings of small scale and organic farmers as well as from agro-ecology that productivity increases substantially as soil health improves, as the natural environment is restored, and our agricultural practices are integrated with the rest of Nature; and as we eliminate our use of pesticides, herbicides, and artificial fertilizers all of which destroy soil health in the mid to long term.

2.2 By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

Governments can take the following actions:

- Raise awareness among the population as a whole that a community is strong to the degree it cares for its young and vulnerable and it is in the interest of everyone that we care for all members of our societies, especially the vulnerable and weak.
- Emphasize this point using graphic examples that illustrate that
 - when we care for individual people and Nature, this has direct advantages to ourselves;
 - prosperity to the whole of the population is increased, crime and conflict decreases, and constructive relationships between all sections of the population have a chance to blossom. Educate all people in both developed and developing countries as to what constitutes nutritious food.
- Use all forms of education, including the story-telling of elders, various forms of media, and community educational classes and events, to recognize the unique nutritional needs of diverse age groups.
- Educate women, as the progenitors, on the proper way to feed their own bodies and on the proper nutrition of their progeny, including where possible, the benefits of breast feeding.

2.3 By 2030, double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.

Since there has thus far not been the political will to enforce legal and policy agreements, bear in mind that people are often most strongly motivated to take action when their own individual well-being is at stake and combine a far reaching and in-depth media and educational campaign:

- to bring about a mental shift whereby all recognize that the scramble for more power over other people and Nature is an important factor in causing the challenges to human survival faced by both small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers and the rest of humanity; Please see the actions under Target 2.0.
- to emphasize the need for “doubling agricultural productivity” and the incomes of the above-mentioned groups in order to help bring this about.

As a part of this mental shift, ensure that people in general:

- are fully aware of the wisdom in stewarding the environment provided by small-scale food producers, Indigenous Peoples, family farmers, pastoralists and fishers and others who have retained the wisdom and skills to help humankind to reverse the dangerous imbalance we are creating;
- build on this recognition;
- see that these groups have access to the necessary resources;
- empower them to live in keeping with their own values;
- should they are willing, allow them to contribute their unique wisdom which is so badly needed to the rest of humanity;
- recognize the need for reciprocity both with regard to Nature and among people(s).

Bring to justice those attacking and appropriating what belongs to others, especially the target group, using a multi-faceted approach:

- Show the harm they are doing to all people by attacking the target group. This can be done, for instance, by publicizing both stories about the wisdom and invaluable contributions made by the target group.
- Publicize which actions are being taken by those pursuing corporate interests illegally - their monetary gain, the hardship and suffering visited upon the target group, the loss to humanity as a whole due to their actions, and to which degree the punishment for these acts is commensurate with their crimes. Powerful interests depend for a large part on the power and respect given them by potential customers, clients and people in general. Even the most powerful corporations and governments will be brought to become more socially responsible if they notice that their business or governance practices are no longer supported by the people as customers and/or citizens.
- Bring those harming lives and livelihoods to justice through every possible channel. Ecuador, for instance, has laws that permit prosecution of crimes against Nature under universal jurisdiction; many other parts of the world have laws that can prosecute those who harm a specific aspect of the environment. Also, there have repeatedly been attempts to introduce a World Environmental Court. For laws that provide Nature with rights see: www.harmonywithnatureun.org. Where people(s) are harmed, the Human Rights Council can be brought into play,

or in cases of genocide, the International Criminal Court.

Ensure that women, indigenous peoples, family farmers, pastoralists and fishers and other marginalized groups that are critical for our sustainable food production in harmony with Nature:

- Are empowered to pass on their knowledge. For example, providing schooling for students from around their nation and possibly from around the world. They can teach "hands on" or also via the Internet and will require just remuneration for this highly specialized knowledge. This, in turn, would give them the necessary means to increase their food production, etc. as needed in ways that are in harmony with Nature, as well as with their own Nature-inspired cultures.
- Have secure and equal access to land and waters as an important step that, if guaranteed, is likely to contribute toward the above-mentioned groups becoming much more productive and also increasing their own incomes.
- Can effectively defend the lands under their jurisdiction from the lust for resources, land, and waters, by much larger and more powerful interests often backed by wealthy corporations and whole governments.
- Have all the means necessary at their disposal to prevent the more powerful interest groups from taking possession of the areas under their jurisdiction without prior and informed consent, mining these or otherwise destroying the soils and water quality for the benefit of a few and to the detriment of the planet as a whole.
- Can maximize their global support group by communicating more widely with the rest of the world through, for instance, access to the Internet, so that they can determine themselves how to integrate resources that are accessible among others through the Sharing Economy with their own cultural norms and insights to greatest effect. The UN System can organize courses via the Internet, given by those living close to the land for the benefit of all seeking to live and farm more sustainably.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Education in every context can help people to live more in harmony with Nature and this is one important way to create a foundation for good health in the following ways:

- Letting go of old unhealthy habits which increase stress and disease.
- Embracing new healthy habits which lead to greater ease and well-being.
- Becoming good stewards; aware of, attuned to and harmonized with our own bodies and the planetary body.
- Eating and drinking what is natural and nourishing, getting adequate sleep and exercise, breathing fresh air, bathing in salty sea and sun, listening to harmonious music, dancing to the rhythms of Nature.
- Using natural products which keep our air, water and earth clean.
- Clearing the clutter and toxic materials from our bodies and our environment. Recycling allows Nature to reclaim and purify that which we do not need, such

as trees turning carbon dioxide into oxygen and dead leaves adding nutrients to soil.

- Creating beautiful gardens and parks to expand beauty and build community to feed the senses, promote connection with Nature and each other, fostering relaxation and well-being.
- Following the natural laws of human biochemistry and physiology.
- Utilizing the medicines that the Earth naturally provides in a sustainable and conscious way. Recognize that the medicines of the Earth in the form of water, food, herbs, and healing arts such as homeopathy and acupuncture have been utilized and sustained life and health for thousands of years. And that these are in keeping with the principle of living in harmony with Nature.

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

To drastically reduce maternal mortality, here are some ways of both keeping mothers alive and contributing to the quality of their lives:

- Create a secure, loving atmosphere for women who are pregnant and those who are in the process of giving birth.
- Foster awareness and responsibility in people that children are the responsibility of all people because they are the future of our species. Therefore, the well-being of mothers and children are important to us all. Each person truly is responsible for all children and can make a difference when this is realized. Here, we can learn from the wolves who work as a community to care for their cubs.
- Promote maternal health care, through access to healthcare services and birthing assistance and by providing a non-toxic, clean environment, including clean drinking water, and making use, where possible, of the synergy within (often smaller) communities.

3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

The points listed above under Target 1—maternal deaths—also apply to infant mortality, including:

1. Creating a natural support system for pregnant women, and women with children such that they are taken care of.
2. The education of the “whole” child can be the focus of the mother, and the community, is of more concern than the mere survival of the child.

Education, which will be different for diverse cultures:

1. Provide education for the preparation of what is involved in having children – emotionally, physically, socially, psychologically – such things as how to help a child grow into maturity and to develop their full potential, as well as instilling the understanding of the consequences when an infant dies, and what is needed for childbearing to be successful. Such education can best be given via media (such as podcasts, video, film and theatre) where the recognition of the consequences will be most likely to affect the subsequent behaviour of the parents.
2. Emphasize the important role of mother, father, family and community for an infant to fully mature.
3. Develop a new level of respect and care towards our women and children as being of utmost importance to the survival of our species and the joy of our future. If the community prides itself in its children, then all people would be involved and in a way the children would have many parents and many grandparents. Community members would see themselves as leaders and influential in the lives of the local children and therefore perhaps hold themselves to a higher standard to make a difference for the children and society as a whole.

3.9 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

We often see Nature as allowing those plants and animals to perish that are weak. In fact, if we take a closer look, we find that when it comes to species, each one has its individual strengths and weaknesses and that those that survive have found a niche within the network of life where they perform an unique and important function within the systems of Nature.

As people, we also recognize that physical weakness in humans is frequently offset by emotional, mental, social or spiritual strengths.

Increasing the resilience and decreasing the challenges for those who have a non-communicable disease or are so-called “disabled” in any way has great benefits for all concerned in that all who relate to the disabled person will then also be able to benefit for a longer time from what they have to offer.

One reason why some people succumb to a non-communicable disease and others do not, is, besides heredity, the amount of resilience they build up through their caring connections with their environments, especially in very early childhood.

Here are some actions we can take:

1. Strengthen the foundation for health and resilience within the person who has the disease through unselfish love from family and community members.
2. Recognize that those who are disadvantaged in one way often have counterbalancing strengths in other ways that bring great rewards to caregivers, employers, and others they come into contact with. For instance, people who are ill and/or have other disabilities often have greater compassion for others who are also disadvantaged.

3. Promote bonding in early childhood, since that shows a child how to connect and helps it recognize and appreciate what brings fulfilment between people. This can best come from those who bring up the child and the earliest possible relationships.
4. Empower the child to develop its own potential.
5. Provide training in skills that enable each person to develop positive connection within their communities. This integrative approach will moreover enhance mental health and well-being.

3.10 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Addictions consist of the interaction of a vast array of factors. They have physical, mental, psychological, heredity, social, economic, and spiritual causes and ramifications. Human beings often use and “push” drugs to make up for emptiness and lack of fulfilment.

Despite their complexity, there are many diverse approaches within different cultures that are actually helping individuals to overcome these complex diseases.

Nature does not encourage addiction. For among many other things, it involves over consumption, and overconsumption by one element of an ecosystem is detrimental to all parts.

Here are some actions we can take:

- Promote a global sharing of ways of combating addiction.
- Promote forms of education that allow people to touch on the natural well-spring within to bring satisfaction into their lives and to develop their own potential. Here student-centred education can be an invaluable tool.
- Create community and connection.
- Foster and reward ingenuity and creativity
- Teach to feel and express emotion in a balanced healthy way.
- Teach to be aware of and release shame

Place addicts under strict social supervision in a strictly regulated environment, where they learn basic living and livelihood skills; while monitoring their moment to moment living with strict rules regarding substance abuse and/or overeating with as the carrot rehabilitation and as the stick the removal of something that the addict loves even more than their addiction. This could be the custody of their own child, for instance.

Place addicts under strict legal supervision.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

- Create a shift from a society where individuals are left to fend for themselves to

one where fundamental human rights are implemented and the society as a whole ensures that all can live fulfilling lives.

- Provide education in the principles and advantages of sexual and reproductive healthcare in schools from an early age and show the disadvantages that occur when that is not put to good use.
- Ensure that physical and verbal abuse and intimidation of women is reported by all who are aware of it - neighbours, teachers, medical personnel and social services.
- Ensure education from the first school year shows boys and girls to be equal.
- Provide education at schools to show the advantages of societies where there is gender equality within families, societies, and the economy.
- Provide media programmes that show the advantages of gender equality to all members of the family.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
- Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best

possible quality and has the best possible results, while also being cost-effective.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Elevating-the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.

3.c Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Early warning systems are available in the shifts in subtle energy systems of Nature.

Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timelier. Universal energy systems are always in flux. As human beings, it is to our advantage to learn to differentiate between healthy and necessary energy shifts, and those which are in response to human generated changes to natural systems.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

When we look at Nature, we see clearly that females of the species are powerful forces to be reckoned with. Their power is derived from respect rather than fear. To empower boys/girls, men/women, we need policies and programs at all levels, in addition to laws, that foster mutual respect rather than fear. Here are some examples:

1. Educate all people on the essential purpose of gender differences in the widest sense of the word.
2. Foster insight and appreciation for the uniqueness of individuals within both genders.
3. Organize informal mixed-gender groups, in which members switch off positions so that all develop an understanding and respect for the different perspectives of each gender.
4. Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
5. Educate through formal education and via media and diverse forms of sports and entertainment), on the essential purpose of gender differences at the biological level emphasizing that these do not necessarily extend to other contexts.
6. Foster insight and appreciation for the uniqueness of individuals within both genders and orientations.
7. Organize informal mixed-gender groups, in which members switch off positions so that all develop an understanding and respect for the different perspectives of each gender.
8. Incorporate role-playing activities into schools, organizations and corporations so that each gender becomes sensitized to the experiences of the other.
9. Implement the Universal Declaration of Human Rights (UDHR) 26 (2), the development of the whole human personality, both legislatively and via the curricula of all formal educational institutions. This will empower girls and women in their relationship to men and boys and eliminate the need for males to forcibly subjugate females UDHR 26 (2) will require:
 - Inner development of our faculties, including intuition - which is the human umbilical cord that connects each individual with Nature - and the capacity to be aware of feelings both within ourselves and others.
 - Development of skills in peaceful assertiveness and training in one's individually chosen profession.
10. Develop forms of education that foster intuition, including:

- Reflection and meditation, which opens the receptive aspects of the mind.
 - Artistic activities that afford people a sense of wholeness and involve both genders in generating creative projects to foster innovative thinking and new perspectives.
 - Learning through socially relevant group projects that encourage people to act in keeping with their own strengths, become team players, and work for the betterment of society.
 - Learning to communicate with Nature, which requires self-awareness and deep listening for what Nature wants to communicate in order to develop harmony with the Natural Order. (For more detailed information on education in communicating with Nature, please refer to: *Best Practices on Integrating the Environmental Perspective into the Implementation of the Sustainable Development Goals: SDG 4.*)
11. Foster education and experiences that connect humans to Nature.
- Model respect for the interconnection of all life.
 - Develop programs that value all life forms.
 - Teach discernment in balancing respect for others with needs of self.
- Develop curricula that teach:
- The ability to balance gentleness and acceptance with strength.
 - The distinction between aggression and assertiveness.
 - The value of welcoming each new being with curiosity, wonder and awe.
12. Create education, policies, entertainment and technology that empower individuals to share their unique gifts with the world regardless of gender.

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.

Love and appreciation of each woman in her own right and for what she can contribute to the wellbeing of a whole community/society is the true basis for change. In Nature, individual species are able to survive and thrive only to the degree that each contributes to the whole and is nurtured by it.

Harmful practices such as child, early and forced marriage, and female genital mutilations are possible because of a belief that female children and adults are a commodity with potential value to influence or in trade. There is also a basis of fear in general with perpetrators, including fear and superstition about females and fear for survival. Understanding what drives parents and perpetrators to acts of forced early marriage and genital mutilations is key to eliminating these acts. This can be done through creating a new way to view all children.

1. Develop groups that include both boys and girls and enable them to work in harmony with one another with the same mission, equally sharing the benefits.
2. Bring true equality to education and daily life by introducing innovative ways of understanding and interacting with one another to create greater appreciation of the intrinsic value of every life, rather than the perception that some lives are worth more or less as compared to others.
3. Create special education for girls and boys that includes formal training in

traditional subjects that will prepare them for work and offer them more options, while at the same time trainings designed to build their self-esteem and empower them to move beyond their current limitations.

4. Stop glorifying and promoting substance abuse and pornography. Create and support - with finances and policies - entertainment, products and activities that promote mutual respect, problem solving, conflict resolution, healthy sexual attitudes, and healthy connections between humans and with Nature.
5. Bring about a new movement that supports all that we as humans wish to experience and share in our lives.
6. Back this with access to the Internet, mediated in each community where there is (Internet) illiteracy.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

In Nature, the survival of healthy offspring that can strengthen the species is directly linked to the survival of the species, itself. So, too, the quality of human survival has much to do with how we care for our young. Changing the way, we view stay-at-home parents and providers for children's care will produce a critical shift for humanity.

If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties.

1. Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
2. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
3. Promote mutual respect with policies, funding, education, the media and technology.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create
- financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that

educational programs are available to all and that women and girls attend.

- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.
- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technology, media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature as well.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against and others who have had no access. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access. Trainings can be given to people from each country by UNOs (Including UNESCO and ITU), using the Internet to make these more accessible to all and inexpensive to give to large numbers of people. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.
2. Develop technology and training in equality and inclusivity.
3. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
4. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest.

- Provide training and opportunities for both genders to foster a new basis of equality.
- Embrace youth to create a future with myriad possibilities for all.
- Create unity and cooperation through inclusiveness to generate a spirit of new

unlimited potential for life.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Education can help us to understand how we can learn from Nature's examples how to build strong green infrastructure.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation require welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Use social media and news outlets to emphasize uplifting and inspiring stories about successful implementation of sustainable economic and social infrastructures that lead to the wellbeing of all life on Earth.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

- Develop education and training to support employees in implementing these new

practices;

- Create government subsidized training within communities for ecological, sustainable occupations and practices.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.

In Nature all is interconnected. Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

Internet can be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it.

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in countries worldwide where Internet use is to be expanded, including in LDCs.
2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. There should be a strict ethic of confidentiality.
4. Internet literacy should also be taught in all schools.
5. Focus Research and Development on advancing the industry in ways that do not harm life or produce waste.
6. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm (i.e. 5G waves) methods of technology use and manufacture.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

Oceans are being affected by our impact on all of the Earth sub-systems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes. Therefore, we must target both marine pollutions specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

Common to all these problems, people play a central role both as victims and as perpetrators.

Two types of actions are needed to bring about change:

1. To change our mindset with regard to pollution within the seas and oceans.
2. To show that they--and we--are integral parts of an even larger context: the all-encompassing Earth System that we harm at our peril.

More specifically:

- Change how we humans feel about Nature as a whole through an inspirational approach, so that we are actively motivated to find solutions where these have not yet been discovered. Through education, our motivation and inspiration to tackle marine pollution can grow, the more deeply we experience the wonders of Nature.
- Find ways for governments and individual people to work together with formal education and the media, including by using documentaries, recreational films, etc., to bring about a shift, so that rather than focusing on the problem, we see Nature as providing solutions. For instance, before the industrial revolution and even before the early 1950's, the oceans were able to process and break up most of the waste dumped into them and to maintain a balance. Removing the surplus of waste could help to restore the re-generative capacities of oceans and seas.
- Inspire action by speaking to the heart in portrayals of Nature. Inspiration and acting from "wonder" can give people a sense of joy and can help them feel like they are a part of something much larger than when we are driven by fear, guilt and desperation.
 - Show the beauty and miracle of Nature, her myriad interconnections, how all contrives to restore balance even after ocean dumping, oil spills and run off from agriculture, etc. through myriad disparate forces that are constantly interacting with one another.
 - Give examples of how people can aid this restoration process, such as how growing oysters in the polluted waters around New York City is actually purifying the water.
 - Emphasize how Nature can thrive once we relieve Nature from the crippling

burden of excess pollution.

- Provide approaches to cleaning up marine pollution to jolt people's inventiveness and stories of actual initiatives - people who are taking helpful steps. Even if these are not immediately successful, they can inspire others to build on the ideas of those that went before. Take for instance the work of the Ocean Clean Up initiative founded by a 21 year old at: www.theoceancleanup.com.
- Provide publicity and prizes, as well as Quality Certifications, to media and educational institutions for the degree to which they help to inspire solution-oriented thinking and actually come up with and describe much needed solutions. The Dutch Government, for instance, issues a Prize for Innovation.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

Here are a few examples of problems that must be addressed:

Due to humanity's destruction and depletion of land-based ecosystems, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

At the same time coastal development is causing the continuing loss of wetlands. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

There are several hundred ocean dead zones scattered in coastal areas around the world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to stop dumping un-processed wastes into our rivers, lakes and streams.

Here are some actions we can take:

- Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:
 - Invest in and create water retention landscapes.
 - Engage in regenerative and restorative agricultural practices.
 - Restore damaged ecosystems to protect against flooding and monsoons.
- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.

- Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment,

14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

This is a complex challenge.

Even though fish stocks are dwindling, livelihoods are at stake, and despite legislation overfishing - illegal, unreported and unregulated (IUU) fishing - destructive fishing practices are still taking place.

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, which are critical to the well-being of all life on Earth. These individual marine species are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food.

When we take actions such as fishing without considering sustainability as a whole, imbalances are created whereby the so-called solution of one problem creates a host of other problems and imbalances. This attitude lies at the heart of un-sustainability.

This problem is a direct result of how we view and relate to the environment, our fellow human beings and other creatures.

Dealing with this problem will require a multi-pronged approach:

- Through education: to recognize that everything is interconnected and that what is done to one aspect of reality, affects many other aspects, including our own well-being.
- By fostering a cooperative approach whereby those involved in fishing see themselves as a part of a much larger interdependent community;
- Taking strictly enforced legal action as well as creating an Environmental Court to deal with the global aspects of associated crimes;
- using Nature-based science and technology to revive dwindling fish stocks.

Here are some actions to deal with this challenge from educational perspective:

- Through formal and informal education, as well as in media portrayals, move away from a view of reality as consisting of separate, unrelated fragments to one in which all is interrelated; where the water, the air, the earth and life itself are in constant interaction with one another; and where diverse types of plants and animals provide for one another's needs in cooperative communities within ecosystems; where there is also a jostling for position and survival, but seldom does one species eradicate another with the exception of human beings.

This message can be provided in literature, art, and through paradigms that are emerging in biology, chemistry and physics. It can be reinforced by having school gardens where students can see the miracle of life unfolding before their eyes. It will help us to see fish as miraculous and complex beings that are essential parts of a web of life that is essential to human well-being. Where we feel connected to the world around us, it is easier to appreciate it and harder to harm it.

- Learning to see ourselves as an integral part of the complexity and wonder of life, that we cannot stand "apart" and try to oversee the whole, and that we must therefore be guided by Nature to live in harmony with "*what is*". *This will further enable us to feel a part of the world around us and thereby make it more difficult to stand apart and destroy whole species of fish.*

In Conclusion

We have seen in the two above chapters how education is a way of drawing out the potential of an individual in interaction with Nature. As we look at the actions mentioned above, we recognize that this form of education is critical to achieving each of the SDG's.

To end both spiritual and material poverty everywhere, each person must be able to develop his or her own full potential in his or her individual ways. So too in determining what types of food our bodies need at any given time and the state of our own health and well-being, all of us must individually be sensitive to Nature within and also outside of ourselves to detect emerging disharmony. And gender equality is a way of ensuring that people are given an equal chance.

The development of green infrastructure requires that we recognize how to create in harmony with Nature, using both existing knowledge and our own intuitive insights of problems that might occur.

When dealing with the oceans and seas, we are confronted with a huge array of issues. Each must be resolved in such a way as to restore the seas' and oceans' inner resilience and this requires that we work at every step in harmony with Nature.



Introduction

We are constantly interacting with Nature. Nature speaks to each one of us through interactions between our bodies/minds in interactions and the “outside” world, through the rhythm in which we take each breath, our impetus to eat or drink and our choice of food where available, through our urges to act and the specific actions we choose to take, and through the thoughts we think, our dreams, hunches and intuitions. Through consciously or unconsciously heeding our ongoing dialogue with Nature, we develop our individual potential.

Communities that live close to Nature use the full potential of their members to survive. In some Native American communities, young people are sent on vision quests to see what their role in their communities will be. Decisions are made collectively.

Where communities live close to Nature there is a balance between allowing the very best of each member to develop and the contributions each makes to the group. Such communities in their balance between give and take both within their communities and with Nature have much in commons with natural ecosystems that as a form have existed for billions of years. In this way, they are built on a firm foundation.

In cultures farther removed from Nature similar eco-system forms of community are also found. These are referred to as “commons”. Here all concerned in a project share in decision making, in the work that needs to be done, as well as in the benefits and outcomes resulting from their working together. Townhouse meetings are an example, where inhabitants of a community decide together the directions that community will take; the Internet contains myriad communities that function as commons. In fact the Internet itself is a commons. Wikipedia is a commons and so is Open Source technology. Universities around the world are increasing using such a collaborative approach for research and development. The advantage of such commons is that participants are deeply motivated to succeed, since they have an opportunity to follow what interests them most and share in all positive outcomes. Commons, as a social form, are also mimicking a form of being together that has survived in Nature for billions of years.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Society and Infrastructure

With an emphasis on SDGs 1, 2, 3, 5, 9, 14

The following actions are for those working or active in Ministries of Social Affairs, civic, public or private sector organizations or groups, and/or individuals wishing to promote social action in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

*Poverty eradication by mobilizing people in general from diverse
backgrounds in societies*

1. Provide education for people from all backgrounds and of all ages on how to make durable change:
 - Teach via traditional education both about specific social, economic and political changes that have successfully taken place, together with how and why these were successful and to which degree they were durable. This will give people the ability to bring about constructive change and the means to do this effectively, without causing intrinsic harm to Nature or parts of society.
 - Provide information and examples on how the disenfranchised have successfully put pressure on those in power through passive resistance, strikes, formation of pressure groups such as trade unions, popular uprisings, etc Show how the powerful can profit from such change. Support in learning and implementing such approaches to change can also be provided by civil society organizations with the relevant change as their objective. Show the benefits to society.
2. Generate internal motivation.

Like other species faced with challenges to their survival, humans have the capacity to tap into amazing founts of creativity and strength when their survival is at stake. An educational tool sometimes used are “survival camps”, where young people are sent out into the wilderness to survive for a few days with just rudimentary equipment.

