

Checklists for change: Defining areas for action in an IWRM strategy or plan

The core of an IWRM strategy or plan¹ should be the definition of the areas for action necessary to address a country's water challenges in ways that are economically efficient, socially equitable and environmentally sustainable. This brief focuses on those areas for action that relate to the political, social, economic and administrative systems needed to develop and manage water resources and the delivery of water services. It builds on the chapter "Steps towards more integrated development and management" in the Content section of *Catalyzing Change: A handbook for developing integrated water resources management (IWRM) and water efficiency strategies* and on the GWP-TEC Background Paper 7, *Effective Water Governance*.

The content of an IWRM strategy or plan will vary widely from country to country and will cover a wide range of issues, from the definition of goals and objectives to the development of a monitoring and evaluation system (see box 1). However, there is one absolutely essential ingredient that should determine whether a country has met the World Summit on Sustainable Development target²: it must define the actions relating to water resources infrastructure (development), water services (use), and water governance (management) that the country must take to address its key water challenges in ways that are economically efficient, socially equitable and environmentally sustainable.

Governance, "the range of political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society,"³ is key because it is what enables better decision making on an ongoing basis on all aspects of water resources development, management and use. At the same time, it is precisely the part of most national water plans that is not given sufficient attention.

The form of an IWRM strategy or plan will also vary widely from country to country. A comprehensive strategy that addresses governance together with water infrastructure and services in an integrated way (as in the case of South Africa) has some clear advantages. However, it is not necessary to start from scratch. In some cases, it may make more sense to strengthen the governance component of an existing water master plan or to develop a strategy specifically to address governance issues (as in the case of Egypt). In the latter case, the key is to ensure the governance strategy

¹ We use the term "strategy" to cover all IWRM strategies and plans. In some countries, this may be a single document; in others, it may be a set of documents, including but not limited to water master plans, water policies, water laws and national sustainable development strategies.

² At the World Summit in 2002 countries were called on to craft IWRM and water efficiency strategies by 2005.

³ GWP-TEC Background Paper 7, *Effective Water Governance*, Global Water Partnership 2002. www.gwpforum.org

Box 1: Basic steps in determining the content for an IWRM strategy

This brief focuses on steps 3 and 4. For a good overview of all five steps see *Catalyzing Change*. For more detailed information on aspects of steps 1, 2, and 5, see Technical Briefs 2 and 3 of this series.

1. Define strategy goals and objectives based on national development goals and water-related challenges.
2. Define measurable targets and indicators for goals and objectives.
3. Identify necessary changes in infrastructure, service-delivery systems, and governance that are needed to achieve the targets.
4. Develop a plan of action for implementing these changes that takes into account (a) relative priority, (b) political feasibility, and (c) cost. Note: Give priority in the short-term to actions that are relatively simple to implement and help develop impetus for change through quick and visible gains.
5. Implement short-term action plan with thorough monitoring and evaluation. Adapt long-term strategic management as per insights derived from monitoring and evaluation.

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links to existing plans for water infrastructure and services. In all cases, however, strategies and plans must be linked to a country’s financing and budgetary systems and fit within a country’s existing range of policy documents.

Governments prepare a range of planning documents that set out their priorities, including Poverty Reduction Strategies (PRSPs) and other macro-economic documents. Since such national documents generally cover a range of sectors and issues, traditionally they are backed up by specific sector based strategies or plans, such as water resource master plans. As emphasized in *Catalyzing Change*, however, there are some key differences between the content of an IWRM strategy and a traditional national water resources plan.⁴ For example, while a water plan tends to focus exclusively on water availabilities and requirements, an IWRM strategy should look at water in relation to other ingredients needed to achieve sustainable development. While a water plan normally lays out a definitive sequence of actions and decisions, an IWRM strategy should aim at laying down a framework for a continuing and adaptive process of coordinated action. And while water plans tend to focus more on physical infrastructure and investments, an IWRM strategy should also lay out the changes needed in management and governance systems to make things work better and achieve a good balance among economic efficiency, social equity and environmental sustainability concerns.

Because the core of an IWRM strategy lies in its definition of the areas for action, and because governance is usually the weak link in national water plans, this brief focuses particularly on defining the governance component of the areas for action in an IWRM strategy—i.e., the governance dimensions of steps 3 and 4 in Box 1.

Assessing the current situation

Just as with an organization developing a strategic plan, before deciding on where to make changes, it’s important to assess what’s working and what’s not. This means assessing not only the current situation, but how it evolved, and the processes that shape decision-making.

