

Unlocking the door to social development and economic growth: how a more integrated approach to water can help

Are water problems such as floods, droughts, and increasing competition for limited supplies hindering your country's ability to meet social and economic development goals? Is your country struggling to provide cost-effective water and sanitation services? Are current approaches to rural poverty, food security, childhood mortality, and environmental degradation failing to deliver? Adopting a more integrated approach to water resources development and management through an IWRM and water efficiency strategy can help.

An IWRM strategy can be a useful tool for addressing specific development challenges and optimizing water's contribution to achieving social, economic and environmental goals. It is not just about water. Other sectors have a stake too, and as competition for water increases along with population, climate change and pollution of useable supplies, policymakers in other sectors should be taking an active interest in how water decisions are made, as well as how their own decision-making impacts their country's water resources.

To stimulate the adoption of a more strategic and sustainable approach to water resources, the 2002 World Summit on Sustainable Development (WSSD) called for all countries to develop integrated water resources management (IWRM) and water efficiency strategies¹ by the end of 2005.

The WSSD action target can be a golden opportunity to catalyze positive change, or it can be just another paper exercise. The difference depends on whether or not the process 1) has commitment at the highest political levels and support and participation from both within and outside the water sector, 2) lays the foundations for an on-going process of more coordinated decision-making across sectors and scales, 3) involves stakeholders at key stages, and 4) ensures a realistic plan of implementation that includes a clear definition of roles and responsibilities, a sound financing strategy, provision for capacity-building, and systems to monitor progress and make adjustments in response to changing conditions.

¹ The actual language of the WSSD action target is "integrated water resources management and water efficiency plans". We have chosen to use the word "strategy" rather than "plan" to emphasize the dynamic and change-oriented nature of the process.

“...harsh facts pushed us to the gradual understanding that it is imperative to enforce integrated management of water resources, and coordinate the relationship between domestic, production and ecological uses of water.

H.E. Mr. Shucheng Wang, Minister of Water Resources, China

The case for a more integrated approach

Taking an integrated approach to developing and managing water resources can advance goals such as reducing poverty, increasing food security, fostering economic growth, and protecting ecosystems. It can also more effectively tackle specific water challenges, such as controlling flooding, mitigating the effects of drought, eliminating water-borne diseases, managing transboundary river basins, and addressing increasing competition for water. How does an IWRM approach do this? Essentially by considering water within a larger hydrological and sustainable development context than is generally possible through traditional sectoral approaches.

Finding a balance

Looking at a particular problem or resource within a narrowly defined framework makes decision-making a lot simpler, but in some cases, at the expense of efficiency, sustainability, social equity, and plain common sense. The fact is that water is already an integrated resource, whether we choose to acknowledge it in our governance structures or not. Water policy impacts economic development, and in turn macro-economic policy impacts sustainable water use. Upstream land use decisions impact downstream water availability, and water management decisions impact land degradation. The list goes on. Given the numerous and complex links between activities that influence and are influenced by how water is developed and managed, a more coherent and integrated approach makes good sense.

Box 1. What is an IWRM approach?

An IWRM approach promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

This includes more coordinated development and management of:

- land and water,
- surface water and groundwater,
- the river basin and its adjacent coastal and marine environment, and
- upstream and downstream interests.

But, as the above definition points out, IWRM is not just about managing physical resources, it is also about reforming human systems to enable people—women as well as men—to reap sustainable and equitable benefits from those resources.

For policy-making and planning, taking an IWRM approach requires that:

- water development and management takes into account the multiple uses of water and the range of people's water needs;
- stakeholders are given a voice in water planning and management, with particular attention to securing the participation of women and the poor;
- policies and priorities consider water resources implications, including the two-way relationship between macro-economic policies and water development, management, and use;
- water-related decisions made at local and basin levels are in-line with, or at least do not conflict with, the achievement of broader national objectives; and
- water planning and strategies are integrated into broader social, economic, and environmental goals.

The trick is to find a balance between a fully integrated approach that risks getting mired in complexity and an approach in which each sector blindly pursues its own narrowly-defined interests without looking at the larger impacts and opportunities. In practice, striking this balance means policymakers need to give water an appropriate place on the national agenda; they need to be more “water aware” when it comes to economic policy and policy in water-related sectors; and they need to create more effective channels for communication and shared decision-making between government agencies, organizations, interest groups and communities.

Meeting the “water gap” for sustainable development

Water is a key ingredient in generating rural livelihoods, growing food, producing energy, encouraging industrial and service sector growth, and ensuring the integrity of ecosystems and the goods and services they provide. Countries need to be able to ensure reliable and readily accessible supplies of unpolluted water in order to improve health conditions, reduce childhood mortality, and advance the status of women. Currently there is a significant gap between such water needs and most countries’ ability to adequately fulfil those needs. The 1.1 billion people who lack access to improved water supply and the 2.6 billion without access to adequate sanitation would no doubt agree.

