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NEWSLETTER

INTERNATIONAL LAKE ENVIRONMENT COMMITTEE FOUNDATION

— For Better Lake Management —

This Newsletter is also available in Japanese.

UNCRD/ILEC/UNEP JOINT EXPERT GROUP WORKSHOP: A River/Lake Basin Approach to Environmentally Sound Management of Water Resources

The Expert Group Workshop on River/Lake Basin Approach to Environmentally Sound Management of Water Resources was held from February 8th to 19th in Otsu and Nagoya. This workshop was the first of three annual workshops to be held under a program co-sponsored by UNCRD (United Nations Centre for Regional Development), ILEC and UNEP.

In a number of regions throughout the world, there exists an aggravating problem of increasing deterioration of the environment within and surrounding lakes and rivers which provide precious sources of fresh water. The aim of the Workshop is to consider efficient methods of managing water resources, and to train competent personnel for this purpose. An emphasis is placed on shedding light on situations in developing countries in particular.

1 Outline of the Seminar

[Part I] Six separate sessions under the general theme of "Basic Principle and Methods of Water Resource Management," comprised the first part of the Workshop held in Otsu. The sessions consisted largely of presentations of resource papers, and results of case studies conducted in Japan. Nearly 40 scientists and policy makers from 14 countries and 2 U.N.Organizations participated.

Opening Ceremony···Opening address by UNCRD Director H.Sazanami, ILEC Foundation Chairperson T.Kira and UNEP Assistant Executive Director G.N.Golubev.

Session 1: Environmentally Sound Management of Water Resources

(This newsletter is published with support from the Japan Shipbuilding Industry Foundation)

Topic: Sustainable Management of Water Resources: A Basin-Wide Approach (G.N.Golubev)
: Sustainable Water Development for Developing Countries (A.K.Biswas)
Session 2: Water Resources Management in a River/Lake Basin Context
Topic: A Conceptual Framework with Examples from Developing Countries (M.M.Hufschmidt)
Session 3: Environmental Considerations in the Development Process
Topic: Integration of Environmental Considerations into Regional Development Planning: Focus on Water Resources Development and Management (C.E.Bauer)
Session 4: Scientific Approaches to Water Resources Management
Topic: Monitoring and Measurable Indices for Water Resources (T.Goda)
: Hazards and Health Risks from Lakes (H.Löffler)
Session 5: Japanese Experience in Water Resources Management
Topic: Consideration of Management Systems and Consensus Forming in River Basin Management: The Development of the "Yahagi River Methods" (R.Naito, R.Harashima)
: Comprehensive Development of Lake Kasumigaura and its Environmental Management (K.Muraoka, H.Harasawa)
: Lake Biwa Case Study of 1st Year--A Historical Review of Resource Conservation and Exploitation of Lake Biwa Environments (K.Imai, M.Nakamura)
: 'Soft Approach' to Watershed Management: Case Histories in Japan with Special Focus on the Transferability of the Japanese Experiences (Y.Shimazu)
: Basin Approach to Water Resource Management: The Case of the Laguna Lake, Philippines (E.P.Pacardo, F.Francisco)
: Environmental and Social Effects of the Proposed Salinity Barrier Project in the Songkhla Lake, Thailand (S.Setamanit)
Group Discussions 1
Session 6: Reporting of the Results of Group Discussion and Round-up Discussion

In Part Ⅰ, Dr.Kira, Director of Lake Biwa Research Institute and Chairperson of ILEC Foundation, gave a special lecture titled, "Ecological Principles of Watershed Management--With Emphasis on Eutrophication Control--". In addition, the participants toured the Lake Biwa Work Office of the Kinki Regional Construction Bureau as well as a project site to observe erosion and flood control of Lake Biwa, Which has been conducted for more than one hundred years on Mt.Tanakami near Otsu.

[Part Ⅱ] The second half of the workshop was held in Nagoya. The workshop proceeded with an emphasis on presentation of case studies of situations in the developing countries.

