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UN Environment's Freshwater Strategy 2017–2021: Tackling Global Water Quality Challenges

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When healthy and functional, freshwater ecosystems provide key ecosystem services that include water storage and purification, climate and water regulation, natural hazard regulation and a variety of other provisioning, regulating, cultural and supporting services. Freshwater bodies provide critical life support not only for humans and all human activity – essential for daily drinking and food production needs but also for energy and industrial processes. Freshwater ecosystems also provide habitats for 10% of all living species – 80% of which have disappeared since 1970, thus making them one of the most critically endangered forms of ecosystems on Earth.

Poor land and water management, degradation of water-related ecosystems, and the loss of their critical services, is a growing concern worldwide with an important role to be played by the UN Environment, embedded in the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) and forming the core of UN Environment's Global Strategy for Freshwater 2017–2021. The mandate and urgency for UN Environment to take a lead in specific areas relating to freshwater ecosystems including water quality, water ecosystem protection and restoration, and water resources management, was explicitly reinforced at the 3rd UN Environment Assembly in December 2017 in a comprehensive resolution towards the protection and restoration of water-related ecosystems from pollution and other threats.

It is estimated that the world has already lost at least 60% of its natural water bodies since wide-scale development began in 1900, and that one-third to one-seventh of rivers in developing countries face severe pathogenic and organic pollution, including from a lack of safely managed wastewater and from run-off from land-based activities. Growing water stress in many parts of the world, as well as drought and desertification, is a further serious concern which the World Economic Forum among has identified as one of the most serious threats facing our current and future societies and businesses. Robust and abundant evidence also exists that freshwater resources are particularly vulnerable and have the potential to be strongly impacted by climate change, with wide-ranging consequences for human societies and ecosystems. More erratic precipitation and climatic patterns, including both drought and flood, are expected to be the result. The integrated management of water resources to ensure the sustainability of freshwater ecosystems and their services is therefore of utmost importance given future trends of population growth, development, and climate change.

The core of UN Environment's Freshwater Strategy 2017-2021: tackling global water quality challenges (corresponding to SDG indicator 6.3.2), protecting and restoring freshwater ecosystems (SDG 6.6.1), advancing integrated water resources management (IWRM) approaches (SDG 6.5.1), and addressing water-related conflict and disasters in support of peaceful and resilient societies (SDGs 11, 13 and 16). The strategy provides actionable guidance to support countries' implementation of sustainable freshwater management practices globally. Achievement of these targets is essential for implementing the entirety of SDG 6 dedicated to water and sanitation, in addition to other SDGs closely linked to freshwater such as those on water-related disasters and climate change, food and energy security and terrestrial and marine ecosystems, and peaceful and inclusive societies, among many others.

Along these lines, UN Environment provides global leadership in four strategic areas:

- Meeting the global water quality challenge (SDG target 6.3): The importance of reversing water quality degradation in the world's freshwater systems is recognized by governments, businesses and communities and steps are taken to improve ambient freshwater quality and reduce the impact of discharge of untreated wastewater into water bodies;
- Protecting and restoring freshwater ecosystems (SDG target 6.6): Services provided by ecosystems are recognized and valued as part of sustainable development and the benefits are shared equitably;
- Advancing the Integrated Water Resources Management approach (SDG target 6.5): Integrated Water Resources Management (IWRM) underpins the coordinated development and management of water, land and related resources to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems1; and
- Promoting resilience and addressing the environmental aspects of water-related disasters and conflict (SDG targets 11.5 and 16.1): The capability to mitigate and adapt to current and future water-related hazards and risks facing ecosystem functions and human communities is strengthened and embedded into existing environmental planning and management systems.

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