

1 July 2004
Lake Basin Management Initiative
Thematic Paper

The Role of Public Participation and Citizen Involvement in Lake Basin Management

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Executive summary

Increasing exploitation of natural resources, inappropriate land-use practices, and uncoordinated sectoral policies and development activities in lake basins impair the various important functions of lakes throughout the world. New and innovative approaches to the management of lakes and their basins are urgently needed to ensure that these precious freshwater ecosystems continue to deliver their services. Stakeholder participation lies at the heart of the new policy approaches to management of lakes and reservoirs. The stakeholders in lake basin management are individuals or representatives of a group who make use of, have an impact on, or are impacted by the issue of concern. Experience from case studies on 28 lake regions from throughout the world shows that local communities and non-governmental organizations (NGOs) are among those stakeholders that can significantly affect the outcome of management efforts in lake basins. The case studies clearly demonstrate that active community participation is vital to sustainable development in lake basin management. Effective participation of local communities in lake basin management depends on the degree of awareness among local communities of the important technical and social considerations. This is why the involvement of local communities needs to be accompanied by public awareness and information campaigns. Moreover, the involvement of local communities must be based on a sound understanding and appreciation of the local cultural beliefs, values and norms.

Nevertheless, as the numerous examples from the case studies suggest, changes in peoples' attitudes toward environmental issues happen only after they realize the benefit. The power of community-level participation is evident when the outcomes of participation are clearly and directly linked to the improvement of livelihood of participating communities. Experience with rural water supply, sanitation projects and afforestation projects from the case studies proves that participation of 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. Communities may lack knowledge on how to build community institutions that represent a community's diverse interest groups and the capacity to be involved in collective action.

Thus, the involvement of local communities needs to be supported by various measures for developing the capacity for self-mobilization and collective action. NGOs play an important role in this task, particularly in helping marginalized community groups, such as women and individuals who have less capacity to articulate their demands and less power to get their demands heard. In addition to this, the case studies demonstrated that NGOs play an important role in: (i) collection, dissemination, and analysis of information; (ii) public awareness raising and environmental education; (iii) agenda-setting and policy development processes; (iv) performing operational functions; (v) mediation between government agencies and local communities; and (vi) mobilization of funding resources. Yet NGOs from both the developed and developing countries struggle to strike a balance between the implementation of projects that bring most of the funding and their project-independent activities such as networking, campaigning and public relations. International multilateral agencies and international donors have an important role to play in sustaining the capacity of NGOs in performing their multiple functions in sustainable lake basin management.

List of Abbreviations

CBO	Community Based Organization
Peipsi CTC	Peipsi Center for Transboundary Cooperation
DANIDA	Danish Agency for Development Assistance
EU	European Union
FAO	Food and Agriculture Organisation
FINNIDA	Department for International Development Cooperation (Finland)
GEF	Global Environment Facility
GWP	Global Water Partnership
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
KfW	Kreditanstalt für Wiederaufbau
IAGLR	International Association for Great Lakes Research
IBK	International Bodensee Conference
ICLEI	International Council for Local Environmental Initiative
ILEC	International Lake Environment Committee
IUCN	The World Conservation Union
JBIC	Japan Bank for International Cooperation
LNMIC	Lake Naivasha Management Implementation Committee
LNRA	Lake Naivasha Riparian Association
NGO	Non-governmental Organisation
REC	Regional Environmental Center for Central and Eastern Europe
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WWF	World Wildlife Fund

The context and purpose of this paper

Lakes and reservoirs are important freshwater ecosystems that perform many essential functions. Lakes not only provide primary water sources for human survival and economic development but also serve as natural sinks of pollutants from industry, agriculture, and domestic sources. Yet, many of these functions are impaired due to rapid population growth combined with booming economic growth. In addition, mismanagement of lakes and their catchments resulted in uneven distribution of and control over water resources, social inequity and poverty. New and innovative approaches to management of lakes and their basins are urgently needed to ensure their sustainable use. Stakeholder participation lies at the heart of the new policy approaches to management of lakes and reservoirs.

