

# CONNECT THE DOTS: WATER, CLIMATE AND DEVELOPMENT

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**W**ater is central to development. Finding solutions to global challenges will not happen without investments in water management. Whether it is food production, industry, tourism, trade, transport, or health – water is key.

The last decade saw the highest increase in global average temperatures and the highest food prices in history. As temperatures rise due to increased concentration of greenhouse gases, world leaders express consternation when they see the destruction and economic loss that results from floods, droughts, typhoons, and hurricanes.

Government officials watch GDP rise and fall with the rains and, with it, the ability of their communities to respond to the challenges. These water related hazards often lead to higher food prices which in some places lead to riots, social unrest, political instability, and long lines of destitute families seeking humanitarian relief.

## CLIMATE CHANGE IS WATER CHANGE

Climate change will be felt largely through its impact on water resources. Rising temperatures bring increased risks of both floods and droughts, threatening lives and national development.

When water is in short supply or its availability unpredictable, development is disrupted. Conversely, water is destructive when it comes in sudden flash floods that water infrastructure cannot cope with. Huge economic losses follow with catastrophic impacts on livelihoods.

In many countries in the developing world, GDP

fluctuates with annual water availability. The World Bank estimates the flood damage to be about US\$10 billion in Pakistan, while in Australia the estimated cost of rebuilding Queensland State alone stood at AUS\$9.8 billion. Floods in Mozambique in early 2000 slowed GDP growth to 2.1 per cent.

The bad news is that extreme events are projected to increase with climate change. While the average number of natural disasters such as earthquakes have been fairly constant since 1900, the number of extreme events such as floods, drought, fires, insect infestation, and landslides have increased.

Sustainable solutions are possible. Countries that have well developed water management systems with adequate water infrastructure and robust water governance institutions are better able to cope with extreme events. Investments in better water management and infrastructure build resilience to climate change hazards and impacts.

## BUT WATER IS NEGLECTED IN UNFCCC NEGOTIATIONS

Despite overwhelming evidence of the link between water, climate and development, negotiations in the UNFCCC have side-lined water management. Improved water resources management should be seen as part of the solution for both adaptation and mitigation. While water is recognised in Article 4.1 (e) of the Convention, the international discourse on climate change has not provided dedicated space for discussions on integrated water resources management as a solution to the impacts of climate change.

**“COUNTRIES THAT HAVE WELL DEVELOPED WATER MANAGEMENT SYSTEMS WITH ADEQUATE WATER INFRASTRUCTURE AND ROBUST WATER GOVERNANCE INSTITUTIONS ARE BETTER ABLE TO COPE WITH EXTREME EVENTS”**



UNFCCC ARTICLE 4.1 (E)

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall ...

(e) cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods; (emphasis added)

The UNFCCC’s response to climate change is to deal with the causes (mitigation) and impacts (adaptation). Unfortunately, this approach has resulted in a divide between those working on mitigation and those working on adaptation. In the process, cross-cutting issues such as water resources have been marginalised in the global negotiations architecture.

Water is highly relevant for both adaptation and mitigation. One of the key principles anchored in the UNFCCC is that “policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change” (Article 3.4, emphasis added).

This integration is not happening: adaptation and mitigation are typically separated into two “investment streams” in national budgets.

Countries adapt and build resilience to climate change through managing water resources well and responding appropriately to water-related hazards. On the mitigation side, interventions, including hydropower, biofuels, carbon storage and sustainable forest management are all reliant on water resources. Mitigation solutions such as those for Reducing Emissions from Deforestation and Forest Degradation (REDD) cannot be effective without water resources. Equally, projects that are promoted as part of the carbon market mechanisms need water resources.

There are also adaptation-mitigation links expressed through water such as the energy implications of desalination. Constant and reliable water supply is needed for hydropower production and energy expansion. Water is used for cooling in energy production. A lot of energy is used in water treatment plants and pumping stations that supply drinking water. While Article 4.1 (e) of the Convention commits Parties to develop appropriate and integrated plans for

coastal zone management, water resources and agriculture, this has not been reflected in the operational mechanisms being negotiated under the UNFCCC.

