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Poverty and water: are we drowning in debate?

Jamie Pittock, Director of WWF's Global Freshwater Programme, Gland, Switzerland

Every three years thousands of government, business, and non-governmental organisations (NGOs) convene at the World Water Forum while we use more water and destroy more nature than we can afford to replenish. It is hard to argue against a diverse group of people meeting to discuss the world's water problems, but as the 4th Forum gets underway in Mexico City in March 2006, Jamie Pittock asks whether another global water meeting is merely distracting leaders from implementing the commitments they have already made to fix our water woes.

Water: everyone's problem

Around 54 per cent of accessible runoff is now appropriated by humans and consumption of water is at such a rapid rate (Figure 1) that a growing number of the world's rivers no longer regularly reach the sea. A sixth (1.1 billion people) of the world's population lack adequate access to water and one third (2.4 billion people) lack adequate access to basic sanitation services, all of whom live in poverty.

In response, the 2002 World Summit for Sustainable Development adopted targets to halve the number of people without access to these water services by 2015, starting with national integrated water resource management (IWRM) and water efficiency plans to be developed by 2005.

The mediocre September 2005 World Summit revisited these commitments by agreeing to 'assist developing countries' efforts to prepare integrated water and river basin management plans as part of their national development strategies and to provide access to safe drinking water and basic sanitation.

Water: an environmental crisis

The 2002 World Summit also adopted a target to achieve by 2010 'a significant reduction in the current rate of loss of biological diversity', which will have to be implemented in the freshwater biome most urgently if the target is to be achieved.

The increasing environmental pressure on freshwater biodiversity is reflected in WWF's Living Planet Index which shows that for a basket of over two hundred freshwater species (Figure 2) there has been more than a 50 per cent decline in populations since 1970 compared to just 30 per cent for species in the marine and forest biomes.

The 2005 Millennium Ecosystem Assessment has a bleak outlook of the state of the freshwater biome, stating in part: 'The use of two ecosystem services – capture fisheries and freshwater – is now well beyond levels that can be sustained even at current demands, much less future ones.' Rivers in southern Africa and the Indus, Ganga and Rio Grande face a bleak future.

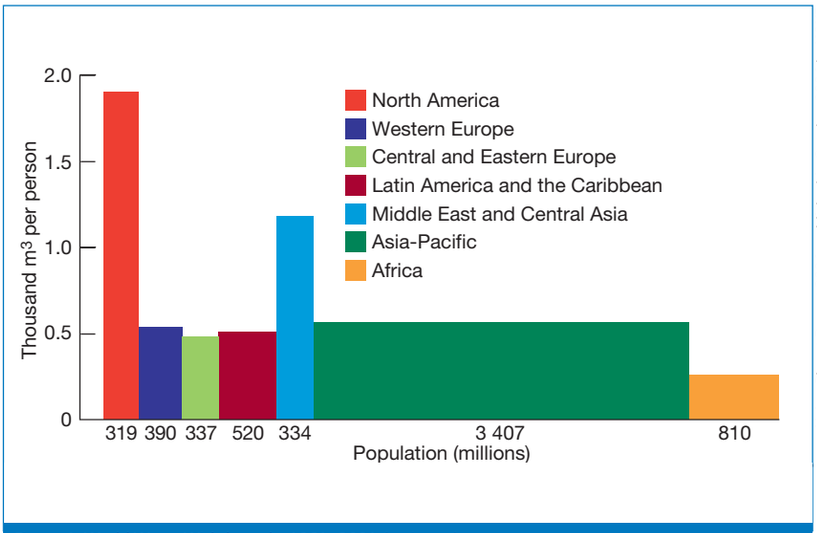

Figure 1. World Water Withdrawals, 1961–2001 (estimate).

A sixth (1.1 billion people) of the world's population lack adequate access to water and one third (2.4 billion people) lack adequate access to basic sanitation services.

This accelerating demand for water, especially for agriculture – that consumes 70 per cent of water currently diverted – and hydroelectricity production, threatens the livelihoods of the poor as well as environmental health. Dams have fragmented more than 60 per cent of the world's major rivers. On top of the existing 45,000 large dams around the world another 1,500 are planned or under construction in ecologically-rich rivers like the Yangtze, Mekong, Amazon and Orinoco. Government responses to climate change and increasing energy prices are likely to fuel expansion of dam construction for hydroelectricity and to store more water, further damaging rivers.

