

# Chapter 6. Involving People

## Values, Education and Participation

The chances of achieving the goals of sound and sustainable management of any natural resource system affected by human use—such as lakes, wetlands, rivers, forests, and coastal lands—improves considerably with the involvement of people who are directly or indirectly dependent on the system's resources. Without their involvement, any management plans or programs will be difficult to fund and implement, since stakeholders will have little sense of ownership or commitment. In the case of lake basin management, the number of stakeholder groups competing for the limited resource base can be quite large, making public (community) participation and stakeholder involvement particularly important. The briefs show that some lake basins have gone through many decades of struggle to improve their management, and in the process have devised ways to involve people in the development and implementation of their management plans and programs. The extent of involvement varies from one lake basin

situation to another, and for the same lake basin, from one phase of management to another.

This chapter discusses this subject from two different perspectives. First, it summarizes the discussion in the LBMI briefs on public (community) participation and stakeholder involvement. It also discusses how the process of developing and implementing lake basin management plans and projects can be better facilitated with the involvement of people. Second, based on the findings from the briefs, it explores ways to improve the performance of community participation and stakeholder involvement, particularly in areas such as communication, education, and public awareness (CEPA). It also discusses gender equality and women's participation, as well as the role of NGOs and CBOs in management and communication. In addition, the chapter briefly introduces the international context of participa-

### Box 6.1. Participation and Involvement: Defining Key Terms

The terms "participation" and "involvement" are associated with the terms "public," "community," "citizen," and "stakeholder" in all sorts of combinations. The first two may be used interchangeably, while the latter four may also be used with loose distinctions. In the recent literature, public participation has been increasingly distinguished from stakeholder involvement, where the latter processes are said to be both more inclusive and targeted.

There is not as much of a consensus about what participation means and how to achieve it. One categorization of participation suggests that there are four exclusive levels, or types, of participation, in ascending order from least influence to most influence: (1) information sharing (one-way communication); (2) consultation (two-way communication); (3) collaboration (shared control over decisions and resources); and (4) empowerment (transfer of control over decisions and resources). The four levels are not indicators of scale; they indicate distinctly different types of participation. It should not be assumed, however, that all participation is good or that a higher level or more participation is automatically better; that depends on the situation (World Bank 2000).

Stakeholders are defined as individuals or representatives of a group who make use of, have an impact on, or are impacted by, the issue of concern. There is no blueprint for stakeholder participation. In principle, only key stakeholders should participate to avoid unwieldy and nonproductive groupings. The key stakeholders are those people, groups, or institutions who can significantly affect the outcome of the process. In many situations, it is useful to get an overview of all the stakeholders relevant to the issue of concern using "stakeholder-analysis." Often, however, the issue of concern is only vaguely defined and/or may be redefined over time.

Public participation at the community level involves stakeholders who may be individuals and/or community-based organizations, sometimes referred to as primary stakeholders or as local communities. Their involvement is referred to as community-level participation. The term community designates both communities-of-place and communities-of-interest. Communities-of-place include members of the public who may be affected by or interested in management decisions and actions by the nature of their residency within or near management activities. Communities-of-interest include groups with a focused interest in (often accompanied by organized efforts to influence) management of resources unrelated to their member residence (Kusel and others 1996). Some communities, however, may be both of place and interest, such as villages highly dependent on fishery, forestry, or agriculture.

tion and involvement, as well as the role of international NGOs.

### **An Overview**

How deeply people are involved in lake basin management differs from one lake basin to another. The degree of involvement is affected by various factors related both to the nature of the lake basin resource and how it is being used and managed. In the case of many African and Asian lakes, fishery resources are a major resource, and the development and implementation of various fishery management schemes requires strong involvement of the fishing community. The mode of involvement, however, may vary depending on the type of fishery activities pursued. In the case of a community-based subsistence fishery, the mode of involvement has to be adjusted to the traditions, culture, and life style of the fishing community, while in the case of the communities engaged in an export-oriented fishing industry, the socioeconomic implications of the industry to the lakeshore communities have a strong influence on the mode of involvement. Similarly, the involvement of people in lake basin management activities has been the major driving force in promoting environmental protection, pollution controls, ecosystem management, and biodiversity preservation in many countries in the industrialized world, including countries in Asia-Pacific, North America, and Europe (see Chatchai for a case study on how people were involved in development planning in Thailand).