At COP 16 in Cancun, six Parties (Ecuador, Sudan, Chile, El Salvador, Sierra Leone and Syria) called for the inclusion of an agenda item on water in the discussions under the Scientific Advisory Body for Technological Advice (SBSTA). During the June 2011 UNFCCC sessions in Bonn, Parties decided not to have water as a separate agenda item but rather discuss it as part of the UNFCCC’s knowledge sharing mechanism on adaptation: the Nairobi Work Programme. Relegating water to a knowledge sharing mechanism falls far short of the commitments expressed by Parties in Article 4.1 (e) of the Convention. It also falls short of the commitments expressed in the Cancun Agreement, paragraph 14, which makes references to water resources when it refers to ‘Planning, prioritisation and implementing adaptation actions, including projects and programmes...’

LINK GLOBAL DISCUSSIONS TO LOCAL SOLUTIONS

During COP 17 in Durban, Parties have an opportunity to put water at the centre stage of negotiations in ways that will enable concrete solutions on financing, technology transfer, adaptation and mitigation. Because water management is context specific, global discussions in the UNFCCC need to be linked to regional climate change programmes with political and stakeholder ownership.

For instance, the Global Water Partnership and the African Ministers Council on Water (AMCOW), a sub-committee of the African Union, recently launched the Water, Climate and Development Programme.

The programme will be implemented at country and transboundary level and will lead to national Investment and Financing Strategies for Water Security and Climate Resilience Development. Eight countries, four transboundary river basins and one shared groundwater aquifer have been identified for in-depth work. This will enable at least 23 African countries to benefit from the results of the initiative which need to be recognised by the UNFCCC and linked to global UNFCCC mechanisms.

WHAT THE PARTIES SHOULD DO

Discussions in the UNFCCC need to elevate water resources as a cross cutting concern. Water is not a sector because it transcends all sectors. The consequences of climate change on food security, health, energy, and livelihoods are first and foremost



Above: Dr Ania Grobicki

Below: Ministers from 9 countries during the launch of the Water, Climate and Development Programme in August 2011

because of changes in the state of water resources. Water is the bridge that links adaptation and mitigation. During COP 17, Parties should:

- Provide a mandate to discuss water on the agenda of the Adaptation Committee;
- Establish a working group on water under the Adaptation Committee to operationalise the references to water resources in the Cancun Agreement. A core group of water experts should be established to track and monitor activities and advise the Adaptation Committee on the implementation of water-related adaptation. This Water Experts Group should be linked to the UNFCCC’s Subsidiary Bodies for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA);
- Call for the operationalisation of references to water resources in paragraph 14 of the Cancun Agreement;
- Discuss available, new and emerging technologies related to water during discussions on the Technology Mechanism;
- Call for the creation of a Thematic Funding Window for Water Resources Management under the Green Climate Fund. A Thematic Funding Window will provide Parties with a mechanism to scale up investments in water infrastructure, information and institutions and promote the integration of water security and climate resilience in development processes;
- Strengthen the focus on water in the work programme on loss and damage;
- Incorporate water management as part of the solution to REDD;
- Issue a decision to avoid adverse impact on water resources by mitigation measures and employment of remedial measures.

Adapting to climate change is mainly about better water management. Appropriate measures must build on land and water management practices that foster resilience to climate change, thereby enhancing water security. Innovative technologies and integrated solutions are needed at the appropriate scales, for adaptation as well as mitigation.



ACKNOWLEDGEMENT

This article was prepared with the expertise of the Global Water Partnership, an international network of 13 Regional and 80 Country Water Partnerships, and more than 2,300 institutional partners in 158 countries. The GWP network is committed to the sustainable development and management of water resources at all levels.

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