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NEWSLETTER

International Lake Environment Committee

=Promoting Sustainable Lake Management=

This Newsletter is also available in Japanese.

11th World Lake Conference

The 11th World Lake Conference was held at the Kenyatta International Conference Centre (KICC) in Nairobi, Kenya from October 31 to November 4, 2005. This 11th World Lake Conference was co-hosted by the Ministry of Water and Irrigation, Kenya. It was the first World Lake Conference to be held in Africa. The conference was a resounding success with 770 participants from 47 countries, including researchers, administrators and NGO members.

About 400 papers were presented orally or in printed poster form during the 9 thematic sessions (the number of sub-sessions were 26) and 6 special sessions. The issues on the sustainable use and conservation of world lakes were debated extensively. Many papers on the current conditions and problems of lakes in Africa, which are in critical situations, were presented to the participants of the conference. And enthusiastic discussions followed about the proper way of management of lakes. These discussions were vital to help build awareness and promote the preservation of lake environment not only in Africa but also in other developing countries.

Kenyatta International Conference Centre

Various excursions were planned and many participants took part in the excursions. “Kisumu (Lake Victoria)” was visited before the conference, “Lake Nakuru”, ”Lake Bogoria” and “Mt. Kenya” were visited during the conference, and “Masai Mara National Reserve”, ”Mombasa” and “Kisumu (Lake Victoria)” were visited after the conference.

On November 4, the final day of the conference, “11th World Lake Conference Nairobi Resolution” was endorsed by a high-level African Water Ministerial Dialogue, and “Statement of World Lake Conference” was adopted at the Closing Ceremony. (please refer to the next page.)

The next World Lake Conference is planed to be held in Jaipur, India from October 28 to November 2, 2007. A delegation of the Ministry of Environment and Forest, India made an invitation at the Closing Ceremony.

Speech by President Hamanaka, ILEC

Flamingoes in Lake Nakuru

IN THIS ISSUE

11th World Lake Conference NAIROBI RESOLUTION (abr)

The Ministerial Dialogue recognizes:

- That lakes, both natural and manmade, are essential elements of the overall water resources system.
- That lakes and lake basins provide many uses for sustainable livelihoods and economic development, and are important natural habitats for global biodiversity, as well as providing religious and cultural values.
- That transboundary lakes provide opportunities for regional integration and cooperation.
- That lakes and their basins are fragile and complex ecosystems under serious stress.
- That lake basins have some unique characteristics often with peculiar management needs.
- The important role of science in informing public policy and management decision making.
- The essential role of planning and sustained financial support for effective lake basin management.

The Ministerial Resolution calls for making integrated management of lake basins a long-term element of:

- Government and public priorities.
- Planning and financing processes.
- Integrated water resources management.
- Habitat and biodiversity conservation programs.
- Economic development programs.

The Ministerial Resolution recommended:

- The strengthening of local capacities for managing lake basins in a sustainable manner
- The establishment of a center for excellence in Africa for promoting a new generation of water and environmental planners and managers with skills in lake sciences, limnology and aquatic and environmental sciences.
- That the UN consider establishing an International Year for Lakes.
- The mobilization of funds for supporting IWRM to meet the MDGs.

Statement of 11th World Lake Conference (abr)

As fossil footprints in ancient lake beds testify, the rich resource of lakes were a magnet for early humans tens of thousands of years ago here in Africa, and they have continued to be so through human history to our own day. The challenge now facing us is to preserve the world's lakes, complex life-supporting ecosystems containing more than 90 percent of the liquid freshwater on the earth's surface, so they can continue to provide physical and spiritual support for the generations that follow us.

We must also recognize the primary importance of the people who use lake resources and immediately experience damaging consequences. These lake dwellers, both men and women, carry the cultural memory of the community and the lake through time, and often have the best knowledge about the source of problems and viable solutions.

At the same time, local people on the front line must assume responsibility along with power, since local behavior is often the source of damage to lakes. They must recognize that a healthy lake comes at a cost, and that an unhealthy lake has its costs. In cases where user fees are the chosen tool to encourage wise behavior, it is vital that the community retain a good part of the proceeds to continue their efforts.

