



Vision Statement and Key Messages

Our Vision is a world in which all people have access to safe and sufficient water resources to meet their needs, including food, in ways that maintain the integrity of freshwater ecosystems. The Vision exercise's ultimate purpose is to generate global awareness of the water crisis that women and men face and of the possible solutions for addressing it. This awareness will lead to the development of new policies and legislative and institutional frameworks. The world's freshwater resources will be managed in an integrated manner at all levels, from the individual to the international, to serve the interests of humankind and planet earth—effectively, efficiently, and equitably.

Will continuing the way we manage water lead to a crisis? Yes. Indeed, many countries are already suffering a water crisis that affects their people and the ecosystems we all depend on. More than 1 billion people lack access to safe drinking water. More than 3 billion lack access to sanitation. Several countries lack sufficient water to produce food. And with increasing populations and demands on water, other countries will join them. We have already destroyed about half of the world's wetlands.

Even in a world where water resources are well managed and human demands are met, water withdrawals and consumption by and for humans could be 10% higher in 2025 than in 1995. With current practices, the degradation of ecosystems and the loss of biodiversity will threaten the lives of future generations. It is clear that we must change our ways.

To ensure the sustainability of water, we must view it holistically, balancing competing demands on it—domestic, agricultural, industrial (including energy), and environmental. Sustainable management of water resources requires systemic, integrated decisionmaking that recognises the interdependence of three areas. First, decisions on land use also affect water, and decisions on water also affect the environment and land use. Second, decisions on our economic and social future, currently sectoral and fragmented, affect hydrology and the ecosystems in which we live. Third, decisions at the international, national, and local levels are interrelated.

The three primary objectives of integrated water resource management are to:

- **Empower women, men, and communities to decide on their level of access to safe water and hygienic living conditions and on the types of water-using economic activities they desire—and to organise to achieve them.**

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- **Involve all stakeholders in integrated management**
- **Move to full-cost pricing of water services**
- **Increase public funding for research and innovation**
- **Increase cooperation in international water basins**
- **Massively increase investments in water**

- Produce more food and create more sustainable livelihoods per unit of water applied (more crops and jobs per drop), and ensure access for all to the food required for healthy and productive lives.
- Manage human water use to conserve the quantity and quality of freshwater and terrestrial ecosystems that provide services to humans and all living things.

Actions needed

Five primary actions are needed to achieve these objectives:

● *Involve all stakeholders in integrated management.* The current fragmented framework for water management cannot deal with the interrelationships identified at Dublin and Rio (box 1.1). Today water professionals manage most water, often on a sectoral basis, without coordinating their planning and operations, without close collaboration with the environmental community, and within administrative boundaries that usually ignore the natural surface and groundwater basin divides. Worst of all, the most interested stakeholders—the women and men in the community whose lives and livelihoods depend on wise water management—do not participate in decision-making. These stakeholders must be involved in making social and economic decisions affecting land and water use.

Governments should establish the institutional mechanisms to make this happen—including national legislation requiring land and water planning and management with participation of women and other stakeholders representing the economic, environmental, and social interests of the community and full sharing of information.

● *Move to full-cost pricing of water services for all human uses.* Because of its scarcity, water must be treated as an economic good. To give this concept meaning, this Report recommends that consumers be charged the full cost of providing water services. That is, they should pay the full cost of obtaining the water they use and the full cost of collecting, treating, and disposing of their wastewater. This does not preclude governments from providing targeted, transparent subsidies to the poor, always taking into account the other calls on public funds. It is a paradox that the poor suffer the most from water subsidies and from policies that treat water as a social good. Too often, water subsidies are captured by the wealthy, leaving insufficient resources for system operation and expansion and resulting in rationing—with the poor always at the end of the line. Pricing water services is a good

Box 1.1 Beyond Dublin and Rio

Since the 1970s a series of international meetings and conventions have provided milestones on the way to sustainable water resource management, leading to the widely accepted Dublin principles for managing water:

- Freshwater is a finite and vulnerable resource, essential to sustain life, development, and the environment.
- Water development and management should be participatory, involving users, planners, and policymakers at all levels.
- Women are central to providing, managing, and safeguarding water.
- Water has an economic value in all its competing uses and should be recognised as an economic good.

These principles recognise the close interrelationships among economic, social, and environmental security.