Here are three examples that illustrate how groups of people tapped into strengths they did not realize they had.

- A strong lobby by the disabled in Berkeley, CA, USA, was formed when one person who was seemingly totally dependent on his official caregiver to undertake the most basic survival tasks, tapped into a huge fount of energy and creativity when he was left in the lurch once too often. Somehow, propelled by the anger he felt, he overcame the sense of helplessness and found unexplored ways of caring for himself. He then set up self-help groups to help others with disabilities to tap into this “survival” energy; and then formed a powerful political lobby by and for the disabled.
 - African countries, after decades of empty promises of development assistance, decided to generate their own resources without giving up on what should have been rightfully coming to them through official development assistance. They raised the interest rates offered by the African Development Bank to draw savings from the extensive African diaspora worldwide, decided to take back their natural resources from those exploiting their dependence on outside help, and among many other such actions, they created and agreed the African Sustainable Development Goals.
 - Street children who were being targeted for their organs, have formed street gangs both for their day-to-day survival and to prevent this terrible practice.
3. Encourage people to build on one others’ knowledge.

In Nature, species learn to build on the strength of other species: they become sensitive to others’ warnings of impending danger and learn by example about new tools and ways to meet their needs. Humans have this same capacity.

- Access to the Internet is already leading to a worldwide sharing of knowledge, much of this free of charge. Once all people have access to the Internet, the poor and vulnerable and those who are dedicated to supporting them, will have access to a fount of information that can help change the mindset that is sabotaging poverty eradication.
4. Support the development of individuals' personal potential.
- In the workplace:
In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.
 - In the educational system:
To work on poverty eradication many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of other students as they share what they are doing to promote collaboration and learning from each of their fellow students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole. This way of working can have great social benefits:
 - The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team.
 - Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be

- implemented in society.
- Where people and students are asked to consider the SDGs in the implementation of such group projects, solutions can be found to the web of problems that contribute to unsustainable social relationships and relationships with Nature.

Poverty eradication by changing our overemphasis on the outer/material dimension of poverty and helping people to become aware of the inner/spiritual perspective that stresses connectivity

1. To foster an inner perspective that in turn results in benevolence toward other people and society:

Encourage understanding of how to activate potential and find personal fulfilment:

- In educational institutions: by introducing self-reflection in curricula; through student centred education; and group class projects where every student develops his or her own specific skills and contributes both as student and teacher to fellow students in that school project.
 - Using the media: by developing advertising that offers a truthful education on the value and uses of products and services, rather than an incitement to buy at all costs; and programming that stresses the multiple ways to find and enjoy personal fulfilment.
 - By assessing and rewarding educational institutions and the media for their capacity to promote an understanding of our need for both inner and outer fulfilment.
 - By providing prizes and awards to businesses and banks that foster development not based on a debt-based system. There are a number of such banks that are run along cooperative lines: such as the Desjardins Group in Canada and Florida, community-financed banks; national banks such as the Triodos and ASN Banks in the Netherlands which focus on building sustainable development.
 - Provide permits for advertising and legislate severe fines for misleading and biased advertising.
 - Provide a basic income for all people. (See next section: *Build an economy of inclusiveness*).

Poverty eradication by mobilizing all people to participate, including the most disenfranchised, youth, the elderly and those with disabilities

- View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
 - Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs of others and possibly above average when it comes to innovation and creativity.
 - Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.

- Bring together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a life-time of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.
- Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
- Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
- Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature.

*Include the theme: “**Human interdependence with Nature**”: throughout all levels and all subjects of educational curricula and this as a theme in the media.*

1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

When we consider access to wealth for all, it is important that we both free up resources and prepare both "donors" and "recipients" to ensure that the changes remain durable.

It is thus important to:

- Commit to making better use of the resources we have by creating zero waste.
- Prepare all those who already own resources and those that have not held property or assets before for ownership so that they know how to use, honour, manage and grow their resources without harming other people or Nature.
- Create and implement laws that ensure that the commons can be stewarded by all people for the benefit of all people and Nature. This would give all people including the poor and the disenfranchised equal access to these resources and provide them with access to enforcement mechanisms, so that they can make sure that the global commons is stewarded for the wellbeing of all.
- Publicize the important and often indispensable roles played by diverse groups of people and nations, rich and poor, to their own societies, and/or globally through the innovations they introduce, their systems of social solidarity, and

cultural enrichments.

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Increase disaster preparedness (much of this must be done at the local level):

- Implement governmental public awareness campaigns on potential natural disasters including those due to climate change.

These can include:

- Placing warning signs in Tsunami Danger areas;
- Providing details on what to do if there is a Tsunami alert. Bangladesh for instance has instituted evacuation procedures that has proved to save great numbers of lives;
- Publicizing instruction on how to aid the most vulnerable, including young people, the elderly, and people with disabilities so that all people in a community have the basic skills necessary and can thus respond usefully;
- Including all in implementing these, including at family and community levels, as well as national legislation relating to social services.

Family members, etc. of the most vulnerable would be a great asset, since they see the essential value of the vulnerable as human beings from close by. They can communicate this most convincingly to others who might not have direct experience with them. They will be most invested to provide a safe and nurturing environment, ensure that there are escape routes and other protection for the most vulnerable where they live, and that others take their particular vulnerabilities into account. They can also advocate municipal, national and global reforms that can protect them when disaster hits. This will require work on the family and community level, as well as national legislation relating to social services.

- Ensure children, elderly people, or people with disabilities in their home are given special help to ensure that such houses are well equipped with suitable escape routes and family members can aid in their escape.
- Use the media, including the social media as a powerful source to help educate people at local and national levels and to encourage civil initiatives to help the most vulnerable.

Address the related issues of poverty and pollution at all levels including at the local level:

- Poverty and pollution are inextricably linked; pollution contributes to the poverty cycle
- These can make it more difficult for children and future generations to escape this cycle;
- Pollution causes life-long disability and early death;
- Poor populations are the most vulnerable to exposures from hazardous substances due to factors such as where they live, the types of livelihoods in which they are engaged, their low level of education or awareness of toxin-related risks, their lack of or limited access to health care, and their poor levels

of nutrition. Poor health and nutrition, typically associated with poverty, can magnify the impacts of exposure to toxic pollution. For example, children with nutritional deficiencies in calcium and iron have higher blood lead levels than peers with sufficient amounts of those nutrients.

(See Poisoned Poor report by GAHP https://gahp.net/wp-content/uploads/2017/02/GAHPPoisonedPoor_Report-Sept-2013.pdf)

Safeguard all people from exposure to pollution, realizing

- Pollution occurs at home and at work, or in contaminated public spaces;
- The consequences can range from contracting diseases that may interfere with an individual's ability to retain employment to severe illnesses causing long-term disability. In urban settings;
- The poor often reside in areas close to landfills, incinerators, hazardous or other wastes dumping sites, or other industrial zones/polluting activities.

The WHO estimates that 98% of adults and 99% of children affected by exposure to lead live in low- and middle-income countries.

- The informal recovery of lead from car batteries and the open burning of lead-containing wastes are serious sources of environmental lead contamination in low-income countries.
- Poor children are more likely to be affected by lead exposure, since they are more likely to be malnourished; a diet low in iron and calcium allows more lead to be absorbed by the body.

Protect people engaged in livelihood activities where chemical exposures are significant (e.g., e-waste recycling of domestically generated waste, pesticide use in agriculture, small-scale and artisanal mining, lead acid battery recycling, chemicals manufacturing, tanneries, etc.) need to be ensured. Recognizing the economic significance of these activities for the poor and for the economy as a whole, emphasis should be placed on finding ways to reduce or eliminate toxic exposures from these activities.

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Development

A strong, harmonious relationship with a healthy and resilient natural environment is fundamental to ending hunger and achieving food security societies.

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

For the production of and increased access to safe, nutritious and sufficient food all year round:

- Encourage homeless people to move or return to the countryside to reduce the

desertification of rural areas; so too unemployed people can also be given this opportunity. As more and more people are flocking to cities to stay in the slums, rejuvenating the countryside with a reverse trend of migrants from cities to the countryside can provide incentives to businesses, civil societies and governments to promote a rural governance with the help of new telecommunications and Information Systems to help with education and services. Such a move would provide an array of different and necessary types of work for people who are unable to find work in the cities, ranging from restoring the land and ecosystems to providing the necessary infrastructure for the well-being of those living there and to promote the effectiveness of their endeavours. It will provide a greater distribution of people, as well as increase land for food production. In this way, people who are homeless or unemployed would be empowered to help themselves and many other people. Costa Rica has undertaken action in this vein, thereby empowering the poor by giving them land to farm sustainably and encouraging women to become fishers.

- Provide help to people at the grass roots to contribute to the production of safe, nutritious and sufficient food all year round by providing agricultural equipment, constructing roads that connect farms with one another and with markets, and making sure every community benefits from pipe-borne water and clean energy for each household, and basic education opportunities for their children. NGOs that are helping with these processes should be empowered by providing salaries for their staff.
- Recognize the additional benefits of providing all people with safe, nutritious, and sufficient food all year round in that such agricultural practices can help sequester giga-tons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, and providing conditions that are much more favourable to dryland, rain-fed areas, subsistence and family farmers - particularly those living in regions of degraded farmlands and ecosystems. And so, by **working with, instead of against Nature**, we will find that we have befriended a powerful ally.

To ensure that those often neglected have access to food, governments at all levels and the UN System can take the following actions:

- Implement social protection floors with the help of Inter-Governmental Organizations, such as the International Labour Organization (ILO).
- Enact measures and policies to:
 - Provide access to food waste that is still safe and wholesome from stores and producers to homeless people and others in need. This can be done with the support of NGOs and the sharing economy.
 - Encourage charities and organizations of homeless people to collect food before it is wasted. Good cooks with a quality kitchen can still find valuable resources to feed starving people. Such initiatives are already providing food for increasing numbers of people and reducing the number of hungry people in Paris, France. They can be replicated worldwide. More such best practices can be encouraged by paying people to do this work.
 - Work with the resources that pre-exist within the environment of the people requiring nutritious food.
 - Promote farmer's markets and foodbanks.

To feed more people while using available space to do so introduce enforceable legislation and motivate the international community to:

- Eliminate food waste through reusing, recycling etc.
- Create food sharing programs within communities whereby neighbours can share excess food. Create an awareness that there are already apps that help people share their excess food such as **Olio** <https://olioex.com/> or **YoNo Desperdicio** <https://yonodesperdicio.org/> in Spain.
- Promote good business practices and Corporate Social Responsibility in hospitality management, and water, food, and beverage industries. This should include: the training of food operators in hospitality management to apply due diligence and the sharing of risks in the workplace by careful and thorough organization and planning, training of shelf keepers to manage the food shelves, clear labelling, organizing food quantity, and managing leftovers. Ensure that food managers have a good grasp of forecasts and creative prospective in times of uncertainty and when there is an abnormal situation.
- Stress that because cities are so crowded, vertical as well as rooftop and community gardening are critical and that it is important and rewarding to use space creatively for food production, especially using permaculture which is a form of agriculture based on an ecosystem approach.

2.2 By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

- Distribute the nutrient dense-food through programs; explore the use of new forms of food. Capsules with concentrated nutrients might be used as a dietary supplement for those most vulnerable to malnutrition.
- Recognize the importance of good quality, safe and fresh drinking water, and invest in the means to source, clean, and provide water.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Human health is integrally related to the health of Nature and the atmosphere, the geosphere, the hydrosphere and the climate of thought within which we, as humans, function.

Businesses are influential economic forces in society; and how these function. They can thus also strongly influence how people arrange their lives, the types of education and values they espouse and how and even whether they get the health care they need.

Here are some actions they can take to help the achievement of SDG 3:

- Prioritize humanism over profit making, while maintaining a focus on performance and high output management.
- Invest in the organization in such a way as to increase both resources and the health of workers.
- Provide a balance between leisure time and working time.
- Encourage life-long learning. This will produce increased energy as the student engages in activities that involve their whole being - their interests, enjoyment, creativity, involvement in what they are studying - providing hope for the future, opportunities in the workplace, increased life-expectancy, and an upward spiral as opportunities are used to the full contributing to a reduction in poverty and the promotion of prosperity in a changing world.
- Promote the "risk-sharing society" with educational sport and youth training that can develop autonomous behaviour and reduce dependencies at all ages and for all backgrounds.

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

To drastically reduce maternal mortality, here are some ways of both keeping mothers alive and contributing to the quality of their lives:

- Create a secure, loving atmosphere for women who are pregnant and those who are in the process of giving birth.
- Foster awareness and responsibility in people that children are the responsibility of all people because they are the future of our species. Therefore, the well-being of mothers and children are important to us all. Each person truly is responsible for all children and can make a difference when this is realized. Here, we can learn from the wolves who work as a community to care for their cubs.
- Promote maternal health care, through access to healthcare services and birthing assistance and by providing a non-toxic, clean environment, including clean drinking water, and making use, where possible, of the synergy within (often smaller) communities.
- Eliminate toxin-producing practices on the planet.

3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

The points listed above under Target 1—maternal deaths—also apply to infant mortality, including:

1. Creating a natural support system for pregnant women, and women with children such that they are taken care of.
2. The education of the “whole” child can be the focus of the mother, and the

community, is of more concern than the mere survival of the child.

Education, which will be different for diverse cultures:

1. Provide education for the preparation of what is involved in having children - emotionally, physically, socially, psychologically – such things as how to help a child grow into maturity and to develop their full potential, as well as instilling the understanding of the consequences when an infant dies, and what is needed for childbearing to be successful. Such education can best be given via media (such as podcasts, video, film and theatre) where the recognition of the consequences will be most likely to affect the subsequent behaviour of the parents.
2. Emphasize the important role of mother, father, family and community for an infant to fully mature.
3. Develop a new level of respect and care towards our women and children as being of utmost importance to the survival of our species and the joy of our future. If the community prides itself in its children, then all people would be involved and in a way the children would have many parents and many grandparents. Community members would see themselves as leaders and influential in the lives of the local children and therefore perhaps hold themselves to a higher standard to make a difference for the children and society as a whole.

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

In Nature, animal and plant species survive in a balanced give and take with the rest of Nature. Each species contributes to other species' shelter, food, protection, etc. Where imbalances occur, say through diseases, these can cause huge upheavals until eventually a new form of balance comes into being.

Humans on the other hand, have the potential to eradicate whole diseases. Take, for instance, the eradication of smallpox. The paradigm involves one species (human beings) in conflict with a series of others, most of which can and do mutate and then do "become resistant" to the drugs with which humans try to combat them.

Each approach has advantages and disadvantages. And humans have the luxury of being able to combine the two approaches

- Fortify people and their living conditions and lifestyle in such a way that people are less susceptible to disease and human habitation is less accessible to disease agents.
- Allow and promote widespread use of natural herbs, nutraceuticals, homeopathics, and less invasive methods of health and wellness care.
- Create pharmaceuticals that can eradicate the organisms this target aims to combat by producing drugs that can potentially eradicate their whole species; and being prepared, if the disease re-emerges, to then develop new drugs to combat the new form of the disease agent.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Addictions consist of the interaction of a vast array of factors. They have physical, mental, psychological, heredity, social, economic, and spiritual causes and ramifications. Human beings often use and “push” drugs to make up for emptiness and lack of fulfilment.

Despite their complexity, there are many diverse approaches within different cultures that are actually helping individuals to overcome these complex diseases.

Nature does not encourage addiction. For among many other things, it involves over consumption, and overconsumption by one element of an ecosystem is detrimental to all parts.

Here are some actions we can take:

- Promote a global sharing of ways of combating addiction.
- Promote forms of education that allow people to touch on the natural well-spring within to bring satisfaction into their lives and to develop their own potential. Here student-centred education can be an invaluable tool.
- Create community and connection.
- Foster and reward ingenuity and creativity
- Teach to feel and express emotion in a balanced healthy way.
- Teach to be aware of and release shame.

Place addicts under strict social supervision in a strictly regulated environment, where they learn basic living and livelihood skills; while monitoring their moment to moment living with strict rules regarding substance abuse and/or overeating with as the carrot rehabilitation and as the stick the removal of something that the addict loves even more than their addiction. This could be the custody of their own child, for instance.

Place addicts under strict legal supervision.

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.

Reduce the numbers of cars on roads by:

- Increasing the opportunities to work from home.
- Creating more self-reliant, self-sustainable, self-contained communities where people participate in their daily activities close to their home.
- Implementing technologies for small ecological vehicular transport for within these communities for short to moderate distances.
- Encourage flexible work/life balance to decrease stress-related distraction and hurried impulses.
- Create flexible working times so that people commute throughout the day and not all at the same time, making it easier to find a seat when using public transportation, and to decrease the number of private commuter cars creating

“rush hours”.

- Provide bonus travel for commuters who use public transportation, so that they can take their families on free trips on days off or in the holiday season as a reward for being a regular user of public transportation.
- Have snacks on board, and ways in which people can meet and get to know fellow commuters better. Some people take busses and trains from the same place of boarding daily and it can be a pleasure to meet and have a brief chat with the same people every day for those who are inclined that way.
- Provide tax incentives for those using public transportation and able to prove it by, for instance, sending in their used tickets with their tax returns every year.
- Discourage use of cars through increasing the taxes paid on fuel.
- Require high fees for carbon emissions and use the resulting income to expand the public transportation system.
- Build public opinion in favour of public transportation so as not to create a “privileged” class who by virtue of their financial capacity might use road travel and thereby aggravate social divisions.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

- Create a shift from a society where individuals are left to fend for themselves to one where fundamental human rights are implemented and the society as a whole ensures that all can live fulfilling lives.
- Provide education in the principles and advantages of sexual and reproductive healthcare in schools from an early age and show the disadvantages that occur when that is not put to good use.
- Ensure that physical and verbal abuse and intimidation of women is reported by all who are aware of it - neighbours, teachers, medical personnel and social services.
- Ensure education from the first school year shows boys and girls to be equal.
- Provide education at schools to show the advantages of societies where there is gender equality within families, societies, and the economy.
- Provide media programmes that show the advantages of gender equality to all members of the family.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Creating a program which provides universal health coverage for all people globally would have a number of advantages.

Above all it would lead to a concerted global effort to do away with agents that create

diseases that cannot be contained through national borders.

A barrier to universal healthcare is often seen as its affordability.

Nature and Nature-based medicine can help alleviate this problem, since the human body/mind/spirit can be significantly regenerated and strengthened where people are open to being infused by the health-giving effects of their natural environments. This has the medical advantages, that one is aligning with systems both inside and outside the body which together form forces more powerful than if we treat just a single aspect of a person's health.

Although allopathic medicine clearly has many important benefits, such as speeding up a cure, natural and more holistic forms of healing can be used both in tandem with allopathy and in its own rights for a large number of conditions. It tends to be more cost effective than using methods that have required many years of R&D, etc. The two approaches to medicine tend often to be each effective at treating different types of conditions.

Universal health care can become more all-round and provide more all-round and diversified care by combining the two approaches and thereby healing conditions one or other approach is not yet able to address.

The proportion of natural healing in a proposed universal healthcare system would use forms of medicine that align the body/mind/spirit with its natural connection to natural forces. Such approaches are used widely in much of the world.

The great advantage of natural approaches is that:

- The treatment costs little or nothing except the fees of the healer. Even though the training of such healers can require at least as much time as do those who use allopathic medicine, the latter uses more expensive diagnostic instruments and industrially produced pharmaceutical drugs and are moreover often more expensive than many people can afford.
- Natural approaches typically avoid or minimally utilize the skyrocketing costs of R&D, industrial manufacture, the cost of middle-men and advertising.
- Natural approaches can be used in disaster areas which often cannot be reached when the disaster first strikes and immediate first aid is required.
- Many of these approaches to healing have proved effective over millennia - much longer than allopathic medicine.

Here are some examples:

- Approaches to medicine that open the meridians – the energy channels of the body (acupuncture, acupressure, shiatsu, polarity, etc.) - and thereby allow healing of the body/mind to occur through opening the systems that are in harmony with those of Nature as a whole.
- Approaches to mental health such as meditation of all sorts, or diverse forms of yoga, the martial arts, etc. that induce similar positive effects.
- The use of physical/spiritual energy of the healer to heal the patient (hands on healing, distance healing, polarity, attunements, etc.) can have similar effects.

- Diagnosis that uses the natural (often unconscious) energetic response of the patient's body to specific substances to establish the effectiveness of that substance in healing him/her (such as Touch for Health).
- Natural forces, such as solar energy, healing waters, herbs, hydrotherapy, nutrition, are also frequently used in healing.
- Homeopathy has been a prominent, low cost highly effective medicine in use all over the world over a couple of hundred years.
- Many other ancient healing practices that are still in use such as Ayurveda.
- Such approaches might even include encouraging "patients" to relax in green spaces, by streams and lakes, and in parks in cities. These exist in many parts of the world and such recreation is for many low in cost.

There are some industrial countries where such treatments are discouraged or not well understood. Here are some possible reasons:

- They use intuitive capacities as an integral facet of holistic mental functions for diagnosis and treatment. While holistic approaches to healing are fast being recognized in the West, they are still less well developed through educational institutions in industrialized nations than linear thinking; and so, their value is less well recognized there.
- Pharmaceutical companies play a dominant role in most industrialized nations and are large and financially powerful entities that have little interest in anything that may change or affect their status and strong hold; they will resist and fight anything that threatens their financial interests.
- Those within the standard western model of medicine are not trained to have the understanding of how these natural approaches to health, wellness, healing, and alternative medicines work, nor do they have the experiences with it to know the effectiveness. Further it has been proven to be human nature to resist that which we do not understand.
- This carries into the general "consumer" population who rely on their medical professionals who are not informed on these modalities, and therefore cast negative aspersions colouring the popular opinion of those who would benefit from natural healing modalities
- It would require extensive re-training (actually a whole paradigm shift), within the Western medical community – including pharmaceutical companies, medical doctors, hospitals, etc., in order to embrace and reframe how and what they do to include natural healing modalities.
- Utilizing natural remedies and healing traditions require much less research to develop and so fewer people would be employed for research and development in the ways that are currently dominant. This could contribute to a rise in unemployment, although new jobs would also be created.
- A decreased monopoly of the Western pharmaceutical industry in industrialized nations and worldwide would cause somewhat of a reorientation of industrialized economies, given the powerful role that they play.
- Using natural approaches requires education and training and thus a reorientation of the curriculum of medical schools.

The solution to the above contrasts would be to use the best of both orientations by creating internationally recognized medical accreditation for medical professionals having received their medical qualifications at schools and universities that teach either allopathic or naturopathic approaches to medicine and healing, or both. This would be a natural step in a world where medical services are already being provided internationally with the help of the Internet. Pay parity should be provided to medical practitioners - both allopathic and naturopathic.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Elevating the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.

- Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated and investing in global development.

3.c Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Early warning systems are available in the shifts in subtle energy systems of Nature. Our capacity to interpret these natural early warning systems can help make our own early warning systems more effective and timelier. Universal energy systems are always in flux. As human beings, it is to our advantage to learn to differentiate between healthy and necessary energy shifts, and those which are in response to human generated changes to natural systems.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

Legal measures can do much to promote gender equality and is a crucial tool in empowering all women. In achieving this we are strengthening the whole human species.

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.

Violence against women and girls takes place in many contexts, including that of society.

Violence against women is, among other things, rooted in fear, rage and feelings of powerlessness. Meeting violence with more violence is not the answer. We can meet this violence with peace, love and compassion—a “*fierce compassion*” that sees and understands the reality of what is and sets an intention to shift to greater love and compassion. This will require females and males of all ages to join together. Violence against women is not a “female issue”. It impacts all of us. Males must, of course, play an active role in this shift.

The basis for ongoing trafficking and other types of exploitation is intricately related to economics. If there were not buyers, there would not be sellers and all those with a role to play in between.

Real change is only possible by dismantling the system. The operators who work as middlemen/women are the foundation of the business. They have powerful structures, which protect them from being affected by any campaigns to fully end these operations.

1. Work to understand the economic drives of those participating in the system that perpetuate violence against women; implement alternatives for those who contribute out of perceived need.

2. Stop promoting violence in media, advertising, and play.
3. Model peace and mutual respect in books, magazines, TV, movies, games.
4. Teach problem solving, conflict resolution, mediation, and non-violent communication. Organize a worldwide peaceful march in support of eradicating violence against girls and women. The communal energy released in this process could be a powerful force in creating change.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

The following changes must take place within diverse contexts, including within societies:

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity.

If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties.

1. Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
2. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
3. Promote mutual respect with policies, funding, education, the media and technology.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

Implement the following within societies at all levels:

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.
- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new

inspiring leaders in the community for both men and women.

- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technology, media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature as well.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against and others who have had no access. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access. Trainings can be given to people from each country by UNOs (Including UNESCO and ITU), using the Internet to make these more accessible to all and inexpensive to give to large numbers of people. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.
2. Develop technology and training in equality and inclusivity.
3. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
4. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

Do this in all relevant contexts including that of society.