National institutions also are vital for fostering awareness, promoting participation, and bringing together diverse interests within lake basins. When capable and effective, they provide the arena for developing broad management efforts that consider the lake basin as a whole, and its broader connections with the linking water systems and atmospheric influences. They also provide a forum for addressing the often conflicting needs of those who inhabit lake basins and depend on lake resources. Without such an overarching framework and comprehensive perspective, there are few means for resolving conflicts over water or lake resources, or for integrating local efforts to maintain lake health into national programs and development plans. In setting these policies, national authorities must consider lake communities and ensure that the widest range of interests depending on lakes enjoy their benefits. In addition, national leaders act in the international arena, where they can illuminate problems -- such as transboundary management, long distance air pollution and climate change -- and press for solutions. The World Lake Vision, launched at the 3rd World Water Forum in Japan, and the lessons learned from the Lake Basin Management Initiative launched at this 11th World Lake Conference, highlight these issues and suggest ways to achieve successful lake basin management.

International assistance can provide a vital impetus for sustaining the health of lakes and their resources, but it is not the ultimate solution for managing the interaction between human activity and these living systems. Experience around the world shows that international funding from sources such as the GEF, can catalyze efforts to manage human activities in lake basins. But in the longer term, local and national governments must ensure the ongoing and stable funding needed to continue the task. Local governments will have to experiment with innovative approaches, such as fees for lake use, in order to achieve this goal. It is equally essential that communities retain and use some of the funds raised in this way to further their efforts on behalf of the lake, and those living and working in the lake basin. Above all, when addressing lake problems, international agencies must place primary importance on local needs when developing their action agendas and programs.

11th World Lakes Conference and Sessions Held by ILEC

At this Conference, the report "Management Lake and their Basin for Sustainable use", an output of the GEF project, "Towards a Lake Basin Management Initiative: Sharing Lessons and Experiences from GEF and Non-GEF Lake Basin Management Projects", was announced, and highly evaluated as the key theme of integrated water resource management.

"The World Lake Vision" announced at the third World Water Forum 2003 has acquired considerable support from many countries/organizations, and is currently being translated into many languages around the world. Additionally, local variations of this Vision are being set up in many areas, entailing NGO activities for sustainable lakes management. Even so, further expansion of "the World Lake Vision" is necessary.

Thus, ILEC and Shiga prefecture, Japan, aiming towards this expansion, held "the World Lake Vision session" and "Residents participation session" at the 11th World Lake Conference, in order to reacknowledge the significance of "The World Lake Vision", and to summarize propagation activities performed to date.

ILEC currently plans to proceed with "Selection of the world lakes vision activities" in preparation for the 12th World Lake Conference to be held in India.

In order to promote significant levels of resident participation in environmental conservation activities, it is most important to share environmental information with the residents themselves. A geographic information system (GIS) is one tool effective for this purpose. Availing themselves of the opportunity for an excursion to Lake Nakuru during the 11th World Lakes Conference, attendees were given the chance to observe GIS activity sites in Nakuru city, and to exchange opinions in friendly interactions with the staff of the competent authority, lake peripheral residents, and NGO members. In addition, ILEC held the "Citizens and NGOs' Meeting" at the conference site, through which anecdotal reports were presented of GIS activities and NGO activities performed in East African countries, followed by a discussion.

Accepting JICA's commission after 1990, ILEC has performed "Training programs for lake water quality conservation" 15 times to FY2004, and sent 155 trainees of 40 countries in total around the world. At this World Lakes Conference in Kenya, ILEC held "the JICA-ILEC follow-up training program" for 10 African former trainees, which provided them extensive follow-up education following their coming home. As two sessions of these follow-up training programs were open and participatory, many citizens participated, and contributed actively.

Case presentation at the World Lake Vision Session

A participant questioning at Public Participation Session

Discussion at the Citizens / NGOs Meeting

JICA-ILEC Follow-up Open Session

ILEC received aid from the Environmental Restoration and Conservation Agency for executing the following activities: "World Lakes Vision session " "Residents participation session", "Citizens and NGOs' Meeting", and "Lake Nakuru Visiting"
ILEC received additional aid from the Japan Foundation for executing the activities of "Residents participation session" and "Lake Nakuru Visiting".

Toward the promotion of integrated lake basin management

Lakes, impounding a 90 percent usable liquid freshwater on land, are an invaluable water resource to support human existence and civilization. Moreover, lakes are indispensable to the maintenance of a robust ecology and biodiversity.

Yet, the world's lakes are facing diverse crises such as the aggravation of water quality, changes in ecosystems, or water depletion in lakes. "How can we use lakes in a sustainable manner?" – This is an urgent question for us to solve.

Thus, with the support of the Global Environment Facility (GEF), ILEC has continued to execute the GEF middle-scale project, "Towards a Lake Basin Management Initiative; Experiences on and issues of management of the GEF-support-target lake basins and other lake basins", since 2003.

