

NEWSLETTER

International Lake Environment Committee

=Promoting Sustainable Lake Management=

This Newsletter is also available in Japanese.

Prof. Hironori Hamanaka and Prof. Masaaki Naito appointed New Director General and Vice-Director General

Mr. Kei Yamazaki and Dr. Tatsuo Kira, who have been ILEC's Director General and Vice-Director General respectively since its inception, retired their posts at the end of last year. To replace them, Prof. Hironori Hamanaka (Faculty of Environmental Information, Keio University; former Vice-Minister for Global Environmental Affairs) became the Director General and Prof. Masaaki Naito (Faculty of Sociology, Bukkyo University) became the Vice-Director General. In addition, executive Director Hiroya Kotani and eleven other Directors, two auditors, and thirteen councilors were appointed to establish a new administration (the 10th FIY).

Inaugural Address

..... Hironori Hamanaka



It is my great honor to be given the responsibility of such an important post as the Director General of the International Lake Environment Committee (ILEC) in succession to Mr. Kei Yamazaki.

ILEC has developed to a remarkable degree under the direction of Mr. Yamazaki and is playing a very important role in the field of international cooperation on sustainable management and conservation of world lakes and reservoirs. In addition to the organization of World Lake Conferences in

various parts of the world, ILEC has published interim reports on the Survey of the State of World Lakes, a compact size edition of *Data Book of World Lake Environments*, and a book series on "Guidelines of Lake Management" in cooperation with other organizations, including UNEP. ILEC also contributes greatly to the promotion of environmental education and professional training. I have the highest admiration for the efforts of Mr. Yamazaki, the successive Governors of Shiga Prefecture, and all other people involved.

Many world-class intellectuals point out that the water problem is, along with climate change, the highest priority issue in the 21st century. Being limited and valuable water resources, lakes and reservoirs are expected to gain more

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importance as global water issues increasingly become severe. In this context, the sustainable management and conservation of lakes and reservoirs

is one of the most critical challenges in the 21st century.

Under these circumstances, I will dedicate myself to my duties as the

Director General for ILEC to fulfill these globally important tasks. I beg your additional guidance and cooperation with us.

Retirement Address

..... Kei Yamazaki, former Director General

After serving as the Director General of the International Lake Environment Committee (ILEC) for seventeen years since its foundation in September 1987, I recently decided to retire from the post.

ILEC was established in the period when Japan had just begun cooperating in international efforts towards environmental protection. I believe we have been keeping pace with the national trend since then, steadily solidifying our foundation. It was the greatest pleasure and honor for me to participate in the changes. ILEC and I, in

my position of responsibility, fortunately had the opportunity to meet many people, gaining their support during the 17 years. Thanks to all this, I am highly satisfied with the current situation, which the importance of water problems and issues concerning lakes and reservoirs is gradually becoming recognized in the international community. Additionally, the World Lake Conference, the organization of which was one of the most important aims in the establishment of ILEC, will soon be convened for the eleventh time.

Now I hand matters over to the most



suitable successor in good conscience. I would like to thank you all for your generous support over the years.

My Days with ILEC

..... Tatsuo Kira



As of well known, ILEC was established at the first World Lake Conference (1984) on the request of Dr. Tolba, then UNEP Executive Director, and through the subsequent prompt response of the former Governor of Shiga Prefecture, Masayoshi Takemura. I was appointed as chairperson of the executive committee of the Conference and, in the course of time, came to assist

in the birth of ILEC. From the beginning, when ILEC consisted of Scientific Committee members only, I presided at preparatory meetings, chairing the Scientific Committee for a long time. Upon ILEC's establishment as a foundation, I became a member of the Board of Directors, and served as Vice-director General in recent years. Consequently, I have been taking steps with ILEC for twenty years.

During my term as the chairperson of the Scientific Committee I tried to provide members with maximum opportunities to fully express their opinions and every idea. This lengthened the meetings so much that I was advised to make more expeditious decisions on simple matters in my role as chairman. Nevertheless, I could not change my style because unexpected ideas, even on minor issues, were always offered. As a result, we successfully launched some long-wished projects that had not been implemented,

such as the creation of the World Lake Database, publication of the Guidelines of Lake Management, and the trial project of environmental education at schools in six countries, based on superb ideas presented by the members, who were all experts in their field and able to display our presence at home and abroad.

