MESSAGE OF THE EXECUTIVE SECRETARY OF THE

CONVENTION ON BIOLOGICAL DIVERSITY

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on the occasion of

WORLD WATER DAY

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"Why waste water?"

This year's World Water Day theme, "Why waste water?", highlights the importance of reducing and reusing wastewater. Wastewater is an undervalued, affordable and sustainable source of water, energy, nutrients and other recoverable materials. In an increasingly water-insecure world, demand for water often outstrips supply and water quality often fails to meet minimum requirements. Hence, achieving sustainable solutions for wastewater recycling and reuse is critical for our future.

Under current trends, future demands on water to feed growing human populations, increasing consumption of water for intensive production of goods and to support growing economies will not be met. The issues of wastewater management and water quality have cross-linkages with a range of other water and non-water issues, not least in respect of the water, energy and food nexus. Wastewater management plays an essential role in achieving water security in a world where water stress will increase.

Despite this, over 80 per cent of the wastewater used in our homes, cities, industry and agriculture flows back to nature without being treated or reused. In addition, unsustainable management practices in agriculture and the degradation of agricultural soils result in huge amounts of excess nutrients, chiefly nitrate and phosphorus, that degrade soils even further and leach into surface and groundwater causing significant harm to both humans and ecosystems.

Due to population growth, accelerated urbanization and economic development, the quantity of wastewater generated and its overall pollution load are increasing worldwide. By 2050, close to 70 per cent of the world's population will live in cities, compared to 50 per cent today. Moreover, by 2030 global demand for water is expected to grow by 50 per cent. Most of this demand will be in cities and will require new approaches to wastewater collection and management. Indeed, reused wastewater may help address other challenges, including food production and industrial development. Currently, most cities in developing countries do not have adequate infrastructure and resources to address wastewater management in an efficient and sustainable way.

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Wastewater is also a biodiversity issue. Dumping wasterwater into ecosystems without treatment is a serious source of pollution that is harmful to biodiversity in terrestrial, freshwater, coastal and marine ecosystems. At the same time, ecosystem services offer nature-based solutions that use biodiversity to manage wastewater.

The United Nations World Water Development Report 2017. Wastewater: The Untapped Resource launched today[1]notes the significant solutions that ecosystems offer. Natural ecosystems are known as the kidney of the environment, removing pollutants, regulating water flow and storing sediment. Ecosystems can provide very effective and low cost wastewater treatment but all too often they become overloaded with pollutants and their carrying capacity is surpassed. The deliberate deployment of artificial or managed ecosystems, through for example "green infrastructure", uses ecosystem services to perform the same functions as built infrastructure.

For example, riparian buffers are vegetated areas next to water courses and are widely used to protect water quality by removing sediments and pollutants running off land, also providing bank stabilization and wildlife habitat. The restoration of cropland soils enables their ecosystem services to be reinstated. These services reduce soil erosion and improve nutrient and water cycling, resulting in improved fertilizer use efficiency, supporting improved farm productivity, whilst simultaneously reducing the off-farm impacts of farming, thereby significantly improving the sustainability of agriculture.

Societal and environmental pressures over recent years have led to a growing movement for industry, urban settlements and agriculture to reduce wastewater and to treat it before discharge. Ecosystem services, underpinned by biodiversity, offer us a significant means to achieve this.

The good news is that this has been formally recognized by the international community. Reducing and reusing wastewater, and associated nutrients and pollution, is highly relevant to several of the Aichi Biodiversity Targets[2], a set of 20 timebound measureable targets agreed by Parties to the Convention on Biological Diversity in 2010, as well as the Sustainable Development Goals. These, and other commitments clearly signal the increasing recognition of the role of ecosystems and biodiversity as sustainable development solutions.

The opportunities from exploiting wastewater as a resource, and using ecosystems to deal with it sustainably and cost-effectively, are enormous. Through the safe management of wastewater we realize the benefits of an affordable and sustainable source of water, energy, nutrients and other recoverable materials and can reap benefits from biodiversity as well. This in turn contributes to water, food and environment security, helps provide new business opportunities and more 'green' jobs, and helps ensure a brighter and more sustainable future for all.

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[1] www.unwater.org/publications/publications-detail/en/c/853650/

[2] www.cbd.int/sp/targets/