This was the first case in which a Japanese organization executed a GEF project, carrying the weight of expectations for the GEF about ILEC that has made significant contributions to sustainable lake management.

Enjoying cooperation from many scientists and related organizations in the world, not to speak of the scientist members of the related ILEC committee, ILEC verified the past achievements/problems occurring in basin management, relating to a total of 28 GEF-support-target lakes, and other lakes. ILEC subsequently held many workshops (eg., three area-workshops, 10 times working group meetings, etc.) to allow concerned parties to share the verified results. In June 2005, the report was nearly completion.

GEF Project Report

As a result, the primary report was presented at the open forum held by ILEC in June, 2005 (at the Lake Biwa Museum, June 4). The official report was presented at the 11th World Lakes Conference (Oct. 31 – Nov. 4) in Nairobi, Kenya and the 9th Conference of the Contracting Parties to the Convention on Wetlands (COP9) in Uganda.

To achieve the environmentally proper and integrated management of lakes, and to realize the sustainable use thereof, it is necessary to set up a framework capable of addressing an entire lake basin, not merely observing only water (water quality) in a lake.

Furthermore, it is broadly regarded as a public consensus that the policy should review not only physicochemical aspects, but should comprehensively consider the legal system and socioeconomic factors relating to lakes, as well as people's activities toward lakes conservation.

In response to these demands, the Report advocates "Integrated Lake Basin Management (ILBM)".

The Report, comprising three sections and 11 chapters, describes the project and general outline of lake basin management in Section 1, entitled "Understanding of lake resources", and mentions various factors lying within lake basin management in Section 2 entitled "Meeting the Governance Challenge", the core of the Report (eg., organization/system, policy option, citizens' participation, engineering/technological measures, role of science <survey research/monitoring>, and lasting financing). Additionally, in Section 3 entitled "Synthesis", the Report suggests how the methodology to plan the lake basin management and the various factors dealt with in Section 2 should be integrated.

In the final analysis, this Report broadly and multilaterally brings up the factors intrinsic to lake basin management, while discussing how such factors should be considered concretely based on case examples. At the same time, the Report indicates consensus-building approaches to the realization of "proper governance" of lake basins, separated by border or administration, and congested with intricate interests, as well as a road map to policy formation.

The Report is rich in content closely conforming to the actual situation of "site", gaining an appraisal as a "textbook providing solutions to issues which occur at practical management sites".

In the past, there has been a tendency to pay insufficient attention to lakes even in discussions about water resource management.

Likewise, lakes were not assigned a key role in "Integrative Water Resource Management (IWRM)" announced at the second World Water Forum, showing no sufficient, detailed methods to realize the concepts of the IWRM.

Still, ILEC regards lake issues as key in world water resource management. We also firmly believe that the ILBM presented in the Report is the primary proposition for and complementary to the IWRM, providing concrete methodology, and that the Report presented to the world at this Conference established the framework with detailed methodology leading to sustainable use of lakes.

The ILBM framework thus suggested was evaluated highly at the 11th World Lake Conference, and "Key role of lakes in the Integrated Water Resource Management" was acknowledged in the conference statement and the Nairobi Resolution.

ILEC will strive to proceed according to the propagations and promotions of the ILBM with the efforts outlined below.

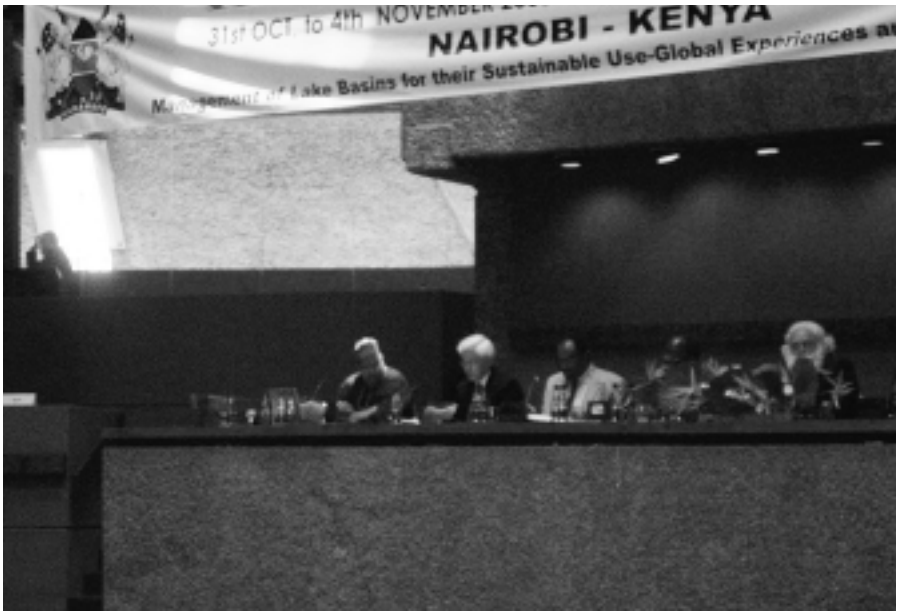
(1) Enhancement of the ILBM concept by organizing information about lakes other than Lake Biwa, and information about