Throughout the world there is a growing number of projects and initiatives to develop and apply new policies for management of lake basins. The valuable experiences from 32 lakes from around the world has been documented in 28 case studies (Experience and Lessons Learned Briefs; thereafter referred to as “*experience briefs*”) in the frame of a project implemented by the World Bank with funds from the Global Environment Facility (GEF), and executed by the International Lake Environment Committee (ILEC), with support from LakeNet. These experience briefs are an invaluable contribution to the process of experience sharing between managers and stakeholders and will accelerate learning and implementation of effective lake and reservoir management. In addition to the case studies on individual lakes, however, based on them, the project is due to commission approximately 20 “thematic papers” examining crosscutting themes and special topics.

This paper analyses the experience briefs with respect to the treatment of issues concerning the role of public participation and citizen involvement in lake basin management. The purpose of the analysis is two-fold: (i) to evaluate the treatment of this topic in the individual experience briefs; and (ii) to develop an empirical global picture of the topic, on the basis of compilation of the treatment of the subject in all of the individual case studies.

There was no prior agreement among the authors of the experience briefs on the meaning of some closely related terms such as public participation, stakeholder or citizen participation. Thus, individual and summative evaluation would be difficult without establishing a common conceptual framework. The next section, therefore, develops a conceptual framework for evaluation of the treatment of stakeholder participation in the individual experience briefs. Using this evaluative framework the next section double-checks the treatment of the topic in the individual case studies. The findings of this evaluation are then used to select such a level of analysis that would provide for meaningful and valid generalizations from the empirical evidence presented in the experience briefs. The last section summarizes the common issues concerning the role of public participation and citizen involvement in lake basin management.

The evaluative framework

Public participation in environmental management is a complex issue, involving multiple aspects. Different authors mean different things when using the term public participation and sometimes this term is interchanged with other terms, such as stakeholder or citizen participation. In the recent literature, however, the public participation is increasingly

distinguished from stakeholder involvement. Stakeholder involvement processes are argued to be both more inclusive and targeted (Ashford and Rest 1999). There is, however, not as much of consensus about what participation means and how to achieve it. The involvement and appropriate representation of stakeholders of a broad spectrum (economic, political and social interests) in the decision-making process raise serious practical and theoretical issues. For example, an attempt to include the widest possible variety of stakeholders – the ‘Noah’s Ark’ approach – may inadvertently result in over- or under-representation of some groups (Chess 2000). According to the World Bank (2000) there are four exclusive levels (or types) of participation, in ascending order, from least influence to most influence: (i) *information sharing* (one-way communication); (ii) *consultation* (two-way communication); (iii) *collaboration* (shared control over decisions and resources); and (iv) *empowerment* (transfer of control over decisions and resources). The four levels are not indicators of scale; they indicate distinctly different types of participation. It is not 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).

For the purpose of this paper, stakeholders are 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 will be useful to get an overview of all the stakeholders relevant to the issue of concern using the so-called “stakeholder-analysis”. Sometimes, however, the issue of concern is only vaguely defined and/or may be redefined over time. In these cases it might be useful to consider the involvement of the “Major Groups” identified in Agenda 21 (women, youth, indigenous peoples, non-governmental organizations –NGOs, business and industry, workers and trade unions, the science and technology industry, farmers and local authorities). 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 inter-national, or a mix of those). Different methods should be used to match the different circumstances, capacities and needs of stakeholders. These may range from information sharing to empowerment.

Two main themes received the greatest attention among the authors of the experience briefs regarding the role of public participation and citizen involvement in lake basin management. The first concerns the participation at the community level. At the community level the stakeholders may be individuals and/or community-based organizations. Sometimes these are referred to as *primary stakeholders* (e.g. see World Bank 2000). For the purposes of this paper these are referred to as *local communities*; their involvement in lake basin management is referred to as *community-level participation*. The term community is used to designate 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 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 *et al.* 1996). Some communities, however, may be both of place and interest, such as villages highly dependent on fishery, forestry or agriculture.