If the strategy addresses specific water-related problems, it will be useful to look at past attempts to resolve these problems. Has there been any progress that could be built upon? What have been the reasons for failures? If the strategy is tackling the broader issue of water’s role in sustainable development, it will be necessary to look at possible existing

⁴ The process of preparation is also different. While a national water plan is usually prepared by a water agency, an IWRM strategy requires input and buy-in from multiple sectors and therefore more extensive participation from stakeholders in its preparation.

⁵ Examples draw on some of the action recommendations contained in *Health, Dignity and Development: What will it take?*, final report, UN Millennium Project Task Force on Water and Sanitation, Earthscan, 2005.

linkages or mechanisms for incorporating water into national planning processes.

The IWRM Toolbox, a useful source of information when considering improving governance, identifies 12 key change areas (Box 2) categorized under three broad headings—enabling environment, institutional roles, and management instruments.

Not just about water

When looking at the change areas, it is important not to focus only on the water sector. Often change will need to happen in related sectors—for example, the reform of agricultural subsidies, land use regulations, energy and food security policies. As pointed out in *Catalyzing Change*, having a multi-sectoral strategy formulation team, with high-level buy-in from other sectors, is crucial for this reason.

Box 2: IWRM change areas

Enabling environment

1. Policies
2. Legislative framework
3. Financing and incentive structures

Institutional roles

4. Organizational framework
5. Institutional capacity building

Management instruments

6. Water resources assessment
7. Demand management
8. Social change instruments
9. Conflict resolution
10. Regulatory instruments
11. Economic instruments
12. Information management and exchange

Box 3: Sample action areas within an IWRM strategy

As emphasized in *Catalyzing Change*, progress toward more integrated and sustainable approaches to water has often started with actions to address concrete and pressing water challenges. Indeed, such actions—while originating in the need to address a specific challenge—can prove useful to address future water and development challenges in a more integrated way. By way of illustration, the following table outlines some of the action areas that a country focused on meeting the MDG water and sanitation targets might include in its IWRM strategy.⁵

Area for Action	Examples of specific actions
Enabling Environment	<ul style="list-style-type: none"> • Ensure that water and sanitation are included in national development strategies such as PRSPs. • Establish and fund credible regulatory institutions. • Create a mechanism for monitoring access based on delivery of services. • Review and modify subsidy policies as necessary to ensure that improved services are affordable to the poor, and that subsidies are transparent and well-targeted.
Institutional roles	<ul style="list-style-type: none"> • Create a national-level "institutional home" for sanitation. • Decentralize authority and responsibility for service delivery to local institutions. • Develop programs to ensure that local authorities and communities have the professional capacity required to manage service delivery.
Management instruments	<ul style="list-style-type: none"> • Develop systems to assess the physical availability and quality of surface water and groundwater resources at local and regional levels. • Use economic instruments to encourage more efficient water use. • Implement mobilization, education, communication and social marketing programs for sanitation. • Develop participatory mechanisms to resolve conflicts that arise in connection with community water-related issues. • Develop regulatory instruments for water conservation and water quality protection. • Develop monitoring and evaluation systems to monitor changes over time and gauge the effectiveness of interventions and their impact.

What to look for

The checklist below outlines some basic criteria for good governance⁶, as identified in the IWRM Toolbox, that can be helpful in identifying areas for change. Because the areas targeted for change, as well as the nature of change, will depend on a country's particular goals, water challenges, and current situation, it is not possible for this brief to recommend specific actions for inclusion in an IWRM strategy. Box 3 (on preceding page), however, provides some examples of actions that a country focused on meeting the MDG water and sanitation targets might include in its strategy.

Enabling environment

Policies

- Water policies accord with overall national economic policy and related sectoral policies.
- Economic and social policies take into account water resource implications.
- Water policies support economic efficiency, social equity and environmental sustainability in water development, management, and use.

Legislative framework

- Establishes secure and transferable water rights.
- Protects public interests—including the interests of future generations—for example, by ensuring water to meet environmental needs.
- Clearly defines the responsibilities and authority of water/environmental management agencies and water and sanitation service providers.
- Water laws are operational/enforceable.

Financing and incentive structures

- Water funding strategy estimates overall investment requirements and identifies funding sources; is regularly reviewed and updated.
- Water pricing reflects the costs of water services, operations and maintenance of infrastructure, and pollution control.
- Subsidies for the poor, if necessary, are transparent and well-targeted.
- In the case of public utilities, water fees are used to provide/improve services and ensure maintenance of infrastructure.

Institutional roles

Organizational framework

- Clearly defined responsibilities and the authority to carry them out. Absence of jurisdictional ambiguities and overlapping functions between organizations.
- Coordination mechanisms between organizations responsible for sectors that impact and are impacted by water resources development, management and use.
- Coordination mechanisms between different levels of government—from local, to province, to basin, to national.

