



Conserving the Diversity of Life: A Moral Duty and Imperative for Equitable Development

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Introduction

We are living in an age of unprecedented planetary change. There is no doubt that we are destroying our planet faster than ever, with catastrophic consequences for all life on Earth on the horizon. This is not “doom and gloom” – the risks are evident and science has never been clearer about the consequences of our impact. The astonishing decline in wildlife populations – a 60% fall in just over 40 years (WWF 2018) – is a grim reminder and perhaps the ultimate indicator of the pressure we exert on our planet. If we continue to produce, consume and power our lives the way we do now, forests, oceans and weather systems will be overwhelmed and collapse. This would have a devastating impact not just on the beautiful diversity of life we share the planet with, but for people as well, as nature is vital to sustain human society and prosperity.

The continued, unabated, rapid decline of nature and biodiversity will have tremendous economic and social costs. It jeopardizes modern civilization as we know it, and indeed could threaten our very survival. Vulnerable, often impoverished, indigenous communities, who depend more directly on natural resources and are less able to adapt to ecological degradation and climate change, will suffer first and the hardest. We already have the evidence of how environmental degradation affects the poor.

Species, the units of Nature and foundation of ecosystems

When we look at nature we often watch, but fail to see. In our modern, urbanized, increasingly virtual lifestyles, we have lost the intimate connection with and understanding of the natural world that was central and essential to our lives for the vast majority of the history of the human species. So when we look at the forest we often miss the ‘forest for the trees’. That beautiful, inspiring ‘mass of green’ is in fact a very complex web of life. It is the aggregation and interaction of thousands of species and millions of organisms that make the forest live and function.

Species are the units of natural systems, the bricks in the wall of life, and more generally biodiversity is the foundation of the functioning of ecosystems. Take species away or drastically reduce their populations, and the wall will become unsustainable and collapse, and with it the vital services that ecosystems provide, which underpin all life on Earth.

Wildlife under unprecedented pressure

The latest edition of the Living Planet Report (LPR) (WWF 2018) paints an alarming picture of the state of the planet: Global wildlife populations of mammals, birds, fish, reptiles and amphibians, have declined, on average, by 60% in little over 40 years, largely due to threats and pressures linked to human activity. Freshwater habitats are hit the worst, with populations having collapsed by 83%. The decline of species’ populations is especially pronounced in the tropics, with South and Central America suffering the most dramatic decline at 89% compared to 1970. In the past 30 to 50 years, we have lost 20% of the Amazon, almost half of the world’s coral reefs, and 30 to 50% of the world’s mangroves (WWF 2018).

The recently published Report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES 2019) paints a stark picture of nature in crisis, with 1 million species at risk of extinction, on the scale of a 6th mass extinction but this time not due to asteroids or glaciations. It is because of us. One single dominant species.

Estimates indicate that each year poachers slaughter close to 20,000 elephants, mostly for their tusks (University of Vermont 2016). In Sudan, the last male northern white rhino died last year, condemning the species to extinction despite two living females remaining. These rhinos were roaming in their thousands just a few decades ago (BBC News, 2018). Today, 90% of the world’s seabirds are estimated to have fragments of plastic in their stomach (Wilcox et al. 2015).

To summarise the deep alteration of the biosphere caused by human activities, today between 95 and 99% of the biomass of land mammals is made of humans and our domesticated animals (primarily cattle and pigs)

versus only 1 to 5% of all other wild mammals. The global population of tigers in the wild is below 4,000, less than a third of the seats at Wimbledon's center court (WWF, n.d.).

Loss of natural spaces

Forests are disappearing at a staggering rate – “18.7 million acres of forests are lost annually, equivalent to 27 soccer fields every minute” (WWF 2019a). “Researchers estimate that each year an area of rainforest larger than the state of New York is destroyed to create grazing land” (WWF 2019b) for the production of beef. These figures are even more disheartening when you consider that eight out of ten land-dwelling species and nearly 300 million people live in forests (WWF 2019c).

We have already lost half of the world's coral reefs and 30-50% of mangroves, inspiring and vital marine coastal habitats home to an amazing diversity of species. It has been calculated that 95% of commercially important fish species depend on these habitats in their life cycle (Lellis-Dibble et al. 2008). The Marine Living Planet Index recorded a 36% overall decline in the abundance of marine life between 1970 and 2012 (WWF 2016), while overfishing threatens about 33% of global fish stocks (FAO 2019). Hundreds of millions of people, often impoverished coastal communities, depend directly on coastal fisheries.

A recent report by the UN Food and Agricultural Organisation (FAO 2019) has highlighted how the loss of biodiversity both under and above soil can threaten the productivity and resilience of our agriculture.

Indeed, current analysis from WWF (2018) suggests that humans have already pushed four planetary boundaries beyond the limit of a safe operating space; these are climate change, biosphere integrity, biogeochemical flows (nitrogen and phosphorus), and land-system change.