The second major theme in the experience briefs concerns 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 (e.g. Community Based Organizations – CBOs, NGOs 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 (Greenpeace, WWF, IUCN, Friends of the Earth). For the purposes of this paper, however, the term NGO refers to non-governmental 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 are government, research and policy institutes, labor unions, civil society, and the private sector.

Drawing upon the conceptual framework for stakeholder participation as well as the concepts of local communities and NGOs presented in this section, the next section explores how this topic is treated in the individual experience briefs.

Overview of the treatment of the topic

The broad concept of stakeholder participation presented in the previous section accommodates all issues related to public participation and citizen involvement addressed in the individual case studies. The vast majority of the authors of the experience briefs use the term stakeholder participation. However, different authors mean different things when using the term stakeholder participation and sometimes this term is interchanged with other terms, such as public participation or citizen participation. The same applies to the term ‘participation’; however, most often this term is used as an umbrella term covering all methods of stakeholder involvement - from education and information sharing to empowerment. Appendix I lists the issues concerning the stakeholder participation as they appear in each of the individual experience briefs.

Among the few who provide guidance on the meaning of the term stakeholder the most comprehensive and inclusive one is given by Santos-Borja *et al.* in the brief on Laguna de Bay:

“Stakeholders of the Laguna de Bay watershed are grouped into the following categories: (i) regulators; (ii) policy makers, planners and coordinators; (iii) developers (land and water) including those into infrastructure development and provision of basic services; (iv) research and development institutions; (v) resource users’ (vi) local government units and (vii) informal stakeholders.”

As the experience from most of the developing countries suggests, however, international actors constitute an important group of stakeholders. International donors through multilateral (EU, FAO, GEF, UNDP, UNEP, UNICEF, the World Bank) or bilateral programs (JBIC, DANIDA, GTZ, FINNIDA, USAID) and international NGOs (GWP, ICLEI, ILEC, IUCN, LakeNet, WWF) 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. In some cases the international actors are members of institutions responsible for lake basin management (e.g. IUCN representative as a full member of the Lake Naivasha Management Implementation Committee - LNMIC). Most often the international actors provided the critical technical and financial assistance for developing and establishing participatory lake basin management in the developing countries.

In the cases where the command-and-control approach to management of lake basins dominates, government agencies play a central role in the design and facilitation of participation exercises. In Lake Constance, stakeholders are involved according to the national legal possibilities. Local citizens and stakeholders can present their questions and requests to the International Bodensee Conference (IBK) - an inter-governmental organization established by the riparian federal states and cantons. Also, the “Parlamentarier-Kommission,” which represents local people of the region, has regular exchange of information with IBK. There is no reference to participation at the community level in this case study. In Lake Baikal, domestic efforts to develop plans for integrated basin management were greatly assisted by international multilateral and unilateral development programs through a great number of projects at the state, regional and local level. NGOs and the general public in the region participated in the development of strategic action plans developed under these projects through public hearings and workshops. In Lake Dianchi in China, the government involves stakeholders through dissemination of information or public hearings in the environmental assessment process for plans and projects. Other examples of stakeholder participation through information sharing, awareness building and consultation are found in the Aral Sea basin, Lake Chad, Lake Cocibolka, Lake Kariba, Lake Issuk Kul, Lake Malawi/Nyasa, Lake Sevan, Lake Titikaka, Lake Tukurui, and Lake Xingkai/Khanka.

In other cases, lake basin management evolved in a bottom-up fashion. Lake Naivasha in Kenya is a case in point. The origins of environmental management of Lake Naivasha are linked to the activities of the Lake Naivasha Riparian Association (LNRA) - a non-governmental organization established in 1929 by landowners around Lake Naivasha. The planning process initiated by LNRA eventually resulted in a Management Plan that was adopted by the Government of Kenya as an official document. In still other cases primary stakeholders did not initiate projects, but helped tailor subprojects to local conditions. For that purpose stakeholders participated in project implementation or the work of committees to help mobilize other stakeholders to participate in implementation and maintenance. Examples provided by the authors from these case studies range from public awareness campaigns, collection of information, workshops and seminars, training, field trips, to community planning, voluntary activities in environmental restoration and community based management. Many of these projects have been financed and/or managed by international donor organizations.

