

# MANAGING WATER FOR GREEN GROWTH: SUPPORTING CLIMATE ADAPTATION & BUILDING CLIMATE RESILIENCE

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**T**he UN climate negotiations in Cancún, Mexico, will be an opportunity to take a sober look at the state of the world's climate and our collective capacity to respond to the changes which are already visible: more extreme weather events, floods, droughts, glacier melting, polar ice caps shrinking, and sea levels rising. The increasing frequency of climate related disasters is challenging communities and nations around the world to adapt and become better prepared – to save lives, protect property, and provide adequate information to people on the risks they face.

Many of these changes are related to water in its solid, liquid or vapour form. Simply put, rising global temperatures are speeding up the water cycle. Water previously locked up as ice is released. Surface water in rivers, lakes and oceans (and in the soil) evaporates faster. Rainfall becomes more intense and harder to predict, as seasonal norms no longer hold and weather records are being broken everywhere.

Few countries are untouched by the changes. However, for every Northern country rejoicing in its newfound ability to grow grapes and make wine locally because average temperatures have risen, there are several others in warmer parts where the economy is severely and negatively affected – either through an extreme event (such as recent floods in Pakistan, when 20 per cent of the country found itself under water for the first time) or simply through increasingly debilitating water scarcity. There is a growing need worldwide to strengthen our understanding of the changes taking place, and especially to strengthen the predictive capacity of the most





global warming is already here, it has to be done in the context of the water challenges of more frequent disasters, increasing climate variability and water scarcity.

Fortunately, by managing water better, we can find many “no regrets” opportunities and solutions to support green growth and build resilience to climate change. The profligate use of water until now in many countries, coupled with low rates of innovation and investment in water worldwide, offers tremendous scope for rapid adaptation. This applies to all economic sectors, including energy, industry, agriculture, and the better use and valuing of ecosystems as the “green infrastructure” which supports economic growth. Recycling and reusing both domestic and industrial wastewaters multiplies the volume of water which is available for human use. Rethinking water storage holistically – whether through small-scale solutions such as rainwater harvesting, or large-scale management of reservoirs, storm-water systems and aquifers – is essential. We can seek

**Right: Climate change can have dramatic consequences such as higher sea levels and more frequent and intense floods**

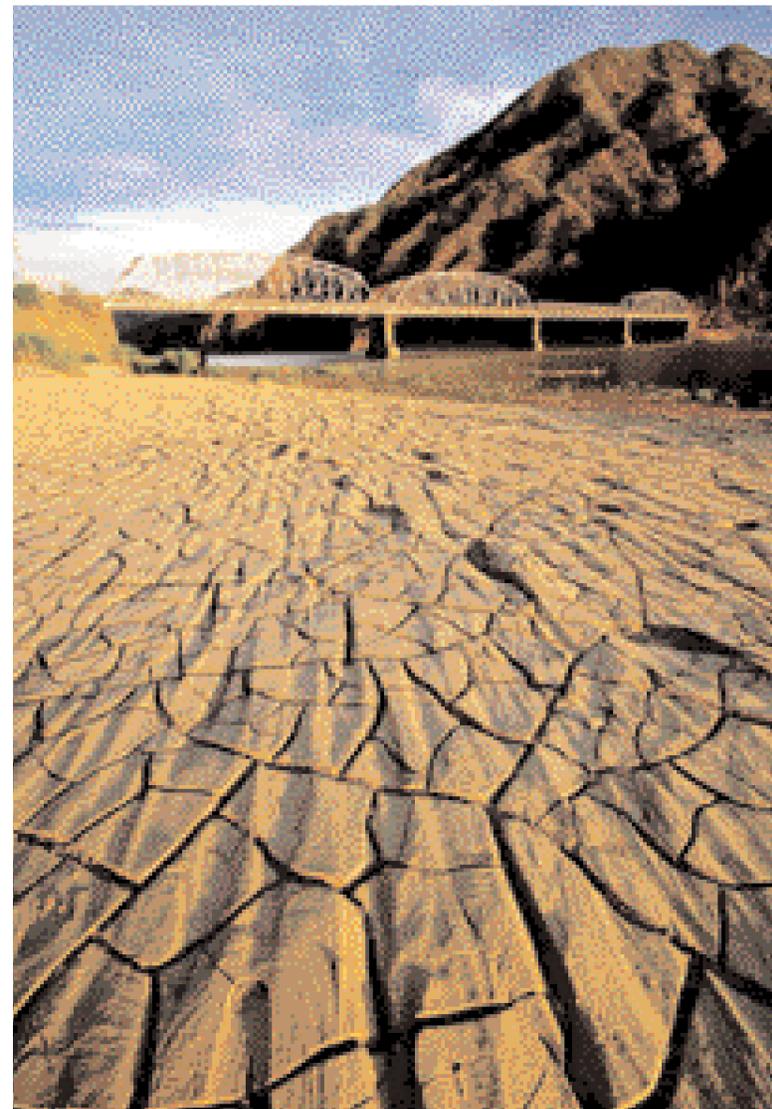
**Below: By altering the hydrological cycle, climate change will exacerbate the water management problems that countries already face**

**Left: Rising global temperatures are speeding up the water cycle**

affected regions. There is still a major gap between global climate change models and the more detailed climatic modeling needed to enable accurate forecasting of weather anomalies and extreme events.

