



Addressing Goals
4, 8, 10, 13, 16 and 17
Education
Employment
Sustainable Economy
Equity
Climate Change
Peace & Justice

TRANSFORMING OUR WORLD IN HARMONY WITH NATURE

Integrating Nature While Implementing the UN's Sustainable Development Goals

EXECUTIVE SUMMARY

JUNE 2019

In addressing the three pillars—*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 2019, 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. This year the international community will be looking at how education, transitioning to a sustainable economy, creating employment opportunities, increasing equity, stabilizing the climate, and creating a world of peace and justice can help us in both transitioning to a sustainable future and ensuring that all people's basic human rights and needs can be met.

However, if we truly wish to meet the particular goals that are being discussed this year, it is essential that we pay just as much, if not more, attention to the third pillar, 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 desert, 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, 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 SDGs being addressed at the High Level Political Forum on Sustainable Development in 2019. In this Executive Summary we are including a few of the most salient and we believe insightful points and recommended actions from this year's SDGs.

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



SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

If we truly want to solve most of our common global challenges and achieve the SDGs by 2030, many changes and improvements will need to be made either to, or within, many, if not most of our educational institutions and systems around the world in order to help bring about paradigm and mind-set changes as an integral part of education for sustainable development. Fortunately, many of these changes have either been tried or carried out before and/or are still being tried and used in some places quite successfully.

Because we have undercut the ability of our natural environment and ecosystems to support human life and to remain in a healthy productive state in many places around the world, and because of the growing human population and the fact that our consumption and production practices are still a long ways

from being sustainable, we are experiencing increasing levels of scarcity in many natural resources that are becoming increasingly worse year by year.

Similarly, “natural” disasters are increasing in both number and severity around the world in an on-going manner; while “natural resource wars” continue to impact humanity in an ever worsening manner - thus making it harder to achieve a number of the SDGs including particularly SDGs 16, 1, 6, and 10 (dealing with peace and security, poverty, access to clean and adequate water, and issues of human equity, etc.) In order to shift to more sustainable and regenerative practices it is essential that we include a focus on Nature in as many of our educational activities as possible.

From Domination to Learning from Nature

Nature exemplifies on-going life-long learning. In this natural on-going learning process, species strengthen one another and also keep one another in check. This creates diversification and enables all aspects within the natural world to work together harmoniously. The greater the diversification, the stronger all aspects of Nature become. This increases human beings’ ability to thrive sustainably, with clean air, an abundance of safe drinking water, food, and shelter.

Species develop and strengthen themselves naturally through the inherent challenges involved in living with other species. Human beings are the only species that entirely eradicate other species - currently around 140 each day. If we are to live sustainably, this disastrous downward spiral must be reversed and people must learn from Nature. This will require becoming conscious of the ongoing relationship and communication between human beings and natural phenomena.

Shifting the Paradigm

To move into a more positive relationship with Nature, it is essential that we *clearly* step away from the past and envision new ways to create partnership with the natural world. As a first step, this will require taking responsibility for our past actions and acknowledging the disastrous consequences we have wrought on so many other species living on this planet. To rebuild a healthy relationship with the natural world, we must be able to observe, listen and respond to the ongoing communication that Nature provides. This relational communication with Nature is our birthright, a basic skill that all of humanity has possessed from our evolutionary beginnings. Our current educational systems must empower all people to use and practice conscious communication with Nature. The specifics on how to do this can be learned from those who are already using this inborn capacity.

Education that promotes “Learning in Harmony with Nature” is student-centred and involves encouraging students to learn to consciously bring their intuition to bear on how to develop their own individual talents, while being sensitive to and working together with the world outside of themselves.

Such education develops effective learning outcomes by tailoring outcomes to what is needed for the individual child’s learning and growth, as well as their entry into society as a well-rounded person who gladly contributes to the common well-being. Here are some actions that can be taken:

- *Create curriculum that allows latitude for boys and girls to discover and follow their interests.*

- *Include Indigenous Peoples’ vision quests in education to help young people to find their vocations.*
- *Establish learning skills appropriate to each child’s age and level of development.*
- *Encourage boys and girls to develop skills appropriate to their environment. As they learn to relate at the family, local, national, and global levels, universal access to the Internet is extremely important.*
- *Build into the curriculum direct contact with Nature in the child’s formal and informal education, beginning with a pet or plant in the home, or plants around the settlement. Contact with Nature has been shown to allow both hemispheres of the brain to develop and with this, creativity and health to increase.*

Focus on the importance of natural phenomena both to human beings and other species. Using a process of appreciative inquiry, children can learn to value all aspects of the natural world and their relationship to humanity and other aspects of Nature.

Nature Literacy and Numeracy

Education has existed as long as human beings (and indeed many types of animals) have been on Earth. Existence depended on all living in harmony with Nature’s laws through close observation of natural processes. Education has been passed on from one generation to another, sometimes taking the form of religious teachings that branch out and have developed into the many forms of today’s religions. When science came into being centuries ago, scientific insights were also passed along to the following generations and were communicated from one culture to another - at first through word of mouth,

then through the written and printed word, and now through the Internet. Although for a few centuries there has been a split between religion and science, this split is now fast being healed as science and religion come to many of the same conclusions.

It is very much to our advantage to base our innovations on what Nature teaches us. Where science and religion/spirituality is converging, often deep insights into the workings of Nature are found. Once those in specialized and tertiary education see the extent of our interdependence with Nature, they will understand the importance of learning from Nature and use their insights in their studies and work. On no account may we forget the importance of literacy and numeracy with regard to our ability to relate to Nature. Nature literacy and numeracy are absolutely essential when it comes to human survival.

By *Nature literacy and numeracy*, we are referring to accurately reading and interpreting the combinations of signs Nature gives us and recognizing our impact on Nature. Examples are reading the signs that spring is arriving through patterns of migration of birds, tracking changing weather patterns, and intuiting pending earthquakes in the same way that animals do. For instance, elephants moved to higher ground before the tsunami hit. Similar capacities can be reawakened in human beings. For instance, we can use Nature literacy and numeracy to recognize possible consequences of fracking, such as earthquakes.

The crises associated with climate change, global warming, and dwindling fish stocks, desertification, deforestation, acidification of the oceans, and lack of clean drinking water have developed because we did not accurately read the signs Nature was giving

us in time. As a consequence, our actions and inaction are threatening human survival.



SDG 4.7: Education for sustainable development

Education for sustainable development requires a fundamental shift in how we relate to the world around us—the Earth, the plants, the animals and their interacting systems. We must shift from hierarchical relationships with Nature, where we operate as human beings and dominate, to a horizontal relationship characterized by appreciation. This will require ongoing attention to changes in Nature and a willingness to respond with respect to her rhythms.

Many resources have been developed and are already being used that provide opportunities for teaching and learning about sustainable development and the UN's Sustainable Development Goals. We are including information about a few of them that provide either whole frameworks and/or initiatives for either including or supporting Education for Sustainable Development in both formal and informal education.

The World's Largest Lesson has the mission of ensuring that every child in the world grows up knowing and caring about the Sustainable Development Goals and is inspired to take action to help achieve them. So far it has reached millions of children in over 100 countries, through the commitment of educators, civil society organizations, ministries and passionate individuals working across sectors. In this section of our report we describe briefly and provide an overview of the World's Largest Lesson, the resources it provides and how it can be successfully used.

Similarly, UNESCO has developed a programme 'Teaching and Learning for a Sustainable Future' this a multimedia teacher education published by UNESCO. Its 25 modules provide around 100 hours of highly interactive activities designed to enhance the teacher's understanding of sustainable development and related themes. It also helps to develop practical skills for integrating sustainable development themes into the school curriculum, and for using the teaching methods best suited to the knowledge, values and citizenship objectives of educating for a sustainable future.

See: <http://www.unesco.org/education/tlsf/>

Teaching and Learning for a Sustainable Future is rooted in a new vision of education - a vision that helps students better understand the world in which they live, addressing the complexity and interconnectedness of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, health, conflict and the violation of human rights that threaten our future. The programme assists teachers to empower young people to face such local and global problems with hope and confidence.

Community Based and Led Sustainable Development Courses and Training Programs

Both the Global Ecovillage Network and its sister organization, GAIA Education, offer various courses and training programs in support of community based and led development processes. For example, Ecovillage Design Education programmes, often referred to as 'EDEs', provide participants of all ages with the knowledge and practical skills to design a society which uses energy and materials with greater efficiency, distributes wealth fairly and strives to eliminate the concept of waste. In this section we describe the various programmes that the Global Ecovillage Network and GAIA Education offer in over 50 countries on six continents and in eLearning Programmes.

For example, Gaia Education's online programme 'Design for Sustainability' provides students with whole systems design skills, analytical abilities and a wide range of methods and practical tools to support the redesign of the human presence on Earth - one local community and bioregion at a time. Graduates receive a Certificate of Completion in Design for Sustainability and contribute to the emergence of diverse regenerative cultures.



