GEO-6 Key Messages

Healthy planet, healthy people: Time to act!

- UN Environment's sixth Global Environment Outlook (GEO-6) is the most comprehensive report on the global environment since 2012. It shows that the overall environmental situation is deteriorating globally and the window for action is closing.

- GEO-6 shows that a healthy environment is a prerequisite and foundation for economic prosperity, human health and well-being. It addresses the main challenge of the 2030 Agenda for Sustainable Development, that no one should be left behind, and that all should live healthy, fulfilling lives for the full benefit of all, for present and future generations.

- Unsustainable production and consumption patterns and trends as well as inequality, combined with population growth-driven increase in resource use, put at risk the healthy planet needed to attain sustainable development. These trends are deteriorating planetary health at unprecedented rates with increasingly serious consequences especially for poorer people and regions.

- Furthermore, the world is not on track to achieve the environmental dimension of the Sustainable Development Goals, and other internationally agreed environmental goals, by 2030 and is not on track to deliver long-term sustainability by 2050. Urgent action and strengthened international cooperation are now needed to reverse those negative trends and restore the planet and human health

- Past and present greenhouse gas emissions have already committed the world to an extended period of climate change with multiple and increasing environmental and society-wide risks.

- Air pollution, currently the cause of 6 to 7 million premature deaths per year, is projected to continue to have significant negative effects on health, and still cause between 4.5 million and 7 million premature deaths annually by mid-century.

- Biodiversity loss from land-use change, and habitat fragmentation, overexploitation and illegal wildlife trade, invasive species, pollution and climate change is driving a mass extinction of species, including critical ecosystem service providers such as pollinators. This mass extinction compromises Earth's ecological integrity and capacity to meet human needs.

- Marine plastic litter, including microplastics, occurs in all levels of the marine ecosystem and also shows up in fisheries and shellfish at alarming levels and frequency. The adverse impact of marine microplastic on the marine system is unknown with potential health impacts through the consumption of fish and marine products. More research on the magnitude of the problem is still needed.

- Land degradation is an increasing threat for human well-being and ecosystems, especially for those in rural areas who are most dependent on land productivity. Land degradation hotspots cover approximately 29 per cent of global land, where 3.2 billion people reside.

- Natural resources, including freshwater and oceans, are too often over-exploited, poorly managed and polluted. Approximately 1.4 million people die annually from preventable diseases, such as diarrhoea and intestinal parasites, that are associated with pathogen-polluted drinking water and inadequate sanitation

- Antibiotic-resistant infections are projected to become a main cause of death worldwide by 2050. Affordable, widely available wastewater treatment technologies, to remove antibiotic residues could have huge benefits for all countries. Even greater efforts should be made to control mismanagement of antibacterial drugs at source, in human and agricultural use.

- The harmful impacts of inappropriate use of pesticides, heavy metals, plastics and other substances are of significant concern as such compounds appear in alarmingly high levels in our food supply. They primarily affect vulnerable members of society, such as infants exposed to elevated levels of chemicals. The impacts of neurotoxins and endocrine-disrupting chemicals are potentially multi-generational.

Transformative change: a call for systemic and integrated policy action

- The social and economic costs of inaction often exceed the costs of action and are inequitably distributed, often being borne by the poorest and most vulnerable in society, including indigenous and local communities, particularly in developing countries.

- Current environmental policy alone is not enough to address these challenges. Urgent cross-sectoral policy actions, through a whole-of-society approach, are needed to address the challenges of sustainable development.

- Achieving internationally agreed environmental goals on pollution control, clean-up and efficiency improvements is crucial, yet insufficient to achieve the Sustainable Development Goals. Transformative change is needed to enable and combine long-term strategic and integrated policymaking while building bottom-up social, cultural, institutional and technological innovation.

- Some of the key features of effective environmental policies for sustainable development are integrated objectives, science-based targets, economic instruments, regulations and robust international cooperation.

- Transformative change that achieves the Sustainable Development Goals and other internationally agreed targets includes a tripling of today's decarbonization rate as we head towards 2050, a 50 per cent increase in food production and the adoption of healthy and sustainable diets across all regions.

- The transformative changes needed to achieve sustainable development will be most successful when they are just, respect gender equality, recognize different impacts for men, women, children and the elderly and take into account inherent societal risks.

- The health co-benefits of reducing greenhouse gas emissions and air pollutants, including short-lived climate pollutants, together can outweigh the costs of mitigation, while achieving climate and air quality targets, increasing agricultural production and reducing biodiversity loss. Access to safe drinking water and sanitation can also provide environmental and health co-benefits.

- Sustainable outcomes can best be achieved by combining objectives for resource use efficiency, with ecosystem-based management and better human health, drawing on scientific, indigenous and local knowledge.

Governance of innovations: innovations in governance

- Food, energy and transport systems as well as urban planning and chemical production, are primary examples of systems of production and consumption needing innovative, effective and integrated policies.

- Innovations are part of the solution but can also create new risks and have negative environmental impacts. Precautionary approaches can reduce threats of serious or irreversible damage where relevant scientific evidence is insufficient to inform decision making.

- Innovation in and deployment of technologies to reduce greenhouse gas emissions and increase resource efficiency can strengthen the economic performance of countries, municipalities, enterprises and other stakeholders.

- Agreement on desired pathways for transformative change under conditions of uncertainty can be fostered by coalitions between governments, businesses, researchers and civil society.

- Sustainable development will be more likely to be achieved through new modes of governance and adaptive management that give greater priority to the environmental dimension of the Sustainable Development Goals, while promoting gender equality and education for sustainable production and consumption.

Harvest time: knowledge for sustainability

- These new sustainability governance models should also ensure adequate investments in knowledge systems such as data, indicators, assessments, policy evaluation and sharing platforms, and act on internationally agreed early signals from science and society to avoid

unnecessary harm and costs.

- Data from satellites, combined with monitoring on the ground, can enable quicker actions across the world, for example in response to extreme weather events. Widening possible access to data, information and knowledge and improving the infrastructure and capacities to harness that knowledge, will enable this data to be put to most effective use.

- More investment in indicators that integrate different data sources and delineate clearly gender and inequality aspects, will enable better designed policy interventions and their evaluation.

- Further developments are needed in environmental and natural resource accounting to ensure that environmental costs are internalised into economic decision making for sustainability.

- Harnessing the ongoing data and knowledge revolution, as well as ensuring the authenticity and validity of these data to support sustainable development, combined with international cooperation, could transform capacities to address challenges and accelerate progress towards sustainable development.

- Most important is the need to take bold, urgent, sustained, inclusive and transformative action that integrates environmental, economic and social activity to put society on pathways to achieve the Sustainable Development Goals, multilateral environmental agreements, internationally agreed environmental goals and other science-based targets.