Institutional capacity building

- Organizations have the capacity—in terms of human resources, funding and equipment—to fulfill their mandates.
- Organizations have regularly updated capacity-building plans that reflect changing needs.

⁶ For additional criteria, see the IWRM Toolbox. www.gwpforum.org

- Individuals and institutions (public and private) provided with incentives to improve their practices and approaches.

Water resources assessment

- Regular collection and analysis of relevant physical and socio-economic data needed for decision-making at various levels.
- Mechanisms for feeding results into decision-making and planning processes.
- Assessment results communicated to stakeholders; available in accessible form.

Demand management

- Incentives for water use efficiency, conservation, recycling and reuse at the river basin level, at the system level, and at the individual user level.

Social change instruments

- Investments in empowering and involving excluded social groups, such as women and the poor.
- Water issues incorporated into school curricula.
- Communication plans/campaigns attached to major water initiatives.

Conflict resolution

- Relevant staff receive training in conflict management methods.
- Existence of laws and legal procedures to resolve conflicts between water users if voluntary mechanisms fail.

Regulatory instruments

- Regulatory instruments address water quality and quantity, are consistent and comprehensive, and cover both public and private water service providers.
- Regulations are consistent with institutional capacity for implementation, compliance monitoring and enforcement.
- Regulators able to operate independently from both short-term political pressures and the regulated companies.
- Effective co-operation on regulatory decisions between land-use planners and water managers for issues such as flood protection.

Economic instruments

- Water pricing and other market-based measures used to recover costs, support sustainable service delivery, and improve water user efficiency.
- Public acceptance of the need for cost recovery (see social change instruments).
- Careful provision for poor or disadvantaged consumers, e.g. public regulation of tariffs set by private sector service providers; transparent, well-targeted subsidies.

Information management and exchange

- User-friendly platforms for sharing information among water-related, governmental and non-governmental organizations and with the general public.
- Decision-support tools that feed information into water and development planning.
- Participation in water-related international benchmarking, monitoring and information exchange initiatives and networks, e.g. the World Water Assessment.

Mapping out a plan of action: weighing options

Once areas to target for change have been broadly identified, the challenge becomes mapping out a more detailed plan for action. This involves examination of:

- What is feasible given the current political, economic and social context?
- What types of change should be prioritized? Do some changes need to happen first to make others possible?
- What are the relative costs and benefits between various change options?
- How do the changes work together as a mutually reinforcing package?

Considering the political, economic, and social context

One of the most common pitfalls is coming up with “ivory tower” solutions—solutions that are technically sound but do not take into account the real world context in which they will have to be implemented. For example, full-cost pricing of irrigation water is unlikely to work in situations where farmers are already struggling to make a living. Attempting to control groundwater withdrawal through licensing users is not going to be very effective if there is no capacity to shoulder the required administrative burden or prevent illegal abstraction.

This does not mean that such solutions can’t be included as longer-term objectives, just that this needs to be done with the awareness that other steps need to be taken first. For example, in the case of groundwater licensing mentioned above, steps to strengthen the administrative and enforcement capacity of relevant agencies would need to come first.

In cases where it is outside the power of the strategy to create the necessary conditions for successful implementation of a particular action, one can still include such actions while acknowledging current realities, by incorporating “triggers” into the strategy. In other words, once a certain precondition is met—such as *per-capita* income reaching a certain level—a particular action is launched (or “triggered”).

Ways of ensuring solutions work on paper *and* succeed in practice⁷ include:

- Making sure that the formulation team includes people with a broad range of practical experience.
- Ensuring adequate stakeholder consultation and input.
- Striving for transparent decision-making processes.
- Being aware of and linking into existing policy formulation and budgeting processes.
- Keeping in mind the diverse, complex, and not always logical influences on human decision-making and behavior.

Determining the order for change

As seen in the above examples, for reforms to succeed, certain preconditions often need to prevail. This means that the order in which reforms takes place can be particularly important. For example, research has suggested that for irrigation management transfer to work in sub-Saharan Africa’s small-scale schemes, governments first need to invest in raising the income-creation potential of small-scale irrigated farming by strengthening access to markets and credits, promoting high-value crops, and improving extension and technical support systems.⁸ In determining the order for change, it is advisable to think in terms of short-, medium- and long-term objectives.

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⁷ Many of these points are covered in more detail in *Catalyzing Change*.

⁸ Shah, T.; van Koppen, B.; Merrey, D.; de Lange, M.; and Samad, M. 2002. *IWMI Research Report 60: Institutional Alternatives in African Smallholder Irrigation: Lessons from International Experience*. Colombo: IWMI.

Looking at relative costs and benefits

After screening reform options for feasibility, the next step is to look at relative costs and benefits—in terms of economic efficiency, environmental sustainability and social equity.