Session 7: Country Case Studies
Topic: Environmental Study in Amazon, Brazil (J.G.Tundisi, K.Hino)
: Case Study of Saguling Dam, Citarum and its Upstream Area, Indonesia (H.Hearuman, E.Brotoisworo)
: Management, Development and Utilization of Water Resources in Dianchi Basin, Yunnan Province, China (Liu Hongliang)
: Water Quality Management Issues in Relation to Industrial Location and Land Use in the Catchment Area of Lake Victoria: Case Study--Kenyan Side of the Catchment Area of Lake Victoria-- (M.Omondi)
: Basin Approach to Water Resource Management: The Case of the Laguna Lake, Philippines(E.P.Pacardo,F.Francisco)
: Environmental and Social Effects of the Proposed Salinity Barrier Project in the Songkhla Lake (S.Setamanit, S.Sottibandhu)

2 Case Study Reports of Situations in Developing Countries

a. Saguling Dam of the Citarum River, Indonesia

The Saguling Dam was originally constructed as part of a plan to construct power generating dams to meet the growing demand for electricity and to promote diversification of power supply sources within Indonesia. The dam, with a total area of 55.2 ㎢, was completed in 1986.

One of the major issues pertaining to the construction of this dam was the problem of regions which would be flooded as a result. Approximately ten thousand farming households were forced, either directly or indirectly, to move elsewhere. Nevertheless, because the State Electricity Corporation insisted that the state, rather than the company, should be responsible for those who had to move, no comprehensive measures were taken for those ten thousand or more farming households.

Most of those who fled from their original farmland chose to trespass and cultivate new farms on public land located in mountain areas of the upstream basin. This, in turn, further accelerated already-serious soil erosion in the basin, resulting in a sharp decline of water accumulation capacity of the dam.

Moreover, rapid industrialization and a population increase in the third largest city in Indonesia, Bandung (pop. approx. 2 million), located upstream of Saguling Dam, caused serious deterioration of the water quality. Because the dam located at the utmost downstream of the same basin, serves as a source of water supply for Jakarta and its surrounding urban districts, water contamination is presently a very serious problem.

b. Lake Victoria--Basin on Kenyan side

The world's second largest fresh water lake, Lake Victoria, is an international lake with its water catchment area extending over five different countries. In its basin on the kenyan side, with six rivers flowing into Winam Bay, there is a high density of farming land and the density is expected to increase even further with more

farmers moving to upstream regions.

There has been a problem of increasing deterioration of water quality due to harmful substances and nutrient salts flowing out from processing plants of primary products and cash crop farming land, both of which are located upstream and midstream of the rivers. In fact, in some areas, the river water can no longer be utilized as household water.

Winam Bay, where a small-scale plan for irrigation using lake water is currently underway, has a transparency rate of only 1.1 ~ 2.5 m and with local occurrence of water bloom, the environmental deterioration may very well affect the fishing industry in the region. Moreover, deforestration of the surrounding areas caused by the use of timber as a source of fuel, is another factor which further aggravates environmental conditions.

In Kenya, large-scale dams have been constructed for the purpose of improving productivity of cash crops such as peanuts, rice, tea and wheat. The construction of such dams, however, gave rise to a number of problems for petty farmers in the surrounding areas, including destruction of farmland, deforestration and loss of water by evaporation. Under such circumstances, serious reconsideration of the traditional methods of water management technologies developed in dry or semi-dry lands is presently required.

c. Dianchi Basin, Yunnan Province, China

Dianchi is a 300 ㎢ lake located downstream of the city of Kunming (pop.1 million) in Yunnan Province, southern China. Rapid land erosion due to changes in the environment of water catchment areas due to population increase, is again a serious problem in this region. Siltation of a lake may reduce its effective water storage capacity, which then would adversely affect the amount of water supply. In addition, population increase and industrial concentration within the basin may lead to overnutrition of lake water from nutrient salts as well as to water contamination by industrial waste water and chemical manure from the surrounding regions. Such changes in socioeconomic condition of the water catchment areas and resultant changes in use of water, lead to water contamination and significantly impair the conventional role of Dianchi as a valuable source of water for households, farming and fishery and as a beautiful site of picturesque nature. With a growing awareness of the importance of environmental preservation and management of Dianchi, the national government launched a comprehensive environmental investigation in 1987 as part of its plan for water resource management, while provincial and municipal governments also started working on passing laws pertaining to environmental preservation.

d. Laguna Lake, the Philippines

Laguna Lake (900 ㎢), the largest lake in the Philippines is located to the south of Manila, the country's capital. With the urban and industrial districts to the north and north-west and expansive farmland of paddy fields and coconut forests to the south and east, Lake Bay has served as a source of water for a variety of purposes, such as, fishing, farming, and transportation, as well as for household and industrial uses. The lake, however, presently faces the following social problems.