#### *Public Participation*

The briefs stressed the importance of public participation in lake basin management from many different perspectives. The following are some examples.

- The (affected) public's interest in the implementation of a management plan is generally longer than the time span of the government officials, as exemplified by the observation, "the long-term viability of many project outputs would depend heavily on local populations because of their residence as opposed to the government staff (African Lakes Workshop)."
- The local community (the public) would be able to provide the local knowledge useful for developing and implementing the management plan, as exemplified by the observation, "the existing practices reflect not only the interests of local communities but also their informal management methods (Chilika)." It also implies that local cultural beliefs, values, and norms need to be fully understood and appreciated by the developer of the management plan for it to be accepted and properly implemented by the community.
- Community-based activities using a participatory approach "could bring into the policy development process the voices of usually excluded principal stakeholder group—the community as the policymakers can draw insight into what works and why, and use

that knowledge to create strategies to bridge the gap between national or regional policy and local practice (Lake Toba)." This observation is more subtle in that often (sometimes for good reasons, but often for the sake of saving time, effort, and cost), the developer of the management policy, plans, and programs may leave out some of the potentially affected public, who might play an important role in the long-term management of the lake basin, from the decision-making process.

Naturally, effective participation of local communities in lake basin management depends on the degree of awareness among local communities of important technical, social, and economic issues. Though they may not be enough, public awareness and information campaigns are a vital part of the participation process.

- On the need for capacity development in community participation, the Lake Toba brief mentioned that "even when provincial and district government staff are committed to a participatory approach...they may not have the capacity to implement it." The Lake Champlain brief also noted that "the capacity of the organizations in a lake basin to engage in effective resource stewardship can (should) be increased along with the skills of their staff and volunteers."
- The briefs stressed proper design of community participation (Lake Victoria, African Lakes Workshop); proper definition of the roles of communities and government institutions (African Lakes Workshop); building on existing traditional structures (Lake Malawi, African Lakes Workshop); and the usefulness of teaming up with local knowledge institutions (Lake Naivasha).
- Some uniquely successful examples include (1) the housewives' initiatives in the promotion of the Soap Movement and the fire-fly monitoring by a large number of residents, including school children, in Lake Biwa; and (2) in Lake Baringo, an awareness-building program that was linked to the establishment of four wildlife sanctuaries managed by local communities.
- Participation linked to the improvement of livelihoods of participating communities generally succeeds (examples include the rural water supply and sanitation projects in Lake Toba, and afforestation projects in Lakes Chilika, Nakuru, Laguna de Bay, and Tanganyika), with the project assets fully used and properly operated and maintained.

It is also important to realize that numerous examples from the case studies suggest that changes in peoples' attitudes toward environmental issues happen only after they understand and realize benefits from management interventions. Obviously, the power of community-level participation would be evident when the outcomes of participation are clearly and directly linked to an improvement in the

livelihoods of participating communities. Overall, the summaries of rural water supply, sanitation, and reforestation projects in the briefs indicate that participation of citizens and local communities greatly improves the likelihood that project assets will be fully used and properly operated and maintained. Effective participation of local communities depends on social organization that establishes manageable groups within the community (see [Oya](#)).

#### *Stakeholder Involvement*

Generally, management of a lake basin involves a broad spectrum of stakeholder groups, including various water withdrawal operations such as farmer and agricultural (irrigation) organizations, wastewater management systems, fishery organizations, local and regional governments, business operations (including the tourist industry), park operations, research and educational institutions, environmental protection and nature conservation groups, citizen organizations, politicians, women, youth, indigenous people, and the poor. While some of the stakeholder groups have a vested interest in lake basin resources themselves, others, like politicians, have an interest in performing catalytic roles. For example, during the African Lakes Workshop it was noted that legislators and their assistants may themselves be important stakeholders, but they represent the constituent stakeholder groups. Depending on specific lake basin management cases, other kinds of catalyst stakeholder groups may be identified. For example, in Lake Champlain watershed associations are reported to act as catalysts for “non-regulatory protection programs.” The experience of most of the developing countries suggests that international actors constitute an important group of stakeholders. They play a unique and critical role in the translation of global institutional agendas and local grassroots agendas into a common policy for sustainable lake basin management. Often it is international actors that provide critical technical and financial assistance for developing and establishing participatory lake basin management in the developing countries.

