



Contributions of the UN Environment Assembly to the 2019 High-level Political Forum on Sustainable Development

Summary of inputs

Ensuring the health of the environment is essential to achieving the 2030 Agenda for Sustainable Development. In particular, taking urgent action to curb global average temperature rise to well below 2°C will prove critical to sustaining climate and ecological systems that would safeguard the wellbeing of our present and future generations. Innovative solutions in the form of, for example, new technologies and effective fiscal policies are necessary to combat further environmental deterioration, decrease its risk to vulnerable populations and address pressing challenges associated with unsustainable consumption and production patterns. Governments and stakeholders need to effectively harness innovation, including in data collection and policymaking, and work toward transformative governance models supported by environmental rule of law that would ensure equity and inclusiveness, while adequately addressing emerging challenges.

(a) The identification of progress, gaps, areas requiring urgent attention, risks and challenges in achieving the SDGs; and, or in relation to the theme within the area under the purview of your intergovernmental body

Climate change has become one of the most consequential environmental problems confronting the world today, triggering unprecedented extreme weather events and ecosystem disruptions. The Secretary-General will convene a Climate Summit on 23 September 2019 to catalyse renewed political will and action to keep global average temperature rise to well below 2°C, in line with the Paris Agreement adopted in 2015. However, according to the 2018 UNEP Emissions Gap Report, global CO₂ emissions increased in 2017 after a three-year period of stabilization, and the current commitments expressed in the nationally determined contributions (NDCs) fall short of bridging the emission gap – the gap between anticipated emission levels in 2030 compared to levels consistent with a 2°C/1.5°C target. Current NDCs trajectory implies global warming of about 3°C by 2100, with warming continuing afterwards. While most G20 countries are on track to meet their emission-reduction pledges for 2020 made at the 2010 UN Climate Change Conference, the majority are not yet on a path to fulfil their NDCs for 2030. The Emissions Gap Report shows that the global level of ambition needs to be roughly three and five times greater to stay within the 2°C and 1.5°C scenario, respectively. Total annual greenhouse gases emissions, including from land-use change, reached a record high of 53.5 GtCO₂e in 2017, an increase of 0.7 GtCO₂e compared with 2016. In contrast, global GHG emissions in 2030 need to be approximately 25 percent and 55 percent lower than in

2017 to put the world on a least-cost pathway to limiting global warming to 2°C and 1.5°C respectively.

Despite the cost reduction and expanded deployment of renewables and improvements in efficiency, without further stringent measures, energy-related greenhouse gas emissions will exceed the Paris Agreement temperature targets. Global energy consumption may rise by 63 per cent over the period from 2014 to 2040, as developing economies and some developed countries that are currently fossil fuel-dependent increase their energy consumption towards the much higher per capita levels of developed economies. To bridge the 2030 emissions gap and ensure long-term decarbonization, countries must enhance their mitigation ambitions through a set of domestic policies that enable target-setting, implementation preparedness and capacity to sustain continuous reductions. The technical potential for reducing greenhouse gas emissions is significant and could be sufficient to bridge the emissions gap in 2030.

Equity and gender issues, such as universal access to improved final energy services, are still a problem that is far from being resolved. Understanding the gender-environment nexus is not only key to understanding social and environmental inequities and barriers to sustainable development, but to unlocking options for transformative action. Collection and dissemination of national level gender-environment statistics offers an opportunity to advance global understanding of gender gaps and help to tell a story of transformation—connecting the dots on how realising women’s rights and advancing gender equality open doors for more effective and equitable outcomes across the environmental and sustainable development sphere.

Finally, according to the recently launched UNEP report, of the 93 environment-related SDG indicators, there are only 20 (22%) indicators that are making progress toward achieving the SDG targets. For the other 78%, there is either insufficient data to assess progress (62%) or it is unlikely that the target will be met without scaling up action (16%). Most of the indicators for which good progress is being made relate to policy, improved reporting or increased funding efforts as opposed to a positive change in the state of the environment itself. For example, there has been an increase in: terrestrial, mountain and marine protected areas; effort to combat invasive species; use of renewable energy; sustainability reporting and mainstreaming in policy; and development assistance for climate change and the environment. Unfortunately, this is a very incomplete picture as there is too little data to formally assess the status of 62% of the environment-related SDG indicators, including on land degradation and land use (SDG targets 15.3 and 11.3; coastal eutrophication, marine litter and ocean acidification (targets 14.1 and 14.3); water quality (target 6.3) and water stress (target 6.4) and mountains (target 15.4). The indicators without available data often correspond to issues that have not received sufficient attention in terms of SDG implementation and thus additional action on these areas is particularly important.¹

¹ For more information see the UN Environment Programme publication, *Measuring Progress: Toward Achieving the environmental dimension of the SDGs* (Forthcoming, March 2019).

