

# **Urgent Action Needed for Water Security**

## **2002 STOCKHOLM STATEMENT**

- 1. Water users must be involved in the governance of water resources**
- 2. The link between economic growth and water degradation must be urgently broken**
- 3. Urban water services are crucial for urban stability and security**
- 4. Policy, planning and implementation must be based on integrated solutions**

**Recommendations from the  
Stockholm Water Symposia, 1998-2002**

# Urgent Action Needed for Water Security

## 2002 STOCKHOLM STATEMENT

### Water on our planet

The Development Target set by the UN Millennium Assembly is to halve by 2015 the proportion of people living in extreme poverty, suffering from hunger or unable to reach or afford safe drinking water. It will not be possible to achieve these goals unless governments realize that water is fundamental for almost any kind of development and human activity. Something must be fundamentally wrong when enormous interests and financial resources are engaged in finding water on other planets while we pay insufficient attention to water on our planet on which humanity's survival and quality of life genuinely depend. While part of the explanation may be the commonplace character of water in most industrialized countries, it should be stressed that the majority of the low income countries with large undernutrition are located in the dry climate tropics where daily access to water is everyone's number one priority.

The present understanding that water has to be managed is misleading. The challenge is rather to manage the people that depend on and make decisions about freshwater. Contrary to the common-held belief, the water issue is by no means an issue only for experts. It constitutes nothing less than a central question of human survival: water is everybody's business.

### Water is not a robust resource

Water is closely related to both eradication of poverty, socio-economic development, food security and environmental security. In a situation where water quality degradation is already threatening socio-economic development and livelihood security, it is criminal to continue to treat water as if it is an ubiquitous and robust resource. Water, through its mobility, interlinks many societal sectors with land use and ecosystem productivity.



Therefore, mitigation of water problems requires of us the ability to address the role of water for social and economic development and to take an integrated approach to water, society and ecosystems.

### **Deep concern**

Past Stockholm Water Symposia have resulted in a worldwide network linking scientists, engineers and policy makers. During five consecutive Symposia, participants from organizations and concerned scientists in over 100 countries have expressed deep concern over the lasting difficulties encountered around the world as nations attempt to manage this valuable resource. On the one hand, there is increasing competition for water, expanding water pollution, and growing water needs for cities, industries and for crop production. On the other hand, it is important to secure ecosystem health in the life support system on which humanity ultimately depends.

The water cycle provides the common lifeblood of all people, all human activities and all ecosystems. The ultimate freshwater resource is the precipitation within a river basin, in other words the landscape within a water divide. Precipitation is partitioned between the "green water" flow, i.e. the part which is transpired and/or literally consumed in plant production, and thereby not available for reuse downstream, and the "blue water" flow, which forms the runoff in rivers and aquifers and is available for societal use and in-stream functions.

### **Principles for action**

*There is an urgent need for all governments, inter-governmental and non-governmental organizations, other policy and decision making bodies and actual water users to take immediate action to ensure that water security, in its broadest sense, becomes a reality during the next generation. Such action should be based on the following four principles.*



## Principle 1. Water users must be involved in the governance of water resources

Coherent policies, across sectors and administrative/spatial units, are fundamental for systematic and proactive resource management. The ultimate test of policy and planning documents is their social acceptance and compliance in the field. But the relationship between policy, social acceptance and compliance can never be static, since reality is complex and dynamic in terms of environment, knowledge, demography, human aspirations and value systems.

In reality, therefore, the users are the ultimate governors of water. They must make use of the best possible knowledge, and continuously help to develop it. Therefore, education and training is a prerequisite for success. An ongoing dialogue between policy and decision makers and the users is of utmost importance, and the outcomes of this two-way process must be integrated in policy.

Governments should employ the most effective means to ensure that this happens and rule, not only through legislation, but also through dialogue and consent in order to secure social acceptance. It is vital that policies and plans are translated into effective incentives, sanctions, actions etc., which turn human actions into desired directions and steer away from hazardous avenues, on which so many are travelling today. Water issues are initially linked to political and social processes. Enhancing what is politically feasible is a crucial task to reach the Millennium goals.



## **Principle 2. The link between economic growth and water degradation must be urgently broken**

A fundamental dilemma is that processes to generate wealth in fast-growing economies also generate huge amounts of pollution that increase much more quickly than the population and the GNP. Pollution abatement is a prerequisite for securing usable water sources. Although water quality management has been on the agenda for more than three decades, the worldwide inability to halt water pollution remains a serious failure. Large-scale eutrophication of lakes and enclosed coastal seas reflects both poor sanitation and the leaching of nutrients from agriculture and forestry all over the world. Pollution from industry is a major problem for both developing countries and countries in transition. Widespread evidence demonstrates that groundwater - considered to be a clean and safe raw water source - is also increasingly polluted in all regions.

Water pollution abatement must be much more proactive. Hazardous chemicals need to be banned worldwide and resource efficient and clean technologies should be standard. Developed countries have a particular responsibility towards developing countries in this regard. A more adequate attention to water pollution is imperative in order to avoid water pollution-driven convulsions that will otherwise threaten communities in the coming decades.



