

MANAGING TRANSBOUNDARY WATERS

Nature does not neatly segment environmental or water problems by geography or political unit. Most of the large rivers of the world cross national borders, often resulting in water use conflicts and tensions, as well as missed opportunities for sustainable development, peace, and security. About one-half of our planet's land area and population, and more than 60 percent of global freshwater flow, are located in transboundary basins. These systems, including their land area, must be managed in a sustainable way if we are to preserve the environment, reduce poverty, and prevent domestic and international conflicts.

In 1991, the world community recognized the serious degradation of freshwater and marine systems occurring across borders when it created the GEF and designated the protection of international waters a GEF priority. In 1995, the GEF Council took a bold step in adopting an operational strategy that included guidance on addressing international water issues within the framework of sustainable development.

GEF projects help nations in transboundary basins or those sharing a marine ecosystem work together to establish priorities; adopt policy, legal, and institutional reforms in sectors causing degradation or use conflicts; and test the feasibility of various investments to address use conflicts and reverse degradation.

COUNTRY-DRIVEN ASSISTANCE

Developing countries and those in economic transition clearly appreciate the seriousness of the linked land and water resources crises. Many have requested GEF's assistance to improve cross-sectoral

management of their transboundary basins and linked marine ecosystems. Water use conflicts, growing water scarcity, pollution, erosion and downstream sedimentation, flow depletion, cycles of drought and flooding, habitat loss, joint governance, and over-fishing are among the chief concerns.

The GEF works to leverage the involvement of other nations as they implement water-related global and regional treaties. It has provided assistance to countries for important international water bodies. Its projects are implemented by the U.N. Development Programme, the U.N. Environment Programme, and the World Bank. The GEF also works through seven executing agencies: the African Development Bank, the Asian Development Bank, the Inter-American Development Bank, the European Bank for Reconstruction and Development, the U.N. Food and Agriculture Organization, the U.N. Industrial Development Organization, and the International Fund for Agricultural Development.

THE BASIN, NOT JUST THE WATER

Through their participation in the GEF, countries are learning that transboundary water management is not just about sharing water but also

GEF SUPPORT FOR TRANSBOUNDARY WATERS

Since 1991, GEF has provided funding to 135 developing and transitional countries for 110 transboundary water resources projects. GEF's commitment of \$888 million has resulted in total project funds exceeding \$3.8 billion.



about their shared drainage basin and its environmental assets. Often land use decisions are in reality water use decisions, and the security of downstream communities and downstream economies can be placed in jeopardy because of misuse of land or water. Sustainable development of transboundary basins is about sharing the benefits of improved land and water resources management, not just about dividing up limited amounts of water.

A good example of reforms and investments involving both land and water resources is the Bermejo Binational Basin Project in Argentina and Bolivia. The Bermejo Binational Basin suffers from droughts and floods. Strategic planning processes, combined with local demonstrations of water harvesting and soil erosion control, empowered the communities in the basin to take part in determining their sustainable future and establishing priorities for reforms.

RESTORING FLOODPLAINS FOR POVERTY REDUCTION

The security of poor communities often depends on access to functioning wetlands, floodplains, and fisheries, which are often threatened by development projects that reduce or eliminate water access and increase vulnerability to flooding. Countries in transboundary basins are asking the GEF for assistance to restore water-related ecosystems and deter-

mine their flow requirements so that future development can be environmentally sustainable.

The Lake Chad Basin Project demonstrates that restoring floodplains with special releases from dams will be essential for poverty reduction in the poor communities of Africa. The Danube/Black Sea Basin Strategic Partnership is supporting floodplain restoration not only for local income generation but also for pollution reduction. The Mekong Basin and Okavango Basin Projects are determining the water requirements of important wetlands and downstream deltas so that future development projects will be able to sustain the environmental flows needed to secure these ecosystems and provide stability to poor communities.

ESTABLISHING PRIORITIES AND DEVELOPING A SHARED COMMITMENT

According to the GEF's operational strategy, nations should begin their joint basin activities by setting priorities (transboundary diagnostic analysis or TDA) and determining the policy, legal, and institutional reforms and investments needed to address those priorities in a strategic action program. These processes foster "learning by doing" and strengthen political commitments to address priorities. Several GEF projects, including the Bermejo, Danube/Black Sea Basin, and Lake Tanganyika projects, have hinged on establishing these shared commitments to sectoral reforms. Once those commitments are secured, the GEF may co-fund an implementation project or program to assist countries in addressing their reform and investment priorities.