(b) Valuable successful experiences and lessons learned on empowering people and ensuring inclusiveness and equality

The 2016 Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer entered into force on 1 January 2019. The implementation of this amendment will, over the next 30 years, phase down by 80% the production and consumption of powerful greenhouse gases (hydrofluorocarbons or HFCs) that are commonly used as refrigerants. This is projected to help avoid up to 0.4 °C temperature increase by 2100, making a significant contribution to achieving the goals of the 2015 Paris Agreement. In addition, the 2018 Scientific Assessment of Ozone Depletion² estimates that “improvements in energy efficiency in refrigeration and air-conditioner equipment during the transition to low-GWP (global warming potentials) alternative refrigerants can potentially double the climate benefits of the HFC phase down of the Kigali Amendment.” The Kigali Amendment therefore presents an unprecedented opportunity to stem the tide of climate change if governments and stakeholders are committed to working together in implementing it.

The work and success of the Montreal Protocol are underpinned by a solid foundation of science. The ozone research managers and the assessment panels of the Protocol, which bring together experts from around the globe to review the state of the ozone layer and relevant scientific, technological, economic and environmental developments, provide the parties with important and up-to-date information upon which to base their decisions. Another key success of the Montreal Protocol to date has been its financial mechanism, which has ensured that developing countries are empowered to comply with their commitments under the Protocol to phase out controlled substances. The multilateral financial mechanism will continue to be leveraged in the implementation of the Kigali Amendment, with funding provided by developed nations.

In addition, the role of fiscal policies in supporting delivery of several SDGs, including SDG 13, is increasingly recognized. Carbon pricing initiatives, including 26 carbon taxes, are in place in 51 countries, cities, states and provinces. Over 80 countries included fiscal policies in their nationally determined contributions to the Paris Agreement. Such fiscal instruments can raise substantial public revenues, which can be channelled to meet some USD 5-7 trillion investments needed to deliver on the SDGs. According to the World Bank, in 2017 governments raised USD 33 billion from carbon pricing instruments. These revenues can be used for different purposes, for example supporting broader fiscal reform by reducing taxes on labour or capital, thus creating incentives for employment (SDG 8); supporting green investments in sustainable energy, clean technologies and adaptation capacities (SDG 13); or supporting investments in other priority areas such as health (SDG 3) and education (SDG 4). UNEP through its work on green fiscal policy and a Green Fiscal Policy Network, a partnership with the International Monetary Fund, GIZ and many others, is supporting countries' efforts to achieve SDGs through green fiscal policy reforms.

Case study

² World Meteorological Organization 2018, *Executive Summary: Scientific Assessment of Ozone Depletion*.

Indonesia has undertaken a series of reforms to phase out its fossil fuel subsidies over the past years. By 2015, the government had eliminated gasoline subsidies and further reduced the diesel subsidy. Total fuel subsidies were reduced from IDR 246 trillion (about USD 20 billion) in 2014 (13% of total state expenditure), to IDR 35 trillion in 2015 (3% of total state expenditure). These reform efforts freed up a considerable amount of resources and the fiscal savings have been reinvested in social assistance programmes. For example, the 2013 energy price increase was accompanied by a package of transfer programmes, including a subsidised rice programme, supplements for poor students, cash transfers and expanded health care insurance coverage. The compensation measures have helped to distribute the reform benefits to vulnerable populations, reduce opposition and further accelerate the reform implementation. This example illustrates the importance of developing a comprehensive fiscal strategy and a roadmap, including complementary policies and mechanisms, underpinned by effective stakeholder engagement, communications and political will.

(c) Emerging issues likely to affect inclusiveness and equality at various levels

Antibiotic resistant infections are projected to become one of the main causes of death worldwide by 2050. No affordable wastewater treatment technologies are currently available to remove antibiotic residues. Investments in new technologies could have huge benefits, including removal at source. However, conscious efforts should be made to ensure that these technologies are accessible to poor communities, who would otherwise bear the brunt of antibiotic resistant infections and associated mortalities. It is important to note that some poor communities lack access to even the most basic sanitation services and therefore should be at the center of consideration when the international community devises action plans to address antibiotic resistant infections through wastewater treatment.