Creating a mutually reinforcing package of reforms

Reforms need to be considered and designed as part of an action package for achieving particular strategy objectives. Often crucial steps such as capacity-building, raising awareness, and improving access to information are performed only cursorily or skipped entirely. Ideally packages should consist of measures that complement and reinforce each other and work well with existing policies and institutions. Indeed, part of the reform process may be working to improve policy coherence.

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The challenges of implementation

Implementing effective changes in the way water resources are governed—changes that lead to more efficient, equitable and environmentally sustainable water development, management and use—is a challenge because:

- Some of the needed changes often fall outside the water sector, in sectors such as trade, land management, agriculture, and energy.
- It may require addressing difficult issues such as corruption and undue political influence by powerful special interests—issues which themselves severely limit the degree of change possible and reduce the effectiveness of changes that are implemented.
- Good governance is not just about the changing the way government does business, but also strengthening the ability of civil society to make more sustainable decisions about how water is used and managed.

There are many examples of attempts at water governance reforms that have ultimately failed to catalyze lasting change. These failures can generally be attributed to three basic shortcomings: (1) they consisted of vague national-level policies that lacked a clear plan for implementation and/or allocation of responsibility; (2) they attempted to push reforms based on an off-the-shelf model of “IWRM” that was not tailored to the country’s goals and political, social and economic situation; or (3) they lacked a broad base of support, often because they did not effectively involve and communicate with stakeholders or because they attempted to change too much too quickly instead of building on existing systems.

Box 4: Potential pitfalls for implementing change

- Changing too much, too quickly.
- Not soliciting and incorporating stakeholder input.
- Not getting support (at all levels).
- Not linking into existing decision-making processes.
- Not investing in capacity-building for relevant government staff—i.e. demanding staff change their practices without giving them the necessary tools or training to do so.
- Not setting short, medium and long-term objectives and targets.
- Not considering “real-world” context in which changes will need to be implemented.

Key lessons

- Actions need to be realistic—considering the social, political and economic context.
- There should be a logical path between the goals/objectives and actions—one that includes short, medium, and long-term targets.
- Improving governance does not necessarily mean building new institutions or making drastic changes. Often it means working with what's already there—building institutional linkages, improving policy coherence, and increasing the transparency in decision-making processes.
- Improving water governance is not just limited to government. Raising awareness, access to information and building the capacity of civil society organizations is also a part of most successful action packages.
- When undertaking change, look not just at the current situation, but how the situation evolved, and the processes that currently shape decision-making. This includes past reform attempts, any successes that could be built on, and reasons for failures.
- Do not focus only on the water sector. Often changes will need to encompass policies on trade, land management, agriculture, energy, environment and others.
- Changes should work together to create a mutually reinforcing package.

Resources and related reading

Dalal-Clayton and Bass (2002). *Sustainable Development Strategies – A Resource Book*. Chapters 5 and 8. http://www.nssd.net/res_book.html

OECD (2002). *Improving Policy Coherence and Integration for Sustainable Development: A Checklist*. <http://www.oecd.org/dataoecd/61/19/2763153.pdf>

Pahl-Wostl, C and Sendzimir, J. (2005). *The relationship between IWRM and Adaptive Water Management*. NeWater Working Paper 3. http://www.usf.uni-osnabrueck.de/projects/newater/downloads/newater_wp3.pdf

UN World Water and Development Report (2003, 2006)
www.unesco.org/water/wwap/wwdr/

This brief was written by Sarah Carriger under the direction of the GWP Technical Committee (TEC). It draws on the outcome of a workshop on IWRM plans organized by the Partnership for African Water Development and the TEC in Johannesburg in November 2005, on discussions at several TEC meetings. Reviewers Akissa Bahri, Hartmut Bruehl, Jennifer Davis, Alan Hall and Yang Xiaoliu also contributed greatly to the final content of the brief.

About the Catalyzing Change Series

The brief is part of a series of policy and technical briefs designed to help countries accelerate their efforts to achieve the action target for the preparation of IWRM and water efficiency strategies and plans set by the 2002 World Summit on Sustainable Development (WSSD) and reinforced by the 2005 World Summit. The series tackles key issues and potential stumbling blocks and attempts to give countries at the beginning of the process the benefit of lessons learned from those further down the path.

The series complements *Catalyzing Change: A Handbook for Developing Integrated Water Resources Management (IWRM) and Water Efficiency Strategies*. The handbook and all associated briefs can be downloaded from www.gwpforum.org or hard copies can be requested from gwp@gwpforum.org.

The briefs in this series are intended to be dynamic rather than static documents. We will continue to update and improve them based on your input. Please send comments and questions to Christie Walkuski at walkuski@iri.columbia.edu.