To meet this “water gap” countries need to make investments in improving management of existing water resources and in building new water infrastructure—pipelines, boreholes, sewer systems, irrigation systems, treatment plants, hydropower plants, and storage facilities. For most countries this means overcoming a significant “funding gap”. The options for these countries are to find more money or find ways of getting more from the money available. It will most likely take a combination of these two paths, and an IWRM approach can help with both. It can help derive more benefit—social and economic—from existing and future investments and it can help countries attract the financing they need for infrastructure and management improvements.

Solving problems

Many countries are experiencing water-related problems that are proving intractable to conventional single-sector approaches. Some possible examples: drought, flooding, groundwater overdraft, water-borne diseases, land and water degradation, on-going damage to ecosystems, chronic poverty in rural areas, and escalating conflicts over water. Why have these problems proved so hard to address? Because their solutions often fall outside of the normal purview of the agencies tasked with addressing them and require cooperation from multiple sectors. An IWRM approach provides an opportunity to attack these problems more effectively—identifying root causes and solutions that lie outside of any one sectoral box. It can also help avoid the all too common situation where

Box 2. How an IWRM approach helps get the most value from scarce natural and financial resources

- It helps ensure that investments across sectors work together, producing greater returns than possible through a single-sector approach.
- It highlights opportunities that are often obscured by sectoral thinking. For example, examining domestic water and sanitation needs along with food security issues can open up opportunities to find better ways to provide people with water for domestic purposes, cottage industries, crops, livestock, and aquaculture, often at very little additional cost over “single-use” systems.
- It helps avoid bad investments and expensive mistakes. Decision-making based solely on a short-term, sectoral view can result in some very expensive mistakes—in terms of unsustainable gains, unforeseen consequences, and lost opportunities.
- It helps reduce the negative consequences for both social and economic development associated with unsustainable development and the high costs of undoing environmental damage later. For example, the annual cost of undoing the effects of land and water degradation in Asia has been estimated at US\$35 billion. In the US, the restoration of the Everglades wetland alone is budgeted at US\$10 billion.
- It promotes more strategic water allocation looking at allocation policy in the context of the “big picture” of social, economic and environmental goals rather than allowing allocation to be driven solely by the interests of individual sectors.

“ Serious defects in the ‘governance’ of the global water sector hamper its ability to generate and attract finance.

“Financing Water for All” report from The Panel on Financing Water Infrastructure, 2003

Box 3. The thirteen key IWRM change areas

The enabling environment

1. Policies – setting goals for water use, protection and conservation.
2. Legislative framework – the rules to follow to achieve policies and goals.
3. Financing and incentive structures – allocating financial resources to meet water needs.

Institutional roles

4. Creating an organizational framework – forms and functions.
5. Institutional capacity building – developing human resources.

Management instruments

6. Water resources assessment – understanding resources and needs.
7. Plans for IWRM – combining development options, resource use and human interaction.
8. Demand management – using water more efficiently.
9. Social change instruments – encouraging a water-oriented civil society.
10. Conflict resolution – managing disputes, ensuring sharing of water.
11. Regulatory instruments – allocation and water use limits.
12. Economic instruments – using value and prices for efficiency and equity.
13. Information management and exchange – improving knowledge for better water management.

solving a problem in one sector causes a problem in another sector.

Most countries that have honestly evaluated their current water situation have chosen to move towards a more integrated approach. They found that purely sectoral approaches were in fact failing to deliver in a number of key areas. In Malaysia, the move towards a more integrated approach was inspired by the urgent need to control flooding and pollution, to protect valuable ecosystems, and to more effectively allocate water to encourage economic growth. In Yemen, the move was part of a series of economic, financial and administrative reforms designed to bring the country's economy back from the brink of collapse. In Costa Rica the high cost of flooding, continuing conflicts between water users, and degradation of forests and coastal ecosystems, which threatened the country's tourist economy, prompted the search for new solutions and the eventual adoption of an IWRM approach.

These countries, and others, have recognized that to effectively address such development challenges, they need to “do it differently” by taking a more integrated approach.

A strategy to spark and guide change

The process of creating an IWRM and water efficiency strategy is an opportunity for countries to take a coherent approach to improving how they develop, manage and use water resources to further sustainable development goals and meet development challenges.

Some countries may choose to begin by considering the various ways in which water resources development and management have the potential to advance or hinder development goals. Others may choose a more targeted approach and focus on specific water-related problems that are hampering development.

Some countries may choose to create new strategies from scratch. Others may build on existing IWRM or water plans or incorporate water into current national development strategies.

Regardless of the initial approach, strategies should go beyond the actions needed to solve current problems or to achieve immediate objectives, and aim at institutionalizing changes that will promote more strategic and coordinated decision-making on an on-going basis (see Box 3).

“ Without an integrated approach, we could face a tangle of problems. But with one, we could generate a cascade of progress. Let us remember, though, that however much can be done at the international level – through aid and partnerships, for example – ultimately action on water, sanitation and settlements must be national and local: effective public administration, inclusive governance that involves communities and a real commitment to equity.