The following section summarizes the lessons learned from the individual case studies concerning community-level participation and the role of NGOs in lake basin management. While effort is made to develop an empirical global picture, it is important to remember that participation is a process embedded in a local culture and institutions and the lessons learned should not be overly “objectified.”

Lessons learned concerning the role of public participation and citizen involvement in lake basin management – a global picture

Community-level participation in lake basin management

Active participation of the local community is vital to sustainable development of lake basins. Achieving meaningful community-level participation, however, is not always a straightforward task. Effective participation of local communities in lake basin management depends on the degree of their awareness of the important technical and social considerations. This is why the involvement of local communities needs to be accompanied by public awareness and information

campaigns. For example, in Lake Baringo the awareness-building program was linked to the establishment of four wildlife sanctuaries managed by local communities. Nevertheless, this is not an easy task, particularly in the cases when those living at a distance from the lake do not understand their roles in causing problems (e.g. in Lake Chilika, Lake Nakuru, etc.). The involvement of local communities must be based on a sound understanding and appreciation of the local cultural beliefs, values and norms. In some cases these cultural beliefs, values and norms are the very target of public awareness programs, aiming to change them. In other cases they may be used as a vehicle to convey the message or achieve the change. However, as the numerous examples from experience briefs show, changes in peoples' attitudes concerning the environment happen only after they realize the benefit. The examples from Lake Baringo, Lake Champlain, Lake Toba, and Lake Nakuru teach us that environmental education and awareness programs need to be coupled with economic incentives and improvement of the livelihood of the local communities. Participation in projects and programs incurs significant costs to communities as they contribute labor, materials, cash, and time. Their participation should not be taken for granted, especially if they perceive their costs to be higher than expected benefits. Also, actions should be sequenced in such a way that fast maturing ones build community support for those that need a long period to make a difference. Moreover, as the experience from Lake Champlain suggests, it is important to ensure that stakeholders' concerns are heard, taken seriously and included in the process leading towards management decisions. The power of community-level participation is clearly demonstrated in many other cases where the participation was linked to the improvement of the livelihoods of participating communities. Illustrative examples are the rural water supply and sanitation projects in the Lake Toba basin and afforestation projects in Lake Chilika, Lake Nakuru, Laguna de Bay and Lake Tanganyika. These projects have shown that participation of 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 organizations that establish manageable groups within the community. Communities may lack knowledge of how to build community institutions that represent a community's diverse interest groups and the capacity to be involved in collective action. Thus, the involvement of local communities needs to be supported by various measures for developing the capability for collective action. NGOs play an important role in this task, particularly in helping marginalized community groups, such as women and individuals who have less capacity to articulate their demands and less power to get their demands heard. In Lake Baringo a UNEP/GEF project helped women establish micro-enterprises as alternative sources of income and remove the pressure on the natural resources. Similarly, in Lake Chad local user associations were given loans to establish institutions for management of water resources. These associations were charged to collect fees that were used for maintenance of the equipment but also for implementation of environmental projects. In Laguna de Bay, the governmental agency responsible for management of the lake delegated the monitoring of fisheries to a local fishermen's organization to augment the needed manpower for monitoring and inspection. In Lake Victoria, the traditional fishing communities have been successfully engaged in raising and releasing the beetles for water hyacinth control. In Lake Baringo, the traditional fishermen cooperatives were important partners to government in enforcing a moratorium on fishing in the lake to allow the depleted fish stock to recover. The primary fishermen co-operative societies in Lake Chilika were among the driving forces behind the action for restoration of the lake. In the Tonle Sap lake basin, the traditional family fishing

and community-level fishery groups are becoming an important partner in the recent reforms in fisheries management.

