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Half the World to Face Severe Water Stress by 2030 unless Water Use is "Decoupled" from Economic Growth, Says International Resource Panel

Demand for water set to outstrip supply by 40 per cent, highlighting urgent need to improve how humans use the precious resource

Paris/Nairobi, 21 March 2016 – Without altering current levels of water consumption and pollution, almost half of the world's population will suffer severe water stress by 2030, damaging the well-being of millions of people, according to a new report from the International Resource Panel (IRP).

The report, entitled *Options for Decoupling Economic Growth from Water Use and Water Pollution*, finds that as the global population rises, increased urbanization, climate change and a shift in how food is consumed are likely to dramatically increase future demand for water.

Under current trends, demand for water will exceed supply by 40 per cent in 2030, the report says, forcing governments to spend US $200 billion per year on upstream water supply as demand outstrips cheaper forms of supply – up from historic averages of US $40 to US $45 billion.

Achim Steiner, Executive Director of the United Nations Environment Programme (UNEP), said: "Reliable access to clean water is a cornerstone of sustainable development. When clean water is consistently unavailable, the world's poorest must spend much of their disposable income buying it, or a large amount of time transporting it, which limits development. And since only half of one per cent of the world's freshwater is available for the needs of both humanity and ecosystems, we will need to do more and better with less if we are to ensure healthy ecosystems, healthy populations and economic development."

The UNEP-hosted IRP – a consortium of 34 internationally renowned scientists, over 30 national governments and other groups – says that in sub-Saharan Africa, a region struggling to cope with the impacts of climate change and poverty, water demand is expected to rise by 283 per cent over 2005 levels by 2030.

If the world is to stave off a looming water resource crisis, then efforts to decouple water use from economic growth will need to be strengthened, the report says.

Some countries have already proven that decoupling water use from economic growth is possible. For example, in Australia, water consumption declined by 40 per cent between 2001 and 2009 while the economy grew by more than 30 per cent.

"These kinds of success stories need to be repeated around the world if we are to achieve sustainable development and use the planet's resources more equitably and efficiently," said Mr Steiner.

"Less than 3 per cent of the world's freshwater is drinkable, and, because much of that is frozen in polar regions and glaciers, just half of one per cent is available for the needs of both humanity and ecosystems. If we are to have healthy ecosystems, healthy populations and economic development, we must do more and better with less."

The report lists a number of factors that will increase demand for water in the future and presents tools and policy recommendations that can improve the situation.

For example, the agricultural sector accounts for 70 per cent of all global freshwater withdrawals. As the global population increases, agriculture will exert growing pressure on water resources.

However, in India, the expected gap between water supply and demand could be reduced by up to 80 per cent if techniques such as crop rotation, mulch and organic fertiliser are used and improved to increase crop yields.

In South Africa, the gap between water supply and demand is up to 2,970 million cubic metres. By improving water productivity, the country could save US $150 million per year by 2030.

In urban centres around the world, about 100 billion to 120 billion cubic metres of water could be saved in 2030 by reducing leaks in the supply of bulk water in commercial, residential and public premises.

Despite the importance of water, many countries have a "mixed track record" in managing their water resources, the report says.

Governments have tended to invest heavily in mega-projects like dams, canals, aqueducts, pipelines and water reservoirs, the report says. With a few exceptions, these solutions are inefficient and many of them are neither environmentally sustainable nor economically viable.

The most cost-effective way of achieving water decoupling, according to the report, is for governments to create holistic water management plans that take into account the entire water cycle: from source to distribution, economic use, treatment, recycling, reuse and return to the environment.

"No single policy or set of practices will achieve resource or impact decoupling at the global, national and regional scales simultaneously," said the panel. "Inherent complexities, uncertainties and ignorance still limit current understanding of hydrological cycles and the complex relationships of water with other sectors."

Specifically, to achieve water decoupling, the IRP recommends:

- Investing more in research and development to improve technology that reduces water waste;
- Building sustainable infrastructure to improve the efficiency of water use and eliminate water contamination and pollution;
- Introducing policies to curb water demand and re-allocate water to sectors where it produces goods and services most beneficial to society while ensuring vulnerable groups are protected;
- Strengthening research into the value of ecosystem services and water to human welfare and economic development.
- Doing more to assess "virtual water" (the water used to manufacture goods that are traded internationally), water footprints and related impacts to better understand how international trade patterns could be used to support decoupling where it is most needed

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Editors' notes

To download a copy of the report, please visit www.unep.org/resourcepanel

About the IRP

The International Resource Panel assesses the latest scientific, technical and socio-economic findings on global resource use to provide science-based advice for policy-makers, industry and the community on ways to improve global and local resource management. The Panel works to steer the world away from overconsumption, waste and ecological harm to a more prosperous and sustainable future.

About UNEP

Created in 1972, UNEP represents the United Nations' environmental conscience. Based in Nairobi, Kenya, its mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP's Division of Technology, Industry and Economics - based in Paris - helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development. The Division leads UNEP's work in the areas of climate change, resource efficiency, and chemicals and waste.