Within stakeholder groups, individual interests may differ quite widely, depending on individual situations and their own vested interests or concerns. One lake brief, for example, specifically focused its discussion on the management of the lake in relation to “the horticulture industry with strong interest in innovative and environmentally sound production techniques and systems (Lake Naivasha),” but the level of interest of the individual horticulturalists, for example, would naturally vary. The stakeholders belonging to the same category do not necessarily have the same view or same kind of role to play in lake basin management. In this light, it is important to reflect on the issues of women and youth as stakeholders (see also subsection below on Gender Equality and Women’s Participation). They may not, individually, have a vested interest in lake basin resources, but collectively they do, and their roles in overall lake basin management—that is, their knowledge, plight, concern, and their “right” to speak-qualify them

well as stakeholders. The same sort of argument may hold for indigenous people and the poor, but their stakes relate more strongly to the need for the others to pay due respect to them as the disadvantaged. Nonetheless, different stakeholder groups may be involved in different phases of the process, and the participation can be conducted at different levels of governance (community, local, national, or international, or a mix of those). Different methods are used to match the different circumstances, capacities, and needs of stakeholders.

As one brief stressed, it is important for the stakeholders to “understand the close connection between the condition of the basin’s resources and their quality of life, including economic opportunity, health, heritage, and aesthetics,” and for them to “be involved from the beginning of the planning process so that they may have a greater acceptance of the policies and actions developed, and a greater willingness to form partnerships to work toward implementation (Lake Champlain).” The stakeholders should be involved from the outset of the planning process to allow “setting of common priorities, mutual understanding in the approaches to be applied, and prevention of duplication and overlapping of activities (Lake Toba).” One of the briefs also points out that “managing a lake basin is always a work in progress with different stakeholders,” and “understanding the lake and its environs takes time, and, along the way, knowledge is gained and mistakes are committed (Laguna de Bay).”

#### *Toward Improving Performance*

Improving the performance of community participation and stakeholder involvement requires developing the human capacity to develop trust and acceptance and to realize that behavioral change can bring about benefits. For example, one brief points out that people are more easily convinced by their neighbors’ experiences and tend to trust those they live with rather than outsiders. People trust and accept the information to be true or not true much more easily when a relative, neighbor, or a local leader checks it out and confirms it.

Improving participation and involvement of an individual is strongly influenced by that of the group he or she belongs to, or more broadly, by the environment he or she is in. In this connection, one of the briefs states, “Behavior change does not happen until people realize or experience the benefit resulting from the change. Behavior can be said to have changed only when newer behavior patterns replace older ones consistently and are sustained thereafter. Measuring the change of behavior as a result of environmental education of schoolchildren would certainly take a very long time, but the results can be far more effective and sustainable. Training for elementary school teachers on practical environmental education has been expanded to cover more than a hundred teachers and community leaders in Lake Toba region and it has to be continued.” (Lake Toba)

In terms of discussing methodologies and techniques to bring about performance improvement, the lake briefs have pointed out both some general as well as unique cases. For example, one brief states, "Community participation may be made more effective if they are combined, with "awareness campaigns and other eco-friendly activities (Bhoj Wetland);" or "a pilot project and catalytic measures designed to test and demonstrate affordable and cost-effective measures for improving the environmental conditions in the watershed (Lake Ohrid)." Stakeholder involvement in "drafting of regulations and in monitoring and enforcing" (Wandiga: Basin Problems in Africa) may be a very useful approach for the stakeholder to cooperate in pollution control. A coordinating board of stakeholders may be established "to build synergism, coordination, and sustainable development of the drainage basin, including regular monitoring to allow timely corrective measures (Lake Toba)." Aside from proposed approaches, there are others that could be categorized under the following sections on awareness raising and education, gender equality and women's roles, and NGOs and CBOs.

### Awareness Raising and Education

The lake briefs provide a wide range of experience with regard to awareness raising and education, or CEPA (Communication, Education, and Public Awareness, see Box 6.2).

Some key considerations to help improve participation and involvement are listed by category of proposed action, as follows.

#### *Designing CEPA Programs*

(a) Integrated approaches should be considered in designing and implementing CEPA programs. It should not be assumed that awareness-raising or even community education alone will stop unsustainable resource exploitation by community members. Experience has shown

that this almost always does not work. Several factors need to act concurrently, such as changed community values, availability of alternative behaviors, and disincentives for unsustainable activities. Lake Biwa is an example of increasing community awareness through community-based organizations coupled with the necessary legislative frameworks, which helped to affect critical change for the conservation of the lake system.