The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest.

- Provide training and opportunities for both genders to foster a new basis of equality.

- Embrace youth to create a future with myriad possibilities for all.
- Create unity and cooperation through inclusiveness to generate a spirit of new unlimited potential for life.

GOAL 9

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

To bring about the necessary far-reaching technological, infrastructure and other changes:

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing, and in harmony with Nature.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

To draw on broad creativity and create a foundation of support, develop the necessary social participation and support

- Establish avenues, such as local town hall meetings that are open for all to participate, for the innovative, creative ideas to be heard and implemented by political leaders at various levels of governance.
- Publish success stories about the integration of refugees and migrant workers.
- Set up methods for mediation to address and resolve issues arising between natives of a recipient country and immigrants and refugees to create better understanding and broaden perspectives.
- Establish win-win policies for assimilating immigrants and refugees into a culture. See: Why accepting refugees is a win-win-win formula:
www.brookings.edu/blog/up-front/2018/06/19/refugees-are-a-win-win-win-formula-for-economic-development.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Provide incentives and awards for businesses, organizations, and individuals who are notably serving the well-being of the whole of humanity and Nature.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

Set up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, particularly developing countries by 2030, encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending.

To encourage innovation and increase the number of R&D workers and private R&D spending, as well as contributions in kind:

1. Create a group of financiers, including cooperatives, universities and CSOs, all of which are dedicated to contributing their respective strengths to a sustainable and equitable global community for the well-being of all people and Nature as a whole; and especially also to helping with the development of marginalized communities and nations.
2. Describe in simple terms a series of global challenges for which no solution is readily available.
3. Create an award that would give winners opportunities to implement their ideas

with the proviso that they would be implementing these for the well-being of all people and Nature as a whole.

4. Send out a simple description of the challenge via participants in the initiative. These should include universities, UNO development organizations, financiers who are seeking to contribute to a sustainable world, CSO's working on development among marginalized populations, schools that are connected with UNESCO's national commissions and any other schools who wish to participate, universities who are seeking to contribute to sustainable development and are willing to do so without being beholden to for-profit organizations and businesses, commons-based initiatives and cooperatives.
5. Ask for possible solutions or partial solutions to be sent to the initiative. The agreement would be that the winners would be helped to realize their ideas as a part of a larger team for the benefit of all people and Nature as a whole and kept in the public domain. The execution of the project should take place where possible in the communities that stand to benefit especially if these are in developing countries.
6. Those who have created the initiative would then work with the winners to implement their innovations and to make them available and apply them to those most in need and especially developing countries.
7. Publish the solution as widely as possible together with the inspiring story about those working on the initiative and the prize winner in particular to inspire others to create similar projects and to benefit from the solutions. Make the solutions available as widely as possible.
8. Create internships and scholarships based on research and development, and technological innovation with collaboration with Nature, sustainability, and eco-friendly solutions as the focus to attract the interest of younger generations who are widely interested in these fields but are unaware of this new specialty.
9. Keep the benefits of indigenous knowledge and scientific and technological research, and all aspects of the move towards upgrading the technological capabilities of industrial sectors in all countries in order to create a broader awareness and attract the attention and interest of people of all abilities into the field of sustainable R&D that might not otherwise be aware. This movement can be kept in the forefront of the public eye through media, e-newsletters, public forums, college seminars, podcasts and even in themes of TV talk shows, TV documentaries, and movie themes.

9.a Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS.

All people have their own unique life outlook and abilities for creative problem solving and innovation based on their cultural world view and personal development within that cultural world view. While any particular community, country, or region knows and understands its own needs, strengths, and weaknesses and these must be the basis for their sustainable development, people(s) from outside that community, country, or region may have unique contributions to share in the way of ideas for innovation and development that are only seen by an objective perspective.

Green infrastructure is essential both for the peaceful and mutually beneficial co-existence of both human beings and other forms of life everywhere, including in Africa.

In building the green infrastructure, the well-being of all must be considered. It should permit all life to travel, find nurture and habitat and survive peacefully side by side.

Green infrastructure that serves both humans and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems - retain more water, increase the number of plants and animals that can interact and balance the recycling of carbon and other minerals while regulating the climate.

1. (Re)create infrastructure that allows both humans and other forms of life to communicate, travel, find nurture and thrive side by side without the increasing clashes that occur as human settlements encroach on wilderness areas.
 - Avoid expanding human settlements onto paths traditionally used by wildlife and give wildlife a wide berth.
 - Build adequate defences around human settlements to keep large animals such as elephants at bay.
 - Create green spaces in towns--roof gardens, plants growing up houses and on roofs to increase the supply of fresh fruit and vegetables, decrease transport lines, while creating habitat for small animals and insects.
 - Build parks in towns where smaller forms of wildlife can thrive, where people can relax and observe and learn about Nature, and connect these small ecosystems with one another using corridors, eco bridges and eco tunnels that can be used by wildlife to increase their living area and promote increases in biodiversity.
 - Create Nature-study areas, including in deserts to attract tourists and educate people in the wonders of Nature and its amazing diversity and ways of adapting to diverse situations. This will both inspire people, create a deeper bond and understanding between people and Nature while increasing economic opportunity outside of cities, thus decreasing the move to cities.
2. Reduce the amount of electricity needed to be brought in over long distances.
 - Return to the use of traditional building materials and styles that allow houses to be naturally cool in the summer and retain heat in the winter; generate electricity locally using small generators that run on energy from the sun, flowing water and wind. This will also have the advantage of keeping people living in smaller settlements instead of moving to the cities.
 - Introduce universal access to the Internet. On a continent that still has areas that are sparsely populated, and which is heading to a rapid increase in population, the Internet has two functions:
 - a) It enables people to communicate without the need for air- or road travel, both of which pollute more than travel by rail or some forms of boats.
 - b) The Internet places education, information, banking and other services and opportunities for exchange and trade at the fingers of the grass roots without the need for physical travel, thus helping to alleviate poverty which is one reason for the depletion of natural resources. It can also help people develop their individual potential, which is an antidote to greed, which contributes to problems of co-existence between people and Nature.
 - For the development and upkeep of green infrastructure in keeping with local

needs, seek information and the support of the grass roots using Geographic Information Systems (GIS) and local planning and building groups.

3. Conserve Nature by returning to traditional forms of herding and agriculture using locally occurring grasses and crops that are adapted to the local climate, including, for instance, crops that can grow in dry areas.
4. Increase the provision of water so that it does not have to be brought in over large distances; and increase the provision of food and livelihoods by building biodiverse ecosystems and stewarding these until they maintain themselves. (See the film the Biggest Little Farm.)

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.

Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

Internet can be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it.

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in countries worldwide where Internet use is to be expanded, including in LDCs.
2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. There should be a strict ethic of confidentiality.
4. Internet literacy should also be taught in all schools.
5. Focus Research and Development on advancing the industry in ways that do not harm life or produce waste.
6. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm
7. (i.e. 5G waves) methods of technology use and manufacture.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

This is a complex challenge. Even though fish stocks are dwindling, livelihoods are at stake, and despite legislation overfishing - illegal, unreported and unregulated (IUU) fishing - destructive fishing practices are still taking place.

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, which are critical to the well-being of all life on Earth. These individual marine species are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food.

When we take actions such as fishing without considering sustainability as a whole, imbalances are created whereby the so-called solution of one problem creates a host of other problems and imbalances. This attitude lies at the heart of un-sustainability.

This problem is a direct result of how we view and relate to the environment, our fellow human beings and other creatures.

Dealing with this problem will require a multi-pronged approach:

- Through education: to recognize that everything is interconnected and that what is done to one aspect of reality, affects many other aspects, including our own well-being.
- By fostering a cooperative approach whereby those involved in fishing see themselves as a part of a much larger interdependent community;
- Taking strictly enforced legal action as well as creating an Environmental Court to deal with the global aspects of associated crimes;
- Using Nature-based science and technology to revive dwindling fish stocks.

Here are some actions to deal with some of the social aspects of this challenge:

- Encourage the formation of cooperatives of fisher people to steward diverse types of fish. This will further enhance the experience of connection to both fish species and with-in the fishing industry. In cooperatives, all share in decision making and in the consequences of their actions. It is therefore in the vital interest of all to steward rather than to deplete available resources. There are already one billion members of cooperatives worldwide. Nobel Prize winner Elinor Ostrom on occasion gave the example of how lobster fishermen in the North West of America revived lobster fisheries in this way. Such cooperative relationships tend to change the mindset from one of "making a killing" to feelings of mutual

appreciation and cooperation.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%. For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

- Suggest that via the United Nations all coastal areas are proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
- Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.
- Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)
- Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together.

This can be done as follows:

- Encourage them to form commons and/or cooperatives (the for-profit form of commons) to manage specific resources in a particular area. These forms of organization place sharing at the heart of their identity: their members would share their knowledge, make cooperative decisions that benefit all concerned, financially and/or otherwise benefit the communities where they are based and benefit global development. (See also <https://www.ica.coop/en>).

- Encourage commons and cooperatives working with diverse aspects of the oceans to work together using a commons/cooperative approach at local, regional and global levels to ensure that fragmentation does not occur between the insights and concerns of any of these groups.
- Create an international network of commons and/or cooperatives that can, in consultation with the members of each, develop best practices and ways of discouraging destructive ones, reinforced by laws and legal mechanisms, developed for this purpose.

In Conclusion

The health of human societies involves much more than that of specific groups of people. A society is healthy to the degree that each of its members are both healthy, well-nourished and in a process of developing their full potential. This requires nutritious food, fortified by the bounty that Nature provides and an environment that is wholesome where both humans and all other life forms can thrive. And to make all this possible, requires each person, individually, to be sensitive to their own inner nature and how that is nudging us to develop in interaction with our many environments, including our social and natural environments.

But Nature is no panacea of harmony. It is full of stresses and strains, as is each human being, as we experience the growing pains of our own development and that of the societies we live in. Societies are developing, expanding and building new boundaries as our world expands from societies that formerly were isolated from one another to ones that are in constant communication.

And so societies are healthy to the degree that people are able to come to grips with the growing pains of an emerging global community. Here enforceable policies and laws are needed backed by effective conflict resolution tools that can cope with the growth of societies alternating with periods of hardening boundaries. Ubuntu is one approach to peaceful conflict resolution which stresses the underlying oneness of all and the principles of empathy, sharing and cooperation.

Culture



Introduction

The word culture, used in a scientific sense, can be defined as “to maintain tissue, cells, bacteria, etc. in conditions suitable for growth.” In terms of our everyday life, culture has come to mean the mainly immaterial forms — ideas, customs, and diverse forms of artistic and intellectual manifestations—that allow a people to prosper together. These grow directly out of the environment they share in which people live and where they seek to thrive and survive as a unit.

Cultures are thus rooted in our own inner nature and both our natural and social environments. That makes culture a powerful force in each human life that can be used for the betterment of all people and Nature. But where culture is thwarted, endangered or destroyed, it inevitably becomes a source of conflict whereby many will lay their lives on the line. For destruction of a people's culture leads to social disintegration and at the same time the destruction of many individuals.

Cultures develop through the insights and inspirations that come to people and that are welcomed and perpetuated by those around them.

Our individual cultures usually begin with those we are born into. Later the cultures we adopt become rooted in our own talents and capacities as they meld with those around us with whom we are constantly shaping both our natural and social environments into a firm unit. This cultural unit becomes a foundation upon which we feel our well-being depends. It is at the same time a means to safeguard our most precious values and all else that we hold dear.

In this way, culture grows out of our individual capacities in interaction with the natural and social environments, most often where we reside, although this is changing with the arrival of the Internet. It constitutes the value-base and foundation for communication that fosters those relationships on which a community is convinced its well-being and security depends. When someone denigrates the specific culture that we identify with we feel as if our survival is at stake.

People will fight to the death to defend their culture and so specific cultures are given a bad name when these are under siege.

To deeply understand the importance their culture has to other people and why they will defend it to the death, we can observe, with due humility, our personal response when our own culture is under attack. This can express itself in our lashing out to hurt whomever we feel has denigrated what we hold dear, or through the indignant inner dialogue and the complex of negative emotions that are aroused within us. This

tumultuous inner dialogue in many cases may keep raising its head every time we are reminded of previous aspersions cast on our culture and associated value system. For we identify these as our life-line to well-being and security. Often this inner turmoil is not fully assuaged until reparations are made or we feel our culture is fully safeguarded from further attack.

So, respecting one another's' cultures is extremely important, since they are related to the roots of who we are. At the same time, cultures are constantly in flux as we adopt social and cultural norms of other groups with whom we can identify.

This growing and intermingling of cultures has been happening since the very dawn of civilizations. It is happening ever faster as we implement the SDGs, as in the process we are learning to move from our individual cultures into a global culture in which the diverse cultures are each accepted and valued.

This process has been very much in evidence within the UN as NGOs from north and south began organizing civil society actions together, especially since the second preparatory meeting in 1989 of the UN's Earth Summit (UNCED). The Earth Summit itself took place in 1992. It has taken a huge leap forward in the years since.

As a nation, Canada has built its multicultural society on the importance of respecting people's diverse cultures. All are encouraged to both celebrate and develop their own individual cultures and share them with people from other cultures. New Zealand is also working positively with cultural diversity.

And still, cultural diversity lies at the heart of many conflicts today.

The challenge we face is to allow cultures to flourish without being under siege and without negatively affecting other cultures. Here the art we are learning as a species is to learn about, be delighted by, and appreciate other cultures and interact with them in such a way that we do not threaten or denigrate them in any way at all.

Culture can become a tool to implement the goals and to grow into our identity as unique beings living in unique constellations that strengthen and inspire one another and allow each one of us to develop in our own individual ways.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Culture

With an emphasis on SDGs 1, 3, 9

The following actions are for those working or active in Ministries of Cultural Affairs, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in the area of culture in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

*Poverty eradication by mobilizing people in general from
diverse cultural backgrounds*

1. Educate people on how to make durable change which can involve building on cultural strengths of people from other cultures:
 - Teach via traditional education both about specific social, economic cultural and political changes that have successfully taken place, together with how and why these were successful and to which degree they were durable. This will give people the ability to bring about constructive change and the means to do this effectively, without causing intrinsic harm to Nature or parts of society.
 - Provide information and examples on how the disenfranchised have successfully put pressure on those in power—showing how the powerful can profit from such change through passive resistance, strikes, formation of pressure groups such as trade unions, popular uprisings, etc. Support in learning and implementing such approaches to change can also be provided by civil society organizations with the relevant change as their objective.
 - Provide examples of how Nature works. For instance, species learn to build on the strength of other species: they become sensitive to others' warnings of impending danger and learn by example about new tools and ways to meet their needs. Humans have this same capacity.
 - Provide access to the Internet, which is already leading to a worldwide sharing of knowledge and culture, much of this free of charge. Once all people have access to the Internet, the poor and vulnerable and those who are dedicated to supporting them, will have access to a fount of information that can help change the mindset that is sabotaging poverty eradication.
 - Support the development of individuals' personal potential. This will make people less blindly dependent on their own culture.

- In the workplace:
In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.
- In formal education at all levels:
Work on poverty eradication many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of other students as they share what they are doing to promote collaboration and learning from each of their fellow students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole.

This way of working can have great social benefits:

- The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team.
- Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be implemented in society.
- Where people and students are asked to consider the SDGs in the implementation of such group projects, solutions can be found to the web of problems that contribute to unsustainable social relationships and relationships with Nature.

Poverty eradication by changing our overemphasis on the outer/material dimension of poverty and helping people to become aware of the inner/spiritual perspective that stresses connectivity

1. To foster an inner perspective that in turn results in benevolence toward other people and society:

Encourage understanding of how to activate potential and find personal fulfilment:

- In educational institutions: by introducing self-reflection in curricula; through student centred education; and group class projects where every student develops his or her own specific skills and contributes both as student and teacher to fellow students in that school project.
- Using the media: by developing advertising that offers a truthful education on the value and uses of products and services, rather than an incitement to buy at all costs; and programming that stresses the multiple ways to find and enjoy personal fulfilment.
- By assessing and rewarding educational institutions and the media for their capacity to promote an understanding of our need for both inner and outer fulfilment.
- By providing prizes and awards to businesses and banks that foster

development not based on a debt-based system. There are a number of such banks that are run along cooperative lines: such as the Desjardins Group in Canada and Florida, community-financed banks; national banks such as the Triodos and ASN Banks in the Netherlands which focus on building sustainable development.

- Provide permits for advertising and legislate severe fines for misleading and biased advertising.
- Provide a basic income for all people. (See next section: *Build an economy of inclusiveness*).

Poverty eradication by mobilizing all people to participate, including the most disenfranchised, youth, the elderly and those with disabilities

- View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
 - Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs of others and possibly above average when it comes to innovation and creativity.
 - Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.
- Bring together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a lifetime of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.
- Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
- Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
- Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

Build on people's cultural connections to strengthen and increase their natural resource base:

People's cultures and livelihoods are often formed through appreciation for and in interaction with the natural environment where they live. This can be used to increase support by people for their bioregion and thereby their natural wealth: Each person inhabiting a bioregion can be kept abreast of the health of a bioregion via the media, much as we now have weather forecasts and the cost of degradation. For example, in the Netherlands the nation is divided into "water districts", each with its own administration wherein all inhabitants pay for the cost of maintaining the quality of water in their district. Everyone also pays their fair share of the upkeep and usage. The poor and most marginalized can be included in local governance and thereby also conservation of their bioregion.

Employ ways to shift from a culture based on the survival of the fittest to ones for society-wide mutual empowerment: Essay competitions in schools, art exhibits, solutions offered via the Internet to poverty alleviation. The various submissions to these competitions as well as the winners themselves can receive broad acclaim and wide media coverage. Where the concept of "success" is shifted from "the survival of the fittest" to "mobilization of mutual empowerment", the joy associated with the latter will also significantly increase. In addition, the paradigm of mutual empowerment builds collaboration, increases gratitude and appreciation among people, and thereby people will derive fulfilment at many different levels - psychological, interpersonal, social, and financial from working toward these new ideals.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Businesses are influential economic, social and cultural forces.

Here are some actions they can take to help build a cultural environment that can promote the achievement of SDG 3:

- Prioritize humanism over profit making, while maintaining a focus on performance and high output management. This can include:
 - Invest in the organization in such a way as to increase both resources and the health of workers.
 - Provide a balance between leisure time and working time.

- Encourage life-long learning. This will produce increased energy as the student engages in activities that involve their whole being - their interests, enjoyment, creativity, involvement in what they are studying - providing hope for the future, opportunities in the workplace, increased life-expectancy, and an upward spiral as opportunities are used to the full contributing to a reduction in poverty and the promotion of prosperity in a changing world.
- Promote the "risk-sharing society" with educational sport and youth training that can develop autonomous behaviour and reduce dependencies at all ages and for all backgrounds.

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

Build a culture of peace, containing the following elements:

- Create a secure, loving atmosphere for women who are pregnant and those who are in the process of giving birth.
- Foster awareness and responsibility in people that children are the responsibility of all people because they are the future of our species.

3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

The points listed above under Target 1—maternal deaths—also apply to infant mortality.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Green infrastructure is by definition in harmony with Nature.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought

and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Promote sustainable and local options for popular and needed products such as fast fashion which otherwise promotes consumption of goods and services with a short life span, thus leading to waste and high consumerism;
- Install and maintain a Minimum Nature Requirement for every building, street, home, and business;
- Provide incentives and awards for businesses, organizations, and individuals who are notably serving the well-being of the whole of humanity and Nature;
- Use social media and news outlets to emphasize uplifting and inspiring stories about successful implementation of sustainable economic and social infrastructures that lead to the wellbeing of all life on Earth.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

- Set up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices;
- Create policies and incentives encouraging industries to implement eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the wellbeing of their local community;
- Implement policies and practices to reduce consumption before increasing productivity.

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these

days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.

Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

Internet can be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it.

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in countries worldwide where Internet use is to be expanded, including in LDCs.

2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. There should be a strict ethic of confidentiality.
4. Internet literacy should also be taught in all schools.
5. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm (i.e. 5G waves) methods of technology use and manufacture.

In Conclusion

The clash of cultures seems to be increasing the more we become globally entwined. At the same time, even in the darkest of times, including during the Cold War, Citizen Diplomacy played a positive role and many relationships begun then have grown out to strong bonds today. Citizen Diplomacy continues unabated in areas of conflict.

At the same time *The Declaration and Programme of Action on a Culture of Peace* was adopted by the United Nations General Assembly on September 13, 1999. This occurred after ten months of negotiations in the context of preparations for the International Year for the Culture of Peace. This is also supported by numerous grassroots organizations working with the UN.

And so renewal emerges as cultural harmony breaks down in the form of combined action between people at the grass roots and governments at the UN.

Economy and Financing Mechanisms



Introduction

Nature's economy is, despite ups and downs, inherently sustainable in how it operates. In ecosystems for instance, there is a natural give and take between the Earth System's subsystems—the atmosphere, the hydrosphere, the geosphere and the biosphere, which includes both species of plants and animals. Each species grows, develops and dies off in part, so that it nurtures other species. At the same time, it encourages new ones to appear. While species do become extinct, there is generally the capacity of each individual species to nurture and to be nurtured by the whole.

In Nature, despite Ice Ages and cataclysm, there has been an escalation of diversification--mineral types and life-forms—over the past 15 billion years. Beside the increase, there has been a balance in give and take that has, despite regular extinctions, allowed the growth process to continue. In this way, the economy of Mother Nature retains a perfect balance, while growing consistently, when seen from a long-term perspective.

Human economies were once based on barter, much like the give and take in Nature. But now our global economy has become inherently unsustainable. This started with industrialization. At present, there is neither a balanced give and take between human beings and Nature, nor between us human beings among ourselves and we are fast depleting both our social and our Earth's natural resources.

There are many explanations of why this has happened. One thing is certain, though, that the more we lose touch with the life-giving energy and nurturing, provided by the natural world, the more we seek, in vain, solace in surrogates. And this has gone hand in hand with the growth of economies that are no longer even remotely connected to the provision of goods and services.

At present, goods and services have become identified with money and money, originally a point system to facilitate the exchange of goods and services, expressed in shells, coins, gold etc. has now become a commodity itself, symbolized by stocks and bonds and paper bank notes that can be printed at random. Out of touch with the life and fulfilment-giving aspects of Nature, many of us, vainly attempt to find personal satisfaction in owning money and objects that are symbols of power, status and prestige. The fast-growing array of material symbols of power and prestige are causing mountains of waste, while destroying the natural environment that is so essential to our survival.

And still a powerful part of humanity is fighting on all possible fronts to make as much money as possible from this predatory form of economy.

Our challenge is to restore economic balance, rooted in the balanced give and take in Nature as well as Nature's recycling so that nothing goes to waste.

Fortunately, new more sustainable economic forms are beginning to emerge, that are fast gaining popularity. A form of business that is inspired by Nature's ecosystems are cooperatives with one billion people worldwide. Many goods and service being offered are rooted in our desire to share those things we create and give us personal fulfilment. This is evident on the Internet with the emergence of the fast-growing sharing/partnership economy. This, for instance, already provides 10% of France's GNP.

The very powerful and wealthy that are benefiting from the present dominant system, are understandably the ones who are most attached to it. A possible scenario is that as more and more people see and experience the benefits of these more sustainable economic approaches that the more predatory forms will eventually simply wither away.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Economy and Financing Mechanisms

With an emphasis on SDGs 1, 2, 3, 5, 9, 14

The following actions are for those working or active in Ministries of the Economy and/or Financial Affairs, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in the areas of the economy and or financing in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

Nature supplies the natural resources that are fundamental to our economies; and exemplifies the dynamics that can make these sustainable. These include economies rooted in cooperation, the individual serving and benefiting from the “whole”; economic growth based on a growth in quality and complexity rather than on unsustainable quantity; and an ethic of “all for one and one for all.”

- Promote inner development that will shift people's focus from a need for material goods that are perceived as a means to achieve increased power and prestige to inner fulfilment that relies on immaterial development, such as educational, cultural, spiritual development, that can be expanded indefinitely without harming the environment.

Access to the Internet is already leading to a worldwide sharing of knowledge, much of this free of charge. Once all people have access to the Internet, the poor and vulnerable and those who are dedicated to supporting them, will have access to a fount of information that can help change the economic and social mindset that is sabotaging poverty eradication.

- Support the development of individuals' personal potential and social integration to create a broad foundation for a strong, inclusive economy that can draw on a wide range of skills:
 - In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.
 - In the educational system:
By introducing self-reflection in curricula; through student centred education; and group class projects; and focussing such school group projects on poverty eradication. Many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of other

students as they share what they are doing to promote collaboration and learning from each of their fellow students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole. This way of working can have great social and economic benefits: The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team. Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be implemented in society and through the collaboration contribute to a strengthened economy. Students can also be asked to focus finding solutions to the web of problems that contribute to unsustainable economic and social relationships and relationships that are out of harmony with Nature.