SDG 8: *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*

Sustainable economic development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs. Understanding the meaning of sustainable development and the necessity to achieve it is perhaps more important than ever before in the history of our species, not only for the growth of the economy and employment, but also for our very survival on the planet.

In 2009 a group of scientists led by Johan Rockström deemed the Earth's Planetary Boundaries, including the nine planetary life support systems, to be absolutely essential for human survival. Of the nine planetary life support systems we have already crossed four of the Earth's planetary boundaries necessary for ongoing survival, and the remaining five are seriously threatened. https://en.wikipedia.org/wiki/Planetary_boundaries

In light of the environmental degradation being seen at this time it is important that we take stock of the thinking and way of living which has brought us to this precarious state where our very survival is in question.

It is absolutely essential that we protect and restore the natural capital of the Earth now, even while increasing both economic productivity and opportunities and ensuring full and productive employment and decent work for all.

In our chapter on *SDG 8* we quote from Dr. Fritjof Capra from his recent book: "The Systems View of Life": *"Instead of assessing the state of the economy in terms of the crude quantitative measure of GDP, we need to distinguish between "good" growth and "bad" growth... Bad growth is growth of production processes and services that externalize social and environmental costs, are based on fossil fuels, involve toxic substances, deplete our natural resources, and degrade the Earth's ecosystems. Good growth is growth of more efficient production processes and services that fully internalize costs, involve renewable energies, zero emissions, continual recycling of natural resources, and restoration of the Earth's ecosystems."*

Sustainable economic growth will require that local, national, and global societies create the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment. It is necessary that we establish environmentally responsible and socially conscious policies and practices including sustainable use of resources and cultural and economic balance.

There are myriad positive movements arising within human communities, where people are sharing and working cooperatively. No matter their function, people participate in decision making and all share the proceeds from their labour. As a part of the Cooperative Identity, such for-profit businesses give back both to the communities where they are based as well as to the development of the global community. Cooperatives, which often

do quite well in times of economic downturn, have more than one billion members worldwide.

In the chapter on *SDG 8* we also describe a number of business initiatives that are helping us to transition to a more sustainable economy and world including those of the World Business Council on Sustainable Development and the UN Global Compact which encourages and supports companies in adopting sustainable and socially responsible policies and requires them to report on their implementation. For example the World Business Council has put together a CEO Guide to the Sustainable Development Goals which supports businesses in helping to achieve the SDGs by taking action at the company-level along with its 2018 progress report on its Low-Carbon Technology Partnerships initiative which describes the more than 1300 commitments that 800 companies with USD \$116.9 trillion in market capital have made to take bold climate action.

The WBCSD also worked with the Secretariat of the Convention to Combat Desertification (CCD) to develop materials encouraging and helping businesses to adopt and carry out land degradation neutrality (LDN) strategies during the run up to the 2015 CCD Review Conference. One of their reports states: “Land resources, such as soil, water or biodiversity are the foundation of our economies and societies. However, 25% of usable land globally is degraded, at an estimated economic loss of US\$40 billion per year. Agriculture is an important driver of land degradation, responsible for approximately 80% of deforestation worldwide. But there are more pressures on land than just agriculture. Many industry sectors use land to meet the infrastructure needs that result from increased urbanization. Land degradation neutrality thus needs to be recognized as an

investment that can help companies sustain their operations in the long run.”

We also mention a number of initiatives that report on efforts as well as what is needed to decouple natural resource use and environmental impacts from economic growth, along with efforts to mainstream the values of biodiversity and ecosystem services into decision-making at all levels of government through UNEP’s global initiative called the Economics of Ecosystems and Biodiversity (TEEB). We then describe the efforts being made to adopt policies to support businesses in this regard. For example, a TEEB for Business project examines economic sectors at strategic or operational levels, identifying both risks and opportunities that biodiversity and ecosystem services pose to that particular sector.

We also describe a number of initiatives and policies that are being undertaken to transition to a circular economy which aims at first minimizing and then eliminating waste while making the most of resources addressing various approaches to enacting and carrying out sustainable consumption and production policies and practices.

In addressing *Target 8.1* on sustaining economic growth we describe the difference between quantitative and qualitative growth and observe that in order to have sustained economic growth we must curtail such challenges as the catastrophic costs of “natural” and climate related disasters and if we do not stop decreasing the natural capital of the earth and depleting the natural resource base, the consequences cannot be overstated. Indeed, a US report shows \$10 trillion of economic loss due to climate change. Likewise, growth of economic capital at the expense of social, cultural, and environmental capital is both unhealthy

and unsustainable. It is also not so much per capita income as collective wealth and collective provision of services generated from a solidarity economy that can provide decent work and social security nets.

Sustaining per capita economic growth as needed and, in particular achieving at least 7% per annum GDP growth, begins with building upon the economic output and contribution of each individual within a community, and each community within a Nation. All people must be ensured access to decent work through sustainable development, and equitable access to goods and services. Indeed, we need to look at how wealth can be better shared. Implementing Land Value Taxation at the municipal level may be one of the best strategies for investing in jobs creation, revitalizing communities, providing urban services, investing in basic infrastructure, investing in protecting and conserving green belts, flood plains, parks and wild areas, and achieving the SDGs. It has been endorsed by and included in the outcome documents of UN Habitat I, II, and III and is supported by UN Habitat's Global Land Tool Network.

In terms of economic productivity, it is important to remember that truly healthy economies only develop from healthy cultures and environments. We need to eliminate entirely any production practices which destroy the environment and/or harm people. We need new principles of fiduciary duty for global investment, new general indicators of cultural and environmental health as well as new economic measures. We need to re-evaluate how to re-localize our economic systems and make them sustainable in a way that serves all - starting with systems to ensure that all have necessary food, adequate shelter, and good health care, etc. Suggestions are then given for how we might best do so.

Under *Target 8.3* we describe the types of activities that can be undertaken to create job opportunities, support entrepreneurship, and encourage the growth of micro, small and medium sized enterprises while focusing on and investing in transitioning to highly sustainable practices, along with the types of educational approaches that will support such a transition. Then we suggest several means for financing such sustainable economic development including Green Bonds and a proposal to create a Sustainable Economic Opportunity Program. And again, we then describe a number of best practices and success stories that ought to be better scaled up and duplicated to help us restore the natural environment, adopt regenerative agricultural practices, and transition to green and natural building and other sustainable consumption and production processes.

SDG 8.4 calls for increasing global resource efficiency while endeavouring to decouple economic growth from environmental degradation, with developed countries taking the lead. In order to truly decouple economic growth from environmental degradation it is essential that we revisit the indicators that have been agreed up and look instead or as well at the extent to which we are already approaching the thresholds that we cannot cross if we wish to maintain a healthy economy and a healthy environment.

In addition, if we want to decouple economic activities from their environmental impacts then all countries will need to develop full on National and Local Strategies for Transitioning to fully Sustainable Consumption and Production (SCP) practices and processes as a part of the 10 Year Framework of Programmes on SCP, and transition to fully circular economies. As a part of this we should focus on transitioning as rapidly as possible to full sustainability. One of the best

ways for doing this would be to first adopt sustainable development as a fundamental operating principle of governance, or in other words, adopting legislation or an agreement that all decisions made within government would have to consider its impacts on Nature and sustainable development and how it could help to achieve the SDGs, the Rio Principles, and all other sustainable development priorities and agreements.

In order to transition rapidly to a fully circular economy and to adopt fully sustainable practices we should include education for sustainable development in all schools and curriculums and in formal and informal education while welcoming and including the participation of all students in both the development and implementation of such planning processes.

Given that seventy percent of the population in the developing world depends on subsistence agriculture for its very livelihood, we need to diversify the economy in rural areas and regions, provide support and invest in job creation for processing agricultural goods and services along with other natural resources, restore the health of degraded soils and ecosystems along with natural water cycles, and reverse climate instability and global warming. And given that more than 2 billion hectares of land around the world are moderately or severely degraded (an areas as large as all of South America), it is essential that we reforest and/or restore all degraded areas and regions that were once forested.

Under *goal 8.5* we describe the means by which we can provide full and productive employment and decent work for all by transitioning to a fully circular economy, restoring the natural environment and improving our agricultural practices. We

also describe the various programmes that have been developed under and through the United Nations that could be better scaled up and utilized in order to combat youth unemployment. Then under *goal 8.6* we describe a number of programmes that enrol youth in helping to protect and restore the natural environment, while learning important job skills that will be valuable in transitioning to a fully sustainable world and future.