(b) Undertake situation analysis and problem identification before designing the CEPA program. A basic principle of intervention in community affairs is that root causes of problems must be understood and agreed upon before actions are developed and implemented. A period of research is necessary for gaining an understanding of the situation and helping the community to understand the root causes of the problems, and also to analyze their relationship to government, other communities, and middlemen.

(c) Indicators of success, monitoring and evaluation are essential to assess the effectiveness of CEPA programs. As with other aspects of conservation, it is extremely valuable to assess the success of CEPA actions in relation to the measurable objectives, including changes in the community's attitude to the need for resource conservation and co-management initiatives. With clear objectives, the purpose of the teaching becomes obvious.

#### *The scope of CEPA Programs*

(d) CEPA is often slow-acting and is best understood as a series of investments for significant future returns. Each investment in communication, education, and public awareness must be strategically linked to ensure direction, continuity, and effectiveness. Strategic thinking and coordination between activities and programs should be important components of CEPA action

### **Box 6.2. Communication, Education, and Public Awareness (CEPA)**

Communication, Education and Public Awareness (CEPA) is defined by the Convention on Wetlands (Ramsar Bureau 2001) based on the Mainstreaming Biological Diversity publication produced by UNESCO, the Convention on Biological Diversity, and the World Conservation Union-IUCN. According to this definition:

Communication is the two-way exchange of information leading to mutual and enhanced understanding. It can be used to gain the involvement of actors and stakeholders and is a means to gain cooperation of groups in society by listening to them first and clarifying why and how decisions are made.

Education is a process that can inform, motivate, and empower people to support wetland conservation, not only by inducing lifestyle changes, but also by fostering changes in the way that individuals, institutions, businesses, and governments operate.

Awareness brings the issues relating to wetlands to the attention of individuals and key groups who have the power to influence outcomes. Awareness is an agenda setting and advocacy exercise, which helps people to know what and why this is an important issue, the aspirations for the targets, and what is, or can be done to achieve these targets.

The five common objectives of a CEPA program are (1) to encourage a general interest in conservation; (2) to generate greater awareness of conservation issues; (3) to bring about a specific change in opinion; (4) to disseminate specific information; and (5) to build capacity (Sutherland 2000).

planning, which should also be realistic about time-scales. For example, in Lake Nakuru, donor-driven projects had slow results; in the Aral Sea, awareness-raising project components were usually unsuccessful; in Lake Biwa, long-term efforts on changing values and empowerment seem to have paid off; in Lake Nakuru, the 10-year effort has not reached a threshold level; in the Great Lakes, there were public information programs with substantial funding over the course of years into the future; in Lake Ohrid, early successes were used to leverage investment in and broad support for sustainable CEPA programs; and in Lake Toba, there was investment in local capacity to support community members as the best influencers and communicators for change.

- (e) CEPA programs should be sustained and sustainable, with innovative arrangements and capacity building. Projects are often established with short-term funding or with a burst of enthusiasm. It is also often easier to get funding to set up a new project than to sustain an existing one. It is thus sensible to plan carefully, perhaps by linking with institutions that will give long-term funding, so that the project can persist in the long term, keeping in mind the importance of capacity building. For example, in Lake Constance, networking, campaigning and public relations required sustainable finance; in Lake Champlain, the program employed a full-time education and outreach coordinator and a communications and publications coordinator; in Lakes Biwa, Tanganyika, and Toba, mainstreaming environmental education was a means to ensure sustainability; in Tonle Sap, institutional capacity-building initiatives required enhancement of basic human resource capacity; in Lake Chad, local user associations were given loans to establish institutions for management of water resources, with the fees used for maintenance of the equipment but also for implementation of environmental projects; in Laguna de Bay, monitoring of fisheries was delegated to a local fishermen's organization to augment the needed manpower for monitoring and inspection; in Lake Baringo, the traditional fishermen cooperatives were important partners with the government in enforcing a moratorium on fishing in the lake to allow the depleted fish stocks to recover; in Chilika Lagoon, the primary fishermen cooperative societies were among the driving forces behind the action for restoration of the lake; and in the Tonle Sap basin, the traditional family fishing and community-level fishery groups have been important partners in the recent reforms in fisheries management.
- (f) CEPA actions must be placed within the larger economic and social context. CEPA solutions that are not socially acceptable cannot hope to achieve their goals. The needs of people (for example, survival needs and responsibilities to family or employer) are paramount in practice. For example, in Lakes Baikal and Cocibolca,