The role of the NGOs

NGOs have played an important role in the implementation of projects and activities aiming at integrated lake basin management. Two broad themes frequently appear in the case studies concerning the NGOs: (i) the role of the NGOs in lake basin management; and (ii) management and capacity building of NGOs.

The experience briefs demonstrate that NGOs play an important role in: (i) collection, dissemination, and analysis of information; (ii) public awareness raising and environmental education; (iii) agenda-setting and policy development processes; (iv) performing operational functions; (v) capacity building of local communities; (vi) mediation between government agencies and local communities; and (vii) mobilization of funding.

NGOs have played an important role in the collection, dissemination and analysis of information in the Aral Sea basin (e.g. the Central Asian Global Water Partnership), Great Lakes (e.g. the International Association for Great Lakes Research - IAGLR), Lake Baikal, Lake Champlain (e.g. the local river and lake associations through the Lay Monitoring Program) Lake Nakuru (WWF Kenya) Lake Naivasha (LNRA). In other cases NGOs have played the role of information brokers, facilitating the exchange of information across national borders (e.g. the Peipsi CTC).

The most prominent role of NGOs, however, is evident in public awareness campaigns and environmental education. Illustrative examples are the public awareness campaigns from Aral Sea, Lake Baikal and Lake Ohrid. The case studies describe many examples of the involvement of NGOs in the agenda setting and policy development process. In the Lake Baikal and Lake Biwa basins, consumer and environmental movements have played a key role 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 (e.g. Lake Champlain, Lake Naivasha, Lake Nakuru, Lake Ohrid, Lake Peipsi, the Great Lakes, etc.). Government and NGOs have shared many operational functions. In the Lake Baringo basin, scouts have the mandate from provincial administration to carry out surveillance in the lake and arrest poachers. NGOs, in other cases, act as implementing agencies for lake basin projects (e.g. Lake Naivasha). In still other 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.

On the other hand, some authors of the experience briefs suggested that NGOs should refocus from implementation of projects to advocacy, management of conflicts or coordination and facilitation of stakeholders. There are many examples in the case studies demonstrating the important role NGOs have played as change agents at the community level by organizing the people or providing technical advice and training for local management groups. In some of the case studies, NGOs have developed high quality skills in working with marginalized groups. A case in point is the Pallishree - a grass root level NGO in Chilika lagoon – educating women in environmental matters. Similarly, WWF provided training in conservation skills to women in Lake Nakuru basin. In these and many other cases, NGOs acted as intermediaries between government agencies and local communities. Finally, national and international NGOs have been

able to mobilize significant funds and channel them to local communities for funding of specific projects.

In both developed and developing countries, NGOs proliferated through the various projects and programs for lake basin management. In particular, international aid programs and donor agencies, but also international NGOs have played an important role in the development of the NGO sector in developing countries. Yet many of them currently face difficult organizational and financial challenges. In both the developed (e.g. Lake Biwa, Lake Champlain, Lake Constance, the Great Lakes) and developing countries (e.g. Lake Baikal, Lake Naivasha, Lake Ohrid) NGOs have problems with consistently maintaining even part-time staff. Although NGOs rely primarily on volunteers to maintain their activities, over long period they need paid staff. Funding is needed to sustain networking, campaigning and public relations that are very often independent from concrete projects and require skilled personnel and financial resources. In Lake Champlain the LCBP hired a Communications and Publications Coordinator who regularly makes presentations to school groups and they also support the operating costs of NGOs.

