

## Conclusion

# Relying On Water and Sanitation Services during Disasters: A Political, Social, and Economic Concern

### **Water and Sanitation for Everyone and At All Times**

Risk reduction is an indicator of the sustainability of services. The work that is carried out to reduce vulnerability and to strengthen the system will be expressed in its capacity to remain and to *survive* in the event of disaster, as well as to be repaired with vulnerability indices that are the same or lower than those before the disaster.

In the water and sanitation sector, the focus of service provision has changed from construction of systems to installation of *sustainable services*. The work to secure the systems in the event of natural disasters is a direct contribution to technical, economic, and environmental aspects of this sustainability.

*Technical sustainability* benefits to the extent that the works carried out on physical infrastructure limit future problems in the operation of the system as a consequence of a natural disaster through appropriate technologies and correct location of the components, among others. In addition, risk management projects are a means of entry for work with the community and for strengthening local capacities.

*Economic and financial sustainability* should not be affected by a natural disaster. Risk management should anticipate that in case vulnerability is not eliminated, the system must rely on a mechanism (such as payment for services in an urban area, the supply of replacement parts, and enough technical and economic capacity in the peri-urban and rural area) that will make it possible to have enough resources for recovery of the system.

*Environmental sustainability of the system*, or the harmony of the installed systems with existing environmental conditions, including natural hazards, requires that the systems operate without generating greater hazards or altering environmental conditions. This is of particular concern with systems for sanitation, sewerage, or treatment of wastewater.

Even when projects for vulnerability reduction and secure systems are carried out, an event of exceptional magnitude can damage components and affect the service. Agreements should be made with local authorities regarding the minimal levels of service delivered in emergencies, and include legal obligations in the contracts for providing services. Critical facilities such as hospitals, schools, and shelters should be identified as having priority for service even under the most unfavorable conditions.

In any case, the minimum conditions established should provide a service that satisfies local needs for consumption, hygiene, and well-being.

The sector's authorities must realize that it is necessary to *renew and to update the standards and design criteria* based on the experiences gathered from each new disaster. In association with academic and scientific actors the sector authorities should systematize these experiences and establish new codes, or update the current ones for the installation of water and sanitation services. The revised standards should be circulated among professional networks and associations and to businesses at the local, national, and regional levels. By sharing the lessons learned it makes it possible to publicize the need to secure the systems and the responsibilities of the various actors in the sector, and to demonstrate that it is possible to have sustainable water and sanitation services in the event of natural disasters.

The work of risk management by the water and sanitation sector should involve all of the actors, from the authorities and regulators to the local governments and the community at large. It should also form part of the multi-sectoral work of risk reduction in communities. The contribution expected from the sector at the time of the emergency and in reducing vulnerability for the population in general, requires that the sector participate in stages of risk reduction that should be considered as part of the lifelines for development

and the resilience of the communities. It must recognize that its contribution is vital to the health and well-being of the community and the need to achieve sustainable services.

In this regard, the active promotion of multi-sectoral national platforms for risk reduction, one of the priority commitments by countries for implementation of the Hyogo Framework for Action 2005-2015, provides an important opportunity for involvement of the water and sanitation sector in risk reduction policies. Similarly, relying on the commitment of the water and sanitation sector in the area of risk management and vulnerability reduction provide the opportunity for the risk reduction community to focus its efforts on a key sector, not only to realize the objectives of the Hyogo Framework, but to advance in the challenges of the MDG.

A concern that those in the sector should learn about in order to make the water and sanitation systems sustainable is that water and sanitation are for all and at all times, and even more during emergencies, when they are most needed. The challenge for the water and sanitation sector in the context of disaster reduction is to improve the quality of life by reducing vulnerability.