The first of these problems involves the water level controlling gate constructed for the purpose of preventing floods and intrusion of sea water from Manila Bay. While such prevention of counterflow of sea water is beneficial to the purpose of irrigation for the farmers, the fishing industry is severely damaged by the sudden distillation of water of what originally had been a brackish lake. Furthermore, there are also problems of counterflow of industrial waste water from the downstream industrial districts and of the relationship between the farmland within the lake basin and the water level of the Lake. So far, no systematic method for controlling and operating the gate, has been devised to meet such divergent demands.

Moreover, the conflict between small-scale fishing enterprises and the capital intensive large-scale fishing industry over fishing rights in the lake is another unresolved problem. Although the Laguna Lake Development Authority, supported by the government, has divided the Lake into different zones to prevent monopolization, such a measure has not been very effective in solving the inherent problems.

e. Songkhla Lake, Thailand

The basin of Songkhla Lake (lake area: 1000 ㎢) is located in the south of Thailand, close to the Thai-Malaysian border. The cities of Hat Yai and Songkhla in this region, designated as a Development Area by the country, have recently gone through rapid urbanization and industrialization.

The Asian Development Bank and the UN Development Plan supported the investigation of the entire basin for future development plans. This project is unique for having integrated environmental consideration from the very early stages of development plans and is drawing much attention from various related fields.

Presently, the greatest issue of this lake basin development project involves its salt-to-fresh water distillation plan (the salinity barrier project). While this plan aims to distill the brackish lake and obtain fresh water for agricultural purposes, the planned location of the barrier to be constructed is expected to cause serious damage to the brackish lake fishing industry of shrimp and particular kinds of fish.

3 Group Discussion

The participants of the workshop were divided into three groups to engage in their respective group discussions. The themes of each group were as follows:

Group 1: The necessity of a basin-wide approach in developing and managing water resources

Group 2: Methodology for engaging in development and management of water resources with a view to environmental and social considerations

Group 3: Training of personnel in the fields of water resource development and management

1ST GENERAL MEETING OF THE SCIENTIFIC COMMITTEE OF ILEC FOUNDATION

The First General Meeting of the Scientific Committee of ILEC Foundation was held February 22-24, 1988, at the Lake Biwa Research Institute located in Otsu, Shiga Prefecture Japan. The Scientific Committee is the Foundation's advisory body on scientific matters.

In the Opening Ceremony held on the morning of the first day of the meeting, after the opening address by Chairperson Tatuo Kira and a congratulatory address by Shigeaki Akutagawa, Director of Department of Civil Life and Environment, Shiga Prefectural Government, the following items on the agenda were discussed.

(1) Report from the Secretariat.

A. Progress report of the establishment of ILEC Foundation.

B. Report of project activities and statement of accounts for fiscal 1987.

C. Outline of project activities and budgets for 1988.

(2) Election of Scientific Committee Members for the next term.

(3) ILEC/UNEP Joint Project in 1988.

(4) Other Projects.

On the evening of the first day of the meeting, a ceremony was held at Biwako Hotel in honor of 14 private companies which contributed funds to ILEC. At the ceremony, a letter of appreciation was presented by ILEC Director Kei Yamazaki to each representative of the 14 companies. The total contribution from the 14 private companies amounted to approximately 40 million yen (300,000 US$).

〈Meeting Highlights〉

Election of Scientific Committee Members for the next term.

Below is the list of members of the Scientific Committee elected for the next term. Their term is from April, 1988 to March, 1990.