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Overview of lessons learned, examples, suggestions, and remarks in the individual experience briefs concerning the involvement of local communities and the role of NGOs in lake basin management

Lake Brief	Sections on SP	Lessons/Examples/Suggestions/Remarks
Aral See	-	<p>SUG: Water user associations may be an effective way of streamlining the use and conservation of water;</p> <p>REM: Stakeholders were not participating in the development of the interstate program for use of the water resources in the basin;</p> <p>EXA: Local branch of the GWP was established to facilitate SP;</p> <p>EXA: It is more difficult to implement SP projects than ‘technical’ projects.</p>
Baikal	-	<p>EXA: Environmental deterioration of Lake Baikal gave birth to the Russia’s environmental movement;</p> <p>EXA: International aid financed hundreds of projects implemented by NGOs and citizens;</p> <p>EXA: Public is consulted on the Strategic Plan and Action Plan for biodiversity conservation in Lake Baikal basin;</p> <p>REM: Number of NGOs proliferates through international and bilateral aid programs;</p> <p>LES: Small grant programs are not able to tackle or to help problems at larger spatial scales;</p> <p>LES: Small grant programs may be good for public awareness as they create visibility through media.</p>
Baringo	+	<p>REM: Environmental degradation mobilizes NGOs and stakeholders;</p> <p>EXA: Capacity building and awareness measures targeted local communities;</p> <p>LES: Creating environmental awareness faces traditional beliefs and social structure;</p> <p>EXA: NGO acts as forest service;</p> <p>LES: Working through CBOs to link the improvement of livelihood with environmental protection;</p> <p>EXA: Armed scouts arrest poachers in protected areas;</p> <p>LES: The involvement of stakeholders requires personnel qualified in environmental management;</p> <p>LES: Those living at distance from the lake do not understand their roles in causing problems to it;</p> <p>REM: Capacity building of stakeholders is a way to empower them – this in turn helps SP process;</p> <p>EXA: Local communities participate in Participatory Rural Appraisal and socio-economic surveys;</p> <p>LES: Environmental education and awareness programs need to be accompanied by economic incentives that would improve the livelihood of local communities;</p> <p>LES: Facilitate communities to get organized in groups and engage in income generation that is environmentally friendly;</p> <p>EXA: Local communities are in charge of management of wildlife sanctuaries;</p> <p>EXA: Stakeholders participate in initiatives from which they get direct benefits;</p> <p>EXA: Rising public awareness through exchange visits and study tours;</p> <p>LES: Involve stakeholders from all strata;</p> <p>SUG: Direct beneficiaries should be made aware of the risks involved in overexploitation;</p> <p>LESS: In order to cover the entire basin there must be sufficient financial resources.</p>

Bhoj Wetland	+	<p>REM: Create new stakeholders that are instrumental to protection of lakes (e.g. recreationists);</p> <p>EXA: Lake management body is established as an NGO (this fosters consensus building for any action);</p> <p>SUG: Sustain the interest of stakeholders through awareness campaigns and eco-friendly activities.</p>
Biwa	+	<p>EXA: Environmental deterioration attracted the attention of consumers' movement (the movement gained wide appreciation because was led by women);</p> <p>EXA: Citizens' watershed organizations are established for major tributaries;</p> <p>EXA: Lake Museums serve the purpose of public awareness rising;</p> <p>LES: Citizens' movements need strong and focused goals to endure over time;</p> <p>LES: Environmental incidents may be used to promote voluntary social action;</p> <p>LES: Morale and economic foundations of NGOs should be solid;</p> <p>EXA: Governments support NGOs only for short periods (the solution is to build a sound partnership);</p> <p>LES: Stakeholders must live with conflicts and stay in continuous dialogue.</p>
Chad	+	<p>SUG: Successful examples of community-based enterprises should be replicated throughout the basin;</p> <p>LES: There is a need of suitable institutions for successful stakeholder participation;</p> <p>EXA: Water user associations are given loans – they take care of collecting user fees and the environment;</p> <p>EXA: International organization (IUCN) acts as an advocacy brokers;</p> <p>SUG: Both international and domestic NGOs are needed to participate in lake basin management.</p>
Champlain	+	<p>EXA: Small watershed and lake associations have problems to consistently maintain even part-time staff;</p> <p>SUG: Funding is needed to sustain the local groups;</p> <p>LES: Associations act as catalyst for non-regulatory protection programs;</p> <p>SUG: Local capacities for participation vary throughout the basins;</p> <p>LES: Work with willing private businessmen (e.g. farm owners) to demonstrate the cost-effectiveness of new practices that are environmentally friendly;</p> <p>LES: Although local watershed associations are conducted primarily by volunteers to maintain these organizations over long period they need paid staff;</p> <p>LES: It is important to build and sustain momentum of stakeholder participation;</p> <p>LES: For effective participation, it is important to ensure that stakeholders' concerns are heard, taken seriously and included in the process leading towards management decisions;</p> <p>EXA: Hired PR officer makes regular presentations to school groups.</p>
Chilika	+	<p>EXA: Capacity building for watershed management focuses on income generating activities;</p> <p>EXA: Local communities generate income through soil conservation practices;</p> <p>EXA: Lake Museums serve the purpose of public awareness rising;</p> <p>SUG: Better education and healthcare should be part of the lake management programs;</p> <p>LES: There is different level of interest between the upstream and downstream inhabitants;</p> <p>LES: Multi-institutional involvement can be sustained only through a well-designed program and funding;</p> <p>SUG: Self-initiation of good practices is an indicator of confidence gained by stakeholders.</p> <p>EXA: The government initiates the establishment of consortium of NGOs.</p>
Cocibolca	+	<p>SUG: Public awareness is instrumental to enforcement of the law;</p> <p>SUG: Poverty hampers the participation of stakeholders in environmental protection of lake basins;</p> <p>LES: Effective stakeholder involvement depends on institutional and human resources;</p>