In these years in which many incorporated foundations face financial difficulties, the ILEC office staff is facing unimaginably difficult challenges. I have only been able to make limited contribution towards the resolution of this situation since completion of my responsibilities upon retirement as chairperson of the Scientific Committee. Retirement from the post of Vice-director General, honestly speaking, comes as somewhat of a relief. I feel confident that the new members of the Board of Directors and the Scientific Committee will introduce novel ideas, furthering the achievements and reliabilities accomplished by former staff. Thank you for your cooperation over the years.

Water Quality Management Training Course Organized as a Support of Iraqi

LEC conducted a "Water Quality Management Training Course" from Dec. 6-17, 2004 at the request of UNEP-IETC by receiving 28 participants from Iraq. It was part of Iraq Support Program launched by UNEP under the support of Japanese government. The course was a capacity building component of the entire program and organized by UNEP-IETC, a responsible agency of this project in UNEP. The training program was intended to increase the capacity and skills of officials of the Ministry of the Environment of Iraq and representatives of the relevant agencies and academia in the knowledge of Water Quality Management and Policy Development, which will be applicable to the integrated management of water resources in the Iraqi Marshlands.

The program included 17 lectures and five field visits, inviting two overseas and 13 Japanese experts as lecturers. It stressed the need for restoration of Iraqi marshland and covered a wide range of lectures on water quality management and



monitoring from its basics to application. Experts from GEMS/Water and WHO discussed the Iraqi marshland issues from global perspectives and addressed the need for international cooperation. Japanese experts and representatives of various institutions and universities presented examples and experiences on water management and monitoring in

Japan, as well as the role of wetlands and Lake Biwa cases.

The participants visited water quality/quantity control facility, water purification plant, and landfill, etc. They met an NPO in Shiga Prefecture and learned the role of community people in water quality management. Field visits



provided a good opportunity to the participants to see themselves Japanese systems and conditions presented in lectures, and contact local people of Japan. Participants also had a chance to visit Governor of Shiga Prefecture at the official residence and received a presentation on the management of Lake Biwa from the government official. "These experiences are very useful to us. All of them will help us working on the Iraqi marshland restoration back in Iraq" was the voice of participants

This training was a challenge for ILEC because we had very limited time for the preparation and had to take care of as many as 28 participants at one time with limited number of staff. Also many of the participants were not used to taking a training program, especially in a foreign country. However, when we received the words of gratitude



from the Iraqi participants at the completion of the training program, we had a feeling of reward for all of our efforts overcoming all these difficulties. ILEC was happy to increase the mutual

understanding with people of Iraq, who have completely different culture and tradition from us, through this training program.

Workshop in Indonesia

On December 8-9, 2004 ILEC organized a workshop in Jakarta,

Indonesia to promote the sustainable lake management in Indonesia as part of

its World Lake Vision follow-up activities. It was co-organized by Indonesian Lake



Question & answer session after experts' presentation (Mr. Matsumoto, ILEC delivering an opening message)

Forum, a network of organizations and individuals working on lake conservation activities in Indonesia. The workshop was implemented as a national event under the support of the Ministry of the Environment of Indonesia. It was also supported by other government agencies, international and local NGOs. The workshop brought together about 100 domestic participants from various parts of Indonesia and three international experts in lake management.



Participants discussing lake problems in a group discussion

The workshop started with an opening message of Ms. Haryatiningish Moedjodo of Indonesian Lake Forum. Mr. Satoru Matsumoto, representing ILEC, expressed his hope for the development of "Indonesian lake Vision", and made an appeal that this workshop be a good starting point towards that process. Followed by the other guest speakers, Mr. Sudariyano, Deputy Minister of the Ministry of the Environment of Indonesia overviewed current conditions and issues of Indonesian Lakes.

Day 1 focused on sharing key issues in lake management in Indonesia and learning international experiences. Six Indonesia experts made presentations on 1) Lake ecosystem conservation, 2) Lake management in decentralized era, 3) citizen participation in lake management, 4) Water quantity and quality, 5) Role of private sector in lake management, and 6) International cooperation. Three invited international experts, two from Japan and one from Philippine, contributed to the workshop by sharing their expertise and experiences. Dr. Shinji Ide discussed the

role of citizen in lake management by introducing community participation in Japan. Dr. Takuo Nakamura emphasized the role of lake ecosystem and gave some lessons learned from the management of Lake Biwa, Japan. Ms. Adelina C. Santos Borja, Philippine introduced the roles and activities of Lake Laguna Development Authority to protect the nation's biggest lake.