other lakes (especially those in Asia) except those already targeted through projects, incorporating the ILBM framework.

(2) Collaboration and coordination among research institutes, centering on lake basin management.

(3) Organization and consolidation of existing information as well as the setup of a lake basin management database along with knowledge base, based on collaboration with international institutions and other organizations.

(4) Development of educational materials usable in lake basin management in underdeveloped countries (through the JICA training programs).



Presentation of LBMI Report at the 11th World Lake Conference

ILEC will actively attempt to persuade the Japanese Government and related authorities to provide further support allowing ILEC to significantly contribute to the promotion of water resource/lake basin management in Asia and Africa, and in future allowing Japan to lead the world in the field of lake basin management by exercising Japan's latent capacity including technology, experience, and know-how related to lake basin management.

(Note) The Lake Basin Management Initiative's Main Report is available on the ILEC website at http://www.ilec.or.jp. For those wanting a hard copy of the report, please send your name and address to either info@ilec.or.jp or to the address on the last page. Additionally, final Experience and Lessons Learned briefs on the 28 lake basins covered in the project will soon be available online (Lake Xingkai/Khanka on page 7 is one of the lakes). A CD-ROM containing the briefs will be included in the Main Report.

13th Biwako Prize for Ecology Award Ceremony Held

The 13th Biwako Prize for Ecology Award ceremony and Award's Lectures were held July 1, 2005 (Lake Biwa Day). The Prize was awarded to one domestic and one non-Japanese researcher.

This article introduces the two awardees.

The first awardee is Dr. Akio Imai, the chief researcher of the Lake Environment Section, the National Institute for Environmental Studies. The domain of Dr. Imai's expertise is "Environmental chemistry: Analyses of Dissolved Organic Matters (DOM) of land water and their effects on water quality and living matters". Dr. Imai has won the 13th Biwako Prize for his study aiming at "water quality conservation" by focusing on lake water quality, especially on the effects of dissolved organic matters upon lakes ecosystem and drinking water.

In his lecture entitled "The effects of Dissolved Organic Matters (DOM) on Lake Ecosystems and drinking water", Dr. Imai presented about the current situation of Lake Kasumigaura reported that despite restrictions on organic load in lake water or lack of recognition of the signs of phytoplankton growth, dissolved organic matters (DOM) have been qualitatively increasing in recent years, and this was followed by his remarks thereon.


Dr. Akio Imai


Professor Joo Gea-Jae

The second awardee is Dr. Joo Gea-Jae, professor of the Department of Biology, Pusan University, R. O. Korea. The domain of professor Joo's expertise is "Water Ecology (Ecology with focus on lakes and rivers)". Professor Joo has won the 13th Biwako Prize for his study, credited for the initiation of environmental monitoring of the Nakdong river (the second longest river in Korea, at the mouth of which an estuary weir has been built), and the subsequent addition of a considerable volume of ecological knowledge about the effects of human activities upon rivers based on the comprehensive analyses of results obtained through the long-term monitoring above.

In his commemorative lecture entitled "The Ecohydrological Studies on Nakdong River, S. Korea", Professor Joo provided an explanation of the information obtained through the long-term monitoring performed at the Nakdong River, as well as information about future plans to be put into effect along the Nakdong riverside.

For reference, there were 21 applicants in total for the 13th Biwako Prize for Ecology comprised of seven domestic applicants and 14 overseas applicants.

The Environment Education Class for Children

The Environment Education Class for Children, which is held during the summer vacation, is funded by the Heiwado Foundation, Hikone-City, Shiga Prefecture. It started 3 years ago, and this year's class was held for 3 days from August 5 to 7.

