Chapter 13

Bridging the observational gap

Key messages

- Worldwide, water observation networks provide incomplete and incompatible data on water quantity and quality for managing water resources and predicting future needs – and these networks are in jeopardy of further decline. Also, no comprehensive information exists on wastewater generation and treatment and receiving water quality on a regional or global scale.

- There is little sharing of hydrologic data, due largely to limited physical access to data, policy and security issues; lack of agreed protocols for sharing; and commercial considerations. This hampers regional and global projects that have to build on shared datasets for scientific and applications-oriented purposes, such as seasonal regional hydrologic outlooks, forecasting, disaster warning and prevention, and integrated water resources management in transboundary basins.

- Improving water resources management requires investments in monitoring and more efficient use of existing data, including traditional ground-based observations and newer satellite-based data products. Most countries, developed and developing, need to give greater attention and more resources to monitoring, observations and continual assessments of the status of water resources.