watershed management policies and actions needing to be linked with regional economic development priorities; in Lakes Dianchi, Laguna de Bay, Malawi/Nyasa, Nakuru, Toba, and Victoria, lack of awareness about social and economic benefits was a limitation to successful implementation of lake management efforts; in Lakes Laguna de Bay and Malawi/Nyasa, there was a need to link awareness-raising and poverty alleviation actions to reduce pressure on the lake's resources; and in Lakes Baringo, Champlain, Toba, and Nakuru, environmental education and awareness programs were coupled with economic incentives and improvement of the livelihood of the local communities.

#### *An Effective CEPA Process*

- (g) Involvement of all stakeholders in identifying issues and their solutions will usually improve the effectiveness and efficiency with which CEPA can effect change. The planning and implementation of a CEPA program will be significantly assisted when local people have sufficient technical and local knowledge of the issues and CEPA approaches to be fully involved. For example, in Lake Biwa, the Soap Movement in the 1970s came about because of awareness of the effect of phosphorus in synthetic detergents on eutrophication of the lake (see [Ide](#)); in Lake Cocibolca, increased awareness has led to an increased call for national action; in Lake Baringo, a moratorium on fishing was instituted to improve fish stocks; and in Chilika Lagoon, local fishermen helped disseminate information about the importance of using the right mesh size nets, and imposed a ban on juvenile catch, resulting in a significantly higher yield.
- (h) Dissemination of information and data to stakeholders is important. The information and data gained from lake management programs and experiences should be disseminated to national and local governments, lake management practitioners, NGOs and other stakeholders, and should be easily accessible. Many of the briefs recognize this as a critical component of efforts aimed at achieving lake basin management and conservation objectives, and one that is often overlooked. For example, in Lakes Chilika and Biwa, Bhoj Wetland, Lake Ohrid, Lake Nakuru, and Lake Sevan, CEPA programs established resource, education, or exhibition centers; in Lake Baringo, they established participatory rural appraisal (PRA) programs; and in Lake Naivasha, they created models or pilot programs to demonstrate the possibilities and advantages of conservation actions.
- (i) A variety of CEPA methods may be needed within one CEPA program. An effective awareness-raising program must include an analysis of the target groups and the ways in which they can be influenced. Understanding of not only the conservation and management issues, at appropriate levels, but also of CEPA methods and cultural issues, will improve the chances of designing

and implementing a successful CEPA program. For example, in Lake Toba, a variety of small-scale, grass-roots-level CEPA programs produced tangible results; in Lakes Nakuru, Baikal, and Champlain, there were various efforts to reach and attract a large number of people to lake basin management issues; in Lakes Toba, Peipsi, Laguna de Bay, Dianchi, and Chilika, CEPA programs used IT technologies; in Lake Tanganyika, e-mail links and web sites were useful; in Laguna de Bay, water quality data was presented in a simple schematic diagram called “the Water Mondriaan;” in Bhoj Wetland, there were competitions, rallies, and street theatre performances with a conservation message; in Lake Biwa, a “floating school” offered 5th-graders the opportunity to have fun while learning; in Lake Peipsi, there was an annual international children’s creative works competition; in Lake Baringo, environmental awareness packages incorporated incentives; in Lake Naivasha, the Lake Naivasha Riparian Association was awarded the Ramsar Conservation Award in 1999; and in Chilika Lagoon, the Chilika Development Authority received the same award in 2002.

- (j) Identification of the target group(s) is an important first step in designing an effective CEPA program. One of the most effective CEPA methods is to involve the community in a structured investigation of the benefits and values that they derive from the system. In order for this to be effective, awareness-raising initiatives need to utilize terms, concepts, and examples that are relevant to the target group. A common problem with

awareness-raising activities at the community level is that they are not targeted at the groups who are most important in resource utilization and management and in forming community opinion. Those with the ability to improve the situation are not necessarily those that readily attend conservation programs. There is a tendency to focus on the easy parts of awareness-raising, such as education in schools, or on general presentations through posters. For example, in Lake Cocibolca, students and the younger generation were identified as primary targets: in Lakes Nakuru, Chilika, Toba and Tanganyika, women were identified as a specific target group; in Lakes Tanganyika, Nakuru, and Tonle Sap, political leaders and decisionmakers were singled out as the primary target for awareness efforts; and in Lake Constance, consumers were targeted.