The COP 16 negotiations in Mexico also have to bridge the credibility gap following the COP 15 debacle in Copenhagen. While it is too much to expect a comprehensive and binding agreement this year, it will be important to take incremental steps to enable agreement in the future – possibly at COP 17 in South Africa in 2011. The major outlines of the needed global architecture are becoming clear among the three major blocs: post-industrial countries, still in the grip of financial austerity; the booming industrial economies; and the smaller developing economies. The paradigm of development financing linking the first and third blocs is changing, slowly but surely. This was the paradigm under which the Kyoto Protocol was shaped, and which expires in 2012. The big question is: what role will the second bloc play – the BRICS (Brazil, Russia, India, China, and South Africa)? Will there be an effective mechanism for financing adaptation to climate change which can involve all three blocs?

The need for “green growth” and building sustainable economies in all three blocs is increasingly apparent, and this theme links all countries in reviewing the 20 years of accelerating change in the global environment since the Rio Earth Summit in 1992. The major UN Conference on Environment and Development in Rio in 2012 will surely provide a catalyst for the faltering UN talks on climate change. “Green growth” is synonymous with “low-carbon growth.” However, since

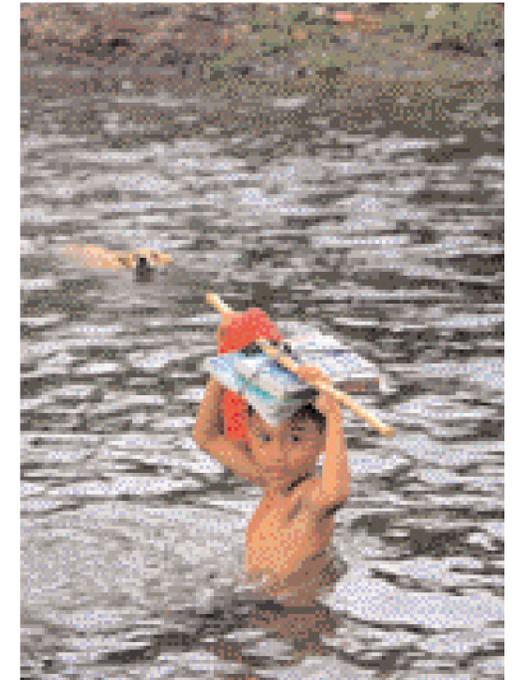


**“RETHINKING WATER STORAGE HOLISTICALLY – WHETHER THROUGH SMALL-SCALE SOLUTIONS SUCH AS RAINWATER HARVESTING, OR LARGE-SCALE MANAGEMENT OF RESERVOIRS, STORM-WATER SYSTEMS AND AQUIFERS – IS ESSENTIAL”**

solutions in time-honoured traditional approaches of safeguarding water as a precious resource, and at the same time utilise the latest technologies of remote sensing and geospatial mapping to understand the water system better.

Agriculture is a key sector where future productivity gains will be reached through changes in water use. Since agriculture uses the lion’s share of water in most countries, these shifts will have benefits across many other sectors – be it environment, energy, domestic water consumption, industry, and flood protection. Every step we take towards managing water more effectively reduces risk and builds resilience in the face of climate change.

Many partnerships across sectors are needed to implement these solutions; hence the Global Water Partnership is an open platform which brings various stakeholders in many countries and regions together in dialogue, to build greater trust and understanding. Inspiring examples are found in our



recent report on Water Security for Development: Insights from African Partnerships in Action. There is no time to lose. We see partnership and dialogue over water at local, national and regional level as foundational to the UN negotiations in Mexico, in South Africa, and ultimately in Rio to have a hope of success. Fortunately, our networked world has an increasing capacity to respond rapidly to crisis and disaster and to share knowledge and solutions to build resilience.

Water is the connecting thread across economic sectors which can nurture and support green growth or it can be the enemy which wipes out economic gains when disaster strikes. Building water security contributes to human security, and the security of nations. There are many world leaders who already recognise the strategic importance of water, and these water champions are to be found among all three major economic blocs of countries. The Global Water Partnership is committed to supporting them to build a water secure world.

**ABOUT THE AUTHOR**

**Dr Grobicki is the Executive Secretary of the Global Water Partnership (GWP). GWP is an international network of 13 regional and 74 country water partnerships and 2,176 institutional partners in 153 countries committed to the sustainable development and management of water resources at all levels. Dr Grobicki has spent most of her working life on water-related issues, holding positions in the private sector as well as with NGOs and the UN. She has a PhD in Biotechnology from Imperial College, London.**