*UN Secretary-General
Kofi Annan*

Table 1. Suggested breakdown of roles and responsibilities in formulating a strategy

National government	<ul style="list-style-type: none"> • Lead role, 'owner' of the process • Mobilize funding • Set macro-economic policy environment
Steering committee (group with wide representation)	<ul style="list-style-type: none"> • Guide the process • Mobilize support across sectors and interest groups • Guarantee quality output • Monitor implementation progress
Management team (group of qualified professionals)	<ul style="list-style-type: none"> • Manage day-to-day processes for strategy development, implementation and capacity building
Facilitating institution, where appropriate (for example, national NGOs, GWP Country or Regional Partnerships, or local UN country teams)	<ul style="list-style-type: none"> • Provide neutral platform for dialogue • Support strategy development process by providing advice and sharing knowledge • Foster capacity building and training

“...the WSSD highlighted that water is not only the most basic of needs but is also at the centre of sustainable development and is essential for poverty eradication. Water is intimately linked to health, agriculture, energy and biodiversity. Without progress on water, reaching the other Millennium Development Goals will be difficult if not impossible.

Prof. Klaus Toepfer, Executive-Director of the United Nations Environment Programme (UNEP)

To do this, strategies need to encompass changes in the enabling environment, in institutional roles, and in management instruments (see Box 3). Fundamentally, creating a strategy is about catalyzing change in water governance, i.e., the range of political, social, economic and administrative systems that are in place to develop and manage water resources and deliver water services, at different levels of society.

While adopting a more sustainable and integrated approach to water management and development does require change in many areas and at many levels, this does not mean that major initial reforms are essential. First steps that can easily be implemented are enough to catalyze the process. A well-thought out set of changes—the kind embodied in a strategy—will produce more sustainable results than either an attempt to completely overhaul the whole system or an ad hoc approach to change.

Not just a water plan

Creating an effective IWRM strategy requires a somewhat different process than that entailed in creating a one-off water resources planning document. Key differences include:

- *Involvement from multiple sectors:* While a water plan is usually designed and implemented by a water agency, an IWRM strategy requires input and buy-in from all sectors that impact and are impacted by water development and management—for example, health, energy, finance, tourism, industry, agriculture, and environment.
- *Broader focus:* Whereas water plans tend to be driven principally by water issues alone, an IWRM strategy looks at water in relation to other ingredients needed to achieve larger development goals or meet water challenges.
- *Dynamic rather than static:* Unlike a water plan, which lays out a definitive sequence of actions and decisions, an IWRM strategy aims at laying down a framework for a continuing and adaptive process of strategic and coordinated action.
- *Stakeholder participation:* Because it calls for change—and therefore buy-in—at multiple levels, strategy development requires broader and more extensive participation from stakeholders than a traditional planning process.

Box 4. Key recommendations for policy-makers on developing and implementing a national IWRM and water efficiency strategy

- Use national development goals or water-related challenges as a starting point.
- Secure commitment at the highest level, but ensure a broad base of support which reaches down to the grass-roots.
- Involve high-level officials in water-related sectors from the outset, and assign the task of developing the strategy to a multi-sectoral steering group.
- Ensure that stakeholders are meaningfully involved in the process, taking particular care to give women and poor people a voice.
- View the strategy as an opportunity to establish more integrated decision-making processes, rather than as a one-off checklist of actions.
- Ensure a realistic plan of implementation that includes a clear definition of roles and responsibilities, a sound financing strategy, provision for capacity-building, and systems to monitor progress and make adjustments as needed.
- Link to and build on other national plans and strategies—including country poverty reduction strategy papers (PRSPs), national strategies to meet the Millennium Development Goals, and strategies called for by key environmental conventions, such as the National Biodiversity Strategy and Action Plans and the National Plans to Combat Desertification.

Core stakeholders to engage in formulating a strategy may include government ministries and related institutions involved in such areas as domestic water supply and sanitation, irrigation, agriculture, energy, health, industry, finance, transport, fisheries, environment, and tourism; and water utilities, agencies and related bodies. Other stakeholders will need to be involved at key stages of the process, including communities and civil society and private sector organizations.

But how to go about the IWRM strategy development? It does not mean throwing everything away and starting over. More often it means adapting and building on existing institutions and planning procedures to achieve a more integrated approach. To help take the first practical steps, the GWP Technical Committee has published a handbook, *Catalyzing Change: A handbook for developing integrated water resources management (IWRM) and water efficiency strategies on developing IWRM and water efficiency strategies*. This can be found and downloaded from the GWP website: www.gwpforum.org. Mailing address from which a hard copy can be requested: gwp@gwpforum.org.

This briefing for senior policymakers is intended to spur progress on the WSSD action target and emphasize the vital role of policymakers, both inside and outside the water sector, in the process of strategy development. It was prepared under the direction of the Global Water Partnership (GWP) Technical Committee with support from Norway's Ministry of Foreign Affairs.