We then turn to the need to address societal abuse. Modern slavery, forced labour, human trafficking, and child labour harms the victims, the perpetrators and society as a whole. Atrocities and even great inequity tend to breed feelings of fear, anger, enmity, conflict and general distrust for the victim, abuser and impact the whole of society. While there may be a sense of power and control, abuse and perpetration of trauma ultimately wellbeing is undermined for all. Solutions directed at resolving the above abuses at their root involve transforming the downward spiral by applying legal, policy, social, economic, educational, structural and other measures. This will turn the downward spiral of violence around and will promote the development of tolerant, economically and socially resilient societies based on unity in diversity.

We then describe how a similar such approach is needed to protect labour rights and promote safe and secure working environments for all workers and give a number of recommendations for how such rights can best be protected.

Turning then to sustainable tourism, we describe the opportunities it can provide for reducing unemployment and list resources that have been developed to help transition to more sustainable tourism as well as for how we can accelerate the shift towards

a more sustainable tourism sector by aligning policies, business operations and investments with the SDGs. Similarly, we describe how Sustainable Tourism could be made more culturally appropriate and the need to include the respect for all of life.

We end this chapter with a look at how our financing mechanisms and services could be dramatically improved and what it would take to create a healthy economy, culture and environment; and conclude with what the United Nations is doing in regards to the multi-stakeholder partnership on Decent Jobs for Youth, the development of a Global Strategy for Youth Employment, and establishment of the Global Jobs Pact, along with the Universal Declaration of Peasants Rights and other people working in Rural areas.



SDG 10: Reduce inequality within and among countries

In order to reduce inequality, we need to realize that it is equality we are striving for. Achieving equality requires that we understand what drives and perpetuates inequality. Inequality is not just about wealth and poverty. In this report, we encourage all to adopt a larger

perspective, acknowledging that this is a complex issue which fosters divide between individuals, genders, nationalities, races, and even human vs Nature. For in order to increase equality within and among countries, we must recognize how our relationship to Nature and other beings on the Planet lie at the very heart of this issue and is, moreover, dangerously affected by it.

Inequality stems from inequity - the inability to have the same, similar, or equitable opportunities. Inequity stems from the failure to have equal opportunities and equal treatment in the past. The only way to achieve real equality is to provide better opportunities for some in the present and ongoing into the future in order to assure that remaining inequities can be overcome. Inequity arises from having a lack of basic resources, access to the capital needed to succeed, the information with which one can be successful, the belief that one can succeed, and the where-with-all to do what their heart and mind desires and knows is possible. This fundamentally comes down to how one is treated and the opportunities they are afforded, or not afforded, by the community, the society, and the social, political and cultural order or systems, etc.

When extreme inequality exists between a government and its people it is challenging to bring about equality for all peoples and all nations. It seems impossible to even entertain the idea of equality amongst people and nations without resolving inequality of government officials and the people they are elected to serve, which, unfortunately, is still quite common within many countries. According to The Oxford Academic Journal of Legal Analysis from Harvard Law School, "When individuals violate the law, they face prison, fines, injunctions, damages, and any number of other unpleasant consequences.

But, although law-breaking is ordinarily fraught with risk, it is not clear that this generalization applies to public officials.”

One serious and rampant human rights violation is that of public officials taking paybacks from corporations and then removing or ignoring regulations and laws which would protect citizens from toxic chemicals or that are meant to protect the natural environment. The end result being that we are poisoned by those who are supposed to protect us. This current level of corruption, poisoning, loss of valuable life sustaining resources, and what amounts to genocide may well be one of the most extensive crimes against humanity, indeed against all life on this planet, of all time.

Citizens also often find it to be extremely difficult to gain political access to their representatives, to have their ideas and proposals be taken seriously, or to be able to influence the political dialogue or debate in any significant way as either an individual or even as a part of anything other than a major or national citizen’s organization. The result is that there is often a lack of political will to do many things that the populace at large broadly and quite urgently wants. It is essential, in order for equality to be experienced, that all individuals be afforded equal access to housing, food, transportation, the same quality of education, voting rights, property rights, access to health care and opportunities to make a living wage as well as equality of treatment; and the same wage for individuals working at the same job regardless of gender, beliefs, skin colour, age, etc. Indeed, if we are going to achieve real equality all over the world then a comprehensive system of and model policies, regulations and legislation, along with proactive efforts, are going to have to be made and upheld by the international community to ensure that this

really is implemented all around the world.

In order to take such proactive measures, we need to recognize that all life that exists in the universe is inextricably woven together in the most beautiful of intricate tapestries or a complex harmonious symphony. Each thread of every colour and each note played by the smallest or largest instrument is absolutely necessary for the whole masterpiece to be what it is in all its glory. And so, it is with every continent, nation, district, city, town, village, home, family, and individual. And so, it is with every mountain, river, rock, tree, mammal, fish, bird, insect, mineral, drop of water, ocean, ecosystem, and microbe. Everything is equal, beautiful, and necessary and defies any kind of measure of better or worse, smarter or less, important or not important. In light of this, the equality of all of Nature and all peoples, communities and nations rightly can be honoured and upheld with the greatest of sanctity.

In order to achieve income growth for the bottom 40% of the population we need to recognize that they also have diverse talents, passions and skills to inspire and lift all other peoples, and therefore can uniquely contribute to the economy. Consider the great diversity in Nature - between plants, animals, minerals and all things that make up Nature, to the individual species within each kingdom is something that amazes and delights most humans. In fact, our survival depends on this diversity. In human society we find this same rich variety where all people have a valuable role to play, and on which we depend, whether we choose to realize it or not. For instance, a person with Down’s Syndrome might not be competitive in higher education, but this condition often brings with it a capacity to love and arouse love and caring in others that is a precious quality for every community.

We need to encourage poorer communities to generate their wealth from the inside out, including through the use of barter. People are the resource that needs to be built up, so that the community is not dependent exclusively on outside development assistance. Each community, region, state, and federal government ought to develop a concerted and detailed plan for lifting up the poorest sectors of their population for the purpose of obtaining equality amongst peoples so that all peoples have the ability to thrive going forward. This will require substantial investments in necessary resources of all types, including financing and supportive policies, programs and institutions etc. This can best be developed in direct and inclusive consultation with the populations in need along with those that have been supporting these people's needs and interests for years now.

If we wish to lift this poorest section of the population up it will also require that we transition as rapidly as possible to full sustainability for with the growing depletion of scarce resources across multiple sectors of the economy and society and ever increasing population growth, particularly in regions where most of those facing extreme poverty live, it will probably be impossible to provide the needed resources in any other way. It is essential that we not only decouple economic growth from environmental impacts, in part by internalizing all externalities, but also by regenerating and restoring degraded ecosystems and the natural resource base in general.

Under *SDG 10.1* we describe the many benefits that can come from our efforts to restore degraded ecosystems and adopting regenerative agricultural practices while also providing employment opportunities for those most in need, for example by

providing increased access to clean water, preventing ocean dead zones, and increasing agricultural productivity, etc. Similarly, we describe how such policies as Land Value Taxation can help to lower land and property prices, increase access to low cost housing, enable more people living in disaster prone areas to move to safer locations, increases in revenue will enable municipalities to provide more services, and increases in building construction - as well as renovation and repair - will help to provide jobs for low wage earners, etc., a win-win situation for all. We also include a number of recommendations for the types of policies and investments that will truly help to lift people out of poverty while contributing substantially to a more sustainable economy and society.

In order to ensure the social, economic and political inclusion of all, we ought to organize inclusive workshops and planning processes at all levels of governance to collect ideas and develop policies that include all peoples in government decision making, planning and implementation processes. With this we could establish or designate offices in each government that will be responsible for ensuring that such policies are adopted, enforced and carried out. Indeed, we include all people's input into all aspects of governance using Town hall meetings and referenda. These meetings can start in small circles so that all have the chance to be heard and branch out from there into larger gatherings. Including the voice of all people for whom policies, programs, and political structures and decisions are to be established allows new and creative solutions to come from unexpected places, having greater impact on the totality in a way that can be lasting and sustainable. Government could also support the development and implement collaborative management of commons resources such as community

forests, community gardens, ecosystem restoration processes, cooperative utility districts and waste management facilities, and establishing participatory processes for managing parks and wildlife sanctuaries, etc.

SDG 10.3 calls for ensuring equal opportunity and reducing inequalities of income. There is a tremendous and ever-increasing disparity between the concentration of wealth, and the considerable resources needed to invest in achieving the SDGs in order to make the needed transition to full sustainability. Serious inequalities in what is possible to achieve in regard to a living wage, access to education and housing, and health care also compound the problem. In order to achieve this target, it will be important to provide equal opportunities for all to attend schools, be hired for employment opportunities, participate in recreational and cultural activities, and participate in governmental decision-making processes as well as to serve in government or as a civil servant, etc. We will likely also need to reduce inequalities of government officials' wages in comparison to those of the average worker and introduce policies and laws prohibiting kickbacks and benefits for those in positions of power.