The participant must be in the 4th to 6th grade of an elementary school in Shiga Prefecture. There were a total of 15 participants of 9 students from Kusatsu-City, 3 students from Ritto-City, 2 students from Otsu-City and 1 student from Takashima-City this year.

The program for the 3 days was made for the purpose of building the ability to think of the environment. The program mainly focused on Lake Biwa Basin through the experience of on the field study in upstream, midstream and Lake Biwa.

On the first day, the students went to "Takama Waterfront Park" and studied about the forest, which has an important role of cultivating water resources. On this occasion, they were taught about the problem that many forests can not perform their natural functions because they are not cared for well now. Additionally, they experienced logging operation and made the "Key Ring Hooks", woodworks using the edge of the trees that they cut.

Experiments for detection of phosphorus

On the second day, they observed the nature of OBA River flowing through the residential area of Kusatsu-City. They knew many creatures are living in the river, and learned the importance of environmental conservation of river, which is in the city (residence area). They also made charcoal with the trees that they cut on the day before.

In the morning of the final day, they observed "Eri", "Eri" is a major traditional fishing method in Lake Biwa, for catching foreign fishes that was setting in the "Tsudae", an attached lake of Lake Biwa located near ILEC. The students observed the fishes in the net, and learned from local fishermen about the original fishes in Lake Biwa and foreign fishes. In the afternoon, with Professor Kawashima of Shiga University, they did experiments for detection of phosphorus and carbonic anhydride using everyday materials. Then, they studied world lakes and problems of Lake Biwa.

JICA - Environment Education Course Ⅱ

We need to solve the serious environmental problems on the developing countries in the long term such as forest destruction, water pollution and waste treatment as well as the global environmental problems. To that end, Environment Education for children, who are responsible for the next generation, is very important. But the persons engaged in educating the leaders of Environment Education are quite limited both in quality and quantity. Therefore, it is very important to support the training of these leaders.

Because of that, ILEC implemented JICA-Environment Education Course commissioned by the Japan International Cooperation Agency (JICA) from 1999 to 2004. The course had been conducted 5 times. It was decided to continue this course for another 5 years from 2005 under the title of JICA - Environment Education Course Ⅱ.

At the Opening Ceremony

The period of this years course was from September 5 to October 21. 8 trainees from 7 countries participated, one each from Egypt, Kiribati, Malaysia, Panama, Philippines, Uruguay, and two from Pakistan.

This course provides participants with know-how on Environment Education focusing on fresh water environment through lectures, field visits, and practice. At the end of the course, each trainee makes an action plan to implement in his or her own country.

On the course, various lecturers are invited mainly from the Faculty of Education of Shiga University, the Faculty of Economics of Shiga University, the Department of Environmental Science of The University of Shiga Prefecture and so forth. The participants take part in many practical activities that they can experience by themselves which helps them to think about Environment Education, for example visiting Lake Biwa Museum, participating in the environmental conservation activities at Oba River in Kusatsu-City.

Lakes of the World:

Lake Xingkai/Khanka, P.R. China and Russian Federation

Jin Xiangcan, Chinese Research Academy of Environmental Sciences, Beijing, China
Zhai Pingyang, Heilongjiang Environmental Safeguard Science Academy, Harbin, China

Lake Xingkai/Khanka, a transboundary lake shared by the People's Republic of China (China) and the Russian Federation (Russia), is the largest freshwater lake in Northeast Asia. The lake supports high biodiversity (especially migratory birds) and is characterized by complex hydrology and naturally-occurring high turbidity, as well as a fragmented institutional authority responsible for its management. The lake experiences large seasonal and annual fluctuations in size, with the maximum and minimum area, depth and volume being 4,510㎢, 3,940㎢, 10.6 m and 22.6 km3, respectively. The lake is called Lake Xingkai in China and Khanka Lake in Russia; it is also refered to as Lake Xingkai/Khanka to highlight its transboundary nature. Its basin is a part of the Wusuli/Ussuri drainage basin, which is part of the larger Heilong/Amur basin (also given in Chinese/Russian order), ultimately draining into the Sea of Okhotsk. The lake actually consists of two lakes: The small, northern Chinese Xiaoxingkai (small Xingkai) and the main Lake Xingkai/Khanka.

Although the lake is located in a relatively remote area, its basin is a significant source of agricultural products for both countries, providing livelihoods and water resources for the local inhabitants. There is evidence that the basin has been settled since Neolithic times. Much of the land use in the basin is either forest or agriculture. The lake is also important for its biodiversity and role as a habitat for animal and plant species, including the red-crowned crane (*Grus japonensis*), white-neped crane (*Grus vipio*), and oriental white stork (*Ciconia boyciana*).