		<p>SUG: Involvement of stakeholders, where necessary, should be facilitated by financial contributions;</p> <p>SUG: Public awareness programs should demonstrate the link between the environmental losses and economic and social opportunity losses.</p>
Constance	+/-	<p>EXA: Stakeholder participation follows the legal provisions (for consultation);</p> <p>EXA: In Germany and Austria, environmental NGOs do not get ‘institutional’ financial help;</p> <p>SUG: Networking, campaigning and public relations are very often independent of concrete projects and require additional personnel and financial resources;</p> <p>LES: There is a need of programs that co-finance regular activities of NGOs.</p>
Dianchi	+	<p>EXA: public is involved in environmental impact assessment of projects.</p>
Great Lakes	-	<p>EXA: State Governors establish a non-governmental organization to build enabling institutional environment for the protection of the Great Lakes;</p> <p>LES: Governmental agencies demonstrated their accountability through enhanced public profile and interaction.</p>
Issyk Kul	-	
Kariba	-	
Laguna de Bay	+	<p>EXA: Types of stakeholders in Laguna de Bay basin: (1) regulators, (2) policy-makers, planners and coordinators, (3) developers, (4) research and development institutions, (5) resource users, (6) local government units and (7) informal stakeholders;</p> <p>SUG: Religious groups women and the youth should be treated as a distinct stakeholder group constitute distinct groups;</p> <p>LES: Facilitate the interaction among stakeholders;</p> <p>LES: Governmental agencies should build social and political acceptability among stakeholders.</p>
Malawi/Nyasa	+	<p>SUG: Government agencies need the involvement of stakeholders to build a support for their project and programs.</p>
Naivasha	+	<p>EXA: A voluntary agreement of an association of water users becomes state backed regulation;</p> <p>SUG: Conflicts among local stakeholders are part of the consensus building and institutionalized form of management;</p> <p>EXA: NGOs asks the government to conduct specific research (the government responds);</p> <p>EXA: International organization (IUCN) is a full members of a lake basin management committee;</p> <p>EXA: The lake basin management committee does not have formal budget;</p> <p>LES: The lake basin management body has no executing power to influence the decisions – this is accomplished through an active advocacy and lobbying by its members;</p> <p>SUG: The SP and consensus building processes should not preclude the implementation of the law.</p>
Nakuru	+	<p>EXA: Community managed tree nurseries;</p> <p>EXA: A project initiated by an NGO becomes an official one;</p> <p>LES: NGOs are capable of working in a more flexible and efficient way than the state administration;</p> <p>LES: Without economic interests, environment is viewed as a liability and expensive;</p> <p>SUG: NGOs and CBOs should cease to play and implementation role and instead assume facilitation role;</p> <p>SUG: NGOs and CBOs create parallel institutions (to those of the government);</p> <p>LES: Traditions and customs may slow down or hamper the adoption of new practices and habits;</p> <p>LES: The largest obstacle to involvement of stakeholders is the absence of obvious benefits;</p> <p>SUG: Sequence the actions, starting from fast maturing ones to those that need long period to make difference;</p>