The destruction of river ecosystems is a catastrophe for millions of the world's rural poor who depend on the fisheries and other natural resources that are declining with changes in water flows. Consider, for example, the lower Mekong River basin whose 55 million residents on average consume close to 60kg of fish per person per year, which is their 75 per cent animal protein. Until now, the unimpeded wet season flooding of a vast area of land has enabled these fish to thrive in the Mekong. Yet new hydroelectric dams are being built that capture peak run off and store it to produce hydroelectricity,

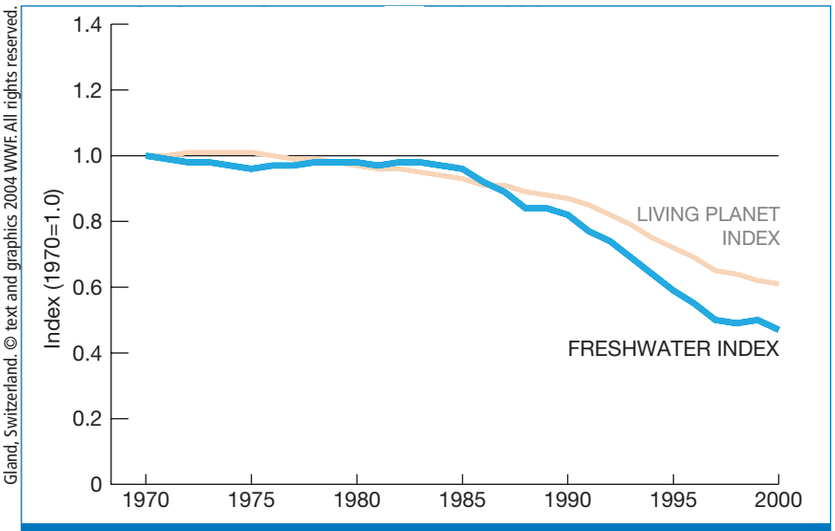

Figure 2. Freshwater species population index, 1970-2000.

lowering the peak flood level and fish production.

New isn't always the answer

In Andhra Pradesh, India, WWF is finding solutions for poverty reduction and provision of accessible water supplies for the poor and the environment. Governments have constructed massive water irrigation infrastructure such as the Katakyia irrigation scheme, and now propose the new Godavari Lift Irrigation Scheme that may be funded with Austrian loans. The new irrigation infrastructure not only fails to deliver reliable water supplies but has disrupted many traditional village 'tank' water systems and has dried up a 100km stretch of the Menir River over the last five years, dramatically reducing the access to water for adjacent villages. WWF's research based on field work and remote sensing indicates that restoring the 13th century Katakyia dynasty system of village water tanks would not only store more water for human use than delivered by the modern schemes with less environmental impact, but it would also be more equitably distributed to reach the poor and enable each village to manage their own water supplies.

And big isn't always better

In many developing countries most national agencies responsible for water management continue to subscribe to the cult of big infrastructure as the solution to poverty.

Instead of investing more aid in water infrastructure, WWF urges donors and implementing governments to consider supporting more programmes that help local people help themselves and apply community-scale solutions in conserving the source of water in their local environment for both people and nature.

For example, WWF works with the South African Government's 'Working for Wetlands' programme, that since 2000 has employed the most disadvantaged people to restore 40 wetlands, to store, filter and reliably supply clean water to local communities. Over 1,400 people, mostly single parents and women, have benefited from the training and income this has provided, leading for example, to workers upgrading their housing.

In La Cocha in Colombia, WWF worked with local communities to form cooperatives to manage local water and other natural resources in place of a proposed inter-basin water transfer scheme. Incomes of project participants are now 2.8 times the regional average and the participating communities report improved health, better food security, and greater self-reliance.

At Dongting Lake in China, not only have polders been restored to the lake and designated as nature reserves, but alternative livelihoods WWF developed with villagers have more than doubled income and improved the nutrition, health, energy supplies and housing of local people.

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Similarly cooperative floodplain fisheries management developed by local people and WWF in the Varzea of Brazil increased wild fish production by 60 per cent, agricultural income by 25 per cent, and improved health, reduced conflicts and clarified property rights.