- By tapping into the amazing founts of creativity and strength that are evoked when people's survival is at stake—a capacity humans share with other species when there are challenges to their survival. An educational tool sometimes used are “survival camps”, where young people are sent out into the wilderness to survive for a few days with just rudimentary equipment.
- Using the media:
 - Changing the paradigm by developing advertising that offers a truthful education on the value and uses of products and services, rather than an incitement to buy at all costs; and programming that stresses the multiple ways to find and enjoy personal fulfilment.
- Through a system of rewards
 - By assessing and rewarding educational institutions and the media for their capacity to promote an understanding of our need for both inner and outer fulfilment.
 - By providing prizes and awards to businesses and banks that foster development not based on a debt-based system. There are a number of such banks that are run along cooperative lines: such as the Desjardins Group in Canada and Florida, community-financed banks; national banks such as the Triodos and ASN Banks in the Netherlands which focus on building sustainable development.
 - By providing permits for advertising that is informational rather than geared to selling at all costs; and legislating severe fines for misleading and biased advertising.
- By providing a basic income for all people.
(See next section: *Build an economy of inclusiveness*).
- By including all people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities.
- With regard to people with disabilities:
 - View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
 - Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs

of others and possibly above average when it comes to innovation and creativity.

- Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.
- With regard to youth and the aging:
 - By bringing together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a lifetime of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.
 - By integrating the poor and most marginalized into society and the economy:
 - Implement and enforce all fundamental human rights agreements, the UN Charter, and the 2030 Agenda including all the SDGs.
 - Pass and strictly implement laws against all forms of discrimination.
 - Treat people of non-mainstream socio-economic backgrounds with respect (be they richer/more powerful or less so) enabling people to learn to judge one another by their actual actions rather than through a veil of social prejudice that makes it impossible to work effectively together. This is essential to raise the motivation for poverty eradication.
 - Develop and implement laws, making it unlawful for families, caregivers and communities to neglect those who are vulnerable and bring those who are negligent of their responsibilities and duties to justice.
 - Institute social services and other provisions within societies for the most vulnerable such as the elderly, young people, people with disabilities, and those with incomes below \$1.25 a day. Where possible, allow those most vulnerable to take a leadership role when it comes to generating solutions for their specific needs.
 - Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
 - Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
 - Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature.

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.

Build an economy of inclusiveness.

Here are some ways:

- *Pigouvian taxes:* Taxes placed on a negative externality to correct for a market failure. For example, a factory does not take into account the damage their emissions cause to the air, since there is no market for air pollution. By imposing a Pigouvian tax a government can artificially create a cost for such activity, a cost equal to what the price would be had a market for such activity existed, or a cost so high that it deters the activity all together. Tax revenues are then returned to the local community in which the issue exists.
 - An alternative form of Pigouvian tax would add that those perpetrating the harm can be required to restore the damage they have caused as well as pay the tax. Revenue from such taxes can be used to restore damage done the environment or society. If the taxes are high enough, they could take the place of tax on income—at least until people are no longer tempted to do this harm. Income from Pigouvian taxes could go to the Global Fund for Sustainable Development and a basic income for all people.
- *A global fund for sustainable development (also referred to as a Global Resource Fund):*
 - This Fund could be fed by a number of activities, such as Pigouvian taxes and from other fines for unsustainable activities, such as income derived by shifting tax from income to a small rental fee for the use of natural resources. The implementation of Fund operations would begin immediately upon adoption of its Charter.
 - Start-up funds to pay for free access to the Fund's market and credit transfer program are authorized by the Charter. Its funds would be applied to:
 - Compensation for communities who suffer from the exploitation of resources under their jurisdiction;
 - Restoration of the global commons;
 - A basic income for all people to be used for the implementation of article 26 (2) of the Universal Declaration of Human Rights.
- *Commons rent /land value taxation:*

A method of raising public revenue by means of an annual charge on the rental value of land.

 - This tax encourages valuation based on the value of the land itself rather than land improvements, thus strengthening the local economy and discouraging destructive land uses.
 - Funds generated could be used to provide a basic income for the areas where it operates. See www.LandValueTax.org and also The Vancouver Action Plan -- the 1976 founding document for UN HABITAT (UNCHS).

- *The Norwegian Government Pension Fund:*

The purpose of the Government Pension Fund is to facilitate government savings to finance rising public pension expenditures and support long-term considerations in the spending of government petroleum revenues.

The strategy for the management of the Fund is designed on the expected long-term effects of different investment choices, thus giving the fund the potential to greatly influence the corporate governance market in Europe.

- *A Self-financing World Marshall Plan*

This plan developed by Dutchman Pieter Kooistra is a way of creating and financing a supplementary income for all people worldwide, endorsed by Noble Prize winner Jan Tinbergen. See *the Ideal Self Image* by Pieter Kooistra, ISBN 90 7084 101 1 (available in English and Dutch), sponsored by the Dutch Government; and *the Year 2000: Crossroad for Mankind* by Dr. Lisinka Ulatowska, ISBN 90 391 0673 8 (available in English and Dutch), describing ways to finance a basic income for all women, men and children and a World Marshall Plan for the Earth.

- *Using alternative local currencies, including the LETSystem*

- *The LETSystem:* The best-known local alternative currency. Those participating make a list of goods and services they are interested in providing and how much these would cost in the local currency. Each participant in the LETSystem has a list of goods and services available through the LETSystem. Members are then paid by check in the local currency. At regular intervals the checks are sent into a central administrator who credits and debits participants' accounts accordingly.

- *Time Dollars:* This system is similar to the LETSystem in that a local exchange of goods and services is encouraged. Instead of setting prices for individual goods and services, participants exchange services in time increments. In this way an hour of massage would be equivalent to an hour of baby-sitting or an hour of psychotherapy.

- *Use of local currencies:* Variations of this system are particularly valuable to regenerate areas where the economy is flagging and to stimulate employment. This is being used in countless locations in both rich and poor nations around the world.

- *Using and providing access to products and services provided for free by commons communities and networks.*

Commons are groups and networks of people who jointly manage one or more resource in such a way that all stakeholders benefit equitably. Many of the resources they provide are free.

They are meeting a wide range of their own and community needs from local to global levels and contribute greatly to poverty alleviation. Many focus specifically on sustainable development and so also help to conserve Nature. They include

sustainable communities, education at all levels and in quite diverse fields. Wikipedia is an example of a commons.

They include:

- *Local to regional commons groups* dedicated to such activities as water preservation and management, and for long term legal protection; groups for managing fisheries, forests and irrigation.
- *Entrepreneurial commons clusters* that repurpose and up-cycle waste into new products. Examples include artists' cooperatives tapping landfills for production energy needs or for materials for they can use for their art; Brazilian recycling co-ops where marginalized people who sort garbage can be empowered to organize through participatory sustainable waste management models for income opportunities;
- *Business cooperatives, which are owner operated businesses*, attracting one billion members worldwide. Cooperatives tend to do well even in times of economic downturn, because the owners/workers all share in the profits.

Micro-financing institutions:

- *Grameen Fund, Bangladesh - Women's Fund*. This fund provides small loans to women. Once loans are repaid, subsequent projects are funded for the same borrowers.
- *The Trickle Up project*. Similar to the Grameen Fund in that amounts of US\$100 are made available to people in developing countries who want to begin, say, a cottage industry. Once this is operational and the funds are repaid, the next initiative can be financed.

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

Both lack of money and environmental degradation are often cited as two major barriers to poverty eradication. However, there are a number of alternative ways of generating the funds that can lift people out of poverty, most of them based on a two-pronged approach that involves changing destructive ways of treating Nature and at the same time inclusive ways of generating financing to alleviate poverty. Some are already widely used others are still to be implemented.

Above, under Target 1.1 - “*Best practices to build an economy of inclusiveness and generate a basic income for all*” are some best practices that can be implemented in such a way as to help achieve both financial relief *and* environmental remediation for all, including those currently living in poverty. Commons and cooperatives are social forms that include people in the generation of goods and services while dividing a part of their profits from their activities among all participants as well as, in the case of cooperatives, with both the communities where they are active and to finance global development projects.

The actions listed above under Target 1.1. can not only provide much needed financial relief for those in poverty but can also facilitate an inner shift from a "mindset of poverty" to one of "abundance for all".

Truly, everybody has their own strength, and everybody's strength should be celebrated.

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

For those nations which do not have such a system or who are in the process of developing one:

1. Seek help from IGOs:

For instance, the ILO provides services to help nations build a system that provides social services for their people. Once social services are provided and people have sufficient to live on and develop their potential, people will find time and interest to deal with the issues that are threatening humanity. But challenges will always exist, and human creativity will always be required. "Getting ahead" in terms of earning more than is necessary to meet day to day living needs becomes no longer an issue.

2. Take initial steps to get help and generate financing that can later be built on:

- *Consult with those in the UN System and/or with other governments* with similar challenges for innovative ideas to develop their national sustainable plans, including all of the infrastructure needed: roads, transport, social protection, and other.
- *Make full use of experts from abroad* who can perform tasks at a distance (such as medical professionals who can treat patients via Skype or other similar technology, even in emergency wards) while the country is preparing to fill these posts.
- *Appeal to the diaspora*, as done by the African Development Bank, by increasing interest rates to encourage these to invest in the region.
- *Determine precisely which talents, skills and interests the un- or underemployed in their country have and match the vacancies* with those available to do the best job, using the two-pronged approach mentioned above to help the un- or underemployed to gain the necessary skills and then find their ideal employment. The UN System and the sharing, collaborative, partnership economy can help if people are given access to the Internet.
- *Publicize successes* to motivate all to contribute to the emerging system.
- *Make existing social protection systems more effective, resilient and forward looking to encompass emerging economic trends.*

For those nations that have social protection services to protect and empower people from birth to grave, whose systems are being eroded.

Consider that this might be because those who are employed no longer wish to fund them, believing that some beneficiaries of such systems do not respond as intended. The unemployed or underemployed beneficiaries of financial assistance are often seen to use social assistance as a way to remain inactive or to engage in avocations that are not remunerated financially. This causes ill feelings among those who are working and reluctance to help fund those benefitting from the system.

This problem can be in part resolved taking the following steps to awaken the motivation of those not adequately employed and to rekindle faith in the system among those that fund it:

- Implement career assessment tools and activities to establish the personal qualities, talents and skills of those who are un- or underemployed.
- Provide financial assistance and training to develop relevant new skills.
- Provide them with community service activities or other related jobs to repay the community while they are developing their skills.
- For those without employable skills or who are collecting benefits while caring for their family, allow them to collect benefits while doing community service in areas connected to their preferred activities, as is done in parts of Spain. Increasingly, people have avocations with which they are unable or disinclined to earn a living.
- Through limited benefits and community service they can indirectly contribute to the social/partnership/collaborative economy— already a huge contributor to nations' GNP.

For our world as a whole:

- Realize that in a world where automation and Artificial Intelligence (AI) are increasingly taking over work from human beings, it is important to consider when developing social protection schemes that by allowing people to undertake activities that are of interest and meaningful to them personally, an immaterial economy can begin to grow while because of the greater fulfilment, people's health is likely to be less a burden on social protection schemes, and is likely to be accompanied for many by benevolence. We see this already developing in the form of the social solidarity economy that is growing fast with the help of the Internet. Here a basic income for all people can help to jump start this new phenomenon. (See under 1.1.)

1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

Here Nature can point the way, for there is no waste and no exclusion in Nature. All elements are in constant interaction with the whole Earth System and all species contribute to the health of the ecosystems. This can also be the case with the human community if we follow Nature's example.

Use funding mechanisms that deal with the roots of poverty eradication, such as those that promote social inclusivity and/or empower the poor and most marginalized. See above under 1.1.

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Address the related issues of poverty and pollution:

- Poverty and pollution are inextricably linked; pollution contributes to the poverty cycle
- These can make it more difficult for children and future generations to escape this cycle;
- Pollution causes life-long disability and early death;
- Poor populations are the most vulnerable to exposures from hazardous substances due to factors such as where they live, the types of livelihoods in which they are engaged, their low level of education or awareness of toxin-related risks, their lack of or limited access to health care, and their poor levels of nutrition. Poor health and nutrition, typically associated with poverty, can magnify the impacts of exposure to toxic pollution. For example, children with nutritional deficiencies in calcium and iron have higher blood lead levels than peers with sufficient amounts of those nutrients.

See poisoned poor report by GAHP:

https://gahp.net/wp-content/uploads/2017/02/gahppoisonedpoor_report-sept-2013.pdf)

Safeguard people from exposure to pollution as an obvious humanitarian measure and also as a means of building a strong economy, where all a gainfully employed to their own satisfaction and healthcare costs are low.

Realize:

- Pollution occurs at home and at work, or in contaminated public spaces;
- The consequences can range from contracting diseases that may interfere with an individual's ability to retain employment to severe illnesses causing long-term disability. In urban settings;
- The poor often reside in areas close to landfills, incinerators, hazardous or other wastes dumping sites, or other industrial zones/polluting activities.
The who estimates that 98% of adults and 99% of children affected by exposure to lead live in low- and middle-income countries.
- The informal recovery of lead from car batteries and the open burning of lead-containing wastes are serious sources of environmental lead contamination in low-income countries.

- Poor children are more likely to be affected by lead exposure, since they are more likely to be malnourished; a diet low in iron and calcium allows more lead to be absorbed by the body

Protect people engaged in livelihood activities where chemical exposures are significant (e.g., e-waste recycling of domestically generated waste, pesticide use in agriculture, small-scale and artisanal mining, lead acid battery recycling, chemicals manufacturing, tanneries, etc.) need to be ensured. Recognizing the economic significance of these activities for the poor, emphasis should be placed on finding ways to reduce or eliminate toxic exposures from these activities.

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions.

Recognize that the mobilization of resources is already taking place, support and build on these activities:

- Person to person sharing: via the fast-growing sharing/collaborative/partnership economy between people who are moved to share goods, services and expertise including with people in poorer circumstances.
- Organizational giving: by civil society, including the private sector, especially cooperatives whose giving to the local communities where they are situated, and global development assistance is a part of their cooperative identity; and
- International development assistance: where for decades there has been a resistance to provide Official Development Assistance promised, a shift seems to be taking place as most recently the UK joined the Netherlands, Luxembourg, Sweden and Denmark as having surpassed the 07% ODA target and the EU's pledged special support for the Small Island Developing States.

Recognize that the process of 'giving from the heart' is also at times abused, undermined or directly opposed when (as we saw in the introduction) donors and/or recipients:

- Act from a conflicted sense that it is "either us or them",
- Are subject to spiritual poverty and feel they never have enough;
- Fear reprisals for changing the balance of power; or do not believe change is possible.

Employ and improve other ways of mobilizing resources:

- Require official donor organizations, whether civil or governmental, to publicize their year-end financial statements.
- Publicize widely any misappropriation of funds so that these are subject to world public opinion and those responsible for abuses can be brought to justice.
- Force those found guilty of corruption to truly mend their ways as follows:

- Use legal action to force them to repay the funds they embezzled or came about illegally;
- Publicize the details of their embezzlement in their personal and business environments.
- Mandate that they do community labour, living in the communities they have wronged instead of being locked up in white-collar prisons. This will be a hard penalty for some, and it will deter others from taking jobs in the donor community to enrich themselves.

Encourage donor organizations to coordinate their efforts so that those collecting funds, gathering resources, providing professional assistance, or providing transportation can be encouraged to work together. This will streamline the giving of aid and save vast sums by cutting out redundancy.

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

Allow policy frameworks to be inspired by the balanced give and take in Nature. These are already evident

- In the sharing/collaborative/partnership economy, which is burgeoning on the Internet.
- In cooperative businesses based on caring, sharing and a sense of community. The international Cooperative Alliance (<https://www.ica.coop/en>) with one billion members worldwide honours the Cooperative Identity where members give back some of their profits to the communities where they are situated and also to global development. The form cooperatives take can be compared with Nature's ecosystems in that all contribute to the whole and benefit from the whole.

Create campaigns that focus on ways to ease social and economic tensions as formerly estranged economic groups get to know and respect one another; and thereby counter the negative effects of what seems hopeless misery.

- Include content to speak to the important role that all genders, sexual orientations, ages, all abilities and disabilities, cultures, religions, play in society. Each educational segment can focus on one particular group. The overriding message will be one of tolerance, compassion, value of each individual, and the benefit of interaction among people with different perspectives and life experiences.
- Show the benefits of poverty alleviation to the whole of society, including increased creativity and “thinking outside of the box”; that comes about with a more diverse workforce.

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Development

It is important to remember that food that has retained its natural vitality, both by how it has been produced and the care with which it has subsequently been handled is more effective in helping people to grow into vital, healthy and fulfilled human beings and thus in the long run economically more cost-effective than foods that have, for instance, been over-processed and handled without the due care; for the latter will often result in a greater susceptibility to disease and eating disorders, including obesity and over eating, which tend to take an economic toll on society as a whole..

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

To ensure that those often neglected have access to nourishing and health-reinforcing food, governments at all levels and the UN System can take the following actions:

- Analyse global, national, and local policies for the sustainable production and equitable distribution and management of sufficient safe and nutritious food as these relate to technology, the ecology, economies, societies, and markets. Do this with the help of relevant organizations and people at the grass roots level, possibly using Geographic Information Systems (GIS). This would bring many hands-on deck and lead to a more detailed and accurate outcome. The next step would be to propagate best practices both within countries and across borders to ensure that all, including those who are often neglected, have access to safe and nutritious food all year round.
- Encourage Ministries of Health, Housing, Agriculture, Commerce and Social Protection, in consultation with civil society, to
 - Develop, revise, cost, and implement national plans for food security, water and health with regard to ensuring that sufficient nutritious and safe food is available to each person.
 - Create an enabling environment to oversee the implementation of the policies.
 - Ensure that there are robust safeguards at various levels of the City Smart commitment for vulnerable persons (A **Smart City** is an urban development vision to integrate information and communication).
 - Create a healthy balance between rural and urban lives at the periphery of city centres.
 - Maintain organizational continuity by adapting decision making processes to embrace land planning, food and waste recycling, and building a Smart Sustainable City environment. Customer Relationship Management (CRM) is likely to show an increase in numbers of farming and agricultural jobs

and other decent work as such changes in the global architecture take place.

All these measures in turn, will improve the micro economy as societies become connected with global markets (cities) through the logistics of the food supply chains. These processes can lead to a source of employment, poverty reduction and prosperity for all in this changing world.

To ensure that those often neglected have access to food, governments at all levels and the UN System can take the following actions:

- Implement social protection floors with the help of Inter-Governmental Organizations, such as the International Labour Organization (ILO).
- Enact measures and policies to:
 - Provide access to food waste that is still safe and wholesome from stores and producers to homeless people and others in need. This can be done with the support of NGOs and the sharing economy.
 - Encourage charities and organizations of homeless people to collect food before it is wasted. Good cooks with a quality kitchen can still find valuable resources to feed starving people. Such initiatives are already providing food for increasing numbers of people and reducing the number of hungry people in Paris, France. They can be replicated worldwide. More such best practices can be encouraged by paying people to do this work.
 - Work with the resources that pre-exist within the environment of the people requiring nutritious food.
 - Promote farmer's markets and food banks.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take, many of which determine the types of businesses we can develop and how these are run:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.

- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
- Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of

clean air, food, water, shelter, and proximity to integrated Nature.

- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Elevating—the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.
- Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated and investing in global development.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

In Nature males and females are both fully engaged in strengthening the species as a whole and providing the means for well-being and survival. The strength of human economies increase with the degree all, including all women and girls and people with diverse sexual orientations are empowered to develop their full potential and participate fully in society as well as in the economy.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity.

If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we change the

perceived value of at-home work and child-rearing duties.

1. Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
2. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
3. Promote mutual respect with policies, funding, education, the media and technology.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.
- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.
- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Green infrastructure is by definition in harmony with Nature.

To bring about the necessary far-reaching technological, infrastructure and other changes:

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life

and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

- Make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Recycle and find new uses for used equipment and materials;
- Create new systems to make local production and sales of goods and services a viable option;
- Reduce packaging and plastic bottle use by creating new alternative investment opportunities;
- Promote sustainable and local options for popular and needed products such as fast fashion which otherwise promotes consumption of goods and services with a short life span, thus leading to waste and high consumerism;
- Subsidize local food growers, restaurants, food carts, and purveyors to offer locally and sustainably produced organic, bio, and seasonal foods;
- Set up free and rental bicycle stations and safe and beautiful bike routes to promote better tourism, increased physical fitness, mental well-being, and reduce gasoline powered vehicles and traffic congestion;
- Install and maintain a Minimum Nature Requirement for every building, street, home, and business;
- Provide incentives and awards for businesses, organizations, and individuals who are notably serving the well-being of the whole of humanity and Nature;
- Use social media and news outlets to emphasize uplifting and inspiring stories about successful implementation of sustainable economic and social infrastructures that lead to the wellbeing of all life on Earth.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly

industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

- Create policies and incentives encouraging industries to implement eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the wellbeing of their local community.

9.3 Increase the access of small-scale industrial and other enterprises, especially in the developing countries, to ease access to financial services including affordable credit and their integration into value chains and markets.

- Use local currencies to finance local business, such as times sharing, barter or the LetSystem;
- Explore tapping into the tourist trade;
- Connect with the sharing/partnership economy using the Internet;
- Give people grants to start a business, especially in developing countries;
- Give old businesses grants to pass on their business to the next generation, allowing the next generation to start their lives debt free;
- Provide affordable credit so there are expanded opportunities for people to express their gifts and interests in a business context, encouraging sustainable economies.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, particularly developing countries by 2030, encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending.

To encourage innovation and increase the number of R&D workers and private R&D spending, as well as contributions in kind:

1. Create a group of financiers, including cooperatives, universities and CSOs, all of which are dedicated to contributing their respective strengths to a sustainable and equitable global community for the well-being of all people and Nature as a whole; and especially also to helping with the development of marginalized communities and nations.
2. Describe in simple terms a series of global challenges for which no solution is readily available.

3. Create an award that would give winners opportunities to implement their ideas with the proviso that they would be implementing these for the well-being of all people and Nature as a whole.
4. Send out a simple description of the challenge via participants in the initiative. These should include universities, UNO development organizations, financiers who are seeking to contribute to a sustainable world, CSO's working on development among marginalized populations, schools that are connected with UNESCO's national commissions and any other schools who wish to participate, universities who are seeking to contribute to sustainable development and are willing to do so without being beholden to for-profit organizations and businesses, commons-based initiatives and cooperatives.
5. Ask for possible solutions or partial solutions to be sent to the initiative. The agreement would be that the winners would be helped to realize their ideas as a part of a larger team for the benefit of all people and Nature as a whole and kept in the public domain. The execution of the project should take place where possible in the communities that stand to benefit especially if these are in developing countries.
6. Those who have created the initiative would then work with the winners to implement their innovations and to make them available and apply them to those most in need and especially developing countries.
7. Publish the solution as widely as possible together with the inspiring story about those working on the initiative and the prize winner in particular to inspire others to create similar projects and to benefit from the solutions. Make the solutions available as widely as possible.
8. Create internships and scholarships based on research and development, and technological innovation with collaboration with Nature, sustainability, and eco-friendly solutions as the focus to attract the interest of younger generations who are widely interested in these fields but are unaware of this new specialty.
9. Keep the benefits of indigenous knowledge and scientific and technological research, and all aspects of the move towards upgrading the technological capabilities of industrial sectors in all countries in order to create a broader awareness and attract the attention and interest of people of all abilities into the field of sustainable R&D that might not otherwise be aware. This movement can be kept in the forefront of the public eye through media, e-newsletters, public forums, college seminars, podcasts and even in themes of TV talk shows, TV documentaries, and movie themes.

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can

work together synergistically.

- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

According to the World Wildlife Fund, the ocean provides us every year with a wealth of goods and services conservatively valued at US\$2.5 trillion.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

Here are a few examples of problems that must be addressed:

Due to humanity's destruction and depletion of land-based ecosystems, often for economic gain, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

At the same time coastal development is causing the continuing loss of wetlands. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

There are several hundred ocean dead zones scattered in coastal areas around the

world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to stop dumping un-processed wastes into our rivers, lakes and streams.

Here are some actions we can take:

- Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:
 - Invest in and create water retention landscapes.
 - Engage in regenerative and restorative agricultural practices.
 - Restore damaged ecosystems to protect against flooding and monsoons.
- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
- Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%. For these reasons it is essential to give all nations with coastal areas, and especially

the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

- Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together. This can be done as follows:
 - Encourage them to form commons and/or cooperatives (the for-profit form of commons) to manage specific resources in a particular area. These forms of organization place sharing at the heart of their identity: their members would share their knowledge, make cooperative decisions that benefit all concerned, financially and/or otherwise benefit the communities where they are based and benefit global development. (See also <https://www.ica.coop/en>)
 - Encourage commons and cooperatives working with diverse aspects of the oceans to work together using a commons/cooperative approach at local, regional and global levels to ensure that fragmentation does not occur between the insights and concerns of any of these groups.
 - Create an international network of commons and/or cooperatives that can, in consultation with the members of each, develop best practices and ways of discouraging destructive ones, reinforced by laws and legal mechanisms, developed for this purpose.