### Gender Equality and Women’s Participation

“Men organize the men’s activities, women organize theirs,” one workshop participant said of a case at his lake basin. As shown in Box 6.3, there is increasing interest in gender equality and women’s participation, but understanding the role of women remains limited. Gender issues with regard to lake basin management are not much different from other environmental and natural resource management settings.

- First, there is a need to realize that women’s role has been and will remain to be important in lake basin management and that every effort has to be made to facilitate removing the obstacles and to provide the

#### Box 6.3. Participation of Women

The importance of women’s participation in the water sector was raised at the First World Summit on Sustainable Development (Rio de Janeiro 1992) and at the Dublin Meeting (Dublin 1992). In particular, the third of what is called the Dublin Principles relates specifically to the issue of women’s participation, stating that “Women play a central role in the provision, management and safeguarding of water.” Increasingly, government officials of institutions related to water management are aware of the need to recognize women’s participation in the hydrological sector.

Women play an increasingly important economic role in developing countries, particularly in countries where the economic crisis has pushed men to migrate to cities or to other countries in search of increasingly important cash incomes. In the wake of this massive migration, many rural women have become the head of their household. In addition, women have become more active in their community’s administration, such as the management of their water and sanitation systems, community services, and other economic responsibilities. In the agricultural sector, women’s participation in the entire agricultural process is unquestionable. In most of the poor agricultural economies of Africa, Asia, the Middle East, and Latin America, women are working in the fields, managing the transportation of their products, and offering their products in the marketplace. Nevertheless, as a result of gender bias, this work is generally unrecognized and their economic role is invisible.

Women also have active roles in the non-productive sector. Urban and peri-urban water use related to health relies mostly on women as housekeepers, where they are in charge of the washing, cooking, and other hygienic activities within the family. The lack of access to safe water and sanitation, especially in rural areas, and the exposure to contaminated water are linked to pregnancy failures, infant illnesses and deaths, as well as all sorts of water-related diseases that affect the community and family health. A greater part of a government’s budget goes to “curative” health programs, instead of “preventive” health programs that could be managed by women if they would be better prepared with respect to water use. In many rural areas, women in charge of watering and washing cattle, irrigating homestead crops, and other tasks have to spend hours every day collecting water, sifting it, or taking care of their children affected by water-related diseases. If women had more access to training for more efficient use of water and the care of the lakes in their communities, they could prevent many of these health problems from the very beginning and have more time to spend on other economically productive activities with their families.

opportunities for training, preferably together with men.

- Better governance, institutions, and policies will arise from an empowered and gender-sensitive community (Wandiga, Basin Problems in Africa).
- Particularly in rural areas, where women's energy and competence are well-developed, the integration of women into the development and decisionmaking process is of great importance (Lake Constance).

Several examples of targeted efforts to promote the participation of women emerged from the lake briefs. For example, in the case of Lake Nakuru, a three-month gender sensitivity training course deserved further promotion; in Lake Toba, participatory rapid appraisal (PRA) was a successful technique in which women were invited to participate in community meetings; in the upper watershed of Chilika Lagoon, a pilot project was conducted to create women's forums geared to enhance their participation. In the case of Lake Biwa, women organized in what has been known as the "Soap Movement" to avoid using a soap detergent that was causing pollution and contamination in their lake.

Women's participation in a full civil society, using a participatory approach, will enhance efforts to achieve effective lake basin management. In addition, it is important to remove gender-based social impediments and strengthen support systems for women. Removing these impediments in the hydrological sector has assumed a critical significance for the empowerment and economic development of women.

### **NGOs and CBOs: Roles in Management and in Communication/Facilitation**

Nongovernmental organizations (NGOs) and community-based organizations (CBOs) have a vital role to play in lake basin management, particularly in the developing regions of the world, where government resources are limited and focused on technical interventions for lake management. Participation and support from local community groups go a long way in spreading the conservation message and affecting the necessary management interventions. The briefs illustrated several kinds of activities undertaken by NGOs and CBOs, including (a) agenda-setting and policy development processes; (b) performing operational functions; (c) networking, collaboration, and mediation among government agencies and local communities; (d) mobilization of funding resources; (e) collection, dissemination, and analysis of information; and (e) public awareness-raising and environmental education.