[Scientific Committee Members of ILEC Foundation]

Prof. Tatuo Kira (JAPAN)	Director, Lake Biwa Research Institute.
Prof. R. A. Vollenweider (CANADA)	Senior Scientist, Canada Centre for Inland Waters.
Ing. Conrado E. Bauer (ARGENTINA)	Honorary President, Committee on Engineering and Environment, World Federation of Engineering Organizations.
Prof. G. N. Golubev (UNEP)	Assistant Exective Director, UNEP.
Prof. S. E. Jørgensen (DENMARK)	Secretary, International Society of Ecological Modelling.
Prof. Liu Hongliang (CHINA)	President, Chinese Research Academy of Environmental Sciences.
Prof. Heinz Löffler (AUSTRIA)	Full Professor, University of Vienna; Director, Institute of Limnology, Austrian Academy of Sciences.
Prof. János Salánki (HUNGARY)	Director, Balaton Limnological Research Institute.
Prof. José G. Tundisi (BRAZIL)	Professor, São Paulo University.
Prof. Robert G. Wetzel (USA)	Professor, University of Michigan.
Prof. Gilbert F. White (U.S.A)	Gustavson Distinguished Professor Emeritus of Geography, Colorado University.
Dr. N. B. Ayibotele(*) (GHANA)	Director, Water Resources Research Institute.
Prof. C. H. D. Magadza (*) (ZIMBABWE)	Director, Lake Kariba Research Institute. Professor, Department of Ecological Science, University of Zimbabwe.
Prof. T. N. Khoshoo (*) (INDIA)	Distinguished Scientist-Council of Scientific and Industrial Research.
Prof. Saburo Matsui (*) (JAPAN)	Professor, Department of Environmental and Sanitary Engineering, Kyoto University.
Prof. Sanga Sabhasri (*) (THAILAND)	Permanent Secretary, Ministry of Science, Technology and Energy.

(*): New members.


T. Kira


R. A. Vollenweider


C. E. Bauer


G. N. Golubev

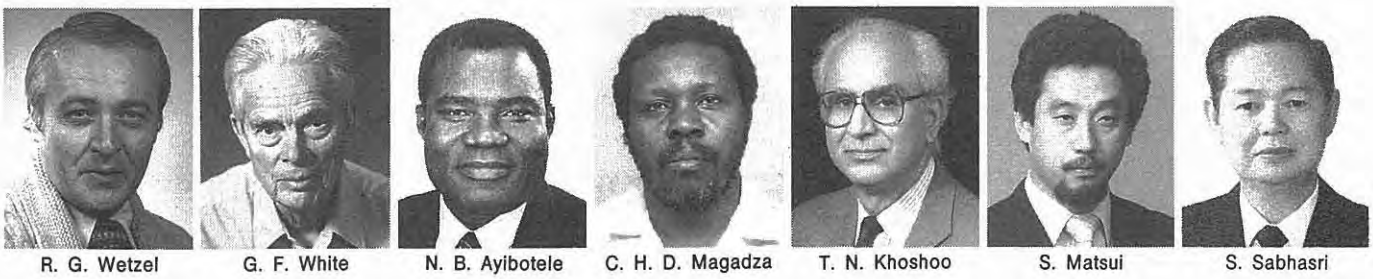

S. E. Jørgensen


Liu H.


H. Löffler


J. Salánki


J. G. Tundisi



R. G. Wetzel G. F. White N. B. Ayibotele C. H. D. Magadza T. N. Khoshoo S. Matsui S. Sabhasri

ILEC/UNEP Joint Project

① Survey of the State of World Lakes

The Editorial Committee explained the progress of this project and reported that an interim report of data on 63 lakes is nearly completed. Furthermore, the Secretariat reported that The Catalogue of World Lakes (a collection of data on a number of lakes throughout the world) and the Lake Environment Case Studies collection are in preparation as subprojects. Since Phase I of the project, conducted jointly with UNEP, is scheduled to be completed in June this year, plans for Phase II were discussed. During the discussion, it was suggested that the present framework of activities be continued while integrating such issues as: restoration of water quality, fishing industry, changes in water level, contamination by toxic materials, draining of crude petroleum, flourishing of aquatic plants, and the influence of land utilization and management of water basins as possible issues to be considered in environmental case studies.