As we focus on providing equal protections of income and well-being for all people, it is also essential that we focus on the equal protection and well-being of Nature. It is important that not only are all people able to get their basic human needs met and to be able to thrive, but that Nature is also treated the same. In fact, it is probably even more important that we ensure that Nature is able to thrive given that all of life depends on having healthy eco-systems and on the very services that Nature provides. Indeed if we do not ensure that Nature is able to continue to provide the natural resources that it always has and in an abundant manner, including that

of healthy forests and soils, food, water, and clean air, etc. then we will probably not have the financial, economic, and other resources needed to be able to provide, as a society, the social, financial and economic resources that are needed and that we would like.

Similarly, we cannot have strong and stable financial markets, institutions and economies, much less human equality and equity, if they undercut either the well-being of people or Nature. As we develop needed improvements, regulations, and monitoring of our global financial markets and institutions, it is imperative that they also be based upon the need to ensure the well-being of all people and Nature. Under this target we suggest that policies need to be put in place to end the practice of forced buy-outs and leveraged hedge funds and that regulations and policies be adopted to ensure that no austerity programs are put in place that harm people or make it impossible to ensure that all peoples basic human needs can be met.

SDG 10.6 calls for increasing the representation and voice of developing countries in decision making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions. There are enormous disparities between the amount of financial, industrial and many other types of resources that are available to those in the developing world as compared to those in the developed world. It will be next to impossible to achieve the SDGs if such disparities are allowed to continue to the extent to which they have in the past.

In order to enhance the voice of developing nations in global institutions unity is necessary. Every country is already involved in keeping these international institutions alive. Here the lender and the borrower are

of equal importance. The institutions do not exist if one falls away. What is at stake is more than money. It is a world that works for all and where all have a role to play. The more inequality in representation and decision-making in and between countries in global economic and financial institutions persists, the greater the likelihood this will contribute to the disparity among peoples and that this will erupt in conflict, violence and streams of refugees as people struggle to survive and create livelihoods for themselves and their families.

The United Nations and all UN Specialized Agencies are in fact based on an understanding that equality between nations is needed for more credible and effective institutions, and that this is imperative if we are to meet the challenges human-beings face today. Already huge advances have been achieved in almost all areas, including economic and financial, for this understanding is actually deeply embedded in the human psyche.

This collaborative consciousness, in turn, permeates all aspects of Nature, where all forms of life survive by virtue of their roles within healthy ecosystems. Here plant and animal species prosper through an equitable process of give and take for the survival of their species. So the understanding that economic and financial prosperity depends on equal representation between developed and developing countries in international economic and financial institutions is deeply ingrained in the human psyche and, although now buried often by a multitude of fears and privileged desires, can still be drawn forth, especially where a plea is made that resonates deeply with the human heart.

For this reason, it is important to have an

ongoing mass education process at all levels that accompanies any attempts to bring about structural change. This education needs to draw on and strengthen the sometimes unconscious knowing of our interdependence and the joys associated with working harmoniously together as equals, using stories and experiences that speak vividly to the heart and minds. Under this target we include a number of recommendations for improving our educational systems, accordingly, including through teaching about human rights education and the Universal Declaration of Human Rights - such as is called for in the actual preamble to this excellent and essential Declaration. Another example we provide would be to encourage all schools and districts to join the tens of millions of students that are already participating in the activities of the World's Children's Prize for the Rights of the Child, thus introducing and teaching children about the abuses that many other children face around the world. See: www.childrensworld.org.

Turning now to migration under *SDG 10.7* we suggest that migrant people provide an important role in many communities. Immigrants have historically provided a rich ingredient to the melting pot of American, as well as other, cultures around the globe. The mixing of diverse people provides the opportunity for expanding wisdom and experience for all. It is important that local, national and global governments establish fair and responsible policies, practices and laws that benefit and meet the needs of all.

We point out that for the first time the world's governments have agreed upon and adopted a Global Compact on Migration in December 2018 and established a UN Migration Network to follow up on its implementation.

Unfortunately, a number of countries voted against the Compact and have refused to join the network. It is imperative for the well-being of all of the world's people that all countries be encouraged to participate in the network and to implement the provisions of the Global Compact. The Network is tasked with establishing the capacity-building mechanism called for in the Compact. It is thus imperative that as many resources be provided to establish this mechanism as possible.

The UN says that there are now more than 258 million migrants around the world living outside their country of birth. And this figure is expected to grow for a number of reasons including population growth, increasing connectivity, trade, rising inequality, demographic imbalances and climate change. In addition, more than 65 million people around the world are now officially displaced from their homes by conflict, violence and persecution; and this number is only likely to rapidly increase due to climate change and its many impacts, as well as growing resource scarcity, during the years to come.

Meeting the basic human needs of all people will likely become increasingly more important and challenging as our global problems become worse. It is thus essential that the basic human rights and needs of all are prioritized and taken into account especially for those populations that are forced to move in response to "natural" disasters and other emergencies of all kinds. Our basic sense of humanity depends upon this; and it is enshrined in Article 28 of the Universal Declaration of Human Rights which says that all peoples are "entitled to a social and international order in which the rights and freedoms set forth in the Declaration can be fully realized."

SDG 10.a calls for implementing the principle of special and differential treatment for developing countries. If we are going to solve our common global challenges, then we must act together in concerted effort paying close attention to both the historical and present global context and situations. The principle of special and differential responsibilities is based largely on the recognition that many of our global challenges have been caused primarily by those living in the developed world while the most serious impacts are often felt by those living in the developing world - who often have the least resources available to be able to adequately deal or cope with them.

It is often said by those in the developed world that they are not able to do more because of budget constraints but given the total world situation, those in the developed world have far more economic resources, as well as other financial and technological advantages, than most of those in the developing world. If we are truly going to solve our global challenges and improve and sustain a good quality of life for all, then those of us that have more are going to have to spend more in order to achieve the scale of change that is needed; and we are going to have to spend more to help the others make the changes as well.

However, if we are going to make the changes needed to transition to a truly sustainable future and achieve the SDGs, then we are all going to have to do it together. People living in local communities will have to take action on the ground. A lot of resources, as well as time and energy, will be needed to restore soil health, to produce cover crops, to quit using soil compacting equipment and produce smaller scale technologies and equipment that are actually more productive in the long run. Farmers will have to relearn how to compost and enrich and enliven

the soils; and consumers, along with those all along the marketing chain, will have to compost and eliminate food wastes and return the nutrients again back to the soil.

Over the past 20 to 30 years investments in agriculture and agricultural research and development have dropped, at the same time as we have realized that major changes and increased investments to support this, are actually needed. 70-80% of those living in developing countries depend on subsistence agriculture for their basic livelihoods. Unfortunately, they do not have the resources needed to be able to make the required changes that will be needed on their own. But if we recognize as an international community what has to be done, then we can make the changes needed to ensure that all can prosper, and life will in the end be better for us all.

This then brings us to *SDG 10.b* which calls for encouraging ODA and financial flows, including foreign direct investment, to states where the need is greatest. This target is a bit disingenuous given that UN adopted a resolution in 1970 (almost 50 years ago) agreeing to increase Official Development Assistance (ODA) to more than 0.7% of donor country GNP each year and for 0.15 - 0.20% of ODA to be dedicated to Least Developed Countries, and yet only 7 out of the world's 30 or so developed countries have managed to reach the first target. We must thus recognize that developed countries need the developing countries for, among other things, access to raw materials, markets, migrant labour, indigenous wisdom and cultural practices, as well as peace and stability in the world. It is thus imperative that all peoples have the ability and resources needed to be able to meet their basic human rights and needs while also ensuring that they and we all can protect and sustain a healthy environment

and sustainable resource base, etc.

We thus suggest a number of actions that could help to remedy this situation. For example, those that are taking responsible action could partner with like-minded developing countries, Specialized UN Agencies; and donor countries that have honoured their ODA agreements and are willing and able to abide by the development needs as perceived by the recipient countries. Trade exclusively with, or give preferential treatment to, likeminded nations and those that have upheld their ODA agreements. And developing countries could create development plans that strengthen the country's natural and human resources that form the basis of a strong economy. This might involve creating first an agricultural base and from there developing aspects of the economy that can bring in wealth through trade with like-minded countries.

Finally, *SDG 10.c* calls for reducing the transaction costs of migrant remittances. According to the World Bank, in 2018 overall global remittance grew 10% to US\$689 billion, including US\$528 billion to developing countries, thus dwarfing the amount of money that comes from ODA - at about \$135 billion each year. While it is thus important that the transaction costs for such remittances be reduced, it is equally important that we reduce the causes and factors that make such remittances so necessary.