Matching resources to need

While donor governments are rightly criticised for meager aid to improve water management and access, the majority of developing country governments are also failing to show leadership and good governance. In 2004 WWF examined the record of the governments in prioritising water management in 30 developing countries with the worst proportions of access by their citizens to water services. This focused on the two major types of national poverty reduction strategies: World Bank Poverty Reduction Strategy Papers (PRSP's) and European Union – ACP Country Support Papers (CSP's). Of 16 of 30 of the poorest countries that had developed PRSPs, only two (13 per cent) had prioritised water supply and sanitation while eight (50 per cent) record water as an issue without making it a priority in the 'action plan' section for funds allocation. Only two of 12 countries (17 per cent) facing 'absolute' or 'economic' water scarcity prioritised water in their strategies (PRSPs or CSPs). The results are worse for CSPs since only four of the 26 countries (15 per cent) with CSPs include water and sanitation as priorities. Hence, despite their rhetoric, most developing country governments have not prioritised water services in poverty reduction strategies, even where water is particularly limited.

By contrast, WWF's in-depth assessment of 10 PRSP's found that irrigation development is favored in seven PRSPs. IWRM does not feature strongly in any of the ten PRSPs, whereas construction of hydropower facilities is envisaged in five countries. Hence most of these governments are opting for development of water infrastructure for industry over integrated water management.

Managing water for all

In 2002 all governments courageously committed to prepare national IWRM plans by 2005 to manage water holistically. The target was changed to allow for plans to be commenced in 2005, rather than completed in 2005, as this original intention subsequently

appeared unrealistic. The Global Water Partnership reviewed IWRM plans of 108 countries in 2003 and found 15 per cent have made good progress, 50 per cent have initiated the process and the 35 per cent of remaining countries have a long way to go to meet the target. Among the donor governments, only Canada and the Netherlands appear to be contributing funding to the development of IWRM plans.

Without effective national water plans it will be impossible to apply practical measures such as watershed protection, environmental flows, water sharing agreements and water efficiency practices needed to sustain water supplies.

Progress for generations, not one

Nine years have elapsed from the first to the fourth World Water Forum with the same themes and discussions recycled, and little intervening action. How can we best apply this year's theme 'Local actions for a global challenge?' There is a risk in the theme of the 4th Forum that our governments, having failed to implement previously agreed global and national frameworks for sustainable water management, now abdicate responsibility to ad hoc local actions to fix water management problems – problems that need enabling frameworks at greater scales to succeed.

Sustainable water management can be achieved through better governance. Just how much we are compromising nature's capacity to meet our needs is not always falling on deaf ears. The European Union's Water Framework Directive, the South African government's innovative water laws and programmes, and the emerging river basin management system of Brazil show how together we can do more to manage the environment as the source of water for people and nature.

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The large infrastructure cult following of countries like Turkey, Iran, India, Japan – with their massive dam building programmes – and Europe with its planned network of shipping canals, should redirect investment into conserving nature as the only source of water.

WWF urges both donor and developing country governments to do more to develop and implement national water plans – as they have already agreed – to sustainably manage the sources of water, use water more efficiently, and invest more in water management by local communities in place of grandiose engineering schemes.

Water needs to be a central component of national poverty reduction strategies, and donors should link funding for national-scale poverty reduction strategies in developing countries to the achievement of agreed global targets relating to water. Donors could show that they are targeting those countries with the greatest water needs and getting them to commit funding to working out solid strategies and projects on the ground. Governments can also renew efforts to collaborate for the sustainable management of shared rivers through UN conventions and river basin management programmes.

Solving any crisis needs a turning point. If we reorient the 4th World Water Forum towards sustainable water management solutions, we would turn up in numbers at the 5th to count our successes and build on progress.

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ABOUT THE AUTHOR

Jamie Pittock has been Director of WWF's Global Freshwater Programme since 2001. Prior to working internationally he worked for various Australian environmental organisations, mainly WWF Australia as their manager of nature conservation. Earlier he trained as a palynologist.

ABOUT THE ORGANISATION

WWF, the global conservation organisation, is active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by conserving the world's biological diversity, ensuring that the use of renewable resources is sustainable and promoting the reduction of pollution and wasteful consumption.

ENQUIRIES

Jamie Pittock, Director
WWF Global Freshwater Programme
15/71 Constitution Avenue
Campbell ACT 2612
Australia
E-mail: jpittock@wwf.org.au

WWF Global Freshwater Programme
PO Box 7, 3700AA Zeist
The Netherlands
Tel: +31 30 6937803
Fax: +31 30 6912064
E-mail: freshwater@wwf.nl
Website: www.panda.org/freshwater