PREVENTING CONFLICTS

Collective action and the sharing of resulting benefits are proving to be effective ways to address conflicts over scarce water. An initial focus on environmental assets can build confidence in the feasibility of such actions. Consider the Nile Basin Initiative. The 10 participating countries initially used their GEF project preparation support to produce a transboundary environmental analysis. The analysis required each

country to consult with its non-environmental ministries and sectors, resulting in greater inter-ministerial coordination and wider stakeholder participation.

REFORMING POLICY AND INSTITUTIONS

Nations must establish cooperative, multi-country water-resource management institutions and undertake domestic policy reforms if they are to change the way that various sectors work in transboundary basins. In the Danube Basin Project, countries are cooperating under a joint legal framework to revise their individual water and environmental laws. The Guarani Aquifer Project, which has been a priority for GEF funding, is leading to coordinated legal, institutional, and environmental frameworks for managing the aquifer and recharge area.

Through the São Francisco Basin Project, Brazil is using GEF funds to implement a new water law that establishes a system of water pricing and allocates water rights. The law also requires the development of water charges and use regulations in the basin. The five states in the basin have formed a river basin committee and will eventually establish a basin management agency.

ATTRACTING DIVERSE FINANCING

The Lake Victoria Environmental Management Project, undertaken with GEF assistance, is a good example of a project that packages financing from different sources to foster sustainable development and reduce poverty in local communities as well as decrease transboundary ecosystem degradation. The program combined \$35 million from GEF with \$52.6 million in cofinancing to test sustainable development strategies. These strategies aim to generate food, employment and income, safe water supplies, and a disease-free environment while exploring innovative methods for reducing pollution, conserving biodiversity, sustaining fisheries, and building institutions. Local communities are becoming involved through 125 micro projects related to sustainable use of land and water resources.

PROMOTING STAKEHOLDER PARTICIPATION

Poor communities must have access to local, national, and basin-wide water and land resource management institutions so that they can participate in long-term planning and decision making. In the Bermejo and San Juan Basin projects, local NGOs were involved in planning activities that gave them access to commissions and steering committees, thus enabling them to influence the development of action programs.

NGO forums established in both the Danube Basin and Black Sea Basin Projects provided opportunities for civil society to interact with project commissions. In the Lake Victoria Project, local communities have been involved in addressing illegal fishing, implementing biological controls for water hyacinth infestation, and forming beach management committees (185 committees in Kenya, 82 in Uganda, and 510 in Tanzania) to work with their national government in “co-management” of the lake.

At the same time, private sector involvement is urgently needed because of the shortage of public funding. An additional \$100 billion must be invested in water projects annually just to keep up with population growth and food security needs. In many regions, urban water supply systems are characterized by inefficiency and waste. Reforms to institute proper water pricing policies, multilateral development priorities for sharing the risks associated with private-sector investments, and public-private partnerships that attract private capital for investments provide the only hope for reversing water resource degradation and use conflicts.

SHARING EXPERIENCE

The GEF has found that sharing information and experiences about transboundary water projects can be a valuable learning tool. The GEF IWLEARN project (www.iwlearn.org) is testing the latest Web-based technology to enable people participating in

GEF international waters projects to share experiences and transfer knowledge. Its distance learning trial illustrated that countries and projects could augment their water-resource management capacity through an online master's

degree program for a fraction of the cost of sending staff to university for several years. Staff earning a master's degree through the online program have stayed with GEF projects, playing key roles in their implementation.

LESSONS LEARNED FROM GEF'S TRANSBOUNDARY WATER PROJECTS

- Collaboration among countries is necessary to develop a shared political commitment and vision for action.
- Policy, legal, and institutional reforms in the economic sectors creating transboundary stress or water use conflicts are necessary to alleviate that stress or conflict.
- A focus on sharing benefits from the improved management of land and water resources in basins—rather than on merely sharing water—is often a useful approach.
- Restoration of floodplain wetlands and downstream coastal ecosystems is crucial to reducing poverty and increasing the security of communities.
- Improved water pricing policies and the use of economic instruments are necessary to generate revenues and attract private-sector investments in projects to save water and reduce pollution.
- Institution building and capacity enhancement at all levels of governance should be priorities to “level the playing field” among nations and enable long-term participation of stakeholders.
- Inter-ministerial committees in each nation are critical to enhance reforms in different sectors.
- Multi-country institutions should adopt indicators to support adaptive management.
- Finance packages are needed to address poverty reduction and development issues concurrently with interventions for the transboundary water environment.
- Programs, not just projects, are needed with each partner using its comparative advantages to spur needed country reforms and investments.
- South-to-South exchanges of experiences are essential and can be accomplished with the aid of modern technology and learning opportunities.
- GEF serves as a catalyst for country-driven actions that are undertaken collectively under many global and regional conventions in its international waters focal area.

FOR MORE INFORMATION

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