The possibility of creating a data base of the data on lakes collected by ILEC, compatible with the data base of UNEP and other organizations, was also considered.

② Training Projects

The Secretariat reported on the Expert Group Workshop on River/Lake Basin Approach to Environmentally Sound Management of Water Resources sponsored by UNCRD, ILEC and UNEP, held prior to the Meeting, from February 8th to 19th. The Secretariat announced that the next workshop is scheduled to be held in Bangkok.

Committee member Liu of China provided information regarding the Lake Management Training Course to be held in China from July to August this year, with cooperation from ILEC; and requested assistance. ILEC plans to dispatch T. Goda and S. E. Jørgensen as lecturers to this Seminar.

With respect to the "Promotion of Environmentally Sound Management of Lakes" which is a joint project of ILEC and UNEP, the development of teaching materials, in addition to the actual holding of workshops, is considered as one of its major goals. Various suggestions were made on utilization and editing of materials and curricula of the above-mentioned training course for this purpose.

Moreover, long-term prospects of the training project after the completion of the current term of the project in 1990 were also considered.

③ Preparation of Guidelines

Committee member S. E. Jørgensen reported that Guideline book 1, Concepts of Lake Management is close to completion.

Volume 2 of the same series, Social and Economic Aspects of Lake Management and volume 3, Management of Lake Shores, were discussed in terms of their editing policies, organization of content and author of each section. It was decided that ILEC would request assistance and cooperation from outside researchers and organizations for the preparation and editing of these two volumes.

Other Project

① The Third International Lake Conference, Balaton '88

Committee member J. Salánki of Hungary presented an outline of the scheduled Conference which is to be held in the city of Keszthely on the shore of Lake Balaton, Hungary, from September 11th to 17th this year. He requested financial assistance from ILEC and UNEP to help defray publication expenses and to sponsor participants from the developing countries. In response to this request, the Secretariat explained that it is making a positive effort to provide the necessary financial assistance. Furthermore, to encourage maximum participation of Committee members at the Conference, the Scientific Committee adopted the Secretariat's suggestion to hold the next General Meeting in Hungary at around the same time as the Conference.

② Assistance to SIL

The next SIL Convention is scheduled to be held in Munich, West Germany, in 1989. Committee member J. Overbeck, requested that ILEC cooperate in SIL's working groups for providing assistance for research concerning land and water environments of developing countries. Furthermore, SIL is deeply concerned about the contamination of ecologically significant Lake Tanganyika of Africa and requested cooperation in its effort of convene a meeting to consider the problem.

③ UNEPCOM Training Course

UNEPCOM plans to hold a lake management training course which is scheduled to start in 1989, for experts from developing countries. Since this training course has much in common with the courses offered by ILEC, the participants of the meeting decided to discuss ways in which ILEC can contribute to this plan. Dispatchment of several Committee members as lecturers, as well as provision of various ILEC Training Course teaching materials, software and guideline books, were suggested as possible means of assistance to the scheduled UNEPCOM Lake Management Training Course.

④ Environmental Education

The Committee considered and discussed a proposal presented by Committee members C. E. Bauer, J. G. Tundisi and S. E. Jørgensen, regarding promotion of youth educational projects on the subject of lake environment preservation.

⑤ UNEP Lake Book

The Information Unit of UNEP is currently seeking feasibility of publishing an illustrated book, titled Living with Lakes as Volume 1 of UNEP Eco Series. The purpose of the series is to present various global environments to the general public. ILEC will provide necessary assistance for publication of Volume 1.

⑥ Assistanse to Lake Chad Basin Committee

Lake Chad, located in the semi-arid region of Africa, is undergoing a serious decline in its water level due to drought and desert encroachment. UNEP has offered to assist Lake Chad Basin Committee (LCBC) in performing the necessary studies and formulating a master plan to address this issue. This would be the second project (Zambezi River Basin Project was the first) under the EMINWA Programme.