The figures go on and on. And the top threats to species identified link directly to human activities, including habitat loss and degradation and the excessive use of wildlife such as overfishing and overhunting (WWF 2018). Over the past 50 years, our Ecological Footprint – a measure of our consumption of natural resources – has increased by about 190% (Global Footprint Network 2019). This is due to our production and consumption being wasteful and unsustainable, ignoring the externalities.

Our extraordinary ingenuity is brilliant in solving single problems, but not so good at predicting the consequences of our behaviours and technologies. Our obsession for growth and the way we measure economic development, fixated on goods and assets but not on the natural capital that underpins them, are out of sync with the finite nature of our planet and its resources.

Climate change and nature loss, two sides of today's ecological crisis

Meanwhile, climate change remains an enormous challenge. In October last year, a landmark report warned that the world has at most 12 years to prevent climate catastrophe (IPCC 2018). Never before has the threat of irreversible damage been so close or so clear.

Climate change and the loss of nature are the two sides of today's ecological crisis. It is critical to urgently address both. Whereas climate change is exacerbating biodiversity loss, the causality goes both ways: nature plays a crucial role in trying to keep climate change in check. Many affected ecosystems – such as oceans and forests – are vital for absorbing carbon emissions. In fact, nature-based solutions will have a key role to play in achieving climate change targets. One recent study found that, worldwide, natural climate solutions could reduce emissions by 11.3 billion tonnes per year by 2030, and thus deliver 37% of cost-effective CO₂ mitigation by 2030 (Bas 2018).

The science is clear: unsustainable human activity is pushing the planet's natural systems, which support life on Earth, to the brink.

The great acceleration

The rapid planetary change caused by human activities, driven by our ever-increasing consumption and the resulting increased demand for energy, land and water, has led many scientists to conclude that we are entering a new geological epoch: the Anthropocene. It is the first time in Earth's history that a single species – Homo sapiens – has had such a powerful impact on the planet.

While these changes, often referred to as the 'Great Acceleration', have brought many benefits to human society, we now understand that there are multiple connections between the overall rise in our health, wealth, food and security, the unequal distribution of these benefits, and the declining state of the Earth's natural systems. Nature, underpinned by biodiversity, provides a wealth of services, which form the building blocks of modern society; but both nature and biodiversity are decreasing at an alarming rate. It is increasingly clear that human development and wellbeing are reliant on healthy natural systems, and we cannot continue to enjoy the former without the latter.

Nature is the lifeline for the 7.6 billion people inhabiting planet Earth, providing the food we eat, the water we drink and the air we breathe. All economic activity ultimately depends on the services provided by healthy ecosystems, making nature an immensely valuable component of a nation's wealth. It is estimated that, globally, nature provides services worth around US\$125 trillion a year.

We too often forget that we depend on nature more than nature depends on us. Economy is a subset of ecology, not the reverse.

The risks of nature loss

Nature is the bedrock for the production of the most common goods and much of our way of life (products from coffee to cotton to cocoa, but also major food crops, rely on balanced and biodiverse environments). Oceans and coral reefs provide food and livelihoods to hundreds of millions of people. Forests clean the air, regulate the local climate, and retain water for rivers. Healthy soils are essential to grow crops. Mountains and glaciers are key sources of water for major rivers. Increasingly, the fragility of ecosystems poses huge risks to societal and economic stability. Quite simply, nature is the foundation for a healthy society, equitable economy for all, and global security.

In its latest Global Risks Report, the World Economic Forum (WEF, 2019) once again identified environmental risks as the biggest challenges currently facing humanity, with extreme weather and climate inaction of greatest concern to businesses and governments. This is hardly surprising when in the past year alone we have seen deadly heatwaves across Japan, ruinous hurricanes in the US, record droughts in South Africa, devastating floods in Mozambique (described as the worst ever weather-related disaster to hit the Southern hemisphere) caused by the first back-to-back typhoons ever recorded in the country, and forest fires in the Arctic.

Governments, businesses, and the finance sector are beginning to question how global environmental risks – such as increasing pressure on agricultural land, soil degradation, water stress, and extreme weather events – will affect the macroeconomic performance of countries, sectors, and financial markets.

Nevertheless, the political will to tackle these challenges head on is still not sufficiently pervasive. And time is running out.

The road to 2020: a unique window of opportunity

Against the backdrop of this urgency, there is also opportunity. 2020 is a special year for the environment: the UN Convention on Biological Diversity must define its post 2020 global biodiversity framework, and the Paris Agreement has the opportunity to raise the ambition of its Nationally Determined Contributions on climate change. There will also be a first review of progress on the UN Sustainable Development Goals (SDGs) environmental targets, and there is an opportunity to develop new treaties to tackle plastic pollution and protect the High Seas. These efforts can and must be supported and complemented by highly ambitious agreements and commitments from all key players: states, sub-national authorities, businesses, the financial sector, development banks, and citizens. Together, the different commitments and actions must reverse the decline in nature by 2030 for the benefit of nature and people. And while momentum globally is building, we know that this will be a sprint towards a rapidly approaching 2020.