In Conclusion

The economy is often seen as the root of all evil. It is said to be at the heart of the present disunity between peoples and their governments, the fight for resources and immigration issues.

At the same time, in this chapter we notice how creatively the grass roots have been dealing with economic problems that are affecting our world. There is moreover a convergence taking place between those in need, and those who feel the urge to give to those in need. Generosity from a feeling of wealth comes from being able to develop what lies closest to their hearts and the deep desire to share this with the world.

Out of the convergence is emerging the fast-growing sharing, partnership economy that connects people and institutions worldwide. In the area of education alone, information and study opportunities exist for free on the Internet in every conceivable field. The world is also brimming with civil society organizations who make their knowhow and services available to people in need. In fact, each book in this trilogy is made up of their contributions in response to our pleas that went out globally as we prepared reports on each of the 17 SDGs.

*A heartening process is taking place:
as one aspect of the global economy fails,
new ones are emerging to take its place.*

Development



Introduction

There is a parallel between what education is to the individual and what development is to nations. While true education is rooted in our direct individual connection to Nature, development of a society or a nation is rooted in their culture, which in turn is also rooted in Nature.

Development is rooted in Nature in more than just this one way. But first let us look at the process as it is often experienced today.

Development is often experienced as a process whereby the haves give to those who have less. This way of seeing the process generates an association of “giving” with “giving away”.

As a result, there is the temptation either not to honour aid-giving agreements, or else to provide aid while making the most for oneself. A representative of one extremely poor, least developed country that had received a sizable sum of money in the wake of a devastating calamity, pointed out that the organizations (both for profit and not for profit) had been paid all the money and left his country still in ruins. Now years later, it is still suffering from the devastation.

While nations are hesitant to criticize “development” aid in the fear that no aid will be forthcoming at all, development is associated in many cases with bitterness and broken promises. Development aid and “Common but Differentiated Responsibilities” (CBDR) and the resentment that surrounds these are too often a sticking point in international negotiations.

Material poverty of the poor in both developed and developing countries is in some cases created, in others aggravated by the greed and insatiable desire for possession that too often accompanies spiritual poverty. Spiritual poverty drives even the very rich to seek to own more and more. Both material and spiritual poverty are found in both developed and developing countries among both rich and poor.

Taking this dynamic into account, development aid if it is to succeed must be accompanied by two additional processes:

1. Development must embrace all people and all members of every society; all people are interconnected.
2. We, as individuals, must be encouraged to find balanced personal fulfilment by reconnecting with Nature, as outlined above in the Introduction to the chapter on Education.

3. We, both individuals and Nations, must without delay adopt financing mechanisms and economic approaches that are rooted in Nature's examples.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Development

With an emphasis on SDGs 1, 3, 5, 9, 14

The following actions are for those working or active in Ministries of Development, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in the area of Development in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

Here are some actions for poverty eradication using a developmental approach. This approach is rooted in the understanding that, as in Nature all is interconnected, so too are all people, their thinking and actions. Development must therefore embrace all people in rich and poor countries and at all levels of societies.

Development by inspiring and mobilizing all people to participate:

- Promote inner development that will inspire and empower individual people by enabling to tap into what deeply moves and motivates them:
 - In the workplace:
In the business world and also in public life, more and more people are arranging their work schedules so as to find both job and personal satisfaction. In this way, workers can increase their overall sense of fulfilment for being able to better meet family needs and pursue their personal avocations.
 - In the educational system:
By introducing self-reflection in curricula; through student centred education; and group class projects; and focussing such school group projects on poverty eradication. Many schools and universities have begun to get students to work on group projects together. In this way all students become teachers of other students as they share what they are doing to promote collaboration and learning from each of their fellow students. This mutual learning process evolves as all students integrate their individual tasks to contribute maximally to the class project as a whole. This way of working can have great social and economic benefits: The complementarity of skills leads to mutual appreciation that enhances relationships between people of the same team. Successful class projects, based on the collaboration between students each doing what they love to do and what they do best, can sometimes be implemented in society and

through the collaboration contribute to a strengthened economy. Students can also be asked to focus finding solutions to the web of problems that contribute to unsustainable economic and social relationships and relationships that are out of harmony with Nature.

- Provide a basic income for all people. (See next section: *Build an economy of inclusiveness*).
- Include all people in poverty eradication, including the most disenfranchised, youth, the elderly and those with disabilities as a means to allow all to taste the delights of the development of their own potential and to benefit the development of whole societies.

With regard to people with disabilities:

- View people with disabilities as experts on how society can eradicate poverty for others with challenges similar to their own.
- Encourage them to create think tanks and problem-solving groups with people of diverse disabilities. Such varied groups might be both sensitive to the needs of others and possibly above average when it comes to innovation and creativity.
- Draw on adaptive skills developed by people because of their disabilities. For instance, the blind might be adept at visualizing solutions; those with physical handicaps may find innovative ways to overcome hurdles in the area of their disability, as do those who participate in the Para-Olympics.

With regard to youth and the aging:

- Bring together problem solving groups of youth and the aging. Youth has energy and is concerned with the life ahead. And the elderly have had a life-time of experiences. Working together, they can draw on combined capacities that are essential for developing strategies for the eradication of poverty for all parts of the population. Such mixed groups can bring together lifetimes of experience and wisdom with energy, resilience, creativity, ability to work with new technologies and the interest in forward- looking strategies. Together they can form powerful teams to deal with emerging challenges.

Integrate the poor and most marginalized into society

- Implement and enforce all fundamental human rights agreements, the UN Charter, and the 2030 Agenda including all the SDGs.
- Pass and strictly implement laws against all forms of discrimination.
- Treat people of non-mainstream socio-economic backgrounds with respect (be they richer/more powerful or less so) enabling people to learn to judge one another by their actual actions rather than through a veil of social prejudice that makes it impossible to work effectively together. This is essential to raise the motivation for poverty eradication.
- Develop and implement laws, making it unlawful for families, caregivers and communities to neglect those who are vulnerable and bring those who are negligent of their responsibilities and duties to justice.
- Institute social services and other provisions within societies for the most vulnerable such as the elderly, young people, people with disabilities, and those with incomes below \$1.25 a day. Where possible, allow those most vulnerable

to take a leadership role when it comes to generating solutions for their specific needs.

- Allow people of all socio-economic backgrounds, through access to the Internet, to share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide.
- Encourage immigrants to study their native languages and cultures, as is already done in Canada. Encourage instruction of native languages so that each culture can contribute to the cultural wealth of the communities of which they are a part. This will enable people to appreciate one another in a greater number of contexts and be more inclined to help those in poverty.
- Focus attention at every level and in all fields of the education system, and also in the stories broadcast in the media, on the need and the interpersonal rewards of caring for the most vulnerable. Show the dominant paradigm of the “survival of the fittest” as part of the larger context of balanced give and take in Nature.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

Implement financing mechanisms and economic approaches that follow Nature's approach based on inclusiveness and mutual empowerment.

These could include:

- *Pigouvian taxes*; Taxes placed on a negative externality to correct for a market failure. For example, a factory does not take into account the damage their emissions cause to the air, since there is no market for air pollution. By imposing a Pigouvian tax a government can artificially create a cost for such activity, a cost equal to what the price would be had a market for such activity existed, or a cost so high that it deters the activity all together. Tax revenues are then returned to the local community in which the issue exists.
 - An alternative form of Pigouvian tax would add that those perpetrating the harm can be required to restore the damage they have caused as well as pay the tax. Revenue from such taxes can be used to restore damage done the environment or society. If the taxes are high enough, they could take the place of tax on income—at least until people are no longer tempted to do this harm. Income from Pigouvian taxes could go to the Global Fund for Sustainable Development and a basic income for all people.
- *A global fund for sustainable development (also referred to as a Global Resource Fund)*:
 - This Fund could be fed by a number of activities, such as Pigouvian taxes and from other fines for unsustainable activities, such as income derived by shifting tax from income to a small rental fee for the use of natural resources. The implementation of Fund operations would begin immediately upon adoption of its Charter.

- Start-up funds to pay for free access to the Fund's market and credit transfer program are authorized by the Charter. Its funds would be applied to:
 - Compensation for communities who suffer from the exploitation of resources under their jurisdiction;
 - Restoration of the global commons;
 - A basic income for all people to be used for the implementation of article 26 (2) of the Universal Declaration of Human Rights.
- *Commons rent /land value taxation:*

A method of raising public revenue by means of an annual charge on the rental value of land.

 - This tax encourages valuation based on the value of the land itself rather than land improvements, thus strengthening the local economy and discouraging destructive land uses.
 - Funds generated could be used to provide a basic income for the areas where it operates. See www.LandValueTax.org and also The Vancouver Action Plan -- the 1976 founding document for UN HABITAT (UNCHS).
- *The Norwegian Government Pension Fund:*

The purpose of the Government Pension Fund is to facilitate government savings to finance rising public pension expenditures and support long-term considerations in the spending of government petroleum revenues.

The strategy for the management of the Fund is designed on the expected long-term effects of different investment choices, thus giving the fund the potential to greatly influence the corporate governance market in Europe.
- *A Self-financing World Marshall Plan*

This plan developed by Dutchman Pieter Kooistra is a way of creating and financing a supplementary income for all people worldwide, endorsed by Noble Prize winner Jan Tinbergen. See *the Ideal Self Image* by Pieter Kooistra, ISBN 90 7084 101 1 (available in English and Dutch), sponsored by the Dutch Government; and *the Year 2000: Crossroad for Mankind* by Dr. Lisinka Ulatowska, ISBN 90 391 0673 8 (available in English and Dutch), describing ways to finance a basic income for all women, men and children and a World Marshall Plan for the Earth.

See: The Ideal Self Image - <https://youtu.be/Mri13x97N6Y>
- *Using alternative local currencies, including the LETSystem*
 - *The LETSystem:* The best-known local alternative currency. Those participating make a list of goods and services they are interested in providing and how much these would cost in the local currency. Each participant in the LETSystem has a list of goods and services available through the LETSystem. Members are then paid by check in the local currency. At regular intervals the

checks are sent into a central administrator who credits and debits participants' accounts accordingly.

- *Time Dollars*: This system is similar to the LETSystem in that a local exchange of goods and services is encouraged. Instead of setting prices for individual goods and services, participants exchange services in time increments. In this way an hour of massage would be equivalent to an hour of baby-sitting or an hour of psychotherapy.
- *Use of local currencies*: Variations of this system are particularly valuable to regenerate areas where the economy is flagging and to stimulate employment. This is being used in countless locations in both rich and poor nations around the world.
- *Using and providing access to products and services provided for free by commons communities and networks.*

Commons are groups and networks of people who jointly manage resources in such a way that all stakeholders benefit equitably. Many of the resources they provide are free.

They are meeting a wide range of their own and community needs from local to global levels and contribute greatly to poverty alleviation. Many focus specifically on sustainable development and so also help to conserve Nature. They include sustainable communities, education at all levels and in quite diverse fields. Wikipedia is an example of a commons.

They include:

- *Local to regional commons groups* dedicated to such activities as water preservation and management, and for long term legal protection; groups for managing fisheries, forests and irrigation.
- *Entrepreneurial commons clusters* that repurpose and up-cycle waste into new products. Examples include artists' cooperatives tapping landfills for production energy needs or for materials for they can use for their art; Brazilian recycling co-ops where marginalized people who sort garbage can be empowered to organize through participatory sustainable waste management models for income opportunities;
- *Business cooperatives, which are owner operated businesses*, attracting one billion members worldwide. Cooperatives tend to do well even in times of economic downturn, because the owners/workers all share in the profits.
- *Micro-financing institutions*:
 - *Grameen Fund, Bangladesh - Women's Fund*. This fund provides small loans to women. Once loans are repaid, subsequent projects are funded for the same borrowers.
 - *The Trickle Up project*. Similar to the Grameen Fund in that amounts of US\$100 are made available to people in developing countries who want to begin, say, a cottage industry. Once this is operational and the funds are repaid, the next initiative can be financed.

- Provide a basic income for all people. A basic income is a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement. See for instance approaches put forward by the Basic Income Earth Network (BIEN): <https://basicincome.org/basic-income/>

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Increase disaster preparedness:

- Implement governmental public awareness campaigns on potential natural disasters including those due to climate change. These can include:
 - placing warning signs in Tsunami Danger areas;
 - providing details on what to do if there is a Tsunami alert. Bangladesh for instance has instituted evacuation procedures that has proved to save great numbers of lives;
 - publicizing instruction on how to aid the most vulnerable, including young people, the elderly, and people with disabilities so that all people in a community have the basic skills necessary and can thus respond usefully;
 - including all in implementing these, including at family and community levels, as well as national legislation relating to social services.

Family members, etc. of the most vulnerable would be a great asset, since they see the essential value of the vulnerable as human beings from close by. They can communicate this most convincingly to others who might not have direct experience with them. They will be most invested to provide a safe and nurturing environment, ensure that there are escape routes and other protection for the most vulnerable where they live, and that others take their particular vulnerabilities into account. They can also advocate municipal, national and global reforms that can protect them when disaster hits. This will require work on the family and community level, as well as national legislation relating to social services.

- Ensure children, elderly people, or people with disabilities in their home are given special help to ensure that such houses are well equipped with suitable escape routes and family members can aid in their escape.
- Use the media, including the social media as a powerful source to help educate people at local and national levels and to encourage civil initiatives to help the most vulnerable.

Use all (legal) means to ensure that all Nations implement the Economic and Social Covenants.

- Work with other governments to explore how the Economic and Social Covenants can best be implemented and paid for.
- Use visioning sessions as are also inspired by some indigenous peoples as a tool for people in government responsible in this area.

Address the related issues of poverty and pollution:

- poverty and pollution are inextricably linked; pollution contributes to the poverty cycle;
- these can make it more difficult for children and future generations to escape this cycle;
- pollution causes life-long disability and early death;
- poor populations are the most vulnerable to exposures from hazardous substances due to factors such as where they live, the types of livelihoods in which they are engaged, their low level of education or awareness of toxin-related risks, their lack of or limited access to health care, and their poor levels of nutrition. Poor health and nutrition, typically associated with poverty, can magnify the impacts of exposure to toxic pollution. For example, children with nutritional deficiencies in calcium and iron have higher blood lead levels than peers with sufficient amounts of those nutrients.

See Poisoned Poor report by GAHP:

https://gahp.net/wp-content/uploads/2017/02/GAHPPoisonedPoor_Report-Sept-2013.pdf

Safeguard people from exposure to pollution, realizing

- pollution occurs at home and at work, or in contaminated public spaces;
- the consequences can range from contracting diseases that may interfere with an individual's ability to retain employment to severe illnesses causing long-term disability. In urban settings;
- the poor often reside in areas close to landfills, incinerators, hazardous or other wastes dumping sites, or other industrial zones/polluting activities.

The WHO estimates that 98% of adults and 99% of children affected by exposure to lead live in low- and middle-income countries.

- the informal recovery of lead from car batteries and the open burning of lead-containing wastes are serious sources of environmental lead contamination in low-income countries.
- poor children are more likely to be affected by lead exposure, since they are more likely to be malnourished; a diet low in iron and calcium allows more lead to be absorbed by the body.

Protect people engaged in livelihood activities where chemical exposures are significant (e.g., e-waste recycling of domestically generated waste, pesticide use in agriculture, small-scale and artisanal mining, lead acid battery recycling, chemicals manufacturing, tanneries, etc.) need to be ensured. Recognizing the economic significance of these activities for the poor, emphasis should be placed on finding ways to reduce or eliminate toxic exposures from these activities.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing

countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
- Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides

towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous Implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were discussed in more detail in the context of target 3.8.
- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area.
- Elevating—the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.
- Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated and investing in global development.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

In the same way as the females of a species are fully embraced in the natural development process of a species, so too is this essential with regard to humans. The more women and girls and people of diverse sexual orientations are included both as actors in and beneficiaries of the development process, the more successful it can be.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.
- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.
- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technology, media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature as well.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against and others who have had no access. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access. Trainings can be given to people from each country by UNOs (Including UNESCO and ITU), using the Internet to make these more accessible to all and inexpensive to give to large numbers of people. Those trained by the UNO system

can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.

2. Develop technology and training in equality and inclusivity.
3. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
4. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest.

- Provide training and opportunities for both genders to foster a new basis of equality.
- Embrace youth to create a future with myriad possibilities for all.
- Create unity and cooperation through inclusiveness to generate a spirit of new unlimited potential for life.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Green infrastructure, sustainable industrialization and innovation are by definition in harmony with Nature and are keys to successful development.

To bring about the necessary far-reaching technological, infrastructure and other changes

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.

To draw on broad creativity and create a foundation of support, develop the necessary social participation and support:

- Establish avenues, such as local town hall meetings that are open for all to participate, for the innovative, creative ideas to be heard and implemented by political leaders at various levels of governance.
- Publish success stories about the integration of refugees and migrant workers.
- Set up methods for mediation to address and resolve issues arising between natives of a recipient country and immigrants and refugees to create better understanding and broaden perspectives.
- Establish win-win policies for assimilating immigrants and refugees into a culture. See: Why accepting refugees is a win-win-win formula:
www.brookings.edu/blog/up-front/2018/06/19/refugees-are-a-win-win-win-formula-for-economic-development.
- Make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all.
- Provide ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Create new systems to make local production and sales of goods and services a viable option;
- Reduce packaging and plastic bottle use by creating new alternative investment opportunities;
- Promote sustainable and local options for popular and needed products such as fast fashion which otherwise promotes consumption of goods and services with a short life span, thus leading to waste and high consumerism;
- Subsidize local food growers, restaurants, food carts, and purveyors to offer locally and sustainably produced organic, bio, and seasonal foods;
- Set up free and rental bicycle stations and safe and beautiful bike routes to promote better tourism, increased physical fitness, mental well-being, and reduce

gasoline powered vehicles and traffic congestion.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

- Set up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, particularly developing countries by 2030, encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending.

To encourage sustainable innovation and increase the number of R&D workers and private R&D spending, as well as contributions in kind:

1. Create a group of financiers, including cooperatives, universities and CSOs, all of which are dedicated to contributing their respective strengths to a sustainable and equitable global community for the well-being of all people and Nature as a whole; and especially also to helping with the development of marginalized communities and nations.
2. Describe in simple terms a series of global challenges for which no solution is readily available.
3. Create an award that would give winners opportunities to implement their ideas with the proviso that they would be implementing these for the well-being of all people and Nature as a whole.
4. Send out a simple description of the challenge via participants in the initiative. These should include universities, UNO development organizations, financiers who are seeking to contribute to a sustainable world, CSO's working on development among marginalized populations, schools that are connected with UNESCO's national commissions and any other schools who wish to participate, universities who are seeking to contribute to sustainable development and are willing to do so without being beholden to for-profit organizations and businesses, commons-based initiatives and cooperatives.
5. Ask for possible solutions or partial solutions to be sent to the initiative. The

agreement would be that the winners would be helped to realize their ideas as a part of a larger team for the benefit of all people and Nature as a whole and kept in the public domain. The execution of the project should take place where possible in the communities that stand to benefit especially if these are in developing countries.

6. Those who have created the initiative would then work with the winners to implement their innovations and to make them available and apply them to those most in need and especially developing countries.
7. Publish the solution as widely as possible together with the inspiring story about those working on the initiative and the prize winner in particular to inspire others to create similar projects and to benefit from the solutions. Make the solutions available as widely as possible.
8. Create internships and scholarships based on research and development, and technological innovation with collaboration with Nature, sustainability, and eco-friendly solutions as the focus to attract the interest of younger generations who are widely interested in these fields but are unaware of this new specialty.
9. Keep the benefits of indigenous knowledge and scientific and technological research, and all aspects of the move towards upgrading the technological capabilities of industrial sectors in all countries in order to create a broader awareness and attract the attention and interest of people of all abilities into the field of sustainable R&D that might not otherwise be aware. This movement can be kept in the forefront of the public eye through media, e-newsletters, public forums, college seminars, podcasts and even in themes of TV talk shows, TV documentaries, and movie themes.

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.

- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.

Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

Internet can be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it while positively affecting the development process.

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in countries worldwide where Internet use is to be expanded, including in LDCs.
2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. There should be a strict ethic of confidentiality.
4. Internet literacy should also be taught in all schools.
5. Focus Research and Development on advancing the industry in ways that do not harm life or produce waste.
6. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm (i.e. 5G waves) methods of technology use and manufacture.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

The United Nations Development Programme states on its web site:
The world's oceans – their temperature, chemistry, currents and life – drive global systems that make the Earth habitable for humankind. Our rainwater, drinking water, weather, climate, coastlines, much of our food, and even the oxygen in the air we breathe, are all ultimately provided and regulated by the sea. Throughout history, oceans and seas have been vital conduits for trade and transportation.

The oceans are therefore critical to development.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

Here are a few examples of problems that must be addressed:

Due to humanity's destruction and depletion of land-based ecosystems, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

At the same time coastal development is causing the continuing loss of wetlands. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

There are several hundred ocean dead zones scattered in coastal areas around the world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to stop dumping un-processed wastes into our rivers, lakes and streams.

Here are some actions we can take:

- Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:

- Invest in and create water retention landscapes.
- Engage in regenerative and restorative agricultural practices.
- Restore damaged ecosystems to protect against flooding and monsoons.
- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
- Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%. For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

- Suggest that via the United Nations all coastal areas are proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
- Nations with coastal areas could work closely with Regional and Global

Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.

- Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)
- Encourage people with an interest in an aspect of the oceans, or in the oceans as a whole, such as fishermen, boat builders, towns that depend on the oceans for touristic purposes, marine biologists, conservationists, etc. to communicate with one another and to work together.

This can be done as follows:

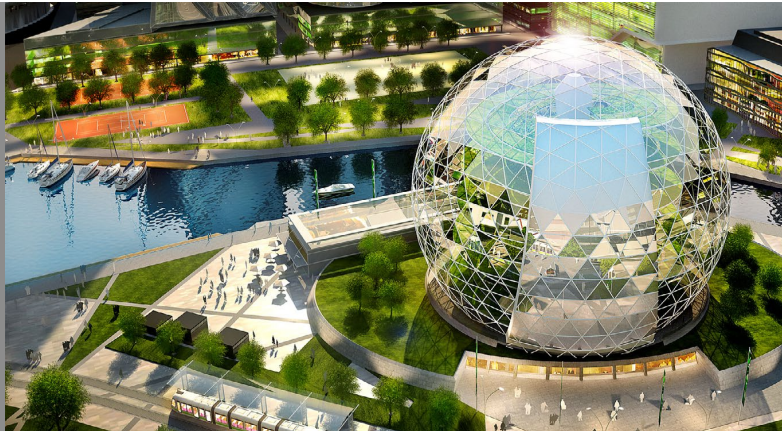
- Encourage them to form commons and/or cooperatives (the for-profit form of commons) to manage specific resources in a particular area. These forms of organization place sharing at the heart of their identity: their members would share their knowledge, make cooperative decisions that benefit all concerned, financially and/or otherwise benefit the communities where they are based and benefit global development. (See also <https://www.ica.coop/en>)
- Encourage commons and cooperatives working with diverse aspects of the oceans to work together using a commons/cooperative approach at local, regional and global levels to ensure that fragmentation does not occur between the insights and concerns of any of these groups.
- Create an international network of commons and/or cooperatives that can, in consultation with the members of each, develop best practices and ways of discouraging destructive ones, reinforced by laws and legal mechanisms, developed for this purpose.

In Conclusion

Development is to nations and communities what education is to the individuals. It involves recognizing that both spiritual and material poverty are intertwined and one cannot be solved without the other.

Yet there is another aspect that is not focussed on in this chapter but speaks to us from this book as a whole: Each one of us is involved in the development of vision and identity as we take our next evolutionary step as members of a global community that also encompasses all living beings and Nature as a whole. And so development encompasses individuals, countries, humanity, our Planet and that in the context of our Universe. Just imagine the forces that are working with us once these relationships are in sync.

Technology



Introduction

Truly sustainable technology is frequently inspired by Nature's myriad forms and processes which speak to us through our observations, intuitive insights, hunches and dreams, etc.

Nature has developed within our Universe over some 15 billion years. Despite rhythms of evolution and destruction, she has gradually built more and more diversity, whereby each expression of form and/or process grew out of others that have, over and over again, stood the test of time. Our ability to categorize Nature rests on this regular progression.

In this way, we humans, too, as expressions of Nature, have developed ever larger and more complex forms of interaction. Here technology is playing a pivotal role in our development as a species. For instance, the discovery that we can gather, and plant seeds led to agricultural communities as people farmed a diversity of plants and then exchanged them among themselves.