Day 2 discussed workshop themes. Participants were divided into three groups, each group discussing two of the six themes presented in Day 1. International experts joined the group to give food for thought to their discussion. Discussion results were discussed and shared in the plenary session by all the participants and incorporated in the Workshop Declaration issued at the end of the workshop, which included:

1. To process the formulation of Indonesia Lake Vision
2. To develop capacity for sustainable and wise management of lakes
4. To enhance public participation, especially local community, in promoting sustainable and wise lake management.
5. To develop cooperation among stakeholders through international, regional and national networking.



Meeting Venue full of participants from all over Indonesia

Lake Vostok, Antarctica

Thomas Ballatore (Researcher, ILEC)

Lakes of the
World

Give the recent press coverage about lakes found on Titan, Saturn's largest moon, our thoughts have lately been turning to "exotic" lakes. What a better time than now to discuss a lake from a continent never covered in the "Lakes of the World" series!

Imagine a freshwater lake deeper than Lake Tahoe with a volume rivaling that of the Lake Malawi that is older than Lake Baikal: that is Lake Vostok-and its location 4,000m below the Antarctic Ice Cap means that no one has ever seen its surface nor sampled its water; most readers have probably never even heard of it.

Lake Vostok is the largest among approximately 70 lakes that lie underneath the Antarctic Ice Cap. It has an area of approximately 10,000 km² and a depth of 1.2 km. The tremendous pressure of the overlying ice (4 km thick!) creates conditions where the -3°C water remains liquid. Geothermal heating is not thought to play a large role in keeping the lake from freezing. The lake's age has been estimated at between 20-35 million years making it a candidate for the world's most ancient lake. It has been isolated from the rest of the planet since Antarctica froze over 0.5 million years ago.

All of these factors have kept the lake pure and make the lake a unique laboratory for evolution. Ice core samples taken from water that originated from the lake's surface have been found to contain bacteria, although biological contamination by sampling equipment has not been ruled out. If the lake does contain life, then it is likely that the long period of isolation has led to the evolution of endemic life forms. This

possibility is what gives the lake a distinctive value as one of the last untainted reservoirs of life on earth.

The lake has also been cited as a model for understanding and exploring life beyond earth. Jupiter's moon Europa is thought to have a liquid ocean underneath its frozen surface. That satellite's water is liquid due to the energy produced in the core from the tidal stresses caused by eccentricity of its orbit around Jupiter. On earth, where there is water, there is life. And it is the hope of many that the oceans of Europa too may contain life. The experience learned here on earth on how to perform contamination-free sampling of underwater lakes would be invaluable for any missions to Europa.

Furthermore, the lake's isolation means that it contains an uncontaminated record of the earth's past climates in its sediment core. Scientists could use the information in the lake's sediment to improve knowledge of past climates and prediction of future ones.

The greatest threat facing Lake Vostok is the potential for contamination from sampling operations. Before the lake was confirmed to exist, climate researchers had been drilling a borehole in the ice above it to gather information about the earth's past climate from ice cores. At the request of biologists, that drilling was stopped in 1998 about 100 m above the lake. The borehole and drilling bits were not sterilized and are

full of lubricants, fuels and organisms from the surface; therefore, if water from the current borehole reached the lake, it could contaminate the lake not only with toxic materials, but also organisms which would at the least confound any sampling and at worst become invasive species.

Fortunately, drilling is still on hold as a proper plan is being developed for how to explore the lake without contaminating it. Because of the status of Antarctica, international teams will most likely carry out any sampling efforts. Sampling will also be extremely expensive given the lake's remote location and the need for ultra-pure sampling equipment and procedures. Nevertheless, it is likely that curiosity will win out and that someday in the near future we will know the secrets of Lake Vostok. The exploration of Lake Vostok will be a telling chapter in human environmental history. Will we be able to explore it without destroying it? Or will we contaminate it like we have all the other lakes covered in this series?