Because of the environmental and economic importance of the Lake Xingkai/Khanka Basin to both China and Russia, crucial issues for the population of the region include: wetland conservation and management; water quality control (particularly nutrients and pesticides from agricultural runoff); groundwater protection; and water use for irrigation, drinking water and fishing.

According to current information, the main environmental problems facing Lake Xingkai/Khanka include the following:

- Its wetlands and moorlands are vanishing quickly due to over-reclamation, causing destruction of the eco-environment and aggravating soil erosion;
- Precious animal and plant resources are being destroyed in the catchment, with the numbers of rare wild animals and plants falling rapidly; for example, the oriental white stork (*Ciconia boyciana*), red-crowned crane (*Grus japonensis*) and Xingkai pine on the verge of extinction; and, Parts of the lake have been seriously polluted because of increasing human activities and the resulting high pollution loads from around the lake.

The management response to these issues is still in an early phase, with most work being done on an individual country basis. Much of the information on the lake is collected independently by the Chinese and Russian sides of the lake, primarily because no comprehensive program has been established to gather information in a consistent manner. Thus, equivalent data are not available for broad comparisons, highlighting one of the major difficulties that many transboundary lakes around the world are facing. Further, both China and Russia have established separate special nature protected areas in the drainage basin (i.e., Khankaisky State Nature Reserve in Russia; Xingkai Lake Nature Reserve in China). Important new cooperative efforts include the UNEP Diagnostic Analysis (2001), conducted by a joint team of Chinese and Russian scientists (and from which this report draws heavily), as well as a proposed Global Environment Facility project called "Integrated Management of the Amur/Heilong River Basin," which will have a significant component addressing Lake Xingkai/Khanka issues.

For More Information:

Jin Xiangcan. 2005. *Lake Xingkai/Khanka: Experiences and Lessons Learned Brief.* Report for the Lake Basin Management Initiative. ILEC, Kusatsu, Japan.
UNEP. 2001. Diagnostic Analysis of the Lake Xingkai/Khanka Basin (People's Republic of China and Russian Federation). United Nations Environment Programme, Nairobi, Kenya.

World lake Vision Translation Continuing

World Lake Vision (WLV) was presented at the 3rd World Water Forum held in Japan in 2003. It has been gaining worldwide support as a blueprint for the sustainable lake management in the 21st century. So far over 5,000 copies have been distributed throughout the world. An advocate of WLV, ILEC has been taking on its translation of the WLV document (originally written in English) into various languages in cooperation with partners around the world. By now we have completed the translation of its full version into Spanish, Russian, Chinese, Swahili, and Japanese. It was also translated into Bahasa Indonesia by local organizations.

As for the executive summary, we have finished the translation into Spanish, Hungarian, Mongolian, and Japanese. For its further dissemination we are planning to translate it into French and Arabic, two UN official languages with no WLV translation version available yet.

The 4th World Water Forum

The 4th World Water Forum will be held in Mexico City, Mexico from March 16th to 22nd, 2006 with the main theme "Local Action for a Global Challenge". The Forum is an international event organized every three years by the World Water Council (WWW) in collaboration with a host country. So far it was held in Marrakech, Morocco in 1997, in Hague, Holland in 2000, and in Kyoto, Osaka and Shiga, Japan in 2003. In the 3rd World Water Forum in 2003 we presented "World Lake Vision" in a joint session co-organized by ILEC, Shiga Prefecture and UNEP-IETC and started GEF-medium size project "Towards a Lake Basin Management Initiative".

In the forthcoming Forum we are going to have a joint session with Shiga Prefecture and other organizations to start a project to prepare "World Lake Vision Action Report", and present a final report of the above-mentioned GEF-project with an objective to mainstream "Integrated Lake Basin Management" in the framework of Integrated Water Resources Management.

As for details of the 4th World Water Forum, please refer to the official website of the Forum at
http://www.worldwaterforum4.org.mx

Apply for your own ILEC credit card

For readers who are residents of Japan, what better way to support the world lakes than to set your own ILEC credit card ? 0.5% of all charges are paid to the general operating budget of ILEC by the Central Finance Corporation of Japan. Additionally, 250 yen of the yearly card fee will be donated to ILEC. There are three versions available: Master Card, VISA Card, and JCB Card. Please contact to either info@ilec.or.jp or to the address on the last page for an application.


ILEC Master Card

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