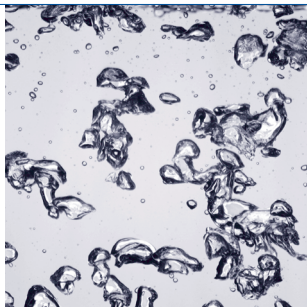
The challenge facing the World Water Vision exercise was not just to speed up the implementation of the Dublin principles, but also to propose a comprehensive set of practical principles for implementation.

step towards establishing a framework that will eventually recognise the full economic value of water, including the cost of externalities.

Full-cost pricing must be accompanied by targeted, transparent subsidies to low-income communities and individuals to allow them to pay to meet their minimum requirements and to encourage user participation in decisionmaking. This approach to valuing water will encourage infrastructure investments and private sector involvement and provide the revenue to cover the costs of operation and maintenance. It will make water suppliers accountable to users. It will reduce water withdrawals from and pollution of ecosystems. And it will encourage the use of water-saving practices and technologies, as well as further research.

● *Increase public funding for research and innovation in the public interest.* The consultations that were part of the World Water Vision exercise revealed that because water and the environment have not been valued, there are enormous gaps in our quantitative knowledge about freshwater ecosystems. Similarly, there is little stimulus for innovation in water conservation technologies. Pricing water resources will encourage the private sector to do some of this.

Still more publicly funded research is needed to promote the development and dissemination of innovative technological,



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social, and institutional approaches to international water resource management, especially in areas serving the public interest and not addressed by market-driven research and development.

- ***Recognise the need for cooperation on integrated water resource management in international river basins.*** There have been many public cries for cooperative management of international water basins. In general, such cooperation has been driven by other factors that bring the parties together. This probably will continue to be the case. But the Vision goes beyond the usual appeals for cooperation and recommends that nations voluntarily restrict their sovereignty to make it possible to apply the principles of integrated water resource management in international watercourses.

- ***Massively increase investments in water.*** Addressing the world's water resource problems will require massive investments. More investments are needed in water infrastructure—from current levels of \$70–80 billion a year to about \$180 billion, with \$90 billion coming mainly from the local private sector and communities, including contributions in kind. Coupled with this added investment would be government subsidies targeted to reach the poor (effectively and efficiently) so that they benefit from the new infrastructure. Pricing water to produce the cash flow for future investments and for operation and maintenance should go a long way towards making this possible. Contrary to a lot of thinking today, the Vision recommends that governments maintain their water budgets at current levels, mainly to provide funds indirectly to low-income individuals and communities who otherwise would not have access to water services and to keep food prices affordable for poor people.

Responsibility for implementation

The biggest challenge in water resource management is institutional. Social organisation, government policies, technology choices, and personal consumption all have an impact. But corruption, fragmented institutions, duplicated efforts, misallocated resources, and authoritarian, centralised practices have routinely raised the costs of doing business. Political will must be marshalled to include all stakeholders, especially women, in decisionmaking.

The real revolution in water resource management will come when stakeholders, where possible, have the power to manage their own resources. The task of politicians is to dispel the idea that water is primarily the government's business. They must facil-

itate representative participatory processes so that water can be managed locally to meet the aspirations of many stakeholders.

The pivotal role of women as providers and users of water and as guardians of the living environment needs to be reflected in institutional arrangements for developing and managing water resources. Socially determined roles and relations of women and men—differentiated by age, class, marital status, ethnic group, and religion—determine how water is managed. Participatory processes must be established so that women and men together decide the relative importance of water's economic, social, and environmental functions. Such democratic processes give women better opportunities to benefit equitably from the use of water resources and to take full part in decisionmaking. Moreover, such decisions should be made at the lowest appropriate level. For many issues that will be the community, but for international basins it will be partly international.

Public and private management of water must be improved through greater accountability, transparency, and rule of law. Because of social concerns, in many countries the supply of water services has been entrusted to public agencies, which in most developing countries (and many developed ones) have become inefficient, unregulated, and unaccountable. The private sector changes this dynamic fundamentally, because a private monopolist needs to operate under a defined contract (that is, it needs to be regulated).

Once regulation and accountability are established for private companies, it logically follows to do three things: compare their performance with that of public companies, make public companies also responsible to users, and regulate public companies. This process can start a virtuous circle of competition, with, arguably, the greatest benefit being that public companies become regulated, accountable, and efficient. There is clear evidence in the urban water sector that under such circumstances performance improves immeasurably, but the process has yet to start in irrigation.

Water management in each country affects the global social structure, economy, and environment. International institutions have a major role to play in setting standards and monitoring performance within countries against these standards. But inefficiencies beleaguer the international systems. Reform of international institutions in the water sector should provide for greater participation by all stakeholders—not just governments but also the private sector, nongovernmental organisations (NGOs), community-based organisations representing civil society, and consumers.