

## Interactive Dialogue 4

### Protecting our Planet and Combatting Climate Change

#### I. INTRODUCTION

Humanity's central challenge for the 21st century is to develop economic, social and governance systems capable of ending hunger and poverty, achieving sustainable levels of production and consumption while living in harmony with our natural environment. In this regard, the new 2030 Agenda recognizes that climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve sustainable development.<sup>1</sup> The environment is one of the primary determinants of individual and community health, and exposure to physical, chemical and biological risk factors in the environment can harm human health in various ways. Compounded by climate change, the pressures on terrestrial and marine ecosystems and resources are major threats to the Earth's biological life support systems, human well-being and human development. In addition, disasters pose a significant challenge for sustainable development. The annual losses from natural disasters now average US\$250 billion to US\$300 billion. Mortality and economic loss associated with extensive risks in low and middle-income countries are rising, driven by increasing exposure to hazards, high levels of inequality, rapid urban development and environmental degradation. Sustainable and equitable management of natural resources is indispensable.

Action is needed to ensure that development benefits the world's poorest and most vulnerable, as well as to put countries on a road to a resilient and sustainable development path towards a low carbon future. Millions of people are already being impacted by environmental degradation and climate change, including biodiversity and ecosystem loss, rising sea levels in small island developing States (SIDS) and low-lying coastal areas, ocean acidification, and agricultural stagnation. These impacts are particularly acute for women, indigenous peoples, youth, the elderly and ill, those beyond the reach of safety nets, and the economically marginalized. Controlling greenhouse gases (GHG) emissions and increasing human, environmental and ecosystem resilience are fundamental for future growth and for delivering on the sustainable development goals (SDGs). Sound adaptation policies and programmes, ecosystem management and restoration, disaster risk reduction, and ensuring carbon neutrality in the second half of the century are essential elements of sustainable economic growth and poverty eradication. Nature-based solutions can contribute to addressing rising inequality and offer means for social protection and empowerment of all. The SDGs present opportunities to integrate food security, climate and environmental challenges into development processes and economic decision-making.

#### II. STOCKTAKING

Economic development and degradation of the planet. In the last quarter of a century the global economy has doubled. The past 50 years have seen 60 percent of the Earth's ecosystem services being degraded. Natural resource consumption is expected to rise to 170% of the Earth's bio-capacity by 2040. Meanwhile, since 2000 the global economy has lost well over \$1 trillion to disasters, due in part to insufficient regard to risks and in part to climate-related extreme events. Global carbon emissions have risen by 40 percent since 1990. Significant scarcity in key resources is an impending threat: for instance, one fifth of the world's population lives under water scarcity and with business as usual scenarios half the world's population could be living in areas of high water stress by 2030. The accelerating effects of human activity are now clearly discernible.

Effects on the Earth's environment and direct impacts on human well-being. Through changing temperatures, precipitation patterns and rising sea levels, global climate change is already modifying hazard levels and exacerbating disaster risks. In addition, a number of Earth's natural response mechanisms to increased levels of carbon dioxide in the atmosphere (e.g. forests, carbon sinks and oceanic algal blooms) are being weakened or prevented from functioning effectively. The health impacts from environmental pollution and ecosystem degradation are borne, to the largest extent, by disadvantaged and vulnerable populations, including children and the poor; meanwhile, the reduction of key environmental risks could help to prevent up to a quarter of the total burden of diseases, including a large proportion of childhood deaths<sup>2</sup>. The global decline of biodiversity continues, as actions have not been taken on a sufficient scale and the underlying drivers of loss have not been addressed significantly.<sup>3</sup>

The challenges of increased urbanization. Urbanized areas host more than half of the world's 6.7 billion people and account for 70% of the world's GDP. In just 40 years cities will need to build the infrastructure for an additional 2.7 billion people. Cities can offer relatively lower per capita rates of resource use and emissions than their surroundings if they have sufficient planning, regulations and financing to achieve efficient land use. As urbanization increases<sup>4</sup>, it is essential to prioritise sustainable consumption and production as this agenda can be transformative.<sup>5</sup> Energy-efficient technologies, including smart power supply, smart grids, smart water management and passive buildings can help realize carbon savings and more carbon neutral cities. Many cities are growing faster than they can be planned and are exceeding the carrying and regenerative capacities of the ecosystems of which they are a part. As a result, increasing urban sprawl is exacerbating landscape fragmentation and degrading ecosystem functionality. Cities can also be especially vulnerable to manmade or natural disasters. Furthermore the growing burden to

produce energy and food for expanding populations puts an increased strain on freshwater and land resources, leading to further degradation of the environment.

### III. PROPOSALS FOR ADDRESSING ISSUES IN NEW AGENDA

The integration of the three dimensions of sustainable development requires equitable access to resources and ecosystem services, capacity development, empowerment and inclusion, managing the interdependence of ecosystem health and human well-being, advancing the fundamental interdisciplinary scientific understanding of the environment, and applying this scientific understanding in decisions to enhance, restore, and maintain natural, social and human capital. Integration can be facilitated through ecosystem approaches to integrated management of activities related to natural resources, adequate financial resources, education and awareness raising, and promoting partnerships with all stakeholders at all levels for the conservation and sustainable use of biodiversity, oceans, seas and ecosystem services.