Gradually with each new technological invention, human communications and communities diversify and expand through the use of horses, trains, automobiles, planes, the printing press, the Internet, etc. Where we have remained inspired by Nature, a sustainable form of unity in diversity develops that is sustainable over many years.

Technology can rightfully be seen as both a gift from Nature and a tool whereby Nature prepares us for our next evolutionary leap from separate entities (people, countries, etc.) into one integrated whole—a global community based on the well-being of all people and the whole of Nature. A potential scenario would be that each one of us would form a part of a global community whereby we all can develop our potential and contribute to the whole.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Science and Technology

With an emphasis on SDGs 1, 2, 3, 5, 9, 14

The following actions are for those working or active in government Ministries which are responsible for scientific and/or technological development, civic, public or private sector organizations or groups and/or individuals with a scientific and/or technological focus, wishing to promote action in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

Using Nature-inspired technology to increase access to education worldwide and speed up the rate of interaction and with that the increase in knowledge, know-how and capacity to make progress.

- Encourage worldwide sharing of knowledge, much of this free of charge; and the sharing/partnership economy that is resulting from the increasing connectivity.
- Ensure that people from all socio-economic backgrounds, through access to the Internet, can share their ideas, best practices and resources freely and benefit from constructive working and learning relationships with peers worldwide. This can result in increased goodwill and mutual understanding, as well as increased immaterial economic activity, that does not have to harm the environment.

1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

- Provide all, including the poor and the most marginalized, means to access the Internet, and thus the global sharing/partnership economy, erasing the digital divide. (See above under 1.0.)

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition And Promote Sustainable Development

Improved sustainable technology which among others improves connectivity can be an invaluable asset when it comes to ending hunger, achieving food security and improved nutrition for all. At the same time technological “advances” are also affecting the nutritional quality of foods and their contributions to human and environmental health negatively.

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

- Increase the production of safe, nutritious and sufficient food all year round through information and help gained through access to the Internet.
- Provides a more level playing field for all people, including the poor and marginalized, to contribute in an informed manner to the provision of food, aided by the information, education and other help they need, including access to market information by providing universal access to the Internet.
- Reduce the digital divide between urban and rural areas, by providing universal access to the Internet, thus equipping new industries (small and light food industries), dwellings, schools, post and telecommunication services with information and resources to help protect the environment (earth, water, land, air), including against global warming.

2.3. By 2030, double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.

Empower small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers to maximize their global support group by communicating more widely with the rest of the world, for instance, by ensuring they have access to the Internet, so that they can determine themselves how to integrate resources that are accessible among others through the Sharing /Partnership Economy with their own cultural norms and insights to greatest effect. The UN System can organize courses via the Internet, given by those living close to the land for the benefit of all seeking to live and farm more sustainably.(See specifics below under 9.c)

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives, and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

Ensure that those working in the agricultural sector have access to the Internet in order to access necessary market and other information; and that this technology is available even to the most marginalized in the least developed countries. Here are ways to facilitate cost-effective training of people worldwide.

Once Internet access is available in a country, make sure it is available to all within walking distance in each region of each country. (See 9.c for more details.)

This will provide a wealth of important information for all aspects of food production, help to close the economic divide and be a huge boost to local and national economies.

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws that also relate to the manufacture and use of technology.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are

coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.

- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity.

If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species.

To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties and expand the possibility to work from the home and for young people to learn from home through access to the Internet.

- Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
- Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
- Promote mutual respect with policies, funding, education, the media and technology.
- Provide universal access to the Internet.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technological development with regard to the media and advances in other forms of communication and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and

respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature. Since gender inequality is deeply engrained, desirable changes must be supported by strictly enforced policies and laws as well as education. The internet can be most helpful here.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access.
2. Use the Internet to make trainings globally more cost-effective. This can begin at the global level through courses in broad Internet use if (as needed) people from each country are invited to attend by the UN and its Specialized Agencies (Including UNESCO and ITU), using the Internet to make these less expensive and more accessible to all. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.
 - Develop technology and training in equality and inclusivity.
 - Provide women and girls with access to materials and training, as well as those with different sexual orientations.
 - Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation *Green infrastructure is by definition in harmony with Nature*

To bring about the necessary far-reaching technological, infrastructure and other changes:

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.
- Provide Nature-inspired ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

9.a Facilitate sustainable and resilient green infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS.

Green infrastructure that serves both humans and Nature will enable connections between natural ecosystems so that these can increase in their biodiversity and increase their capacity to regenerate Earth's natural systems - retain more water, increase the number of plants and animals that can interact and balance the recycling of carbon and other minerals while regulating the climate.

- Reduce the amount of electricity needed to be brought in over long distances.
- Return to the use of traditional building materials and styles that allow houses to be naturally cool in the summer and retain heat in the winter; generate electricity locally using small generators that run on energy from the sun, flowing water and wind. This will also have the advantage of keeping people living in smaller settlements instead of moving to the cities.
- Introduce universal access to the Internet. On a continent that still has areas that are sparsely populated, and which is heading to a rapid increase in population, the Internet has two functions:
 - It enables people to communicate without the need for air- or road travel, both of which pollute more than travel by rail or some forms of boats.
 - The Internet places education, information, banking and other services and opportunities for exchange and trade at the fingers of the grass roots without the need for physical travel, thus helping to alleviate poverty which is one reason for the depletion of natural resources. It can also help people develop their individual potential, which is an antidote to greed, which contributes to problems of co-existence between people and Nature.
- For the development and upkeep of green infrastructure in keeping with local needs, seek information and the support of the grass roots using Geographic Information Systems (GIS) and local planning and building groups.

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither cost effective nor practical in areas where people live closer to Nature.

Resilient infrastructure can be created and maintained with locally grown or produced materials.

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and

renewable sources.

- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local technological solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities and technological solutions is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process (using technological means to communicate over long distances) much in the way of organizations like Kickstarter.

9.c Significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020.

Connection is the basis of intelligence, understanding, and good relationships between people and can take away the fear that is cropping up as we move into becoming a global community. It can allow people to connect at a heart level and familiarity can take away the fear of the unknown. We already see the advantages that are coming about as people use the internet to build an economy based on sharing and collaboration.

The Internet can be used as a tool to demystify diverse cultures and build bridges between people, to access information and services, and in many cases for free. This technology can be a means to foster universal access to information and services and increase our expertise in using it.

Here is a step that can be taken:

- If necessary, request assistance with developing the most appropriate Internet technology for a specific country or region, possibly with the help of the ITU or other Inter-Governmental Organization.

To prepare a population to effectively use the technology:

1. The United Nations System (including the International Telecommunications Union and UNESCO) can kickstart the process by organizing courses on the many ways in which the Internet can serve people's diverse needs - how to access it, its many uses, as well as how to teach people from diverse backgrounds. These courses can be offered via the Internet to people in

- countries worldwide where Internet use is to be expanded, including in LDCs.
2. Course participants can then help to train people who will oversee universal access to the Internet in every region or human settlement in their individual countries, using their own language(s) from diverse backgrounds and with diverse levels of education, including those who are illiterate.
 3. Governments can ensure that there are terminals within walking distance of one another, making them accessible to all via schools, libraries, village halls, community centres - rather than putting a costly new structure into place which only the richest areas can afford. These can be "manned" by professional men and women who are able to help both men and women locate the information and services they need. In the end, there should always be people available who can help the (Internet) illiterate from every possible background to benefit from what our world has to offer, most of it for free. Here people from every type of background, women, the elderly, youth, people with disabilities can all play a useful role; and there should be a strict ethic of confidentiality.
 4. Internet literacy should also be taught in all schools.
 5. Focus Research and Development on advancing the industry in ways that do not harm life or produce waste.
 6. Promote Research and Development to discover what is possible with non-technological ways of information transfer, and finding zero-waste, zero-harm (i.e. 5G waves) methods of technology use and manufacture.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

Oceans are being affected by our impact on all of the Earth sub-systems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes. Therefore we must target both marine pollution specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

Common to all these problems, people play a central role both as victims and as perpetrators,

Two types of actions are needed to bring about change:

1. To change our mindset with regard to pollution within the seas and oceans.
2. To show that they--and we--are integral parts of an even larger context:

The all-encompassing Earth System that we harm at our peril.

To achieve this, we can take the following actions for crimes against the global commons:

- Change how we humans feel about Nature as a whole through an inspirational approach, so that we are actively motivated to find solutions where these have not yet been discovered. Through education, our motivation and inspiration to tackle marine pollution can grow, the more deeply we experience the wonders of Nature.
- Find ways for governments and individual people to work together with formal education and the media, including by using documentaries, recreational films, etc., to bring about a shift, so that rather than focusing on the problem, we see Nature as providing solutions. For instance, before the industrial revolution and even before the early 1950's, the oceans were able to process and break up most of the waste dumped into them and to maintain a balance. Removing the surplus of waste could help to restore the re-generative capacities of oceans and seas.
- Inspire action by speaking to the heart in portrayals of Nature. *Inspiration* and acting from "*wonder*" can give people a sense of joy and can help them feel like they are a part of something much larger than when we are driven by fear, guilt and desperation.
 - Show the beauty and miracle of Nature, her myriad interconnections, how all contrives to restore balance even after ocean dumping, oil spills and run off from agriculture, etc. through myriad disparate forces that are constantly interacting with one another.
 - Give examples of how people can aid this restoration process, such as how growing oysters in the polluted waters around New York City is actually purifying the water.
 - Emphasize how Nature can thrive once we relieve Nature from the crippling burden of excess pollution.
 - Provide approaches to cleaning up marine pollution to jolt people's inventiveness and stories of actual initiatives - people who are taking helpful steps. Even if these are not immediately successful, they can inspire others to build on the ideas of those that went before. Take for instance the work of the Ocean Clean Up initiative founded by a 21 year old at: www.theoceancleanup.com
 - Provide publicity and prizes, as well as Quality Certifications, to media and educational institutions for the degree to which they help to inspire solution-oriented thinking and actually come up with and describe much needed solutions. The Dutch Government, for instance, issues a Prize for Innovation.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

Here are a few examples of problems that must be addressed:

Due to humanity's destruction and depletion of land-based ecosystems, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

At the same time coastal development is causing the continuing loss of wetlands. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

There are several hundred ocean dead zones scattered in coastal areas around the world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to stop dumping un-processed wastes into our rivers, lakes and streams.

Here are some actions we can take:

- Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:
 - Invest in and create water retention landscapes.
 - Engage in regenerative and restorative agricultural practices.
 - Restore damaged ecosystems to protect against flooding and monsoons.
- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
- Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment.

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

1. Switch to locally based, organic, regenerative and climate friendly agriculture. This uses far less energy and chemical inputs while greatly increasing productivity especially in the developing world. The practices associated with such agriculture can significantly reduce acidification, although they will need major funding increases, particularly in the developing world. Switching to more plant based and less meat intensive diets will also help.
2. Transition to 100% renewable energy as rapidly as possible.
3. Invest in regenerating forests and adopt laws requiring sustainable management of all timber lands and conservation of forests.

14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

This is a complex challenge.

Even though fish stocks are dwindling, livelihoods are at stake, and despite legislation overfishing - illegal, unreported and unregulated (IUU) fishing - destructive fishing practices are still taking place.

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, which are critical to the well-being of all life on Earth. These individual marine species are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food.

When we take actions such as fishing without considering sustainability as a whole, imbalances are created whereby the so-called solution of one problem creates a host of other problems and imbalances. This attitude lies at the heart of un-sustainability.

This problem is a direct result of how we view and relate to the environment, our fellow human beings and other creatures.

Dealing with this problem will require a multi-pronged approach:

- Through education: to recognize that everything is interconnected and that what is done to one aspect of reality, affects many other aspects, including our own well-being.
- By fostering a cooperative approach whereby those involved in fishing see themselves as a part of a much larger interdependent community;
- Taking strictly enforced legal action as well as creating an Environmental Court to deal with the global aspects of associated crimes;
- using Nature-based and inspired science and technology to revive dwindling fish stocks.

It is essential that any scientific approach used to help regenerating fish stocks must proceed from the complex understanding of the host of subtle interlinkages among all that is.

In Conclusion

Technology that is out of step with Nature is causing destruction of whole natural systems threatening the ongoing survival of our species and all others. At the same time, technology that is in sync with Nature by, for instance, increasing connectivity for the greater good, can rightfully be seen as both a gift from Nature and a tool whereby Nature prepares us for our next evolutionary leap. Throughout the ages technology that has enabled us to work together constructively in even larger groups is now preparing us to become a global community based on the well-being of all people and Nature as a whole.

Policy and Law



Introduction

Policy and law was originally firmly rooted in direct observation of Nature's laws, that were critical if communities were to survive. More and more of Nature's laws have been discovered over the ages through direct observation as we developed the means to observe the wonders of both micro and macro levels, and our own complex mental emotional, social and spiritual dynamics. Among these there are some basic laws and principles that have remained fairly consistent throughout the past billions of years: the importance of cooperation and community in the process of evolution, Nature's Ethic of (to quote the unofficial Swiss motto) *all for one and one for all*--these are just three of the examples mentioned by life systems scientist Fritjof Capra, PhD in his video:

The Heart of the Matter

A Systems Approach to Achieving the SDGs

<https://vimeo.com/capracourse/heart>

While science in some ways brings us ever closer to Nature's laws, the Nature-inspired human laws, are honoured by a dwindling number of communities, many still directly dependent on Nature for their livelihoods. Human laws have become ever farther removed from their source as human beings became farther removed from the mental, emotional, social, economic and spiritual nurture Nature provides.

One way of looking at this process is that human beings are unsuccessfully attempting to fill the deep inner void and existential insecurity caused by our alienation from Nature with surrogate symbols of power and prestige in the form of material goods, derived from Nature. These vain attempts are resulting in a race to the bottom as competition for dwindling resources increases. Now Nature's resources are being destroyed and depleted and she is becoming less able to operate fully within those boundaries that support human life, as we have transgressed some and are transgressing others. Our contributions to climate change and biodiversity loss are just two examples. (See Planetary Boundaries: Exploring the Safe Operating Space for Humanity https://pdxscholar.library.pdx.edu/iss_pub/64/) The human-made laws are supplanting cooperation, a sense of community and an ethic of *all for one and one for all* with an ethic, based on the law of the strongest, that is pitting human against human and other creatures as well as Nature as a whole; and which thrives on conflict that is tearing both humans and Nature apart at every conceivable level.

It is now critical to return to Nature-inspired laws that can empower us to recreate communities at all possible levels, based on the well-being of all people and Nature.

Such policies and laws would empower each one of us to engage in processes of fulfilling our own individual potential. For this leads to a sense of qualitative well-being that nurtures the whole human being. It results in each experiencing well-being in his or her own way and a desire to see others partaking in those activities that promote their own forms of well-being. The resulting benevolence is a strong foundation for cooperation and community building with laws and policies that lead to peaceful conflict resolution.

Such processes are based on the way eco-systems operate in Nature. They have operated in the past as human communities have grown from tribes to city-states to Nations and our present attempt to form a global community. The dynamics of this growth in complexity is deeply embedded in evolution and is in evidence as atoms emerged, formed molecules and molecules and cells combined to form myriad plant and animal species, including the human race. These principles are deeply embedded in all that is and so form a powerful basis for human laws at all levels that promote peaceful human co-existence and collaboration.

Such laws have had the capacity to bring peace to human societies. Examples are the peace that is now firmly rooted in the relationship between the 50 states that now form the United States of America; or the peaceful bonds that have grown between France and Germany since the formation of the European Union, after they had been arch-enemies during two World Wars.

Policy and law in harmony with Nature has become critical to human survival. The prospects it presents is an easing of the inner void and the existential fear and insecurity as this is replaced by a world that can bring deep fulfilment to all human beings within themselves and in their relationships with other human beings and all of Nature.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Policy and Law

With an emphasis on SDGs 1, 2, 3, 5, 9, 14

The following actions are for those working or active in those aspects of government Ministries that deal with the development and implementation of policy and/or law, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in the area of policy and law that promote life in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

To eradicate poverty it is essential to:

- have well-functioning agreements and enforceable laws at all levels, nationally and internationally. including by Implementing and enforcing all fundamental human rights agreements, the UN Charter, and the 2030 Agenda including all the SDGs.
- pass and strictly implement laws that celebrate differences and prevent all forms of discrimination. Discrimination marginalizes people, weakens the economy and undermines peace.
- develop and implement laws, making it unlawful for families, caregivers and communities to neglect those who are vulnerable and bring those who are negligent of their responsibilities and duties to justice, if possible, by supplanting callousness with empathy and understanding.

1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro finance.

- Level the playing field between rich and poor, including by ensuring all have access to both international agreements and guidelines for living in harmony with Nature. See UN website: www.harmonywithnatureun.org
- Create and implement laws that ensure that the commons can be stewarded by all people for the benefit of all people and Nature. This would give all people including the poor and the disenfranchised equal access to these resources and provide them with access to enforcement mechanisms, so that they can make sure that the global commons is stewarded for the wellbeing of all.

- Provide the poor and disenfranchised with equal rights to help steward and manage commons lands by creating a land lease system in countries with significant amount of lands not yet in private ownership. This system can be based on "land value maps" rather than selling land into speculative and inequitable land markets, promoting a system of direct democracy whereby the people on these lands vote for their preferred use of the lease fees.

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Use all (legal) means to ensure that all Nations implement the Economic and Social Covenants.

Protect people engaged in livelihood activities where chemical exposures are significant (e.g., e-waste recycling of domestically generated waste, pesticide use in agriculture, small-scale and artisanal mining, lead acid battery recycling, chemicals manufacturing, tanneries, etc.) need to be ensured. Recognizing the economic significance of these activities for the poor, emphasis should be placed on finding ways to reduce or eliminate toxic exposures from these activities.

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

Implement and enforce legislation that prohibits discrimination and through legislation and education foster a mindset whereby people choose to collaborate rather than compete for domination.

Bring about a shift in legislation that is pro-poor and does not discriminate against youth, the elderly, people with disabilities or with regard to gender, religion, culture or race, etc.

Combine pro-poor and gender-sensitive legislation with wide educational campaigns to show the necessity and the advantages to all. These could embrace education at all levels and in all fields, media reports and stories that speak to the heart. They should foster the interest in the deep inner sense of fulfilment to alleviate spiritual poverty, while at the same time developing a social consciousness and the interest in coupling individual fulfilment with the well-being of society.

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition And Promote Sustainable Development

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

To ensure that those often neglected have access to food, governments at all levels and the UN System can take the following actions:

- Analyse global, national, and local policies for the sustainable production and equitable distribution and management of sufficient safe and nutritious food as these relate to technology, the ecology, economies, societies, and markets. Do this with the help of relevant organizations and people at the grass roots level, possibly using Geographic Information Systems (GIS). This would bring many hands-on deck and lead to a more detailed and accurate outcome. The next step would be to propagate best practices both within countries and across borders to ensure that all, including those who are often neglected, have access to safe and nutritious food all year round.
- Mandate Ministries of Health, Housing, Agriculture, Commerce and Social Protection, in consultation with civil society, to
- Develop, revise, cost, and implement national plans and policies to achieve food security, water and health with regard to ensuring that sufficient nutritious and safe food is available to each person.
- Create an enabling environment to oversee the implementation of the policies.
- Ensure that there are robust safeguards at various levels of the City Smart commitment for vulnerable persons (A **Smart City** is an urban development vision to integrate information and communication).
- Create a healthy balance between rural and urban lives at the periphery of city centres.
- Maintain organizational continuity by adapting policies and decision making processes to embrace land planning, food and waste recycling, and building a Smart Sustainable City environment. Customer Relationship Management (CRM) is likely to show an increase in numbers of farming and agricultural jobs and other decent work as such changes in the global architecture take place.
- All these measures in turn, will improve the micro economy as societies become connected with global markets (cities) through the logistics of the food supply chains. These processes can lead to a source of employment, poverty reduction and prosperity for all in this changing world.
- To ensure that those often neglected have access to food, governments at all levels

and the UN System can take the following actions:

- Implement social protection floors with the help of Inter-Governmental Organizations, such as the International Labour Organization (ILO).
- Enact measures and policies to:
 - Provide access to food waste that is still safe and wholesome from stores and producers to homeless people and others in need. This can be done with the support of NGOs and the sharing economy.
 - Encourage charities and organizations of homeless people to collect food before it is wasted. Good cooks with a quality kitchen can still find valuable resources to feed starving people. Such initiatives are already providing food for increasing numbers of people and reducing the number of hungry people in Paris, France. They can be replicated worldwide. More such best practices can be encouraged by paying people to do this work.
 - Work with the resources that pre-exist within the environment of the people requiring nutritious food.
 - Promote farmer's markets and food banks.
- To feed more people while using available space to do so introduce enforceable legislation and motivate the international community to:
 - Ensure that the health of the soil and well-being of Nature are restored, particularly in those regions where poverty is the greatest.
 - Implement integrated land-use planning to balance land uses and underpin this with the right policy instruments to promote both sustainable forests and agriculture. State of the World's Forests (SOFO) 2016 shows that it is possible to increase agricultural productivity and food security while halting or even reversing deforestation, highlighting the successful efforts of Costa Rica, Chile, Gambia, Georgia, Ghana, Tunisia and Vietnam.

Since there has thus far not been the political will to enforce legal and policy agreements, bear in mind that people are often most strongly motivated to take action when their own individual well-being is at stake and combine a far reaching and in depth media and educational campaign:

- to bring about a mental shift whereby all recognize that the scramble for more power over other people and Nature is an important factor in causing the challenges to human survival faced by both small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers and the rest of humanity; Please see the actions under Target 2.0.
- to emphasize the need for "doubling agricultural productivity" and the incomes of the above-mentioned groups in order to help bring this about.

As a part of this mental shift, ensure that people in general:

- are fully aware of the wisdom in stewarding the environment provided by small-scale food producers, Indigenous Peoples, family farmers, pastoralists and fishers and others who have retained the wisdom and skills to help

- humankind to reverse the dangerous imbalance we are creating;
- build on this recognition;
- see that these groups have access to the necessary resources;
- empower them to live in keeping with their own values;
- should they are willing, allow them to contribute their unique wisdom which is so badly needed to the rest of humanity;
- recognize the need for reciprocity both with regard to Nature and among people(s).

Bring to justice those attacking and appropriating what belongs to others, especially the target group, using a multi-faceted approach:

- Show the harm they are doing to all people by attacking the target group. This can be done, for instance, by publicizing both stories about the wisdom and invaluable contributions made by the target group.
- Publicize which actions are being taken by those pursuing corporate interests illegally - their monetary gain, the hardship and suffering visited upon the target group, the loss to humanity as a whole due to their actions, and to which degree the punishment for these acts is commensurate with their crimes. Powerful interests depend for a large part on the power and respect given them by potential customers, clients and people in general. Even the most powerful corporations and governments will be brought to become more socially responsible if they notice that their business or governance practices are no longer supported by the people as customers and/or citizens.
- Bring those harming lives and livelihoods to justice through every possible channel. Ecuador, for instance, has laws that permit prosecution of crimes against Nature under universal jurisdiction; many other parts of the world have laws that can prosecute those who harm a specific aspect of the environment.

Also, there have repeatedly been attempts to introduce a World Environmental Court. For laws that provide Nature with rights see: www.harmonywithnatureun.org. Where people(s) are harmed, the Human Rights Council can be brought into play, or in cases of genocide, the International Criminal Court.

- Ensure that women, indigenous peoples, family farmers, pastoralists and fishers and other marginalized groups that are critical for our sustainable food production in harmony with Nature:
 - Are empowered to pass on their knowledge. For example, providing schooling for students from around their nation and possibly from around the world. They can teach "hands on" or also via the Internet and will require just remuneration for this highly specialized knowledge. This, in turn, would give them the necessary means to increase their food production, etc. as needed in ways that are in harmony with Nature, as well as with their own Nature-inspired cultures.
 - Have secure and equal access to land and waters as an important step that, if guaranteed, is likely to contribute toward the above-mentioned groups becoming much more productive and also increasing their own incomes.
 - Can effectively defend the lands under their jurisdiction from the lust for resources, land, and waters, by much larger and more powerful interests

- often backed by wealthy corporations and whole governments.
- Have all the means necessary at their disposal to prevent the more powerful interest groups from taking possession of the areas under their jurisdiction without prior and informed consent, mining these or otherwise destroying the soils and water quality for the benefit of a few and to the detriment of the planet as a whole.
- Can maximize their global support group by communicating more widely with the rest of the world through, for instance, access to the Internet, so that they can determine themselves how to integrate resources that are accessible among others through the Sharing Economy with their own cultural norms and insights to greatest effect. The UN System can organize courses via the Internet, given by those living close to the land for the benefit of all seeking to live and farm more sustainably.