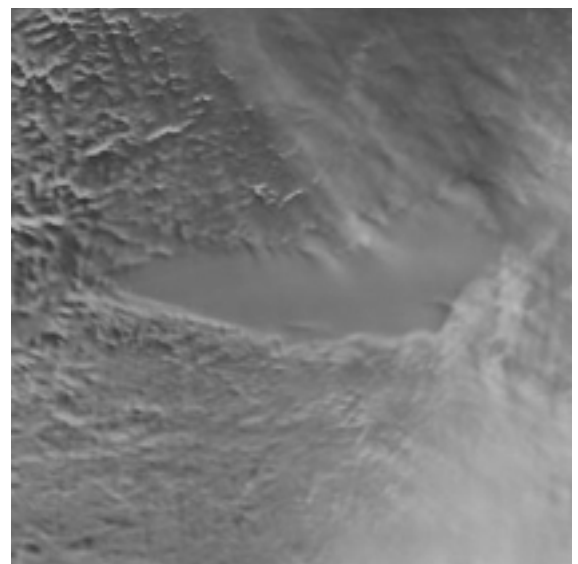


Photo Credit: RADARSAT
Lake Vostok, as seen by radar through the ice.

Resources: The US National Science Foundation maintains an informative site with links to various resources related to Lake Vostok at <http://www.nsf.gov/od/lpa/news/02/fsvostokresources.htm>.

Bell, R.E. et al. 2002. "Origin and fate of Lake Vostok water frozen to the base of the East Antarctic ice sheet." *Nature* **416**: 307-310.

Gavaghan, Helen. 2002. "Life in the deep freeze." *Nature* **415**: 828-830.

The 63rd Board of Directors' Meeting and The 55th Councilors' Meeting were held

The 63rd Board of Directors' Meeting and The 55th Councilors' Meeting were held at ILEC on March 22nd 2005. Directors and councilors who were assigned from January this year were in attendance. The budget for fiscal 2004 was revised and the project budget for fiscal 2005 was discussed. Through the

discussion, all bills were adopted.

The main projects to be undertaken for fiscal 2005 are:

- The 11th World Lake Conference in Kenya, Africa,
- The 16th JICA -Lake Water Quality Management course and the 6th JICA-Environmental Education

course,

— Dissemination of "World Lake Vision".

Also, it was decided to study the establishment of the original system in which there is a linkage between database and knowledge base.

The new members of the Board of Directors and the Council are as follows:

Members of Directors (Random order)

Director General	Hironori HAMANAKA	Professor, Faculty of Environmental Information, Keio University; Former Vice-Minister for Global Environmental Affairs
Vice-Director General	Masaaki NAITOU	Professor, Department of Public Policy, School of Sociology, Bukkyo University
Executive Director	Hiroya KOTANI	Former Director of Shiga Prefecture
Director	Mr. Takahisa SASAKI	Former Ambassador to the Federal Republic of Nigeria
Director	Hideaki ODA	Secretary General, NPO Japan Water Forum
Director	Masataka WATANABE	Chief, Water and Soil Environmental Division, National Institute for Environmental Studies
Director	Saburo MATSUI	Professor, Environmentally-Friendly Industries for Sustainable Development, Graduate School of Global Environment, Kyoto University
Director	Masahisa NAKAMURA	Director, Lake Biwa Research Institute
Director	Munetsugu KAWASHIMA	Professor, Faculty of Education, Shiga University
Director	Osamu MITAMURA	Professor, Department of Ecosystem Studies, School of Environmental Studies, University of Shiga Prefecture
Director	Kazuo MATSUSHITA	Professor, Graduate School of Global Environmental Studies, Kyoto University
Director	Yukiko KADA	Professor, Department of Environmental and Social Studies, Faculty of Humanities, Kyoto Seika University
Director	Mikiyasu NAKAYAMA	Professor, Institute of Environmental Studies, Graduate School of Frontier Science, University of Tokyo
Director	Yoichi TANAKA	Senior Managing Director, Water Policy Administration Division, Department of Lake Biwa and the Environment, Shiga Prefecture
Auditor	Koichi TAKADA	President of Shiga Bank
Auditor	Yoshio KISHIMOTO	Director General, Treasury Bureau, Shiga Prefecture

Members of the Council (Random order)