Given the condition of the world as it is today, it is clear why migrant workers exist. In fact, they have become essential cogs in the wheel of the economies where they settle. Their countries and the well-being of their families there, as well as the rest of the population, are a part of the give and take that is essential to global well-being. Here too, where poverty reigns - both abroad

or at home, people are forced to degrade the environment to eke out a living. This contributes to the destruction of ecosystems which affects the capacity of the Earth to retain moisture. That in turn creates droughts which affects whole economies and causes civil unrest and wars. Wars, weaknesses in the global economy or imbalances in the environment cause heartbreak and profound suffering which spills over borders and affects people worldwide. Here too it is in the interest of all to follow Nature's example and ensure that all have a means to survive and thrive so that they can contribute rather than detract from the well-being of the whole.

Returning now to the issue at hand, remittance prices are high for many reasons, including underdeveloped financial infrastructure in some countries, limited competition, regulatory obstacles, and lack of access to the banking sector by remittance senders and/or receivers, and difficulties for migrants to obtain the necessary identification documentation to enter the financial mainstream.

However, the single most important factor leading to high remittance prices is a lack of transparency in the market. In addition, a lack of transparency in the market has had the impact of reducing competition, as consumers tend to continue to patronize traditional market players because they are not aware of and cannot compare services, fees, and speed of their existing remittance service against other products. We thus suggest that the UN make a study of how remittances can be dispatched and paid for in equitable and transparent ways; provide information on how to distinguish ones that are fair and safe and of maximum benefit to migrants themselves; and that expert advisors be trained and positioned at border crossings both of countries that provide

migrant labour and recipient countries to inform migrant labour of ways of getting sound advice when that is needed.



SDG 13: Take urgent action to combat climate change and its impacts

A crucial development in the global struggle to combat climate change and its impacts is the growing awareness that a major transformation of attitudes, approaches and beliefs is now required to enable humanity to achieve a prosperous, sustainable future. This transformation of mindsets must involve a shift towards living more harmoniously together with our Biosphere, within which humans are embedded and have evolved.

Humanity's ability to respond and adapt to climate change and global warming is dependent upon our relationship with Nature. Nature is the source of our economy and society, of every resource we need to survive, and indeed of life itself. The UN website *Harmony with Nature* (www.harmonywithnatureun.org) underlines this perspective, delineating the understanding that for humanity to thrive and even survive, Nature must also be allowed the right to survive

and thrive. This understanding is grounded in *“the recognition of the intrinsic value of Nature and of human-Earth relationships that are symbiotic, interconnected and subject to the natural laws of the Universe...in which human-Earth relationships are balanced within the greater web of life to live in Harmony with Nature.”* (Report of the UN Secretary General on Harmony with Nature of 15 Aug. 2013, A/68/325)

Climate change is exacerbated by efforts to manage, control and own that which is natural, that which should be left untouched for all to appreciate and benefit from. Humanity’s desire to profit from the use of natural resources has often led to prioritizing ownership and control over the development of balanced, interconnected human-Earth relationships. Rather than ceding ownership of the natural environment to the highest bidder, we must foster ownership that protects and restores Nature.

The earth is changing. In our lifetime we are witnessing extremes in temperatures and climactic events unparalleled in recent history. We are being reminded of the power of Nature to continually find balance. Fear of extinction, the loss of scarce resources, or the increasing impacts coming from climate induced disasters can be powerful motivating forces. In this time of global peril, we have the choice, indeed the environmental imperative, to actively collaborate with Nature so that we can realize our place in the community of life and thrive alongside our fellow species.

Dr. Jem Bendell, Professor of Sustainability Leadership and co-author of the 2012 WEF report on the Sharing Economy, has done an extensive review of the scientific literature on climate change, taking a look at the most current data, accumulated since 2014. He has documented just how severe

the environmental and climatic changes are that we have already caused, along with the expected coming calamities that we are just now beginning to recognize and face. See: www.lifeworth.com/deepadaptation.pdf

In his 2018 paper entitled “Deep Adaptation: A Map for Navigating Climate Tragedy”, Professor Bendell describes just how threatening the situation is. For example, “The warming of the Arctic has reached wider public awareness as it has begun destabilizing winds in the higher atmosphere, specifically the jet stream and the northern polar vortex, leading to extreme movements of warmer air north into the Arctic and cold air to the south. At one point in early 2018, temperature recordings from the Arctic were 20 degrees Celsius above the average for that date (Watts, 2018). The warming Arctic has led to dramatic loss in sea ice, the average September extent of which has been decreasing at a rate of 13.2% per decade since 1980, so that over two thirds of the ice cover is already gone (NSIDC/NASA, 2018).”

“Given the reduction in the reflection of the Sun’s rays from the surface of white ice, an ice-free Arctic is predicted to increase warming globally by a substantial degree. Writing in 2014, scientists calculated this change is already equivalent to 25% of the direct forcing of temperature increase from CO₂ during the past 30 years (Pistone et al, 2014). That means we could remove a quarter of the cumulative CO₂ emissions of the last three decades and it would already be outweighed by the loss of the reflective power of Arctic sea ice. One of the most eminent climate scientists in the world, Peter Wadhams, believes an ice-free Arctic will occur one summer in the next few years and that it will likely increase the warming caused by the CO₂ produced by human activity by 50% (Wadhams, 2016).”

About half of the world's coral reefs have died in the last 30 years, with higher water temperatures and acidification due to higher CO2 concentrations in ocean water being key (Phys.org, 2018). In the ten years prior to 2016 the Atlantic Ocean soaked up 50 percent more carbon dioxide than it did the previous decade, measurably speeding up the acidification of the ocean (Woosley et al, 2016)."

"The climate models today suggest an increase in storm number and strength (Herring et al, 2018). They predict a decline of normal agriculture, including the compromising of the mass production of grains in the northern hemisphere on a scale of 20 - 40% and intermittent disruption to rice production in the tropics. The loss of coral and the acidification of the seas is predicted to reduce fisheries productivity by over half (Rogers et al, 2017). The rates of sea level rise suggest they may be soon become exponential (Malmquist, 2018), thus posing significant problems for billions of people living in coastal zones (Neumann et al, 2015). Environmental scientists are now describing our current era as the sixth mass extinction event in the history of planet Earth, with this one caused by us. About half of all plants and animal species in the world's most biodiverse places are at risk of extinction due to climate change (WWF, 2018). The World Bank reported in 2018 that countries need to prepare for over 100 million internally displaced people due to the effects of climate change (Rigaud et al, 2018), in addition to millions of international refugees."

It has thus become obvious that humanity and the international community need to go well beyond the climate change commitments and agreements that have been made to date and take much more substantial action.

It is also important to remember that Nature, left to her own devices, is inherently sustainable and has evolved naturally to where it supports and nourishes life. One might say that it has built up expertise over billions of years. We have a tendency to think that we are separate from Nature and so we talk about 'the environment' as if we are not part of it. We must remind ourselves that we are all part of the Earth and the Earth is literally what sustains us. We cannot live without it. Whatever we do which results in our environment being poisoned, whatever we do to harm the balance of species, we do to ourselves and all species. We are all in this together. We must learn from Nature, and follow the natural rhythms, to keep its harmony and balance.

The question is how we can live in a manner that naturally honors the wisdom of Mother Nature. It's up to each of us to treat Mother Earth with respect and care for her as we care for ourselves. It is up to us to treat our only home with great care, love, and reverence. We must make the changes needed to make a better world together. We could start by restoring and regenerating ecosystem health not only to respond to climate change but also to mitigate and prevent it. This would also mean changing our agricultural practices so that they are less fossil fuel dependent, are much more resilient, can weather the increasing severity of "natural" disasters, lead to greater soil health and natural productivity, and provide conditions that are more amenable to growing healthy and productive plants.

We also need to restore large- and small-scale natural water cycles and invest in water retention landscaping, restore ecosystem health and in the process reverse dryland degradation and desertification. Restoring natural ecosystems will also help to stabilize

the climate, prevent both regional and global warming, and reduce the threat of climate induced disasters. We should also develop plans to reverse or counter acidification of our oceans and/or provide other means to cope with the loss or diminishing productivity of fisheries and coral reefs and habitats, etc. - all of which is due to the huge amount of carbon dioxide that we have released which ends up in the ocean.

SDG 13.1 calls for strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. In this section of our report we recognize that it is natural to worry about floods and other disasters stemming from climate change. However instead of giving into fear and fighting with other people for control of or to protect natural resources, we suggest that it would be more advisable to act from a deep understanding of both the dynamics of Nature that produce climate change and those that allow all species and all of Nature to thrive. One of the best and most important ways to create resilience would thus be to restore our natural ecosystems, create water retention landscapes, and regenerate our large- and small-scale watersheds in order both to avert and respond to climate change by working with the forces inherent in Nature, which have fostered resilience and an increase in diversification of life forms for billions of years.