2.3 By 2030, double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.

Since there has thus far not been the political will to enforce legal and policy agreements relating to the less powerful in society and bearing in mind that people are often most strongly motivated to take action when their own individual well-being is at stake. The following actions coincide for a large part with those recommended above in the latter part of 2.1. They are:

Combine policy and law with a far reaching and in depth media and educational campaign:

- To bring about a mental shift whereby all recognize that the scramble for more power over other people and nature is an important factor in causing the challenges to human survival faced by both small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers as well as the rest of humanity; (please see the actions under target 2.0.
- To emphasize the need for “doubling agricultural productivity” and thus also the incomes of the above-mentioned groups in order to help bring this about.
- To ensure that people in general:
 - are fully aware of the wisdom in stewarding the environment provided by small-scale food producers, Indigenous Peoples, family farmers, pastoralists and fishers and others who have retained the wisdom and skills to help humankind to reverse the dangerous imbalance we are creating;
 - build on this recognition;
 - see that these groups have access to the necessary resources;
 - empower them to live in keeping with their own values;
 - should they be willing, allow them to contribute their unique wisdom which is so badly needed to the rest of humanity; and

- recognize the need for reciprocity both with regard to Nature and among people(s).

GOAL 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

Societies can play powerful roles in the health of whole populations by adopting the right laws and policies, providing, of course, that these are in harmony with Nature.

- Implement strict codes of conduct backed by enforceable laws to ensure that all have access to clean water and air, and that the soils remain fertile and the harming of any species of animals or plants can be prosecuted under universal jurisdiction.
- Implement fundamental human rights.
- Ensure that communities provide as many local health services as possible. Where services do not exist locally, connect to them on-line, as is increasingly done worldwide.
- Ensure that all have access to the Internet so that when information, goods, and services are not available locally they can be accessed from afar, meanwhile safeguarding the stability and all-round provisions of local communities.

The more these laws promote health and well-being at all levels, from local to global levels, the less people will infect one another, the more infectious and communicable diseases will tend to die out, and as people in addition learn from one another, the healthier people and whole populations everywhere are likely to become.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Addictions consist of the interaction of a vast array of factors. They have physical, mental, psychological, heredity, social, economic, and spiritual causes and ramifications. Human beings often use and “push” drugs to make up for emptiness and lack of fulfilment.

Despite their complexity, there are many diverse approaches within different cultures that are actually helping individuals to overcome these complex diseases.

Nature does not encourage addiction. For among many other things, it involves over consumption, and overconsumption by one element of an ecosystem is detrimental to all parts.

Here are some actions we can take:

- Place addicts under strict social and legal supervision in a well-regulated and predictable environment, where they learn basic living and livelihood skills; while monitoring their moment to moment living with firmly enforced rules regarding substance abuse and/or overeating with as the carrot rehabilitation and as the stick the removal of something that the addict loves even more than their addiction. This could be the custody of their own child, for instance.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Here are some useful policies:

- Create a shift from a society where individuals are left to fend for themselves to one where fundamental human rights are implemented and the society as a whole ensures that all can live fulfilling lives.
- Provide education in the principles and advantages of sexual and reproductive healthcare in schools from an early age and show the disadvantages that occur when that is not put to good use.
- Ensure that physical and verbal abuse and intimidation of women is reported by all who are aware of it - neighbours, teachers, medical personnel and social services.
- Ensure education from the first school year shows boys and girls to be equal.
- Provide education at schools to show the advantages of societies where there is gender equality within families, societies, and the economy.
- Provide media programmes that show the advantages of gender equality to all members of the family.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Creating a program which provides universal health coverage for all people globally would have a number of advantages. Above all it would lead to a concerted global effort to do away with agents that create diseases that cannot be contained through national borders. A barrier to universal healthcare is often seen as its affordability.

The following policies can help alleviate this hurdle:

Promote the integration of Nature and Nature-based medicine to help alleviate this problem, since the human body/mind/spirit can be significantly regenerated and strengthened where people are open to being infused by the health-giving effects of their natural environments. This has the medical advantages, that one is aligning with systems both inside and outside the body which together form forces more powerful than if we treat just a single aspect of a person's health.

Although allopathic medicine clearly has many important benefits, such as speeding up a cure, natural and more holistic forms of healing can be used both in tandem with allopathy and in its own rights for a large number of conditions. It tends to be more cost effective than using methods that have required many years of R&D, etc. The two approaches to medicine tend often to be each effective at treating different types of conditions.

Universal health care can become more all-round and provide more all-round and diversified care by combining the two approaches and thereby healing conditions one or other approach is not yet able to address.

The proportion of natural healing in a proposed universal healthcare system would use

forms of medicine that align the body/mind/spirit with its natural connection to natural forces. Such approaches are used widely in much of the world.

The great advantage of natural approaches is that:

- The treatment costs little or nothing except the fees of the healer. Even though the training of such healers can require at least as much time as do those who use allopathic medicine, the latter uses more expensive diagnostic instruments and industrially produced pharmaceutical drugs and are moreover often more expensive than many people can afford.
- Natural approaches typically avoid or minimally utilize the skyrocketing costs of R&D, industrial manufacture, the cost of middle-men and advertising.
- Natural approaches can be used in disaster areas which often cannot be reached when the disaster first strikes and immediate first aid is required.
- Many of these approaches to healing have proved effective over millennia - much longer than allopathic medicine.

Here are some examples:

- Approaches to medicine that open the meridians – the energy channels of the body (acupuncture, acupressure, shiatsu, polarity, etc.) - and thereby allow healing of the body/mind to occur through opening the systems that are in harmony with those of Nature as a whole.
- Approaches to mental health such as meditation of all sorts, or diverse forms of yoga, the martial arts, etc. that induce similar positive effects.
- The use of physical/spiritual energy of the healer to heal the patient (hands on healing, distance healing, polarity, attunements, etc.) can have similar effects.
- Diagnosis that uses the natural (often unconscious) energetic response of the patient's body to specific substances to establish the effectiveness of that substance in healing him/her (such as Touch for Health).
- Natural forces, such as solar energy, healing waters, herbs, hydrotherapy, nutrition, are also frequently used in healing.
- Homeopathy has been a prominent, low cost highly effective medicine in use all over the world over a couple of hundred years.
- Many other ancient healing practices that are still in use such as Ayurveda.
- Such approaches might even include encouraging "patients" to relax in green spaces, by streams and lakes, and in parks in cities. These exist in many parts of the world and such recreation is for many low in cost.

There are some industrial countries where such treatments are discouraged or not well understood. Here are some possible reasons:

- They use intuitive capacities as an integral facet of holistic mental functions for diagnosis and treatment. While holistic approaches to healing are fast being recognized in the West, they are still less well developed through educational institutions in industrialized nations than linear thinking; and so, their value is less well recognized there.
- Pharmaceutical companies play a dominant role in most industrialized nations and are large and financially powerful entities that have little interest in anything that may change or affect their status and strong hold; they will resist and fight anything that threatens their financial interests.
- Those within the standard western model of medicine are not trained to have the

understanding of how these natural approaches to health, wellness, healing, and alternative medicines work, nor do they have the experiences with it to know the effectiveness. Further it is has been proven to be human nature to resist that which we do not understand.

- This carries into the general “consumer” population who rely on their medical professionals who are not informed on these modalities, and therefore cast negative aspersions colouring the popular opinion of those who would benefit from natural healing modalities
- It would require extensive re-training (actually a whole paradigm shift), within the Western medical community – including pharmaceutical companies, medical doctors, hospitals, etc., in order to embrace and reframe how and what they do to include natural healing modalities.
- Utilizing natural remedies and healing traditions require much less research to develop and so fewer people would be employed for research and development in the ways that are currently dominant. This could contribute to a rise in unemployment, although new jobs would also be created.
- A decreased monopoly of the Western pharmaceutical industry in industrialized nations and worldwide would cause somewhat of a reorientation of industrialized economies, given the powerful role that they play.
- Using natural approaches requires education and training and thus a reorientation of the curriculum of medical schools.

The solution to the above contrasts would be to use the best of both orientations by creating internationally recognized medical accreditation for medical professionals having received their medical qualifications at schools and universities that teach either allopathic or naturopathic approaches to medicine and healing, or both. This would be a natural step in a world where medical services are already being provided internationally with the help of the Internet. Pay parity should be provided to medical practitioners - both allopathic and naturopathic.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed

a full clean-up effort.

- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Subsidize and promote natural healing practices and medicines.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Adopt policies that make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of

both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.

- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.

3.b Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

In so doing it is important to see that the healthcare being financed is of the best possible quality and has the best possible results, while also being cost-effective.

Adopting a holistic approach to human health includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights, making great strides for the rights of Nature, and of course the diligent strides towards the fulfilment of the SDG's which at their core are meant to lead to a cleaner, healthier, life-supporting planet. A cleaner, more balanced, Nature-centric consciousness naturally leads to decreased physical, mental, and emotional illness and thereby decreases the costs of health-care provision.

Here are some specific measures that can be taken:

- Establish impartial committees knowledgeable in a wide cross-section of healing modalities to analyse true costs of healthcare as a baseline for decreasing overall healthcare costs.
- Provide channels of checks and balances to prevent the unnecessary padding of healthcare costs.
- Adopt a holistic approach to human health which includes the social, economic, psychological and spiritual—all of which contribute to human health. This can largely be achieved through the caring and scrupulous implementation of fundamental human rights to help to decrease physical illness and thereby save the costs of health-care provision. Provide education and implementation of environmental and health programs that encourage the use of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Provide cooperative education and implementation of environmental and health programs that encourage the fostering of universally available resources of clean air, food, water, shelter, and proximity to integrated Nature.
- Make it profitable to a community to utilize sustainable measures to nurture, protect, and utilize the local natural resources in harmony with the laws of Nature. The community will remain healthier by living in a cleaner, more Nature-oriented environment thus requiring fewer funds, while providing the funds needed where direct healthcare is needed.
- Recognize that beside allopathic medicine, there are traditional, often holistic health practices that have worked over long stretches of time. These were

discussed in more detail in the context of target 3.8.

- Encourage the recruitment of people of a community to be the health advocates and workforce for their community by appropriate training and remuneration.
- Respect, honour, and allow the use of healing modalities indigenous to that area and back this by law.
- Elevating-the level and provision of already existing approaches to medicine and increasing the knowledge of good health practices of the local population and the accessibility of medical services via the Internet will increase the health of the population and keep the cost down of the medicine that needs to be imported.
- Increase the focus on the effectiveness of medicines and decrease the need for them to generate income for universities, advertisers and other middlemen.
- Free the dependence of the World Health Organization on those forms of corporate funding, where corporations are beholden to their investors to provide them with profits. Instead, where the cost of medications is exorbitant, know that there are businesses, like cooperatives that are based on sharing of profits also with the communities where they are situated and investing in global development.

GOAL 5

Achieve Gender Equality and Empower All Women and Girls

When we look at Nature, we see clearly that females of the species are powerful forces to be reckoned with. Their power is derived from respect rather than fear. To empower boys/girls, men/women, we need policies and programs at all levels, in addition to laws, that foster mutual respect rather than fear.

Here are some examples of areas where educational policies would make a difference:

1. Educate all people on the essential purpose of gender differences in the widest sense of the word.
2. Foster insight and appreciation for the uniqueness of individuals within both genders.
3. Educate through formal education and via media and diverse forms of sports and entertainment), on the essential purpose of gender differences at the biological level emphasizing that these do not necessarily extend to other contexts.
4. Foster insight and appreciation for the uniqueness of individuals within both genders and orientations.
5. Implement the Universal Declaration of Human Rights (UDHR) 26 (2), the development of the whole human personality, both legislatively and via the curricula of all formal educational institutions. This will empower girls and women in their relationship to men and boys and eliminates the need for males to forcibly subjugate females UDHR 26 (2), this will require:
 - Inner development of our faculties, including **intuition** - which is the human umbilical cord that connects each individual with Nature - and the capacity to be aware of feelings both within ourselves and others.
 - Development of skills in peaceful assertiveness and training in one's individually chosen profession.

6. Foster education and experiences that connect humans to Nature.
 - Model respect for the interconnection of all life.
 - Develop programs that value all life forms.
 - Teach discernment in balancing respect for others with needs of self.

Develop curricula that teach:

- The ability to balance gentleness and acceptance with strength.
- The distinction between aggression and assertiveness.
- The value of welcoming each new being with curiosity, wonder and awe.

7. Create education, policies, entertainment and technology that empower individuals to share their unique gifts with the world regardless of gender.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Changing the way we view stay-at-home parents and providers for children's care will produce a critical shift for humanity. If we believe that *all* children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children's education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species. To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties.

1. Create policies and funding to support shared responsibility for the home and show that education, caregiving and domestic work are highly valued.
2. Encourage/support media and entertainment that shines the light on the value of this work to each individual and to society as a whole.
3. Promote mutual respect with policies, funding, education, the media and technology.

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

- Reform policies, education, laws and funding so that they are in alignment with and support this goal.
- Develop new leadership in the areas of land ownership, financial services, inheritance, natural resources and living in harmony with Nature; create financial and ownership support as applicable to nations' laws.
- Bring the relevant education to women, men, and young people; ensure that educational programs are available to all and that women and girls attend.

- Work with people to guide them in the fulfilment of land purchases, managing finances, inheritance and living in harmony with Nature.
- Develop more women landowners and encourage them to become new inspiring leaders in the community for both men and women.
- Or, implement a commons approach to land ownership, whereby land is cooperatively owned, and all have a say in how it is developed and used and all benefit from the profits equally.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Access to technology is key to promoting women's empowerment. In addition, technology, media, advances in communication, and entertainment can be used to reinforce empowerment of both genders. Empowerment of both women and men creates deeper understanding and respect of each genders' sexual orientations. By extension, this increased appreciation and valuing of each other can also help us more deeply appreciate and value our connection with Nature as well. Since gender inequality is deeply engrained, desirable changes must be supported by strictly enforced policies and laws as well as education. The internet can be most helpful here.

1. Bring computers and Internet to villages and especially to young girls, and women, as well as to those with other sexual orientations who are so often discriminated against and others who have had no access. Ensure that there is at least one Internet Centre within walking distance of other Internet facilities to promote easy access. Trainings can be given to people from each country by UNOs (Including UNESCO and ITU), using the Internet to make these more accessible to all and inexpensive to give to large numbers of people. Those trained by the UNO system can then pass on what they have learned in their national languages to people in their own countries who can then staff local centres.
2. Develop technology and training in equality and inclusivity.
3. Provide women and girls with access to materials and training, as well as those with different sexual orientations.
4. Ensure that a spirit of inclusivity and equality among the genders and sexual orientations becomes a new basis for interaction and development going forward.

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

The inclusivity of all such programs is key to creating gender equality. Where sound policies and enforceable legislation are passed that benefit *all people*, gender equality will result. But where one gender is treated as weak and incapable, gender discrimination is perpetuated. The objective is to educate individuals of both genders and the community as a whole on new possibilities for living, employment, health and wellness and nearly all areas of interest.

- Provide training and opportunities for both genders to foster a new basis of

equality.

- Embrace youth to create a future with myriad possibilities for all.
- Create unity and cooperation through inclusiveness to generate a spirit of new unlimited potential for life.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Green infrastructure is by definition in harmony with Nature. It should benefit all people and enable all to contribute to and partake in innovation by enabling them to engage in diverse processes that allow them to develop their individual potential. These approaches must be backed by just and strictly enforced policies and laws.

9.2 Promote inclusive and sustainable green industrialization, and by 2030 raise significantly industry's shares of employment and GDP in line with national circumstances and double its shares in LDCs.

Communities can best start promoting sustainable green industrialization by focusing on the needs within each community, encouraging people to express their needs and contribute to the development of innovative solutions. It is essential that needs and solutions come from within these communities, or at the very least are informed by members of the community and not imposed by an "authoritative entity". The NGOs and IGOs have many tools to share and can help local communities to develop the skills they need.

Many large-scale industries are losing market share due to their growing reputations for destroying the environment and people's growing preference for eco-friendly and sustainable practices, and smaller, more local eco-friendly businesses.

- Set up ongoing town hall meetings and forums for people to express their needs and both support and contribute to the development of resilient and innovative solutions and practices;
- Create policies and incentives encouraging industries to implement eco-friendly practices, converting to sustainable resources, implementing zero-pollution solutions, and taking a genuine interest in the wellbeing of their local community;
- Implement policies and practices to reduce consumption before increasing productivity

9.b Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities.

Ancient ways of living in harmony with the environment, often inspired by an intimate knowledge of Nature's ways of resolving problems, is often overshadowed in these days of modern international communications by high tech solutions that are neither

cost effective nor practical in areas where people live closer to Nature. Resilient infrastructure can be created and maintained with locally grown or produced materials.

Here are actions that should be backed by effective and enforceable policies:

- Root development in the actual needs of the country, its diverse inhabitants, including the animals living there and its natural environment, so that all these can work together synergistically.
- Power domestic development as much as possible from local natural and renewable sources.
- Take heed of how local development fits into national, regional and global sustainable development.
- Before seeking high-tech solutions send researchers to local areas in need of technological development to study native practice, then adapt these as far as possible to the needs of the area where they were originally used.
- Employ local labour to implement these. This will ensure the investment of the local population and that local expertise is kept alive.
- Use and upscale local solutions, as needed, where the solutions are lower tech and in harmony with Nature. This will help us all tread more lightly on the environment.
- Scrutinize if value addition to commodities is **actual** value added. Not everything that adds cost to the consumer also adds actual value. For example, some types of food processing add cost and reduces-nutritional value. Value is not just what can be expressed in terms of money but also that which promotes what is green, human, social and environmental health, pollution free, environmentally friendly, sustainable, and world-saving is of high value.
- Give opportunities for the consumer to interact with the process, much in the way of organizations like Kickstarter.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

Oceans are being affected by our impact on all of the Earth sub-systems (the hydrosphere, the biosphere, the lithosphere and the atmosphere), for these are all in a constant complex process of developing inter-relationships. As a result, marine pollution is brought about by a host of different causes. Therefore we must target both marine pollution specifically and also the larger context of oceans and seas as well as within the all-encompassing Earth System.

Common to all these problems, people play a central role both as victims and as perpetrators. Two types of actions are needed to bring about change:

1. To change our mindset with regard to pollution within the seas and oceans.
2. To show that they--and we--are integral parts of an even larger context: the all-encompassing Earth System that we harm at our peril.

To achieve this, we can take the following actions:

- Adopt strictly enforced legislation, which recognizes our relationships with Nature and how harming Nature actually harms ourselves.
- Follow Ecuador's example by adopting in all national constitutions a *Law of the Rights of Mother Earth*. "Rights of Nature" Law and Policy are being developed that stress that Nature, far from just being property to be used for human benefit, is in fact a rights-bearing partner with which humanity has co-evolved. Ecuador has led the way. On March 30, 2011, the first legal case--Vilcabamba River, against the Provincial Government of Loja was settled in favour of protecting Nature.
- Develop legislation in all nations to be able to prosecute by universal jurisdiction those who pollute oceans and seas or otherwise harm any aspect of Nature. For instance, addressing the need to stop the devastating impacts on whales, dolphins and other marine life through the use of sonar in the oceans.
- Since most pollution of the oceans and seas takes place outside of national jurisdiction, it will be important to create an International Environmental Court to enable prosecution by the International Community for crimes against the global commons.

14.4 By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

This is a complex challenge.

Even though fish stocks are dwindling, livelihoods are at stake, and despite legislation overfishing - illegal, unreported and unregulated (IUU) fishing - destructive fishing practices are still taking place.

Fish and marine species have important roles to play with regard to the vitality of the oceans themselves, which are critical to the well-being of all life on Earth. These individual marine species are part of an intricate web of life which is beyond our full understanding, and not simply there as a source of food.

When we take actions such as fishing without considering sustainability as a whole, imbalances are created whereby the so-called solution of one problem creates a host of other problems and imbalances. This attitude lies at the heart of un-sustainability.

This problem is a direct result of how we view and relate to the environment, our fellow human beings and other creatures.

Dealing with this problem will require a multi-pronged approach:

- Through education: to recognize that everything is interconnected and that what is done to one aspect of reality, affects many other aspects, including our own well-being.
- By fostering a cooperative approach whereby those involved in fishing see themselves as a part of a much larger interdependent community;
- Taking strictly enforced legal action as well as creating an Environmental Court to deal with the global aspects of associated crimes;
- using Nature-based science and technology to revive dwindling fish stocks.

Here are some actions to deal with the legal aspects of this challenge:

- Strictly enforce agreements geared at preserving a diversity of fish species, while looking for solutions that rely on the regenerative powers of Nature herself.
- Pass and enforce laws to stop the mass extinction of species, including fish, at all levels and in all localities, even those not directly connected to the ocean. All species are intimately connected to one another's survival and by eradicating some, you also endanger others that are necessary for humans to survive.
- Enforce such legislation with an International Environmental Court with branches at national and local levels, preferably with punishments that help perpetrators to better understand the consequences of their actions. This will achieve two things:
 - It will deter others from such crimes.
 - It will help to build a group of people who understand at first hand why a particular law is necessary. These can then be employed in an educational capacity to help inform others. They can also become members of an international group where members learn from one another.
- Thinking about the establishment of an Environmental Court has progressed quite far. It seems just a matter of time until an Environmental Court will join the ranks of the International Court of Justice and the International Criminal Court. Support is needed to accomplish this as soon as possible.
(See also the proposed action under Target 14.1.)

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.

Coastal and other marine areas under national jurisdiction are jealously guarded by nations and for good reason. The coastal areas are often rich breeding grounds for a host of species, they provide protection for the land from ocean storms, and they provide food and livelihoods for inhabitants, including from tourism. On the other hand, conserving just 10% of Nature, is much like trying to maintain just 10% of a human being whose whole body is weak and riddled with disease, thus countries should set targets that are far higher than 10% especially as we move on beyond 2020. Moreover, all areas that border on oceans and seas are, as mentioned in various contexts above, directly interlinked with many other parts of the Earth System, and thus efforts will have to be made to preserve and restore them as well in order to really conserve the 10%. For these reasons it is essential to give all nations with coastal areas, and especially the Small Island Developing States (SIDS) a firm guarantee that their interests will be

safeguarded, while all act from the clear understanding that since we all depend on the health of the coastal and maritime areas, these should be protected under universal jurisdiction.

Here are actions that can be taken:

- Suggest that via the United Nations all coastal areas are proclaimed “Trust Territories” to be stewarded in such a way that they adhere to global environmental standards, while being used exclusively by the nation administering the Trust Territory. This approach is somewhat similar to that of the UNESCO World Heritage Sites. Perhaps there could also be a global fund for their preservation.
- Nations with coastal areas could work closely with Regional and Global Commissions that are given a supervisory and consultative role in their maintenance and adherence to international standards.
- Because marine and coastal areas and the global commons in general are vital to the survival of the whole human race, all disputes relating to the oceans, seas and maritime resources, and other environmental matters should be prosecuted under universal jurisdiction. They can also be brought, where there is a dispute, before an International Environmental Court, which could be created for, along with other things, this task. (See also: Actions under 14.1 and 14.4.)

In Conclusion

Human laws have become ever farther removed from the Nature-inspired laws, from which they stem as human beings became farther removed from the mental, emotional, social, economic and spiritual nurture Nature can provide.

At the same time, we already have a wide range of treaties, laws, policies, rights and freedoms that are based on inclusiveness, individual empowerment, peaceful relations between nations and other entities; and global stewardship of the global commons—oceans and seas, Outer Space and Antarctica, etc. It is a matter of implementing these.

Where these have been enforced a mental shift is taking place in how we view minorities, women, other beings, etc. For laws sensitively enforced create a situation whereby each person can come into his or her own and shine in their own individual way. And this is equally true with Nature.

This is indicated in the discussion of changing the way we view stay-at-home parents and providers of children’s care. The shift is described there as follows:

“If we believe that all children have value and importance, truly as the future of our species, we naturally think of their parents, caretakers, and teachers as essential in their development. We want the best and finest for them. When child-rearing and children’s education is consistently valued, community members are inspired to become mentors and contribute to the development and expansion of our species. To create the world we want, it is of paramount importance that we change the perceived value of at-home work and child-rearing duties.”

In this way, every minority can show its inherent beauty if given a chance. The choice is ours to select the self-reinforcing upward cycle that allows each individual to shine.

Agriculture



Introduction

Developing agriculture sustainably is one of the most urgent contributions we can make to restoring a healthy and wholesome relationship with Nature as a whole, including our fellow living creatures.

Our usage of large amounts of water, the application of fertilizers, other growth agents and pesticides are leading to infertile soils, a poisoning of water resources, destruction of terrestrial and marine ecosystems, delta and other coastal areas, the death of coral reefs, escalating species loss and much more. All this is contributing to our inability to combat climate change, imbalances in weather systems, the hydro-cycle as a whole, and all other Earth subsystems which are inextricably interrelated. This in turn has led to an increasing transgression of the planetary boundaries outside of which humans are unable to survive.