The first master plan formulation meeting was scheduled to be held in April 1988 in N'djamena, the capital of Chad. In response to an invitation from LCBC, ILEC decided to dispatch a representative to the meeting.

LAKES OF THE WORLD

LAKE TANGANYIKA

Lake Tanganyika is a rift lake in East Africa, shared by Burundi, Tanzania, Zambia and Zaire. It is about 650 km long, 33,600 km^2 in area, with a maximum depth of 1,470 m and average depth 570 m.

Most lakes are ephemeral, geologically speaking, and only those not influenced by glaciation or those that are very deep are old. Lakes in the African rift system are unusually old, and Tanganyika is the oldest. A recent estimate is 20 million years, which makes it comparable only to L.Baikal in USSR. Age and long isolation have resulted in remarkable and numerous assemblages of invertebrate and vertebrate species (e.g. there are over 280 fish species) that have attracted much scientific interest. The majority of the species are endemic to the lake. This lacustrine fauna is one of the most scientifically valuable in the world. We are still at an early stage of studying and understanding it, but we can say that, together with the aquatic faunas of several other East African lakes, it is of parallel interest in biological, ecological and especially evolutionary terms to the great mammalian fauna of East Africa.

The lake offers several outstanding natural resources for human utilization, among which are:

The pelagic fishery potential appears to be between 0.3 and 0.5 million tonnes per year. This makes it potentially the largest freshwater fishery in Africa, and a natural food resource of immense value (recent widespread food shortage in the region underlines this).

The fishery is for two sardine species (Clupeidae) that are closely related to marine sardines and similar in size and taste, and four larger predator species (Centropomídae). There is a commercial purse-seine fishery in each of the four lakeshore countries, but a larger catch is taken by many thousands of local fishermen around the

shores using traditional methods. The sardines in particular have a high sustainable yield because of their short life cycles and high productivities. They are very nutritious and appreciated by African people who mix them with staple carbohydrate foods; in sun-dried form they store well and are transported far from the lake (e.g. to the Zambian copperbelt towns over 600 km away). As catches rise, these sardines could probably provide sufficient protein for 2 to 3 million people in the needy lakeshore countries (based on annual catch of 0.5 m.t. and 100 g/person fish protein per day).

Situated in the middle of an arid continent, the clean lake water is required for many human needs, and populations around the lake are growing rapidly. L. Tanganyika is the largest single reservoir of freshwater in Africa (18,800 km^3), and the water quality is still generally high.

Development of tourism is still beginning, yet the lake has much to offer in scenery and in the underwater viewing of brilliantly coloured littoral fish. Many of these fish species are exported outside Africa to aquarists.

Various environmental threats can be foreseen, and human activities are already lowering water quality in some places. Intensive oil exploration studies are believed to have indicated large petroleum resources in the lake sediments. Despite its size, the lake is highly sensitive to pollution because it is an almost closed system with an immensely long water residence time. There is only one small river outlet, and over 90 % of water loss is by evaporation. The lake is thermally stratified in the upper 300 m, and it is oxygenated only down to about 200 m depth (75 % of its volume is anoxic). It apparently never "turns over", that is, mixes annually to the bottom as do most lakes. Nevertheless, slow circulation evidently stirs the deep water sufficiently to maintain a large degree of chemical homogeneity. Estimated refill time (runoff alone) is about 1,000 years, and isotope studies show that the deepest water is a relic of a colder drier period of more intense evaporation and could have a residence time longer than 1,000 years. This extraordinary phenomenon is, in scale, unique among lakes.

Pollution of the deep water would in effect be permanent in relation to human life times. Moreover, the deep water cannot be regarded as completely cut off from the upper waters. Upwelling occurs at the south end of the lake, as well as seasonal mixing extending to 150-200 m. Therefore if lower waters are polluted it may be expected that some of the pollutant will continually be brought to the surface. We do not yet know enough about the circulation to estimate how much. In the stratified upper layers there is evidence of large-scale horizontal motion, the characteristics of which would determine the distribution and rates of dispersal of buoyant pollutants. Physical and chemical data collected over a number of years are presently being interpreted in the light of recent theory. Most theory relates to lakes in the temperate zone, and large tropical lakes exhibit characteristic differences in their hydrodynamics. Nevertheless, the date should define the principal processes, including seasonal change in stratification, and the form and magnitude of internal waves, vertical mixing and horizontal flow. The immediate importance of this would be to help predict the dispersal and dilution of pollutants (such as oil spills). It will also help in the understanding of mechanisms controlling the supply of nutrients (which come mostly from below the thermocline (50 m) by vertical mixing) that support pelagic plankton and fish production.