Eventually, human survival depends on living in harmony with Nature and that would be greatly enhanced if we learned once more to *consciously* use our inborn capacity for ongoing communication with the Earth System. As a first step in re-establishing conscious communication with the Earth System and creating transformative regenerative processes, we can work with those who already consciously use that

capacity. Among these are many Indigenous Peoples, small scale farmers who depend for their living on accurate assessment of how to live in harmony with Nature, a growing number of people who have been conscious from an early age of their capacity to communicate with Nature and those now learning Nature communication skills, as well as with scientists who can measure subtle changes in life energy and those who live close to the land.

We suggest that in regions where massive environmental disruption is clearly possible, and where the usual social, economic and other infrastructure may no longer function effectively, it will be necessary to build cooperative working relationships among all people in a community so that potential survivors of climate-related natural disasters can work together in already formed teams to begin to deal with the aftermath of disasters while waiting for help from the outside world. Trainings in schools, at work, and community education would all help to prepare survivors to work together and create a strong sense of cooperation that will benefit communities in many other ways as well. Indeed, such training ought to begin well before any disasters actually strike and part of their function should include both development projects as well as climate mitigation, emergency planning and preparedness, adaptation readiness activities, etc.

We then describe a number of programmes and initiatives that ought to be put in place dealing with Education, Disaster Relief, Ecosystem Restoration, and the Restoration of both Watersheds and Natural Water Cycles.

Under *SDG 13.2* which calls for integrating climate change measures into national policies, strategies, and planning, we

describe specific types of measures which if fully implemented would be sufficient to prevent further global warming and could stabilize weather patterns and the climate.

At all levels and across all sectors of the economy and society it is important to consider how our environmental policies and relationships with Nature can directly impact various other societal functions and well-being. For example, forests, sustainable agricultural practices, and regenerative land management policies can add to the ability to sequester large amounts of carbon, add to soil health and prevent soil depletion, prevent land erosion, run-off and thus mass flooding, provide buffer zones to prevent “natural” disasters, and more. There are a lot of sensible solutions for doing such things as this that can and ought to be included in national policies, strategies and planning processes and which are still not all that well known about as of yet.

For example, we can sequester gigatons of carbon through the production and use of biochar and thus move rapidly towards stabilizing the Earth’s climate system. Biochar is typically produced by pyrolyzing woody matter or waste materials, thus burning them without oxygen, while avoiding giving off greenhouse gases and instead capturing the burnt carbon in the remaining biochar which is produced. This biochar, which will last and sequester the carbon for thousands or millions of years, can then be used to enhance soil quality, strengthen or replace building materials, or be combined into goods and products of all kinds.

Similarly, it is widely recognized that there are more than 2 Billion hectares of land that are degraded and need to be restored around the Earth. One promising idea for creating a more effective carbon trading system would

be to lease the service of carbon removal on an annual basis, subject to strict verification. Under the UNCCD’s No Net Degradation standard, ratified into international law a few years ago, lands that are steadily degrading would need to purchase more of these sorts of carbon service leases while those that are steadily being regenerated as carbon stores, such as those under care of Ecosystem Restoration Camps, would earn a steady revenue from the leases, one that presumably appreciates every year.

In any case the essential focus here is on drawing down carbon and sequestering it for years to come. A book entitled *Project Drawdown* describes 100 best climate solutions that are designed not just to stabilize, but to actually reduce the greenhouse gases in the atmosphere. Drawdown is about technologies and solutions that are already in place, understood, measured, documented and growing. Project Drawdown includes such best practices as rooftop solar to educating girls, from conservation agriculture to refrigerant management, from plant-rich diets to heat pumps, from agro-forestry and reforestation to regenerative agricultural practices, from alternative cement to indigenous people’s land management. Most are “no regrets solutions” that we’d be wise to pursue even if there were no climate crisis. If the international community wants to get serious about reversing global warming and stabilizing the climate system, then all governments ought to undertake to put in place and support as many of these climate solutions as possible.

After exploring various means of sequestering carbon and other greenhouse gases we then turn to the need to restore natural ecosystems, particularly deserts which are a major contributor to global warming and climate change. Degraded soils or desert/arid areas,

have a limited ability to retain water, thus causing the area to heat up and contribute to warming our planet. Desertification also disrupts both the hydrological and natural water cycles, thus causing the further loss of biodiversity and green growth. Re-greening of deserts and restoring the ecosystems can be combined with the creation of wetlands, thus bringing back the rich abundance of life.

Broken watersheds, or rather hydrological cycles, lead to additional problems as well, due to the relatively high concentrations of water vapour released into the upper zones of the atmosphere. This is a danger because water vapour higher up contributes more to the greenhouse effect. It is also believed that water vapour higher in the atmosphere causes more extreme weather events. Instead of being part of a healthy hydrological cycle in balance with the ecosystem, water is “lost” in arid areas and also causes extreme weather elsewhere on the planet.

On a related note France launched a 4 per 1000 Initiative on regenerative agriculture at the Paris Climate Summit Conference in 2015 with the goal of increasing the amount of carbon in soil by 0.4% a year thus sequestering carbon, reducing soil loss, creating much healthier soils, increasing climate resiliency, and reducing greenhouse gases in the atmosphere. If this could be done on all of the land that we farm around the world we could halt the annual increase of CO₂ in the atmosphere.

The Commonwealth group of countries is also taking action to support Regenerative Development to Reverse Climate Change. It has held 3 symposiums bringing together the world’s experts and best practitioners over the past several years and launched the Common Earth Initiative in 2018 at its Heads of Government Meeting in partnership with the

Commonwealth Secretariat and Innovation Hub. Common Earth provides support to the 53 member states to strengthen regenerative efforts around their local regions. According to the website, “Common Earth is a worldwide community supporting effort to regenerate the wealth of Earth’s commons and meet the 2030 agenda.

The global commons are the dynamic, living systems that are the basis of life on Earth.”

“Humanity’s social and economic well-being are dependent on the health of our common land, oceans, and atmosphere. Caring for them properly requires valuing human dignity and understanding that true wealth derives from a healthy biosphere and web of life.” It is hoped that all of the members of the Commonwealth will take good advantage of this initiative and that the Secretariat will ensure that the needed support is provided to all countries to truly take the needed action to restore the Earth and in the process prevent global warming and re-stabilize the climate. For more information see: <http://cominnowealth.org/discovery/common-earth>.

Where governmental policies do not take into account the full know-how that is inherent in the cultures of their peoples, invaluable experience is missed that is directly connected to their specific geographic region, has in many cases taken centuries to develop, and would be almost impossible to duplicate through other channels especially before 2030. Indigenous Peoples have scientifically observed plant, insect, bird, and other animal populations over generations and have learned to employ this knowledge to mitigate climate change. UN Member States could learn valuable environmental lessons by supporting indigenous policies to mitigate and survive climate change, including

respecting their forms of government, which themselves are often examples of social forms that are rooted in Nature.

Indigenous Peoples' organizations must be included in negotiations for climate change and climate mitigation measures in order to achieve productive national policies, strategies, and planning. Unfortunately, many UN Members still undermine world security by continuing short-sighted urban and industrial development without the Free Prior and Informed Consent described in Resolution 61/295, ILO169 and the Convention on Biological Diversity. It is essential that all such treaties and other legal agreements are fully honoured, and all human rights are respected.

Goal 13.3 focuses on the need to improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. If we view climate change as an opportunity rather than a problem, we inspire the will to learn to live in harmony with all life. This shift in perspective inevitably produces new insights, ideas and actions. Only by respecting and appreciating Nature will we be able to make the changes and choices needed to limit our energy and natural resource usage and ensure that there is enough for all. In this way will we be able to give up our fossil fuel dependency and move instead to renewable energy sources that Nature produces.

Nature models for us freedom and a vibrant life flow. There is a rhythm within each element of Nature and between discreet entities. It is through this "natural dance" that energy is released, and great power can be found. Our energy systems need to mimic these understandings. Our technologies should not be created in such a way that they

obliterate and replace Nature where they are located, but instead work with and draw from Nature. As well, these technologies should be recyclable, manufactured in such a way that their components can be returned to Nature, without releasing toxic waste. The health of the soil, forests, grasslands and watersheds determine the wellbeing of our large and small-scale water cycles. And likewise, the natural functioning of the watersheds is essential to ensure that we can adapt to our changing climatic conditions.

Recreating and protecting healthy soils can and will reverse desertification and over time result in recreating healthy watersheds. Restoring the health of our soils will also provide us with the ability to feed the world's people even with expanding population - even at times of drought - if we adopt resilient and climate friendly farming practices. Re-greening dry lands, capturing water in water retention landscapes, swales and check-dams, and planting and restoring billions of acres of forests and trees will enable humanity to restore our natural water cycles. But if we do want to be able to do these things, we will have to change how we produce our energy and process our wastes. It is essential that we listen to and learn from Nature as we do so. In the end it is Nature that provides us with the means to live and thrive. It is essential that we respect and learn to live in harmony with her.