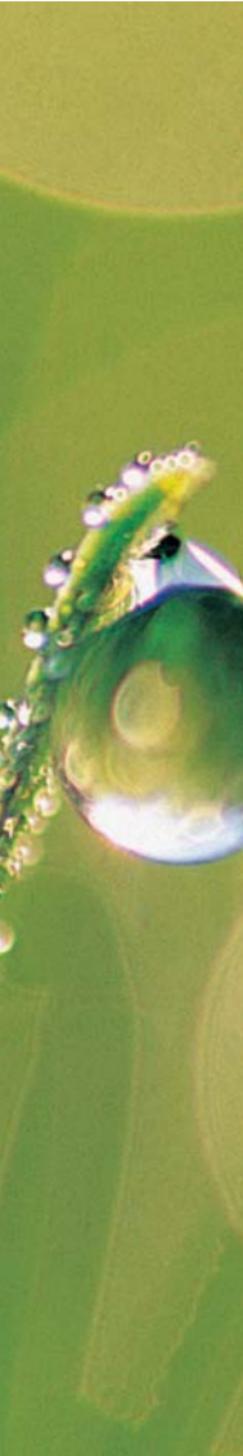
### **Principle 3. Urban water services are crucial for urban stability and security**

**A**n engineered and secure water supply and sanitation for a city is a necessary condition for the survival of its inhabitants but also for the functioning of industries, hospitals and other urban activities, thus to ensure sustainable urban development. The problem of finding bulk water for the city as a whole has to be co-ordinated with other catchment water planning. Adequate policies are essential to distribute household water to the inhabitants and to secure water provision for the poor in non-regulated urban areas.

The sheer scale of the task to provide safe water for an additional 50 million people every year makes the water-based, large-scale solutions practiced in water rich countries unrealistic in most places. A downstream city should see the catchment as an asset for development and invest in the life-support system upstream that delivers its life blood. In critical situations, a sustainable city may be based on rainwater harvesting, storm water retention and recycling of water. Such solutions radically replace the need for conventional large-scale systems.

As safe sanitation is essential for a healthy city population, a clear sanitation target must be set at the World Summit as a complement to the Millennium Declaration goals.

A leading idea is to view human waste as a resource to be returned to food production. To close the enormous sanitation gap where billions lack safe sanitation, water-borne sanitation has to give way to ecologically safe dry sanitation as a tested and valid alternative. Although the principle of ecological sanitation is increasingly accepted in many developing countries, conventional water-borne systems are still advocated by consultants and lending institutions as the only large-scale solutions. Rather than solving the sanitation problem, such advice may in fact aggravate it.



## **Principle 4. Policy, planning and implementation must be based on integrated solutions**

Water's movement from the water divide to the river mouth makes the basin the optimal unit for taking an integrated land/water/ecosystem approach. Yet, since most scientists and managers see only parts of the overall problems, it is a major challenge to co-ordinate and integrate sectorized approaches to water management that still dominate all over the world. Institutional arrangements have to allow and facilitate a crosscutting dialogue. Since with time the complexity of water resources management will be continuously increasing, the expectations on the next generation of professionals and managers are rapidly growing. For a successful dialogue, an easily understandable common language will have to be developed. Education and competence development are more important than ever. To achieve innovative approaches it is necessary to re-educate consultants and loan and aid officers.

There is need for a radically improved governance, based on a new paradigm of social mobilization. In a situation of rapid change, societal stability requires adaptation and ability to cope with water cycle-related constraints in the rivers, aquifers and soils. Reconciliation of conflicting stakeholder interests in a basin depends on arenas for negotiation and compromise building, supported by adequate regulatory mechanisms. Stakeholder involvement is critical to achieve societal acceptance of the outcome. Stakeholders need to understand the necessity and value of giving up obsolete compartmental approaches of the past. Mutual respect between different basin stakeholders is essential. In this process, polluting and water intensive industry and agriculture must contribute.

## Principles for action in Johannesburg and beyond:

### **Water users must be involved in the governance of water resources**

Users are the ultimate governors of water. They must comply with best possible knowledge, brought to them by effective education and training, and take a more active responsibility for achieving sustainable water management. Governments must rule not only through legislation, but also through dialogue, as the ultimate test of policy is social acceptance and compliance in the field.

### **The link between economic growth and water degradation must be urgently broken**

A fundamental dilemma is that most of the processes that generate wealth also generate huge amounts of pollution. More attention to water pollution is imperative in order to avoid water pollution-driven convulsions that will otherwise threaten the world community in the coming decades.

### **Urban water services are crucial for urban stability and security**

An engineered flow of usable water accessible for everybody through a city is necessary for the health and survival of its inhabitants and the functioning of industries, hospitals and other city components. A secured water supply and safe sanitation is essential for sustainable city development.

### **Policy, planning and implementation must be based on integrated solutions**

Water's movement from the water divide to the river mouth links land use, water resources and ecosystems in a river basin. It is essential to secure coherent water, land use and ecosystem policies and to integrate sectorized approaches to water management that still dominate all over the world. Institutional arrangements have to allow and facilitate a crosscutting dialogue.



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