There is growing and wide awareness of these problems, and of the great intrinsic value and resource potential of Tanganyika.

GEORGE W. COULTER
Member of SIL Working Group on the African Great Lakes.

TRAINING PROGRAM IN CHINA

Training program will be held in Kunming City by CRAES (Chinese Research Academy of Environmental Science) and ILEC for managers and decision makers with scientific background, and researchers of lake studies.

1. Time Duration
   July 24th, 1988—August 18th, 1988
2. Draft program

(1) Lake Survey, Research and Management
(From July 24 to July 28, 1988) by Takeshi Goda

(2) Ecological Modelling in Environmental Management
(From July 31 to August 4, 1988) by S. E. Jørgensen

(3) Studies on Lake Biwa
(From August 7 to August 11, 1988) by Tatuo Kira

(4) Principle of Limnology and Techniques for Lake Survey
(From August 14 to August 18, 1988) by Yatsuka Saijo

THIRD INTERNATIONAL CONFERENCE ON THE CONSERVATION AND MANAGEMENT OF LAKES "BALATON '88"

〈PRELIMINARY PROGRAMME〉

Monday, 12 September

8.00-12.00	Registration
9.00-12.30	Opening Ceremony, Plenary Session
14.30-18.00	Plenary Session
20.00	Welcoming Reception

Tuesday, 13 September

8.30-12.30	Scientific programme
14.30-18.00	Scientific programme
20.00	Concert

Wednesday, 14 September

8.30-12.30	Scientific programme
14.15	Scientific excursion
19.00	Dinner

Thursday, 15 September

8.15-13.00	Field-trip to "Kis-Balaton" Reservior
14.30-18.00	Scientific programme

Friday, 16 September

8.30-12.30	Scientific programme
14.30-17.30	Scientific programme, Closing session
19.00	Farewell Party

〈GENERAL INFORMATION〉

1. Registration

Advance registration can be made only by using Registration Form or a copy of it.

Registration Form will be made available by writing to the following address: Congress Bureau MTESZ P.O. Box 451, H-1372 Budapest, Hungary.

Registration fee	Before April 15	After April 15
active member	CHF 300.-	CHF 350.-
accompanying person(s)	CHF 170.-	CHF 195.-

2. Date and place of registration

September 11, 14.00-20.00

September 12, 8.00-12.00

Festetics Palace Keszthely, Szabadsag u. 1.

3. Accommodation

All participants are asked to use the Registration Form for all reservations.

4. Payment

Please send your payment either as a cheque made out to MTESZ Congress Bureau "Balaton '88 175" Kossuth tér 6-8. H-1055 Budapest, or as a bank transfer to Account No. 232-90171-2494 of MTESZ at the Hungarian National Bank.

5. Transportation

(1) Arriving in Budapest by air

A special bus service operates between Ferihegy Airport and the city/Déak tér.

(2) How to reach Keszthely

by train: Regular express trains leave Budapest Déli pu. daily for Keszthely.

by transfer coach: A transfer coach will be arranged from Ferihegy Airport and Congress Bureau MTESZ (Kossuth tér 6-8, Budapest), to Keszthely.

by car: You can take the M7 highway from Budapest to reach Keszthely. (192 km)

CALL FOR ARTICLES

Those who wish to contribute to ILEC Newsletter are invited to send manuscripts to the secretariat.

INTERNATIONAL LAKE ENVIRONMENT COMMITTEE FOUNDATION

Secretariat

4-1-1 Kyomachi, Otsu, Shiga 520 Japan

Tel : 0775-25-1076 Tlx : 5464850 ILEC J Fax : 0775-23-1581

Cable : ILEC OTSU