(See: 'Planetary Boundaries: Guiding Human Development on a Changing Planet' ['Planetary Boundaries Guiding Human Development on a Changing Planet'](https://www.researchgate.net/publication/270898819)).

All this is compounded by *the lack of empathy* and *soul-destroying* ways in which we too often breed, treat and kill farm animals, pets and the living beings we cultivate for food. A great deal can be said about diverse forms of agriculture. But we will focus here on just one of these.

Large industrial monocultures are an example of how one aspect of human endeavour can endanger human and other forms of life. Just this one form of agriculture alone is frustrating progress on all SDGs.

Such monocultures are one of the largest contributors to climate change, being responsible for the pollution both of land and oceans. They weaken plant and animal species at their very core by taking away their natural capacities to survive and thrive. They distort their life cycles and their natural physical forms in ways that are devastatingly cruel, and totally enslave them to the power of just a few. All this is causing a back-lash from the natural world that is now spreading diseases that kill human beings.

Large industrial monocultures attain and maintain power over competitors by lobbying governments at the national level to make it illegal or difficult to farm using more nature-friendly practices. One of the ways in which they maintain power is by insisting that farmers use seeds they have developed and only they may sell. These seeds produce infertile plants that require large amounts of fertilizers, growth hormones and pesticides

to survive and force smaller less powerful farmers to purchase their products, thereby further increasing the gap between rich and poor.

This chapter has been placed as last because to deal with this multitude of problems and any of the SDGs large agricultural monocultures will have to totally change in all of the ways described in the previous chapters. Below are just a few ways that relate not necessarily to the full scale of the problem. Yet, if this sector alone were to apply the insights from the previous chapters, it would make it much easier for us to reach every one of the SDGs.

Suggested Means to Implement a Nature-Centred Approach into Activities in the Area of Agriculture

With an emphasis on SDGs 1, 2, 3, 9, 14

The following actions are for those working or active in Ministries of Agriculture, civic, public or private sector organizations or groups, and/or individuals wishing to promote action in the area of agriculture in harmony with Nature. By taking the following actions you will both be promoting the achievement of the SDGs mentioned below and having a positive effect on the achievement of other SDGs, since living in harmony with Nature lies at the very heart of all sustainable development.

GOAL 1

End Poverty in All Its Forms Everywhere

Best practices to restore the environment and local ecosystems to help eradicate poverty, while also helping to implement other SDGs:

- In rural areas that are largely dependent upon subsistence farming the economic wellbeing of both families and communities depend on the health of the soil and local ecosystems, including hydrological systems. Given that most of the people living in rural areas depend upon subsistence farming in the developing world for their very livelihood and family incomes, it is essential that we maintain soil and plant health while increasing productivity.
- Given the threat to agriculture faced by many family farmers in the developing world due to climate change and global warming, it is essential that new programs and substantial increasing in funding be dedicated to supporting agro-ecology and agro-forestry practices throughout the world.
- Ninety percent of human waste in the developing world flows back into the watershed untreated. This includes a large percentage of "night soil", a valuable resource that could be composted and returned to the earth, such as is done in thousands of ecovillage communities around the world using biological waste treatment facilities and practices. Such affordable processes and practices can help produce healthy and productive soils in regions where nutrients are largely depleted and provide much needed jobs in rural communities, while helping to eliminate water-borne diseases and improve the quality of drinking water.
- Similar biological processes can make water treatment affordable in the developing world, while supporting biological systems that build up and restore soils and the natural environment, provide a habitat for aquaculture, and boost agricultural productivity.

Best agricultural practices to protect the soils and return vitality to farms and agricultural communities

- April 15th, 2017, France launched its 4/1000 initiative focusing on sequestering

large amounts of carbon in plants and soils while improving soil health and productivity.

- Regeneration International is pioneering new means to restore healthy ecosystems of our croplands.
- Agricultural practices are being adopted around the world that are increasing resiliency to drought and natural disasters while increasing productivity, including no till, cover cropping, mixed and rotation cropping, conservation agriculture and key line farming.
- FAO has found organic agriculture to be 2 - 4 times as productive as conventional agriculture in the developing world and much more affordable for small scale farmers who cannot afford to import fertilizer in poor countries and regions.
- Field extension programs and increased funding for research, development, and training programs can greatly increase productivity and help to substantially decrease poverty for those most in need, particularly those dependent upon rain fed agriculture. Indeed, those most vulnerable are finding that there is a great need for restoring the natural environment. Already two-thirds of Africans face water shortages and impacts from desertification increasingly due to climate change and global warming. Many of the deserts around the world were once forested; but as they are cut and the trees felled, it becomes increasingly difficult to regenerate them and likewise to grow crops on or near them. The fields dry out, soil fertility and ground cover are lost, and the land becomes increasingly vulnerable to run-off and floods.
- As has been found with the Sahara Green Wall project, it is possible to restore the natural environment in desertified regions, restore natural water cycles, increase biodiversity, and in the process create life supporting landscapes and ecosystems.
- Studies have shown that we have lost more carbon to the atmosphere since the dawn of agriculture from land degradation, destruction of the natural environment, and poor agricultural practices than from all of the fossil fuels used to date. But this loss now provides us with an enormous opportunity to re-sequester this carbon in plants and soils while raising water tables, creating healthy streams and rivers that can once more flow to the seas, and providing access to water in dry land regions where it is very much needed and at the same time vastly increasing agricultural productivity and resilience to "natural" disasters.
- Increased focus and funding should be placed on global efforts to restore degraded natural environments, invest in water retention landscapes, adopt restorative and regenerative agricultural practices and reforest the earth.
- These and myriad other diverse best practices to reach all SDGs should be taught at schools and propagated via the Internet and the collaborative/sharing/partnership economy.

GOAL 2

End Hunger, Achieve Food Security, Improved Nutrition and Promote Sustainable Development

Sustainable agriculture in harmony with Nature is a precondition to end hunger and achieve food security and will in the long run automatically improve the nutritional value of foods.

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round.

To produce safe, nutritious and sufficient food all year round.

- Plant Trees. The *State of the World's Forests 2016 "Forests and agriculture land-use challenges and opportunities"*:
 - Forests and trees support sustainable agriculture. They stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people, for whom they are important sources of food, energy and income. Yet, agriculture remains the major driver of deforestation globally, and agricultural, forestry and land policies are often at odds." It is essential that we halt destructive agricultural practices and harness the powers inherent in Nature.
- Refrain from all Nature-degrading practices. Important examples include:
 - Change our farming practices to be more in tune with Nature.
 - Where possible use an ecosystem approach to feed ourselves and one another.
 - Nourish the earth first, so that it will be able to feed human beings.
 - Promote the eating of more vegetables, fruits, seeds and grains, as opposed to meats. Our livestock and animal husbandry practices will have to be changed in order to restore the health of ecosystems, particularly grasslands. The rearing of cattle is ravaging the environment; the slaughter of cattle is often done in inhumane ways; rainforests are being cut down and large amounts of water are used to cultivate crops to produce cattle feed; in addition, the costs of transporting meat to the areas where most is eaten both increases the use of fossil fuels and pollutes both the waters and the air. Agroforestry and other such integrated systems combining agricultural diversity, animal husbandry and natural habitats would be a way of building more on a natural ecosystem approach.
 - Make all aware how monocultures are destroying Nature and that they should therefore be avoided, including that mono-cropping to grow cattle feed—one of the most destructive types of farming practices, that is negatively affecting soil health. The United Nations' Food and Agricultural Organization (FAO) says that if we continue with conventional agricultural practices as we have been the world's topsoil will be gone within 60 years.

By switching to more of a plant-based diet and changing how we raise livestock we can greatly reduce this problem.

- Implement relevant agricultural and other policies:
 - Determine with care how to deal with the underlying factors of agriculture. For instance: making a choice between weighing the benefits of food price stability against the need to ensure that the land needed for agriculture is sustained. Or weighing the cost of water as an investment for food against the cost of water for other purposes. Countries can choose to import food as opposed to importing water to make areas with insufficient land surface of fertile soil more suitable for agricultural purposes; or they can decide to invest instead in creating healthy soils, water retention landscaping and regenerative landscapes in order to restore the health of hydrological systems and boost productivity.
 - Create a framework that provides entry points to government to ensure foods are fit for human consumption in all their forms, for all food businesses ranging from small to transnational.
 - Provide high-quality seeds to strengthen Nature-inspired approaches mentioned above with governmental support.
 - Empower more people in the production of sufficient safe and nutritious food all year round.
 - Provide goodwill and universal access to the Internet.
- For the production of and increased access to safe, nutritious and sufficient food all year round:
 - Encourage homeless people to move or return to the countryside to reduce the desertification of rural areas; so too unemployed people can also be given this opportunity. As more and more people are flocking to cities to stay in the slums, rejuvenating the countryside with a reverse trend of migrants from cities to the countryside can provide incentives to businesses, civil societies and governments to promote a rural governance with the help of new telecommunications and Information Systems to help with education and services. Such a move would provide an array of different and necessary types of work for people who are unable to find work in the cities, ranging from restoring the land and ecosystems to providing the necessary infrastructure for the well-being of those living there and to promote the effectiveness of their endeavours. It will provide a greater distribution of people, as well as increase land for food production. In this way, people who are homeless or unemployed would be empowered to help themselves and many other people. Costa Rica has undertaken action in this vein, thereby empowering the poor by giving them land to farm sustainably and encouraging women to become fishers.
 - Provide help to people at the grass roots to contribute to the production of safe, nutritious and sufficient food all year round by providing agricultural equipment, constructing roads that connect farms with one another and with markets, and making sure every community benefits from pipe-borne water and clean energy for each household, and basic education opportunities for their children. NGOs that are helping with these processes should be empowered by providing salaries for their staff.

- Recognize the additional benefits of providing all people with safe, nutritious, and sufficient food all year round in that such agricultural practices can help sequester giga-tons of carbon into soils and plants, while at the same time dramatically increasing soil depth and quality, and providing conditions that are much more favourable to dryland, rain-fed areas, subsistence and family farmers - particularly those living in regions of degraded farmlands and ecosystems. And so, by ***working with, instead of against Nature***, we will find that we have befriended a powerful ally.
- To feed more people while using available space to do so introduce enforceable legislation and motivate the international community to:
 - Ensure that the health of the soil and well-being of Nature are restored, particularly in those regions where poverty is the greatest.
 - Develop a broad and ambitious program of support to provide the people living in impoverished areas with the resources and educational opportunities they need to be able to transition to sustainable agricultural practices, while at the same time substantially increasing productivity and integrating Nature into their agricultural practices.
 - Take into account that this might encourage people to revive ancient and inclusive native practices in a concerted and cohesive manner addressing the desires and needs of all stakeholders and agricultural practitioners.
 - Heed the findings of small scale and organic farmers as well as from agro-ecology that productivity increases substantially as soil health improves, as the natural environment is restored, and our agricultural practices are integrated with the rest of Nature; and as we eliminate our use of pesticides, herbicides, and artificial fertilizers all of which destroy soil health in the mid to long term.
 - Stress that because cities are so crowded, vertical as well as rooftop and community gardening are critical and that it is important and rewarding to use space creatively for food production, especially using permaculture which is a form of agriculture based on an ecosystem approach.

2.2 By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

Implement life enhancing practices mentioned above for the growing of all foods, including caring for, protecting and nourishing the soils and the water through sustainable, chemical-free, bio-diverse, practices so as to produce nutrient-dense foodstuff that will fulfil caloric and nutritional needs.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather,

drought, flooding and other disasters, and that progressively improve land and soil quality.

Beside applying ecosystem-inspired agricultural techniques to large agricultural concerns, also expand food production at the grass roots level, where people individually can use their rooftops, their gardens or small town gardens to grow their own food. Permaculture on a small scale has the advantage that people can have access to the types of food they need and want.

Expand the exploration of:

- How to marry the wisdom of the Indigenous Peoples and the information of science to contribute to the well-being of all life;
- How to allow movement from congested populations to smaller communities, while still having international business, social and economic connectivity and communication, while supplying these with food using eco-friendly ways of food storage that allows food to be stored longer and be available during the lean months. See for instance:
www.ecofriendlylink.com/blog/foodstorageproductstheeco-friendlyway/

By providing food for many more people than are living today using the same available space, using the abundant possibilities for food production which abound everywhere where there are communities and individuals living and working.

These include:

- Utilizing grounds around buildings, living spaces, along streets, and even rooftops which each can be utilized for efficient production.
- Planting food-producing trees and food-producing shrubs amid decorative trees and utilizing diverse forms of ground cover to feed populations.
- Using the concept of plant communities which complement each other's nutrient and water utilization, sun and shade needs, root distribution and harvest times. In this way, the fact that permaculture is well suited to small scale agricultural production is an advantage. It increases productivity in areas where it is most needed.

2.5 By 2020, maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed.

Use healthy ecosystems of sufficient size which are connected with other strong and viable ecosystems to provide or produce Nature's plant and livestock gene banks. They are both incubators for the diversification of species and enable these species to grow strong through the diversity of other species they interact with. Investments must thus be made in protecting and restoring the natural environment upon which the very well-being of our farming systems depend.

Interconnected and mutually nurturing ecosystems also have the following advantages:

- Because the genes have been created within a Natural context, they are sustainable and are less likely to have unexpected repercussions;
- There are no strings attached to their use;
- They can propagate naturally and do not require permits for use.

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks to enhance agricultural productive capacity in developing countries, in particular in least developed countries.

Here developed and developing countries can benefit from one another's best practices. Technologically less advanced cultures, indigenous cultures and at the same time more community-oriented cultures have an important role to play in restoring the balance in today's world and more technology is not necessarily better when it comes to the development of a more sensitive relationship with Nature.

To promote two-way exchanges:

1. Gather and promote the exchange of best practices from both technologically advanced communities and those living closer to Nature. Give credit to, remunerate and, where appropriate, upscale best practices.
2. Ensure that best practices with regard to the building and keeping of gene banks and the improvement of infrastructure are made available worldwide, including through the sharing economy and through the Internet. Reward those using a cooperative approach. The Cooperative Identity is officially based on sharing between all participants in a cooperative, the community where they are situated and global development (See <https://www.ica.coop/en>) practices to be shared while honouring those who bring these to the world.

Goal 3

Ensure Healthy Lives and Promote Well-Being for All at All Ages

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

All life on this planet depends upon a very delicate balance of all the elements that make and support life. The smallest changes in the composition, quality, or quantity of the air, water, soil, light – and all the other complex elements that make and support life - have the potential for catastrophic consequences.

Regardless of whether such changes have been made for the betterment of human and other life forms or for individual wealth or control, where we find we are acting out of harmony with Nature, we must find ways to undo the harm done and shift our focus back to our web of connection, interrelatedness and interdependence. This shift must be backed by policies and strictly enforced laws.

Here are some more specific actions we can take:

- Levy heavy fines for entities that are polluting or poisoning air, water and/or earth, with exponential fine increases for every subsequent infraction to protect from recurrences.
- Require entities with infractions to suspend any business until they have executed a full clean-up effort.
- Incentivize Organic and Biodynamic farming, solar power, wind energy.
- Fund and subsidize individuals, groups and organizations effectively cleaning up air, water and/or soil.
- Institute grants and funding for individuals, groups and organizations that are coming up with innovative and creative plans for reducing pollution and/or increasing the quality of our air, water and soil.
- Provide better education for health professionals to identify the negative impacts of toxins in people and animals, and to provide the appropriate tools for not just managing the symptoms of toxicity, but to aid in the detoxification and restoration of health.
- Create environmentally friendly packaging.
- Institute effective and sustainable recycling practices.

3.a Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

While it is important to make maximum use of medicines and vaccines for diseases that primarily affect developing countries, it can be useful where obstacles occur to also make use of alternatives and possibly build industries in developing countries that provide a broader selection of alternatives.

In Nature, dangers to life and means of preserving life are readily available, often in close proximity to one another. There is an inherent knowledge how to overcome challenges to health and well-being that used to exist among human beings and often survives in indigenous and local cultures.

There are both advantages and disadvantages to both *allopathic* and *naturopathic* approaches to combating disease in crops and livestock. To ensure that the preference for one form or another is based on real merit as opposed to, for instance, the profit motive for some, here are some actions that can be taken:

- Make visible for all to see the costs and profits made at every point as each medicine and vaccine moves from R&D to the end-user.
- Provide equal and unbiased funding for research, development, and distribution of both pharmaceutical and natural medicines.
- Utilize review boards consisting of a broad cross section of experts in the fields of both allopathic, naturopathic, and homeopathic medicine, who can scrutinize, review, and evaluate the efficacy and safety and reasonable costs of all types of medicines.
- Legalize other traditional forms of healing which in many cases take a more Nature-inspired approach.
- Expose all forms of healing to rigorous research that is appropriate for each type of medicine. For instance, homeopathic medicine works in a different manner than allopathic medicine and cannot be effectively evaluated using the same testing methods and criteria as pharmaceutical drugs and vaccines.
- Make vaccines and medicines without the harmful and untested adjuvants that have resulted in millions of adverse reactions and deaths, so that only the beneficial and non-harmful ingredients remain.

GOAL 9

Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

Green Infrastructure is by definition - In Harmony with Nature.

To bring about the necessary far-reaching technological, infrastructure and other changes:

- Re-evaluate all foundational systems and infrastructures: social, educational, agricultural, economic, political, and so on, from the ground up, restructuring them so that they are resilient, sustainable, and nurturing.
- Break out of old patterns of thought and behaviour in order to support the framework Nature already has in place. Creative, innovative thinking is necessary that will support a paradigm shift that puts Nature at the centre of everything we say and do.
- Recognize the imperative to adapt to Nature rather than trying to adapt Nature and the world to technology, making sure that technological advances benefit all life and harm none. We can grow resilience of the greater ecosystem by valuing all living creatures. Many technologies will flourish by focusing on co-creating with such an increasingly resilient infrastructure.
- Increase safe screening of non-native organisms for migrating people and transported plant and animal materials out of native territories.
- Provide non-toxic, sustainable, and eco-friendly solutions for the inadvertent transport of organisms into non-native territories.
- Make sure that money and resources from individuals and companies with stakes in destructive practices is rerouted into activities that serve all.
- Provide ways for technological advancements to facilitate greater communication and sharing of ideas across multiple cultures.

9.1 Develop quality, reliable, sustainable and resilient green infrastructures, including regional and trans-border infrastructures, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Building resilient green infrastructures requires broad vision, innovation, and needs to take into consideration social, economic, ecological, humanitarian, and Nature's needs. Sustainable and ethical development is integrally linked with the wellbeing of all life on Earth. Vision and innovation requires welcoming the creative thinking and contributions of all people. Breakthrough projects need to be created from a global perspective and acted on locally.

It is essential that a new ethic be introduced prominently on a global scale: that of the well-being of all life and the Earth as a whole. Conscientious and responsible thought and action on the part of individuals and communities brought to bear on local and world leaders are needed to ensure that these infrastructures are built wisely and sustainably to benefit future generations.

- Subsidize local food growers, restaurants, food carts, and purveyors to offer locally and sustainably produced organic, bio, and seasonal foods.

GOAL 14

Conserve and Sustainably Use the Oceans and Seas and Marine Resources for Sustainable Development

Healthy oceans are critical to sustainable agriculture among other things because of their role in maintaining planetary boundaries within Earth's subsystems outside of which human cannot easily survive.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.

Here are a few examples of problems that must be addressed:

Due to humanity's destruction and depletion of land-based ecosystems, harmful agricultural practices, and climate change impacts, we have significantly reduced and depleted stream flows, destroyed coastal wetlands, and disrupted both small- and large-scale natural water cycles.

At the same time coastal development is causing the continuing loss of wetlands. Coastal wetlands serve as nursery grounds for fish, provide water for agriculture, build up soils, protect against storms, store tremendous amounts of carbon, and provide timber and medical plants. It is thus imperative that both national and global efforts are undertaken to protect and restore our remaining wetlands and ensure that no more are lost.

There are several hundred ocean dead zones scattered in coastal areas around the world where rivers dump large volumes of agricultural run-off and human wastes into the sea, some of which are tens or hundreds of miles long. Many of these dead zones are reversible, though the extinction of organisms due to them is not. It is thus essential that protracted efforts be undertaken now to change our agricultural practices, to eliminate chemical, nutrient and soil run-off, and to stop dumping un-processed wastes into our rivers, lakes and streams.

Here are some actions we can take:

- Establish and scale up extension programmes and training courses in all countries and regions focussing on sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment, this should include focusing on the need to:
 - Invest in and create water retention landscapes.
 - Engage in regenerative and restorative agricultural practices.
 - Restore damaged ecosystems to protect against flooding and monsoons.
- Focus education, science and technology on creating ecological buffer zones in coastal areas to protect coastal communities and ecosystems alike.
- Teach and apply agro-ecology and agroforestry with key-line farming, carbon sequestration, cover cropping, no-till, rotational and multi-cropping, etc.
- Eliminate the use of toxic products, which pollute the oceans and cause death and disease, and the benefits that could come from universally adapting the use of non-toxic products.
- Substantially increase the amount of development assistance that is provided to developing countries and civil society organizations to carry out education and development activities to sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans. Root ALL education and practices in preservation of our natural environment.

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

1. Switch to locally based, organic, regenerative and climate friendly agriculture. This uses far less energy and chemical inputs while greatly increasing productivity especially in the developing world. The practices associated with such agriculture can significantly reduce acidification, although they will need major funding increases, particularly in the developing world. Switching to more plant based and less meat intensive diets will also help.
2. Transition to 100% renewable energy as rapidly as possible.
3. Invest in regenerating forests and adopt laws requiring sustainable management of all timber lands and conservation of forests.

In Conclusion

The chapter on agriculture takes us far beyond just one branch of human activity. It points to a loss of heart connection between us, our fellow creatures and Mother Nature herself. The resulting unsustainable agricultural practices are an engine behind the destruction of soils, and the pollution of land, streams, rivers, seas and oceans; and a major factor in climate change. Unsustainable agriculture leads to a dire future and for many no future at all.

On the other hand, there are a multitude of examples of actions already being taken, if only on a minor scale. For instance, the planting of forests and trees alone can promote sustainable agriculture, stabilize soils and climate, regulate water flows, give shade and shelter, and provide a habitat for pollinators and the natural predators of agricultural pests. They also contribute to the food security of hundreds of millions of people.

It is possible and necessary to increase investment, including through enhanced international cooperation in building rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks and enhance agricultural productive capacity in both developed and developing countries.

Technologically less advanced cultures, indigenous cultures and at the same time more community-oriented cultures have an important role to play in restoring the balance in today's agriculture as well as our world as a whole.

Here the onus is on us all: On the part of individuals and communities, the public and private sectors and governments at all levels. Here conscientious and responsible thought and action can support those local and world leaders who ensure that infrastructures are built wisely and in tune with Nature, while human and Nature's rights are implemented to benefit future generations. A global ethic is needed that is centred on the well-being of all people, all life and Nature as a whole.

In Conclusion to the Trilogy

As we come to the end of the trilogy and the wealth of actions it suggests, we recognize that integrating Nature into our lives, involves a number of facets. It involves more even than taking actions, based on the cumulative insights of people worldwide, although that is a good beginning. It involves even more than learning to live according to the principles of cooperation, sharing, caring, community and other aspects of Nature's Ethic, although these, too, are essential. It ultimately involves integrating Nature in our moment-to-moment living. Although many communicate with Nature on diverse topics, a natural starting point for each of us involves discerning, honouring and following the spark of healthy interest as it expresses itself within both ourselves individually and in others in each situation afresh. For everything in Nature is constantly interacting and nothing is ever truly the same.

About the Partnership on the Rights of Nature: *Integrating Nature into the Implementation of the SDGs, Our Endorsers and Our Chief Editors*

The Partnership on the Rights of Nature: Integrating Nature into the Implementation of the SDGs, consists of academic institutions, indigenous peoples, Nature communicators, NGOs accredited to the United Nations and other organizations and individuals. These helped with outreach, giving input and producing the original reports that lie at the heart of Part One of this present book.

The material that makes up the substance of this book was submitted after outreach to organizations and individuals that are affiliated with the UN via all of the Major Groups and other Stakeholders (MGoS). Outreach was then repeated to get their input on the completed drafts of the reports. Originally as each report was completed, diverse combinations of individual organizations would ask to be mentioned as endorsers of one or other of the Reports. Since the enclosed reports were written over the course of more than 4 years and vary in terms of subject matter, the authors, chief editors and members of the production team have also sometimes varied.

This present book combines the original Reports on SDGs 1, 2, 3, 5, 9, and 14 and the Means of Implementation—SDG 17—specifically as it relates to these reports, which comprises the whole of Part Two.

The Commons Cluster of the UN NGO Major Group was responsible for gathering and coordinating the teams that have worked on all three books in this series, which with the completion of this third book cover all of the UN's Sustainable Development Goals and almost all of the 169 targets, thereby completing our commitment to the United Nations as a member of its Partnership Exchange.