Further, the polar surface temperature is increasing at twice the rate of the mean global temperature rise. This amplified warming has cascading effects on other components of the polar climate system, with sea ice in the Arctic retreating, permafrost thawing, snow cover extent decreasing, and ice sheets decaying; and ice sheets, ice shelves and mountain glaciers continuing to lose mass. These effects in turn have global repercussions, such as accelerated global sea level rises and disturbance of climate and weather patterns. Due to these and other effects of multiple and interacting drivers, the number of people affected by both slow and sudden-onset environmental disasters is increasing.

Another emerging issue that merits attention is maladaptation to climate change, which the Intergovernmental Panel on Climate Change defines as an intended adaptation that instead increases risk of climate-related damages, increases vulnerability to climate change, or diminishes welfare, now or in the future.³ A significant example of maladaptation is hydraulic fracturing or fracking, which deliberately forces fissures and cracks in deep earth reservoirs to release natural gas.

³ UN Environment Programme 2019, *Frontiers: emerging issues of environmental concern*.

While natural gas is considered a fuel bridging coal and oil to renewables, its extraction gives rise to a number of environmental challenges, including aquifer depletion and contamination from chemicals used in drilling and injection, and leakage of methane into the environment. Evidence indicates that maladaptation can be avoided by evaluating all costs and benefits, including co-benefits, for all groups in society, including future generations, and by being explicit about who the winners and losers will be, and how the burdens could be better shared.

(d) An assessment of the situation regarding the principle of “ensuring that no one is left behind” at the global, regional and national levels

The overall condition of the global environment has continued to deteriorate despite environmental policy efforts across all countries and regions. Environmental policy efforts are being overwhelmed by a variety of factors, in particular unsustainable consumption patterns, endangering the ecological foundations of society.⁴ In fact, consumption rates and linear activities (extract-make-use-dispose) have increased resource exploitation beyond the recovery ability of ecological systems, with harmful consequences at all levels from the local to the global. Natural resources, including freshwater, are over-exploited and polluted. Air pollution is leading to between 6 to 7 million premature deaths and estimated welfare losses of US\$ 5 trillion annually. Ocean warming and the increasing exploitation of oceans, coasts and basins (for food production, transportation, resource extraction, etc.) are destroying coral reefs, reducing fish stocks and gravely disturbing marine and coastal ecosystem food chains. Biodiversity loss from exploitation, climate change, habitat transformation, invasive species and pollution are increasing the risks of a sixth mass extinction. Between 1970 and 2014, global vertebrate species population abundances declined by 60 per cent; and 10 out of every 14 terrestrial habitats have seen a decrease in vegetation productivity.

The food system, in response to growing and changing consumer demand, is increasing pressure on local ecologies and the global climate. Agricultural production is the largest consumer of water; a major driver of biodiversity loss and of air, freshwater and ocean pollution. It is also a leading source of soil degradation and greenhouse gas emissions. Changing consumption patterns are both increasing these pressures and presenting new food security challenges, resulting in malnourishment, including overnourishment, as well as undernourishment.

With many ecosystems already degraded and their resilience to adapt to climate change lowered, the world faces increasing risks of irreversible impacts. Society-wide risks are generally more profound and existential for disadvantaged people, particularly for women and children in developing countries. Globally, 70 per cent of people living in poverty depend on natural resources; and 2 out of every 5 people lack access to controlled waste disposal facilities – these are the people that would be most “left behind” in the face of environmental and associated health risks. Measures for more effective adaptation are

⁴ UN Environment Programme 2019, *Sixth Global Environment Outlook (embargoed copy)*.

now urgently required, especially in the most fragile regions and among the most vulnerable populations.

(e) Areas where political guidance by the high-level political forum is required

Unsustainable consumption and production patterns especially in developed countries are deteriorating the environment and hampering progress toward sustainable development across the world. Unsustainable consumption and production are largely fueled by heightened inequality. Both within and between countries, inequality remains one of the largest obstacles to environmental sustainability. Innovative solutions are necessary to change these patterns and achieve a circular economy—through reusing, remanufacturing and refurbishing products. The HLPF can provide political guidance in catalysing innovation while scaling up proven solutions to promote sustainable consumption and production patterns, as part of ensuring delivery on the environmental dimension of the 2030 Agenda. Food, energy, transport and chemicals are primary examples of systems of production and consumption needing most innovation. While technological innovations are part of the solution, they can also create new risks. Precautionary approaches can reduce these risks, including those of irreversible impacts, and HLPF can provide guidance on applying these precautionary approaches more robustly at the national and local levels.