The experiences, findings, and lessons learned identified in the lake briefs include the following:

#### *Management Role*

NGOs and CBOs play an important role in the agenda-setting and policy development processes. For example, in the Lake Baikal and Lake Biwa basins, consumer and environmental movements have played key roles in some of the major changes in environmental management. In many other cases, NGOs have had an active role in the institutions for lake basin management at different levels (such as Lake Champlain, Lake Naivasha, Lake Nakuru, Lake Ohrid, Lake Peipsi, and the Great Lakes). Sometimes, as in the case described by [Kodarkar](#), they can even start a movement which draws large attention and leads to a dramatic increase in awareness.

There are also cases where NGOs perform operational functions. In the Lake Baringo basin, scouts have a mandate from the provincial administration to carry out surveillance in the lake and arrest poachers. In other cases, NGOs act as implementing agencies for lake basin projects (Lake Naivasha). In still others cases, NGOs have implemented various types of projects through small grants administered by governments or international donor organizations. In many areas NGOs have built as much experience as the governments.

NGOs are often active in networking, collaboration, and mediation among government agencies and local communities. For example:

- "The network of NGOs and CBOs, wide stakeholder consultation, and watershed associations were some of the positive elements in the participatory management approach adopted by CDA. The self-initiated good practices were an indication of the confidence regained by the stakeholders in the lagoon ecosystem." (Chilika Lagoon)
- "NGOs and CBOs can act as a catalyst and motivator for government institutions/organizations." (Lake Nakuru)
- "Formally organized community groups may become more cohesive and generate a wider diversity of ideas." (Lake Nakuru)
- "The shifting of management orientation toward stakeholders as co-managers of the lake water resources augurs well for value reorientation (common value and shared vision) and sense of ownership, as a prerequisite to the desired lake ecosystem orientation among stakeholders. Already the LLDA and Laguna de Bay are reaping the early fruits from the shift in the lake management paradigm as indicated from the experience with the River Rehabilitation and Protection Councils, the Fisheries and Aquatic Resource Management Councils, and the tripartite partnership CLEAR among others." (Laguna de Bay)

- “The formation of a strategic alliance with the local government units, people’s organizations, and nongovernmental organizations is needed to gain wide support in the implementation of plans and programs and in the implementation of rules and regulations within the region.” (Laguna de Bay)
- “NGO roles can become even more significant when there has been past political instability.” (Tonle Sap)

Although NGOs also often play an important role in mobilizing funds for lake basin management, maintaining a steady flow of funds has always been challenging for lakes in the industrialized countries (Lakes Biwa, Champlain, Constance, and the Great Lakes) as well as in the developing countries (Lakes Baikal, Naivasha, and Ohrid).

#### *Communication/Facilitation Role*

NGOs have played an important role in the collection, dissemination, and analysis of information in the Aral Sea basin, Great Lakes, and Lakes Baikal, Champlain, Nakuru, and Naivasha. In other cases, NGOs have played the role of information brokers, facilitating the exchange of information across national borders (for example, the Peipsi CTC). NGOs often are active in public awareness raising and environmental education; illustrative examples of public awareness campaigns include those from the Aral Sea, Lake Baikal, and Lake Ohrid. A lake basin program may form an outreach partnership with a network television affiliated in the basin. The features, specials and promotional material aired for the project may reach millions of viewers in the basin, with the costs shared among partners (Lake Champlain).

Whether through governments or NGOs, effective communication strategies are matters of critical importance in lake basin management because of the need for the stakeholders to understand the complexities of biophysical phenomena and the complexities and subtleties associated with socioeconomic, cultural, and political dimensions of management. As indicated in the Lake Malawi brief, researcher-policymaker communication problems need to be overcome for every lake.

Aside from the NGO roles and activities described above, there may be significant benefits to be gained from involving the private sector (industry) in CEPA efforts. The “Shiga

Environment Conservation Association,” a private-sector initiative in Lake Biwa comprising more than 400 relevant local companies, actively contributes to and supports lake basin management activities. In Lake Issyk-kul, three pilot projects have been initiated for the development of green industry and tourism. The Lake Champlain Basin Program has formed an outreach partnership called Champlain 2000 with a network television affiliate and a bank in the basin. Conservation of Laguna de Bay Environment and Resources (CLEAR) is a tripartite partnership-including the LLDA, Unilever Philippines, and the Society for Conservation of Philippine Wetlands (SCPW)-to ensure the continuity of efforts to conserve the lake’s resources and empower and educate the communities within the watershed. In some cases, private-sector support has come about in response to public pressure, such as the case of PT Toba Pulp Lestari (PT TPL), a private industry operator in the Lake Toba region, which agreed to set aside 1 percent of its net revenue for environmental management.

