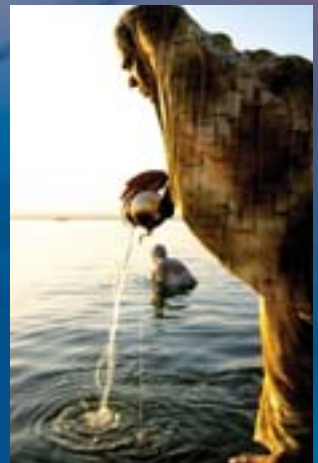


# FRESHWATER under THREAT

## AFRICA-ASIA SUMMARY

Vulnerability Assessment of Freshwater Resources to Environmental Change



UNEP

United Nations Environment Programme

Freshwater Under Threat: Vulnerability Assessment of Freshwater Resources to Environmental Change - A Joint Africa-Asia Report Summary

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UNEP  
P.O. Box 30552  
Nairobi 00100  
Kenya  
Tel: +254 20 7622015  
Fax: +254 20 7622798  
E-mail: dewainfo@unep.org

Regional Office for Asia and the Pacific  
Second Floor, United Nations Building  
Rajdamnern Nok Avenue  
Bangkok 10200, Thailand  
Tel: 662 288 1870-4  
Fax: 662 280 3826  
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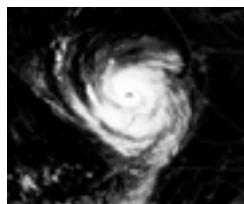
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# **FRESHWATER** under **THREAT**

**Vulnerability Assessment of Freshwater Resources  
to Environmental Change**

A JOINT AFRICA-ASIA REPORT



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## PREFACE



Climate change has become one of the most critical global challenges in recent history, as emphatically demonstrated by varied climatic phenomenon ranging from, *inter alia*, droughts to floods. Climate change impacts are far reaching, including: effects on agriculture through floods or droughts, thereby endangering food security; sea level rises resulting in the submergence of ocean islands and the accelerated erosion of coastal areas; the dissemination of ecosystems; and spreading of vector-borne diseases.

Africa and Asia's major economic sectors are most vulnerable to climate sensitivity and its huge economic impacts, exacerbated by existing developmental challenges. These challenges include endemic poverty, complex governance and institutional dimensions; limited access to capital (including markets, infrastructure and technology); ecosystem degradation; and complex disasters and conflicts. In turn, these challenges have contributed to both continents' poor capacity to adapt, increasing their vulnerability to climate change.

Africa and Asia's dependence on natural resources makes their people most vulnerable to environmental change. This vulnerability includes both natural and human phenomena, including climate change and variability, pollution, population growth, competition for water resources, data availability and quality, and knowledge gaps. Vulnerability assessments of water resources are urgently needed on both continents, as ecosystems are already endangered, threatening the livelihoods of the many poor who are least capable of adapting to environmental change.

Acknowledging the urgency of the vulnerability issues affecting livelihoods and the environment, UNEP-DEWA and START initiated studies to assess the vulnerability of water resources to environmental change in Africa (UNEP 2005a) and Asia in 2003 and 2005, respectively. The aim of the studies was to facilitate the management of vulnerability risks at transboundary, national, and local river and lake basins, and groundwater aquifer levels by assessing the impacts of environmental and human-driven changes on water resources. The study is unique for Africa, as it has not been previously undertaken for the continent as a whole.

The assessments were carried out within the context of the World Summit on Sustainable Development (2002), where the international community made a renewed commitment to sustainable development, as outlined in the Rio Declaration (1992), and to the advancement of the Millennium Development Goals (2000). Within this context, it is internationally recognized that sustainable development in Africa and Asia can only be achieved by addressing peace, security and development concerns, including environmental issues, human rights and governance. In the case of Africa, this overlaps with efforts to implement a "programme of action for Africa's re-development," through the New Partnership for Africa's Development (NEPAD) initiative.

The joint Africa-Asia study is expected to be of great interest to governments and policy and decision-makers at various levels, and to affected communities, providing insights into critical issues and how they could be mitigated.

This 'Summary' provides an overview of the key messages and opportunities for action derived from the publication, 'Freshwater under Threat – Vulnerability of Water Resources to Environmental Change – Africa and Asia Reports'.



Mr. Achim Steiner

United Nations Under-Secretary-General  
Executive Director  
United Nations Environment Programme (UNEP)

Director General  
United Nations Office at Nairobi (UNON)

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