Environmental policies can have positive impact on employment, particularly in the context of economic activities integrating the environmental dimension; these include renewable energy, construction, transport, agriculture, forestry and recycling and waste management.⁵ Renewable energy is a critical source of employment growth; in 2016, it was estimated that this sector was responsible for 8.1 million jobs globally, and projections indicate that this figure may reach up to 20 million jobs by 2030. Other sectors, such as agriculture, buildings, forestry and transport are predicted to see job growth in the short, medium and long term exceeding their comparable business-as-usual scenarios, as a result of transition to a more resource-efficient and low-carbon economy. In this context, member States and stakeholders would benefit from HLPF guidance on how to leverage environmental policies to create more jobs, especially as part of addressing youth unemployment and contributing to SDG 8 on decent work and economic growth.

In addition, the HLPF may wish to shed light on new models of sustainability governance that balance economic, environmental and social considerations, taking into account equity and gender dimensions. Existing policies have proven insufficient to address the backlog of environmental problems. Although it is essential to continuously advance environmental policies, transformative change, in the sense of reconfiguration of basic social systems and structures, including their institutional framework, social practices, cultural norms and values, is necessary. Transformative change enables and combines visionary, strategic and integrated policymaking with the enabling of bottom-up social, technological and institutional innovation and the

⁵ UN Environment Programme 2019, *Sixth Global Environment Outlook (embargoed copy)*.

systematic use of experience drawn from such experimentation. These new governance models should ensure adequate investments in knowledge, and act on early signals from science and society to avoid unnecessary harm and costs. One example of transformative change at the global level could be to invest 2 per cent of global GDP in maintaining and restoring natural capital, which could deliver the same economic growth outcome as a similar investment along current lines.⁶

(f) Policy recommendations on ways to accelerate progress in empowering people, ensuring inclusiveness and equality, and achieving SDGs

No one of the expected 10 billion people in 2050 should be left behind – all should live healthy, fulfilling lives within ecological limits. The social and economic costs of inaction often exceed the costs of action and are inequitably distributed and often borne by the weakest in society. Coordinated and ambitious policy, coupled with social and technological innovation, can enable the achievement of the SDGs, related multilateral environmental agreements and other internationally agreed environmental goals.

Transformative pathways to sustainable development require the following:

- vision and effective governance models to guide systemic innovation towards sustainability
- social and technological innovation
- phasing-out of unsustainable practices
- policy experimentation
- engaging and enabling diverse actors, especially local and indigenous people
- education for sustainable development, in which UNEP is taking the lead, including through the Global Universities Partnership on Environment for Sustainability with over 800 partner universities worldwide and InforMEA (<https://www.informe.org>), which brings together 43 international and regional legally binding instruments on the environment to provide pertinent information and e-learning opportunities.

There is also a need to strengthen ecosystem-based approaches to climate change adaptation. Healthy, well-functioning ecosystems enhance our resilience to the adverse impacts of climate change. Coastal habitats provide natural flood defenses, well-protected lakes retain water sources during droughts, and healthy forests reduce the risk of devastating wildfires. Ecosystem-based adaptation is an approach that uses these biodiversity and ecosystem services as part of a holistic adaptation strategy. Often through win-win outcomes, ecosystem-based adaptation protects communities from the effects of climate change while simultaneously providing a variety of ecological benefits so crucial for human well-being, such as clean water and food.

There is a growing recognition of the link between human rights and the environment, as reflected in over 150 national constitutions that now enshrine substantive and/or procedural rights and protections relating to the environment. The right to a healthy environment is also found in several regional treaties, including in the African Charter on Human and

⁶ UN Environment Programme 2019, *Sixth Global Environment Outlook (embargoed copy)*.

Peoples' Rights, the UN Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the Aarhus Convention), and most recently the Regional Agreement on Access to Information, Participation and Justice in Environmental Matters in Latin America and the Caribbean (the Escazú Convention). National and regional courts have also provided for judicial recognition of these rights, and the Human Rights Council and UN General Assembly have adopted resolutions respectively recognizing human rights in relation to action on climate change, water and others.

Finally, environmental rule of law is fundamental to achieving the SDGs, and it lies at the heart of SDG 16, which commits to advancing rule of law at the national and international levels in order to “[p]romote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.” Environmental laws have grown dramatically over the last three decades, as countries have come to understand the vital linkages between environment, economic growth, public health, social cohesion, and security. As of 2017, 176 countries have environmental framework laws; 150 countries have enshrined environmental protection or the right to a healthy environment in their constitutions; and 164 countries have created cabinet-level bodies responsible for environmental protection. A key challenge, however, is that implementation and enforcement of environmental laws and regulations falls far short of what is required to address environmental challenges. For example, illegal trade in wildlife, fisheries and forest products continues to be extensive with estimates of their combined value between USD 90-270 billion per year, and links to transnational organized crime. Urgent attention is needed to promote more effective environmental rule of law to address such threats to sustainable development.