#### **Additional Observations**

International actors, particularly international NGOs, constitute an important group of stakeholders. They not only play a unique and critical role in the translation of global institutional agendas and local grassroots agendas into a common policy for sustainable lake basin management, but they also lead many new initiatives that are supplementary and/or complementary to the activities of the international governmental organizations. The activities of international funding and technical collaboration agencies such as GEF need to be supported and usefully facilitated by NGOs with special talents and expertise. The scope of work and the approaches of action are sometimes more suited to participatory lake basin management, particularly in the developing countries. Several lake briefs support these observations.

- Increasingly, the environmental threats to lakes have a regional or global dimension. They must be addressed through regional coordination and objective setting, as well as participation in global forums, and there must be a funding mechanism for regional forums/commissions/secretariats to enable this (African Lakes Workshop).
- A lake basin program may be linked with a global initiative and sister lake programs. Exchanges of policy

#### **Box 6.4. The Role of NGOs**

The term NGO generally denotes formal and informal groups of individuals organized for the myriad of reasons that engage human imagination and aspiration. They can be set up to advocate a particular cause, or to carry out programs on the ground. They can have memberships ranging from local to global. Clearly, some organizations (such as community-based organizations established by local groups) would fall under the category of local communities. Yet, other NGOs may consist of high state officials or form large international organizations. Here, the term NGO refers to nongovernmental organizations that are intermediaries in the process of delivering policies and projects to local communities. In the literature, these are referred to as *secondary stakeholders* (e.g. see World Bank 2000). In addition to NGOs, secondary stakeholders include governments, academia, labor unions, civil society, and the private sector.

leaders and technical experts among the countries may be focused on how business is conducted and how to overcome conflict and cultural differences (Lake Champlain).

In all cases of international transboundary lake basins, community participation and stakeholder involvement is particularly important. When the inherent difficulties of lake basin management are compounded by transboundary issues that are themselves extremely complicated politically, the traditional approach of top-down management alone simply does not work. The flexible, versatile, and bottom-up approaches have to be well integrated to involve people. As noted in Chapter 4, the institutional arrangements for transboundary lake basin management today are heavily dependent on many of the subjects introduced in this chapter. For example, the institutional arrangements at Lake Peipsi make extensive use of a participatory approach while engaging in international projects that promote cooperation among local governments, NGOs, and other organizations from Estonia, Russia, and Latvia.

Finally, the involvement of people is critical in the development of institutions, in making the choice of policy options, and in introducing appropriate economic instruments and financial strategies.

### Key Lessons

- The time span of viable interest by the affected public is generally longer than the time span of the government officials.
- Without proper understanding and appreciation of the local cultural beliefs, values, and norms, the plan for managing a lake basin will not be accepted and properly implemented by the community.
- The voices of often excluded stakeholder groups need to be brought into the policy development process through a participatory approach.
- The improvement of livelihoods of the local communities is a key in promoting participation in lake basin management in many developing countries.
- CEPA (Community Education and Participatory Approach) is often slow-acting and is best understood as a series of investments for significant future returns.
- Design of a CEPA program requires careful situation analysis and problem identification for a target group.
- Promoting women's participation requires understanding that women suffer from various disadvantages, that the plight of women is a challenge in lake basin management, and that husbands and wives need to be trained together.

- Nongovernmental organizations (NGOs) and community-based organizations (CBOs) can play key roles in agenda-setting and the policy development process; performing operational functions; networking, collaboration, and mediation among government agencies and local communities; and mobilization of funding resources.

### Further Reading

1. [Chatchai](#) describes how public participation was incorporated from the outset of development planning at the Songkhla Lagoon in Thailand.
2. [Ide](#) presents a detailed case study on participation in Japan within the context of lake basin management, including a discussion of the "soap movement" at Lake Biwa.
3. [Kodarkar](#) details how local people have been integrated into management of water resources through the Jal Dindi (Water Pilgrimage) in India.
4. [Oya](#) covers a wide-range of cases involving participation and institutions.