Nature signals us in many ways that we are off target. Climate Change is one of these indicators. If we are open, and willing to listen with our hearts and courageous enough to take appropriate action, we can change the course of history. We can restore the beauty and balance in Nature that has been gifted to us. We thus describe a number of ways in which we can foster Education inspired by Nature and opportunities for learning and

teaching about Regenerative Agriculture, Restoring Natural Ecosystems, Replenishing Watersheds and Ground Water, and Restoring Natural Water Cycles.

Goal 13.a addresses the need to mobilize financial resources. It has been well documented that the financing invested as we transition to more sustainable practices and processes more than pays for itself and is minuscule as compared to what it will cost to repair things and restore the earth's regenerative abilities to nurture life if we are not able to achieve the climate goals and targets, particularly this one on the need for increasing levels of finance.

One of the most difficult roadblocks to accessing adequate funding for climate change and mitigation efforts is the ongoing denial by many in the United States and elsewhere regarding scientific proof of the existence of climate change. When people are finally in agreement that climate change exists, the movement to transform and deal more adequately and responsibly with the matter will move forward rapidly, enabling us to safeguard life with new awareness and practices. Over and over in our history we have changed course swiftly and effectively when the need arose, averting numerous disasters. At this critical juncture, what is most required is a quorum of dedicated change agents committed in action to securing the future of life on the planet. Here again we list and describe many ways in which the international community can help to raise awareness and ensure that adequate financial and other resources will be forthcoming.

Finally in regards to raising capacity for effective climate change-related planning and management in least developed countries and small island developing states,

particularly among women, youth and local and marginalized communities, we must first recognize that our strongest ally in developing effective plans for managing climate change is the Earth System itself that is constantly involved in balancing all of its subsystems and components. Thus, those who have learned to live in harmony with Nature are a precious resource. In the least developed nations, people, particularly women, often live close to the land and have traditions that encourage them to be stewards of Nature. In some instances, people in nations more technologically advanced might learn much from them.

In communities where people still depend largely on Nature for their daily living, it can be more socially acceptable for women (and men) to develop their intuitive connection with Nature, for this is our umbilical cord to Mother Nature. In technologically more advanced regions, culture and development have been more dependent on human beings developing "abstract" thinking that often has caused the very dissociation with Nature now threatening human and other life on the planet.

The UN Member States agreed at the Rio Earth Summit Conference to develop and implement National Sustainable Development Strategies. Along with this they agreed that all communities should develop Local Agenda 21s or Sustainable Community Plans and to provide sufficient assistance to local communities so that they could carry them out. In addition, many cities and municipalities, along with businesses, have signed onto various programmes and campaigns to either address climate change, transition to renewable energy, and/or achieve carbon neutrality including through ICLEI, the Global Compact, etc. Similarly, there have been any number of programs

created that focus on sustainable community planning as a whole, including the Urban Environmental Accords that were developed for World Environment Day in San Francisco, California in 2005. It is imperative that all of these efforts be integrated both horizontally and vertically, that is across levels of government and sectors of the economy and society, and that a particular focus be included as a part of this process to raise capacity for effective climate change-related planning and management processes.

It is even more important that assistance and funding be provided at a global level to ensure that LDCs and SIDS have the resources needed to both carry out and implement such processes and that they include a specific focus on women, youth, indigenous peoples, and other marginalized communities. In addition, such strategies and plans should include and be based on transitioning to a circular economy, decoupling economic development from its related environmental impacts - thus internalizing all externalities, reducing the use and preventing further depletion of our natural resource base, and restoring the natural environment.



SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

As we strive to create more peaceful, just, and inclusive societies there is much that we can learn from Nature. Species and communities within species, including human beings, have ways of caring for themselves as individuals while also benefitting the communities of which they are a part. It is important to foster and strengthen this tendency and not lend energy and resources to that which tears down and diminishes other beings, communities and Nature as a whole.

Seeing ourselves as separate from Nature helps to create an illusion of being single entities disconnected from other Beings. This ultimately leads to disconnection from ourselves and increases our sense of insecurity and of material and spiritual poverty. In contrast, there lies at the very core of our humanity a longing for community, caring, and sharing that is rooted deeply in our human development as a social species. If we decide to work with this deeper aspect of human nature, we shall be able to build on the deep yearning for connectedness and belonging that lies within each human being and in the process take significant steps

towards achieving this goal.

Ensuring that all peoples' basic human needs can and are met, will go a long way towards creating just, inclusive, and peaceful societies. We can begin by developing respect first for ourselves and then respect for each other. This can then lead us to consider how we can deal responsibly and effectively with those that harm others or the natural environment. Focusing on the need to heal and restore Nature, and to recognize that there is plenty to share for all is a first step in addressing *SDG 16* as a whole.

In order to reduce all forms of violence we must first recognize that violence comes from a feeling of powerlessness, of being misunderstood, of having no voice or say in someone's life (at one time or another), feeling like a victim, fearful and stressed about one's survival, of having limited options for employment, feeling a responsibility and concern about how to provide for family members, and feeling disrespected. These kinds of feelings can generate intense frustration and anger, which can lead to a sense of desperation and with that the possibility to commit acts of violence and even homicides. Feeling powerless and concern about one's survival often leaves a person focused on themselves and with a lack of interest or respect for other beings.

Unfortunately, humanity has long lived in a competitive world where there has historically not been enough to go around and where those from the lower classes have had to struggle to get their daily human needs met. This has led to discipline systems based on fear, control and punishment - all of which has led to a world with quite a bit of violence and force being used by individuals and groups to try to either control others or try to get their own way. If we want to overcome this, we

will have to learn how to live cooperatively together and find ways to effectively deal with those who use violence and force to abuse and control others. Similarly, systems of law, including regulations, legislation and policies, along with social and cultural norms must be strengthened and established to hold all of those accountable that abuse or cause physical and emotional harm to others.

Connecting with and remembering Nature as our foundation can also help to heal the fear and upset which drives conflict amongst peoples. Historically, connecting with Nature has been successfully used to balance mental problems, behavioural problems, emotional turmoil, and to strengthen physical well-being. It provides the opportunity for those who are troubled to experience their own true nature, their strengths and weaknesses, and to develop compassion and caring for themselves and others.

If human beings take responsibility for the fact that we have poverty and violence in our current situation and own it we can transform it. Realizing that someone else's poverty is our poverty; someone else's act of violence is our violence is what it will take to transform it. Part of what is needed is accepting that this is how it is, that we are fallible beings, making mistakes, having compassion and making different choices. We can then be an unstoppable force creating opportunities, harmony and abundance for all.

In order to shift society as a whole it is imperative that we teach about and implement the Universal Declaration of Human Rights, the Social and Economic Covenants, the Rio Principles, and the Earth Charter. We have these to help people acknowledge our interconnection and deeply understand the need to and the ways to work in peaceful cooperation with each other and all of Nature.

Turning now to *SDG 16.2* which focuses on ending abuse, exploitation, trafficking and all forms of violence against and torture of children, it is important for us to remember that we are all children in the vast macrocosm and have all been children in our own societies. Abuse, exploitation, and all forms of violence against children can only take place by individuals who have lost their remembrance of what it means to be a child and have separated from the awe and reverence for all life that was innate in them at birth.

It is important for adults to acknowledge children as teachers, for they are often more connected to their original seed form and spiritual essence. In fact, adults can often benefit from taking their lead. Maintaining child-like wonder and being in awe of life itself is a powerful way to establish enduring peace, love, and joy, and ultimately keep the earth and all its Beings healthy and thriving. If we begin now with the raising of the current new-borns in an environment of love and nurturance and respect, then the acts of violence against children are less likely to be perpetuated in future generations. As well, if we are all looking out for the well-being of the children, then perpetrators have less opportunity and more visibility. Lastly, there needs to be greater movement towards redirecting, rehabilitating, and retraining those who abuse. Here we include many suggestions for teaching and learning how we can all become more respectful and nurturing members of society and our international community.

In regards to promoting the rule of law at the national and international levels and ensuring equal access to justice for all, when it comes down to creating and upholding law within human societies, it is important that we look less at ways to pronounce

judgment and punishment and look to create policies and social structures that ensure that no one does harm to another and that promote the restoration of health and harmony to individuals and communities in ways that are reflective of Natural Law. This all-encompassing legal structure should be built on deep recognition that what Nature provides, and the laws of Nature are the foundation from which all else operates.

Furthermore, the rule of law is not just what has been written down in law books to govern humans. The ultimate rule of law is that of the laws of Nature. All of Nature, in fact all of the Universe, runs by Natural Law, which supersedes all human based laws. The most fundamental of all of Natural Law is that of Love for all life. The second would be that of Respect for all life. The third is that of Harmony. Harmony means having the respect for the ways of being of each member of Life and that of the Natural Law that governs the balance of thriving within all species. Natural Law provides for all the needs of all its species, and each member of each species has the coding for the Law of Harmony for its survival as well as thriving. When we, as humans, understand and master our place of co-habiting on this planet and maintaining Natural Law as a guide, we will not only continue to thrive and survive, but will continue to evolve into the physical, mental, and spiritual true greatness we are meant to become.

