



WWDR4 – Regional Press Release – ASIA AND THE PACIFIC

Water resources in the Asia-Pacific region are increasingly threatened by pollution and vulnerable to natural disasters.

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Population size, rapid urbanization, industrialization and economic development are placing increasing pressure on freshwater resources in the Asia-Pacific region. The United Nations warns that pollution from industries, agriculture and households jeopardize future water availability in the world's most populous region, which is also increasingly threatened by natural disasters.

According to the latest edition of the United Nations World Water Development Report (WWDR4), released today at the 6th World Water Forum in Marseille, trends that the Asia and Pacific region is experiencing in terms of rapid urbanization, economic growth, industrialization and extensive agricultural development are accompanied by the intensive use of water resources, creating pressure on aquatic ecosystems and affecting the region's capacity to meet its water needs.

"The ecological carrying capacity of the region is increasingly affected by the deteriorating water quality of water bodies" says the Report. "Of all wastewater generated in the region, only 15–20% receives some level of treatment before discharged into water resources; the remainder is discharged with its full load of pollution and toxic compounds."

Domestic sewerage is of concern, as it affects ecosystems close to densely populated areas. According to the Report, "the total volume of wastewater produced in urban areas is estimated at 150–250 million m³ per day. This wastewater is either discharged directly into open water bodies or leaches into the subsoil. In addition, most industries in the region continue to generate water pollution, as enforcement of relevant regulations lags behind."

Even relatively water-rich countries of the region, such as Malaysia, Indonesia, Bhutan and Papua New Guinea, now face water supply and quality constraints in their major cities because of population growth, growing water consumption, environmental degradation, damaging agricultural activities, poor management of water catchment areas, industrialization, and groundwater overuse.

However, the Asia-Pacific region is attempting to reverse unsustainable consumption and production patterns by embarking on a greener development path. Water infrastructure in the Asia-Pacific region is shifting from predominantly short-term benefit planning and development, to a more strategic and long-term benefit planning concept that also addresses ecological efficiency in economic growth.

United Nations World Water Assessment Programme



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“Possible eco-efficient infrastructure solutions include urban river rehabilitation, modular water treatment design, integrated storm-water management, decentralized wastewater treatment, and water re-use and recycling.” Another approach focuses on rural areas, where the distance from urban centres makes traditional infrastructure expensive and inefficient. “Modern irrigation systems, decentralized drinking water and sanitation services, water reuse and re-cycling, and rainwater harvesting are some promising solutions in the rural context.” “A third approach relates to the urgent need to clean the region’s waterways through a ‘wastewater revolution’. Treating wastewater for re-use is an essential consideration.” Centralized wastewater treatment typically requires a large area, substantial funding and technical knowledge for sustained operation and maintenance. In some places, current technology for small, compact wastewater treatment plants has improved, offering advantages over larger, centralized systems.

Natural disasters

Asia and the Pacific are the regions in the world that are most vulnerable to natural disasters, which undermine economic development to varying degrees. Much economic and population growth is generated in coastal and flood-prone areas and the Pacific’s small island states are particularly vulnerable to environmental natural hazards such as tropical cyclones, typhoons and earthquakes, and would be highly exposed to rises in sea levels resulting from global warming. One major tsunami or tropical cyclone can cancel out years of development effort.

“Increased climate variability and extreme weather conditions are expected to severely affect the region, with floods and droughts predicted to increase in both magnitude and frequency. Excluding those affected by tsunamis, an annual average of 20,451 people were killed by water-related disasters in the region between 2000 and 2009”, representing over 85% of the worldwide average.

Extreme weather conditions also jeopardize gains in access to water and sanitation. Droughts reduce drinking water availability and floods and storms can damage basic water infrastructure and spread disease.

While there is currently no evidence that climate change is directly responsible for increased losses associated with water-related hazards, given the increasing exposure and extremes, many countries are looking to reduce their risk to disasters as part of climate change adaptation.

Furthermore, the increasing economic cost and toll of disasters should be a significant incentive for governments and humanitarian organizations to focus more attention on preparedness, prevention and addressing the root causes of vulnerability.

Government expenditures on prevention measures have been found to be generally lower than relief spending, which rises after a disaster and remains high for several subsequent years. “But effective prevention depends not just on the amount, but on what funds are spent on. For example, Bangladesh reduced

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deaths from cyclones by spending modest sums on shelters, developing accurate weather forecasts, issuing warnings that people heeded, and arranging for their evacuation. All this cost less than building large-scale embankments that would have been less effective,” says the report.

Information Brief on the 4th edition of the United Nations World Water Development Report (WWDR4)

The United Nations World Water Assessment Programme (WWAP) is hosted by UNESCO and brings together the work of 28 UN-Water members and partners in the triennial *World Water Development Report* (WWDR).

This flagship Report is a comprehensive review that gives an overall picture of the state of the world's freshwater resources. It analyses pressures from decisions that drive demand for water and affect its availability. It offers tools and response options to help leaders in government, the private sector and civil society address current and future challenges. It suggests ways in which institutions can be reformed and their behaviour modified, and explores possible sources of financing for the urgently needed investment in water.

The WWDR4 is a milestone within the WWDR series. This 4th edition directly reports from the regions, highlighting hotspots, and has been mainstreamed for gender equality, which is addressed as a critical issue. It introduces a thematic approach – ‘Managing Water under Uncertainty and Risk’ – in the context of a world which is changing faster than ever in often unforeseeable ways, with increasing uncertainties and risks. It highlights that historical experience will no longer be sufficient to approximate the relationship between the quantities of available water and shifting future demands.

The WWDR4 also seeks to show that water has a central role in all aspects of economic development and social welfare, and that concerted action via a collective approach of the water-using sectors is needed to ensure water's many benefits are maximized and shared equitably and that water-related development goals are achieved.

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