2019 is a milestone year for the SDGs. It is the first comprehensive review of progress on all 17 goals since implementation began in 2016. This review will be held under the auspices of the 74th Session of the UN General Assembly (UNGA 74) in September 2019.

The UNGA 74 session also marks a significant shift to increase the coherence between international action on climate change, universal health coverage, sustainable development, financing for development, and Small Island Developing States' development.

The recent reports by both the IPCC (2018) and the WWF (2018) have highlighted the alarming trajectories of global warming and declining wildlife populations and in doing so, demonstrated that climate, nature, and sustainable development issues are closely interlinked and cannot be addressed with a silo mentality.

Most urgently, this year is a critical window of opportunity for clear and coherent action by Member States on the new targets of the UN Convention on Biological Diversity (CBD), which will mature in 2020. Yet current global assessments show that it is unlikely we will be able to meet nine of the twelve biodiversity targets by 2020. Moreover, these targets are also essential for the success of the SDGs and Paris Agreement. They ensure action on natural resources which provide food, water, timber, and plants as well as agricultural and cultural services that we depend on to survive. For example, the blue economy (SDG 14.2) generates at least USD 2.5 trillion a year (WWF 2019d) and it is estimated that over 3 billion people rely on oceans for their livelihoods (UN Conference on Trade and Development n.d.).

What we do with these maturing targets beyond their 2020 deadline will determine whether we maintain the ambition of the transformational agenda or compromise our vision for a sustainable and secure world. In the words of UN Deputy Secretary-General Amina Mohammed, 2019 must be the “year of transformative solutions” (Mohammed 2019) needed to halt the unprecedented effects on our natural environment which will affect our survival and well-being.

A New Deal for Nature and People

We must make the most out of this unique window of opportunity. WWF is calling for a New Deal for Nature and People in 2020 that embraces a new narrative, underlining both the perils we face and outlining the path towards a more secure and sustainable future. This will be combined with an ambitious set of measurable, communicable and transformational targets, as well as robust implementation mechanisms. This New Deal must break down siloes and promote the links between climate, ocean, and biodiversity through the respective conventions/agreements, and will also be essential to achieve the 2030 Agenda for Sustainable Development.

The New Deal is an ambitious endeavour, with nothing less than the future well-being of both our societies and our planet at stake. It will inevitably require a very broad multi-sector, multi-stakeholder mobilisation and convergence, co-shaping it and driving it.

To support this, WWF International is working on refining a set of science-based targets to protect and restore nature by 2030. Initial high-level targets include:

Halt the 6th mass extinction; 50% of land and sea protected, restored, or sustainably managed by 2030; 50% of production and consumption is sustainable by 2030.

Achieving these targets will enable food and water security for 9 billion people, ensure diversity of life, and help maintain a stable climate to support all life on Earth.

The time for action is now

The science is clear: our planet is in the red. To achieve climate and sustainable development commitments, reversing the loss of nature and biodiversity is critical. The window of opportunity for an imperative course-correction is rapidly closing. And yet the undeniable truth is that we do not recognise the value of the ‘wild’ and we continue to take Nature’s services for granted.

In the past 60 years, truly a blink of an eye compared to the more than 2 million years of our species’ history, we have seen an exponential acceleration of the unsustainable and wasteful use of natural resources. Moreover, we now know that ‘business as usual’ is not an option. The cost of action is dwarfed by the cost of inaction.

In the next few years, we need to urgently transition to a net carbon-neutral society, and halt and reverse nature loss – through green finance, clean energy, and environmentally friendly food production. We must also preserve and restore enough land and ocean in a natural state.

As by far the most powerful species on Earth, we are at a crossroads: continue to develop and grow our economies at the cost of the planet, taking nature and natural resources for granted, driving ecosystems like forests, oceans, and rivers towards dangerous, irreversible tipping points and, in doing so, undermining the ecological stability of the planet and our own future; OR re-balance our relationship with the planet, co-existing in harmony with nature and the diversity of non-human life, and becoming wise, responsible stewards of the bountiful resources nature provides to us every day, for free. We have the moral duty to live in harmony with nature and the amazing diversity of life we share the planet with. Beyond that, it is clear and unmistakable that it is in our own, naked self-interest to behave in systemically more sustainable ways, before the inevitable course-correction required will be too little, too late. The price we will pay will be enormous, this we already know. Nature conservation is not only a question of morality, it is also a question of our health, wellbeing, prosperity, happiness and ultimately, survival.

To do this we need to deeply change our mind-set, the way we look at and value nature. This generation of women and men, not the next one, is the first that knows we are destroying the planet and our future, and most likely the last to be able to do something about it. A daunting challenge but also an exciting and unmissable opportunity to build a future in which people and nature thrive.

In the words of His Holiness Pope Francis “We received this world as an inheritance from past generations, but also as a loan from future generations, to whom we will have to return it” (Address of the Holy Father, San Francisco Church, Quito, Ecuador, 7 July 2015).

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END NOTES

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