SDG 16.4 calls on the international community to significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets, and combat all forms of organized crime. We thus need to acquire a bird's eye view so powerful as to change the course of human thinking and sentiment, in a similar way as when the first astronauts were able to see the whole of the earth from

space. We suggest a thorough examination and assessment of the motivations behind illicit financial and arms flows, stealing of assets, and organized crime in order to understand the thread that connects these acts irrespective of nationalities. It is also necessary to see these heinous acts and events not just as crimes against peoples, but to understand the impact on Nature, and the deleterious effects on Nature these events have had. All of humanity needs to acknowledge the crimes that have been done to others and the natural environment over time, make any necessary reparation and restitution and move forward making different choices to benefit all.

Under Article 26 of the UN Charter, almost all arms flows are in fact illicit, which is defined as being forbidden by law, rules, or custom. Indeed Article 26 states, “In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world’s human and economic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments.”

In addition, Article 3 of the Universal Declaration of Human Rights insists that “all peoples have the right to life, liberty, and security of person” - which we have repeatedly seen does not exist where any government has access to inordinate military personnel, equipment and expenditures, and where the international community continues to allow countries to attack one another with impunity. It is thus the collective responsibility of all of our governments to ensure that the Security Council creates, and the UN General Assembly adopts, a plan and system

for regulating armaments and ensuring that the least amount of money is spent to establish and maintain international peace and security as possible. And in fact, it is the responsibility of the UN General Assembly, the Security Council and the Human Rights Council to take action both to prevent and then to sanction and hold responsible any country, along with its political leadership, that attacks another country or poses a direct threat to international peace and security.

Corruption and bribery thrive when they are kept secret and there is fear and confusion. When children are asked, “Did you do that?” and are punished if they admit, the truth teaches them to lie and hide mistakes or missteps. It is important to make it safe for people to take personal responsibility, bring mistakes out into the open, review natural consequences with compassion, and to find resolutions that are in the best interest of all. In Nature there are consistent natural consequences that provide learning and evolution of consciousness.

Corruption and bribery also thrive where there is concentration of wealth based upon the ownership and profits deriving from the control and abuse of land and natural resources rather than the benefits accruing equitably to all peoples through the collective ownership and management of common or scarce resources. Indeed, much corruption and bribery exist where illegal mining, logging, capture and killing of endangered species, and other such practices are allowed to flourish. The consequences must be enough to deter further bribery and corruption by giving understanding of the negative impact these actions have on themselves, others, and the natural environment, promoting healing and instilling a healthy sense of self that motivates people to naturally act in the interest of the greater good of all.

SDG 16.6 focuses on the need to develop effective, accountable and transparent institutions at all levels of government. A first step in creating this type of institution would be to get rid of or end corruption. Corruption by officials, especially those in positions of leadership, is the worst betrayal as they are in office to serve the highest good for all. A good example is the genetically modified foods being imposed on society because of deals between large corporations and governmental officials. Corrupt officials' selfish actions have devastating consequences on the whole culture economically, spiritually, physically, mentally, and emotionally and the health of all. They are polluting the whole planet with their mindset, beliefs, and actions such as using toxic chemicals (pharmaceuticals, herbicides, pesticides), fracking, and irresponsible use of natural resources, and the endangerment of many species.

We suggest that one of the best ways to ensure accountability would be to create a network of councils whose members come from a diversity of backgrounds and regions - from the local level to the International level - for the purpose of monitoring established institutions that may already be engaged in bribery and corruption and holding them accountable to practices that are effective, transparent, accountable, and follow the rule of law and the Laws of Nature. We then suggest specific examples of what such councils could do.

Councils could also be created to ensure responsive, inclusive, participatory and representative decision-making at all levels of government as well. They are most effective when they are inclusive, cooperative, and participating together by putting consideration of the ways and needs of their people in the context of what is good for Nature and in ensuring proper stewardship, particularly

of shared or common resources. People working together can provide creativity and inspiration and serve as resources for solving issues and resolving conflict in ways that promote the greater good for each individual as well as communities and the world community.

Under *SDG 16.7* we also list and describe a number of examples of inclusive participatory decision-making processes and initiatives including citizen referenda's, indigenous councils, town hall meetings, participatory peoples' budget processes, Cooperatives, and government pension plans, etc.

SDG 16.8 calls for broadening and strengthening the participation of developing countries in the institutions of global governance. We suggest that even though many of those living in the developing world, particularly those facing extreme poverty, often have the largest per capita impact on the natural environment, they also are in a position of great potential to avoid the polluting and resource-depleting stages of industrialization, and to adopt new, clean and more resource-efficient technologies. These countries are very much feeling the effects of environmental change and the degradation of their natural resources. Relevant policies from the direct input of these developing countries who have positions of value in the institutions of global governance can create added value to their natural assets, develop new markets, and create and sustain more and better jobs that will better address a more "green" and sustainable future. Through investment and policy reform designed to enhance livelihoods for the poor, create employment opportunities and reduce poverty, these essential assets can be translated into economic growth and sustainable development.

The participation of the developing countries

in global governance can also provide mutual benefit. Whereas the wealthiest, most developed countries have the largest impact on resource use and consumption and depletion of the natural resource base, developing countries provide much of those resources. Giving the developing countries broader and strengthened participation in the institutions of global governance, along with investments in the skills development for the building of greener economies, is a way to achieve sustainable development, poverty eradication, and a more sustainable future for the natural resources that the rest of the world depends upon.

If we are going to ensure public access to information and protect fundamental freedom then we should first recognize that the right to access information held by public bodies is an integral part of the fundamental right of freedom of expression, as recognized by Resolution 59 of the UN General Assembly adopted in 1946, as well as by Article 19 of the Universal Declaration of Human Rights (1948), which states that the fundamental right of freedom of expression encompasses the freedom “to seek, receive and impart information and ideas through any media and regardless of frontiers”. It is particularly important that reports are regularly filed as pertains to the management of and effects on the natural environment. Legislation supporting this should be adopted at the national level as a part of implementing each country’s SDG strategy and plan. We again provide a number of suggestions for how access to information could better be provided and supported.

Under *SDG 16.a* our governments have agreed to strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries,

to prevent violence and combat terrorism and crime. Indeed, there is a need for international and local institutions and governance to provide relevant institutions, protections, and governance for a safe, just, peaceful, and inclusive society. These must be in place for the safety, protection, nurturance and inclusion of all peoples as well as Nature. We need to create new types and systems of penal institutions that focus on healing and regeneration instead of punishment, along with instituting truth and reconciliation systems and commissions. International tribunals need to be established to provide findings and make recommendations for how the international community can respond to and deal with repressive and/or controlling/authoritarian governments - particularly those not established through democratic processes. Penalization is a harsh word but what we mean by this is to provide opportunities for those prone to terrorism or crimes to essentially serve time in the caretaking of Nature. There is nothing as nurturing and healing as being in the presence of Nature.

And finally, *SDG 16.b* calls for promoting and enforcing non-discriminatory laws and policies for sustainable development. Here we suggest that every human has a place and purpose for being in their life on Earth, and no individual’s place or purpose is more important or worthy than any other individual’s. It is the birthright and in the best interest of all if each individual is provided with equal opportunity to express and manifest their personal purpose in light of the good of all. Equal rights, if not superior rights for Nature will provide better opportunity for the continued survival and thriving of humans.

In light of this, the personal fulfilment of each individual comes to fruition when in the context of all life and the cosmic expression of

life which includes both Nature and humanity, being that humanity fundamentally is a part of Nature. In other words, the Earth is her own being with the sole purpose to express herself as life, and all Beings, including humans, are a part of that expression. Therefore, all Beings are encouraged to fulfil their purpose and live without discrimination, and all laws created, promoted, and enforced should have at their core the development and furthering of the human and Nature Soul.

It is important to keep our eyes on the goal. What we attend to is key. What we attend to will take root and grow strong and healthy. If we focus on the things that we do not want, fear, anger and distress will continue to build, and problems will gain intensity. It

is essential that we cease to give energy to those elements that are out of balance. It is vital that we develop communities committed to remaining grounded and focused on the vision of a just, cooperative, peaceful and flourishing world. We need to be tenacious, fearless in moving forward, adventurous, inclusive, and constant in navigating the shifts and changes toward expanding respect for all life. The key is to be fully present to issues, think in new ways, and focus on resolution. Exploring creative living in which each individual's needs as well as the needs of society as a whole are met, is the kind of fresh, productive, and exciting modus operandi that will greatly help us accomplish the fulfilment of a sustainable future, and all the SDGs.