Limiting the rise of global mean temperature to 2 degrees Celsius below pre-industrial levels. Achieving carbon neutrality in the second half of the century will be critical to achieving this global objective. To do so, actions over the next fifteen years will be crucial. Putting economies on a path towards carbon neutrality will contribute to progress towards sustainable development as per the new 2030 Agenda. Progress towards many SDGs will be affected, overwhelmingly negatively, by climate change (for example food security, water scarcity and water related disasters, poverty and livelihoods, health, and the well-being of ocean and terrestrial ecosystems), and significant progress on many SDGs can contribute to tackling climate change (including sustainable energy, infrastructure and industrialization, sustainable consumption and production, sustainable agriculture and sustainable cities). Priority should be given to coherence, co-benefits and complementarity among a climate change agreement under the United Nations Framework Convention on Climate Change (UNFCCC), the Sendai Framework for Action on Disaster Risk Reduction Risk Reduction and the SDGs.

Recognition of the potential of cities to become the agents of change. Planning that reinforces sustainable consumption and resource use patterns and mainstreams disaster risk reduction is especially important in modern urban and built environments<sup>6</sup>. With urban centres emerging as the catalysts for growth, it will be critical to adopt a risk-informed and integrated planning approach for longer-term sustainability of urban development, as well as measures to promote economic dynamism and achieve equitable and inclusive social development.

Ensuring adequate and sustainable water<sup>7</sup> and energy for food security and nutrition for a growing world population. There is a need to increase the energy and water efficiency of the agriculture and rural sectors. Increased energy efficiency results in lower costs and higher resilience of energy users, while having the added benefit of reducing greenhouse gas emissions. Improved agricultural water use efficiency is imperative especially with worsening water stress in many countries and regions. Achieving the transformation to energy- and water-smart food systems will require better policy coordination, appropriate legal frameworks, effective multi-stakeholder dialogue, as well as a global partnership to support action.

Enhancing corporate responsibility towards achieving sustainable development. The integration of environmental costs and benefits into corporate decision-making has an enormous, but as yet unfulfilled, potential to promote sustainable development. After all, 70-85 percent of all global investments are made by the private sector. There is a need to move towards more sustainable patterns of consumption and production, in line with the 10-Year Framework of Programmes on Sustainable Consumption and Production. There is recognition of the need to promote more sustainable lifestyles. To help steer business decisions toward better environmental outcomes, corporate reporting frameworks need to develop scientifically informed standards that consistently consider all externalities.

Strengthening institutional and legal frameworks, enforcing existing environmental legislation and promoting policy coherence at the national level are essential for addressing environmental challenges and need to be part of the implementation machinery for the 2030 Agenda for sustainable development.

#### Questions for discussion:

- Protection of our planet requires action in a wide range of areas, including promoting resilience and disaster risk reduction, sustainable consumption and production, ensuring the conservation and sustainable use of oceans, seas, freshwater, biodiversity and ecosystems; addressing land and aquatic ecosystem degradation and desertification and supporting sustainable cities and human settlements. What actions should be taken and what resources will be required at the national level to achieve the SDG targets in these areas?
- How can we ensure that all actions motivated by the SDGs contribute to realizing the long term goal of keeping the rise in global temperature below 2 degrees Celsius, which requires the world economy to become carbon neutral in the second half of the century?

- How do we ensure that the SDGs can help build resilience for those in vulnerable situations such as women and youth? How can we ensure strong positive linkages between climate change actions and actions directed towards achieving other SDGs (for example health, education, food security and energy)?
- What business models, financial instruments or incentives have been effectively used to engage the private sector and communities in reversing ecosystem degradation, while delivering economic growth and community resilience? How can these be scaled up?

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<sup>1</sup> Transforming Our World: The 2030 Agenda for Sustainable Development, para 14.

<sup>2</sup> Over three billion people depend on marine and coastal resources for their livelihoods. Oceans are crucial for global food security and human health. Nearly 800 million people still lack access to safe drinking water and around 2.4 billion lack access to safe sanitation. The global welfare loss of ecosystem services from land-based ecosystems alone is estimated to be around €50 billion per year (try to change everything to one currency). Resilience is weakened by insufficiently investing in the management of disaster risk is having devastating consequences on lives, livelihoods and economies, triggering a downward spiral of cascading effects. Land degradation puts the livelihoods of billions at risk. The annual average loss to disasters that the world should prepare for is US\$314 billion every year. Several sources estimate that exposures to polluted soil, water and air resulted in an estimated 8.9 million deaths worldwide in 2012—8.4 million of those deaths occurred in low- and middle-income countries (LMICs).

<sup>3</sup> 2014 Global Biodiversity Outlook.

<sup>4</sup> Global population is now half urban and is expected to be nearly 70 percent urban by 2050 (see graphic).

<sup>5</sup> The Sendai Framework for Disaster Risk Reduction 2015-2030 will contribute to preventing new and reducing existing disaster risk, increasing preparedness for response and recovery, and thus strengthening resilience.

<sup>6</sup> The Sendai Framework for Disaster Risk Reduction 2015-2030 will contribute to preventing new and reducing existing disaster risk, increasing preparedness for response and recovery and thus strengthening resilience.

<sup>7</sup> In accordance with the recent report of the High Level Panel of Experts on Food Security and Nutrition ( <http://www.fao.org/cfs/cfs-hlpe/news-archive/detail/en/c/287590/>)