

# Delivering adaptation through water



**Climate change is undermining development efforts and we face unavoidable impacts. If we fail to get a grip on reducing greenhouse gas emissions, the impacts could rise to uncontrollable and dangerous levels. Floods and droughts will be more frequent and severe, storms will increase and sea levels will rise. The common thread is water. Managing water better is central to the world's development and adaptation challenges, including food security, energy production, poverty reduction, economic growth, and human health. Water is the key to adaptation, as carbon is the key to mitigation.**

The Nairobi Work Programme (NWP) has been the focus of knowledge-generation on adaptation within the United Nations Framework Convention on Climate Change (UNFCCC). The Technical Workshop on Water and Climate Change in Mexico (18-20 July 2012) on water and climate change impacts and strategies showed that the NWP has been active, dynamic, and participative. Conceived as the support mechanism on adaptation, its outputs can now inform and support the direct implementation of adaptation.

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## KEY MESSAGES

- Populations already exposed to water-related hazards are significant and likely to increase.
- Current water knowledge must be used to inform adaptation implementation now.
- An enabling environment for improved water management should be provided from financial structures, institutional arrangements and policy processes within the Conferences of the UNFCCC.
- Water should be termed a thematic work area under the Nairobi Work Programme, and a Water HelpDesk facility should be established.
- A water window should be created under the Green Climate Fund in order to fund the work on water within the Nairobi Work Programme.

## A Water Secure World

The Global Water Partnership is an intergovernmental organisation of 13 Regional Water Partnerships, 83 Country Water Partnerships and more than 2,700 Partner organisations in 167 countries. The GWP network is committed to building a water secure world.

## The Technical Workshop revealed:

### KEY ASPECTS

Tools and methods are already known for assessing the vulnerability of water resources to climate change. Many were discussed at the workshop and have been reported on in the NWP.<sup>1</sup> Adaptation strategies may include: risk assessment and analysis, management and decision-making capacity, and engaging decision-makers, practitioners and vulnerable communities. Traditional and indigenous knowledge and coping strategies should be tapped to inform and calibrate modern assessment tools and methods. Practical examples have been shared within the NWP and a Water HelpDesk facility should be established to encourage the exchange of good practices at multiple levels.

### WHAT'S NOT KNOWN, INCLUDING DATA GAPS

Improvements in the collection of water and climate information are vital. The Subsidiary Body for Scientific and Technological Advice (SBSTA) work programme on the Implementation Plan for the Global Climate Observing System (GCOS) must be supported, including the use of Earth Observation Satellites. Proposals were made at the workshop to establish basin and region-wide databases and frameworks. There is also a need to combine climate science and community knowledge and to integrate a gender dimension into community climate assessment tools.

### CHALLENGES AND OPPORTUNITIES

Given the cross-cutting nature of water resources, a holistic management approach is essential. Water should be a thematic work area under the NWP. As an established knowledge broker and platform, the NWP is well-placed to engage multiple stakeholders, strengthen engagement with regional networks to exchange good practice at multiple levels, and to actively promote resilient adaptation for water resources. The NWP should be resourced to provide a 'platform of platforms' to identify and coordinate several aspects of work. This interface could network with regional centres on climate change, as well as the Global Framework for Climate Services.

The Global Framework for Climate Services aims to enable society to manage the risks and opportunities arising from climate variability and change, especially for the most vulnerable. A climate service is the provision of climate information in a way that assists decision-makers. Effective climate services will facilitate climate-smart decisions that will improve food security and health, reduce the impact of water-related disasters, and enhance water resources management.

<sup>1</sup> Nairobi Work Programme: Technical report on water: <http://unfccc.int/resource/docs/2012/sbsta/eng/04.pdf>  
Nairobi Work Programme: Climate change and freshwater resources: Synthesis of adaptation actions: [http://unfccc.int/resource/docs/publications/11\\_nwp\\_clim\\_freshwater\\_en.pdf](http://unfccc.int/resource/docs/publications/11_nwp_clim_freshwater_en.pdf)

## GWP calls for:

### FINANCIAL INVESTMENTS IN WATER

Water resources management should have specific 'windows' in climate finance funds at the international level and in bilateral funding. These 'windows' will support national governments in development planning for water resources. Investing in water is cost-effective: it delivers immediate benefits as well as long-term social, economic and environmental resilience. Today's investments in water build a climate resilient world: reducing the impacts of floods, droughts and other threats, while contributing right now to poverty reduction and sustainable development.

### INFRASTRUCTURE

Water is integral to adaptation and mitigation. Many low carbon technologies are dependent on water availability, while energy usage must be an integral part of adaptation, enabling the efficient management of water resources. More integrated approaches to the building of infrastructure such as water storage, and new energy-smart technologies for water recycling, irrigation and desalination need to be developed, promoted and implemented. Strengthening water infrastructure should also be a key focus area under the UNFCCC Work Programme on Loss and Damage established by the Parties at COP 16 in Cancún.<sup>2</sup>

### INTEGRATED APPROACHES

Capacity development initiatives enabled by UNFCCC funding (including the Adaptation Fund and the GCF) should consolidate water management institutions. These need to include transparent regulatory frameworks and stronger stakeholder dialogues.

As climate change unfolds, institutional solutions must collaborate closely with disaster risk reduction efforts. However, there are "ready to go" approaches. One sustainable framework agreed by governments is Integrated Water Resources Management (IWRM), which promotes the development and management of water, land and related resources that maximises economic benefits and social welfare without compromising the sustainability of ecosystems. Integrated flood and drought management also offer pathways to adaptation.

### DELIVERING ACROSS SCALES

Resilience building, involving a combination of bottom-up and top-down approaches, early warning systems, and disaster risk management strategies offer development benefits in the short- to mid-term and reduce vulnerability over the long-term. We need to support partnerships for water adaptation that empower communities to identify local coping strategies and enable all stakeholders in water resources management. Governance systems for water operate at all levels and regional transboundary issues are especially significant in water resources management.

<sup>2</sup> [http://unfccc.int/adaptation/cancun\\_adaptation\\_framework/loss\\_and\\_damage/items/6056.php](http://unfccc.int/adaptation/cancun_adaptation_framework/loss_and_damage/items/6056.php)