Kagechika MATANO	Former Ambassador to the Kingdom of Sweden
Eitaro WADA	Program Director of Ecosystem Change Research Program, Frontier Research Center for Global Change
Motoyuki SUZUKI	Professor, University of the Air
Kenji MORI	Vice-Chairman, The Shiga Economic and Industrial Association
Kiyoshi YAMADA	Professor, Department of Environmental Systems Engineering, College of Science and Engineering, Ritsumeikan University
Kotaro TAKEMURA	President of the Board of Directors, Foundation for Riverfront Improvement and Restoration
Takashi IJIMA	Director, National Institute for Environmental Studies
Masako HORIKOSHI	Professor, Faculty of Education, Shiga University
Reiko NAKAMURA	Secretary General, Ramsar Center Japan
Hiroshi TSUNO	Professor, Urban and Environment Engineering, Graduate School of Engineering, Kyoto University
Fumihiko JIKU	Professor, Department of Environmental Solution Technology, Faculty of Science and Technology, Ryukoku University
Per BAKKEN	Deputy Director, United Nations Environment Programme, Division of Technology, Industry and Economics (UNEP DTIE)
Kiyoshi ITO	Chief, Water Policy Administration Division, Department of Lake Biwa and the Environment, Shiga Prefecture

2nd Announcement for the 11th World Lake Conference

The 2nd Announcement for the 11th World Lake Conference that will be held in Nairobi, Kenya between 31 October - 4 November this year has been opened. Please refer to the the Conference Website at <http://www.ileckenya.go.ke> , and ILEC Website at (http://www.ilec.or.jp/eg/wlc/2nd_eg/2nd_eg.html).

Proposed Session Topics

SESSION 1: GOVERNANCE AND WATER RESOURCES MANAGEMENT
SESSION 2: SCIENTIFIC RESEARCH AND MONITORING
SESSION 3: POVERTY REDUCTION AND CROSS-CUTTING ISSUES
SESSION 4: EFFECTS OF EMERGING ISSUES ON LAKE MANAGEMENT
SESSION 5: PUBLIC PARTICIPATION IN LAKE MANAGEMENT

SESSION 6: LAKE BASIN INITIATIVES
SESSION 7: THE LAKES ECOSYSTEM HEALTH
SESSION 8: SESSION8:THREATS TO LAKES: WITH SPECIAL EMPHASIS ON THE AFRICAN REALITIES
SESSION 9: CULTURAL ISSUES
SPECIAL SESSIONS

Excursions

- Pre-conference excursion ●
 1. A 3 day (2 nights) visit to Lake Victoria by air
 2. A 3 day (2 nights) visit to Lake, Naivasha, Nakuru and Bogoria all in the Rift Valley by road
- Post-Conference Excursion ●
 1. A 3 day (2 nights) visit to Mombasa City by air

2. A 3 day (2 nights) visit to Seven Forks Dam through Mt. Kenya region by road

Preparation Calendar for 11th World Lake Conference

April : Second Announcement: Call for abstracts
May : Third Announcement-Registration of participants will begin and submission of papers as well as announcement of the detailed programme
July: Closing of early registration: Disclosure of additional Papers, Revision of the detailed programme
Sep : Closing of advanced registration
Oct : On-site Registration required after middle of October

The 15th JICA-Lake Water Quality Management course had finished

The 15th JICA- Lake Water Quality Management Course, started on January 17th, was completed on March 17th. This course was for approximately 2 months, and 10 trainees from 6 countries (1 from Cambodia, 3 from Kenya, 2 from Sri Lanka, 1 from Syria, 2 from Tanzania and 1 from Thailand) participated in this course this year.

This training course is designed to train the decision maker/ technical staff,

who are from developing countries and also are concerned with Lake Water Quality Management on their job. Many of this year's trainees are government staff in charge of Lake Management or analyst.

This training course provides them with opportunities to acquire knowledge of policy-making in water quality management through advanced lectures and practices.

This course aims at making contributions not only to qualitative improvement of technical staff who are in the situation of leadership in their countries but also to lake environment management and well-balanced development.

The major contents of this course are that:

- Management in General,
- Analysis Method,
- Waste Water treatment,
- Prediction and Mechanism of Pollution,
- Discussion.

Throughout the course, trainees increase their knowledge for Lake Management. Also, they make "Environmental Sound" decision for each lake.

At the end of this training course, each trainee presents their "action plan" and brings it back to their own countries as training outcome.



INTERNATIONAL LAKE ENVIRONMENT COMMITTEE

-Secretariat-

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