		LES: Mobilizations is quicker through community groups compared to targeting individuals separately.
Ohrid	+	LES: watershed groups learn about each others perspectives of the problems, how their communities contributed to the problems, and their sense of values, priorities, and potential contributions to solutions; LES: grants from international donors to NGOs publicized the NGO sector, however, ongoing support is needed to sustain the momentum and interest that has been established; LES: NGOs were only moderately successful in involving a wider cross section of the public in their activities.
Peipsi	+	LES: Transboundary groups (research, business and NGOs) serve as translators of information in local context; LES: To accommodate more of the stakeholders, their representatives may be assigned the role of observes in the permanent bodies or they should participate in the work of its subsidiary commissions.
Sevan	+	EXA: State is the one who initiates the SP exercise (however, often only formally).
Tanganyika	+	SUG: For a successful involvement of stakeholders there is a need of access to judicial and administrative proceedings; SUG: Participation should be not confined to the decision-making, but should also include the follow-up activities; LES: Attitudes towards different methods of participation are not uniform; SUG: SP can be used to reduce the costs of enforcement of the law; LES: Tree planting serves the purpose of promotion of the conservation ethics; LES: In transboundary lakes, the participation and commitment of the political authorities in the highest level is needed; LES: Time is needed to create forums that facilitate the further involvement of the stakeholders; LES: Link the poverty reduction with lake basin management; LES: Participation should be meaningful to the stakeholders.
Tititkaka	+	REM: Participation of citizens is accomplished mostly through information sharing and sensitizing.
Toba	+	LES: Involvement of stakeholder in conservation actions should contribute to community's income; LES: Bridge the public awareness programs with a real action; SUG: Community participation should be accompanied and facilitated by NGOs; LES: Information collection (by the community) creates sense of ownership; SUG: Community participation is essential - not optional; LES: Government staff responsible for facilitation of stakeholder participation needs training and skills (the willingness is not enough); EXA: Government usually involves village leaders or the elite but people are more easily convinced through communication of experiences by their neighbors; LES: Changes in behavior and attitudes of people towards environment happen only if people realize the benefit; SUG: Benefits of environmental education are long-term and difficult to measure in short-term.
Tonle Sap	+	LES: Biodiversity conservation and sustainable use of natural resources should to be integrated into the overall poverty reduction strategy; EXA: Diverse roles and orientations of different NGOs lead to conflicting interests and approaches (suggestion: the option is to strengthen the state institutions and laws).
Tucurui	-	SUG: Effective involvement of stakeholders needs improvement of negotiation strategies between stakeholders.
Victoria	+	LES: Power of community-level initiatives is obvious when the outcomes clearly and directly affect the livelihoods of the communities; SUG: There is a need for long-term mechanisms for community-level involvement after transient donor supports end;

		LES: Community participation in conservation must be tied to immediate benefits to the community.
Xingkai/Khanka	+	SUG: Some unsustainable practices occur because of the lack of awareness.

- EXA: **Example** (selected examples on issues relevant to stakeholder participation);
LES: **Lessons** (advanced explicitly or implicitly by the authors the corresponding experience brief);
REM: **Remarks** (formulated by the author of this paper);
SUG: **Suggestions** (advanced by the authors of the corresponding experience brief).
SP: **Stakeholder Participation**