



No.18 March 1992

# NEWSLETTER

INTERNATIONAL LAKE ENVIRONMENT COMMITTEE FOUNDATION

— For Better Lake Management —

This Newsletter is also available in Japanese.

## Symposium on Water Resources Management with the Views of Global and Regional Scales

The Symposium on Water Resources Management with the Views of Global and Regional Scales was held from 18 to 20 November 1991 at Lake Biwa Research Institute located in Otsu, Shiga.

It brought together more than 200 participants, of which some are the advisors to UNEP Executive Director from outside Japan.

Organized by : Shiga Prefectural Government and United Nations Environment Programme (UNEP)

In association with : Ministry of Foreign Affairs, Japanese Environment Agency, United Nations Centre for Regional Development (UNCRD), Japan Society on Water Environment (JSWE), Overseas Environmental Cooperation Center (OECC), International Lake Environment Committee (ILEC), Kansai Economic Federation, Shiga Economic Federation,

International Water Resources Association (IWRA), and Japan Association for Hydrology and Water Resources (JSHWR)

Programme :

November 18

Opening Speech & Welcome Greeting

by S. Yamada (Vice Governor, Shiga Prefectural Government)

H.El-Habr (Programme Officer, UNEP Water Unit)

"A Holistic Approach to Environmental Assessment of Water Development Projects"

by A.K. Biswas (President, IWRA)

"Comprehensive Development of Lake Biwa"

by M. Nakamura (Head Researcher, LBRI)

"The Japanese Contribution to the Promotion of Large Scale Water Resources in Developing Countries"

by H. Hori (President, Japanese National Geographical Committee)

"Ground Water Quality Management; An Overview"

by A. Das Gupta (Professor, Asian Institute of Technology)



"Control of Non-Point Source of Nutrient"  
by L. Lijklema (Vice President, IAWPRC)

November 19

"State of Evironments of World Lakes"  
by T. Kira (Director, Lake Biwa Research Institute)  
"Environmental Problems of Large Central Asian Lakes"  
by G.N. Golubev (Professor, Moscow State University)  
—Video Presentation

"Water Quality Monitoring and Management of the Ganges"  
by M.A. Chitale (Secretary, Ministry of Water Resources, India)

"Concept and Approaches Water Resources Management of UNEP"  
by H. El-Habr (Programme Officer, UNEP Water Unit)

November 20

Excursion around Lake Biwa

## Intrinsic Value of the Symposium

Today, in proportion to increasing population, demand for fresh water is soaring much higher than before, and ensuring provision for fresh water is becoming an urgent issue around the world. I think this symposium proved very significant, because we face such a crisis now.

This symposium emphasized the significance of "Sustainable Development" and "Management of Water Resources in the Scope of Whole Catchment Area." The Symposium discussed the followings matters:

- (A) Positive sides of water resources development projects should be evaluated in EIA. The past experiences of EIA have emphasized too much negative sides of the development projects.  
/ by Dr. A.K. Biswas:
- (B) Large development projects have involved changes of community life styles in the concerning areas. Good traditional community should be kept even in the influences of development projects. Japan is successful in introducing new things while keeping good old traditions.  
/ by Dr. H. Hori
- (C) Nutrients control for non-point sources are essential parts of water quality protection.  
/ by Dr. L. Lijklema
- (D) Ground water quality is also in danger by various contamination sources.  
/ by Dr. A.D. Gupta
- (E) Major features of the world lakes environment are siltation, eutrophication, acidification, toxification, and lowering level.  
/ by Dr. T. Kira
- (F) Case studies provided important information such as Lake Biwa, the Ganges, Central Asian Lakes.  
/ by Dr. M. Nakamura, Dr. M.A. Chitale, and Dr. G.N. Golbev
- (G) The policies of UNEP towards sustainable Development of Water Resources.  
/ by Dr. H. El-Habr

In 1992, the most significant conference on development and environment, since the Stockholm Conference in 1972, will be held in Rio de Janeiro and should be the concern of people all the world. Our current enthusiasm to solve environment problems should be maintained even after the end of the big convention.

Saburo Matsui

ILEC Scientific Committee Member



## 1st IAWPRC International Symposium on Hazard Assessment and Control of Environmental Contaminants in Water

"1st IAWPRC International Symposium on Hazard Assessment and Control of Environmental Contaminants in Water" was held by IAWPRC (International Association Water Pollution Research Control) from 25 to 28 November 1991 at Lake Biwa Research Institute located in Otsu, Shiga. It brought together 160 participants and had 47 speakers from 20 countries and more papers were also submitted at poster sessions. The symposium was successfully organized and provided an excellent forum for exchanging new ideas among researchers of many different disciplines. This symposium covered a wide spectra of topics such as:

- 1) Chlorinated Organics
- 2) Pesticides
- 3) Heavy Metal Pollution
- 4) New Methods of Detection and Monitoring
- 5) Detection of Organic Micropollutants
- 6) Mutagens in Environmental Water
- 7) Mutagen in drinking water
- 8) Biological Detoxification of Micropollutants
- 9) Waste Treatment and Bioremediation
- 10) Risk and Impact Assessment
- 11) Regulatory Approach for Control of Micropollutants

Organized by : Kyoto University,  
Laboratory for Control of Environmental  
Micropollutants (LCEM),  
Lake Biwa Research Institute (LBRI),  
and  
International Association on Water  
Pollution Research Control (IAWPRC)

Sponsored by : Ministry of Education, Japan,  
Shiga Prefectural Government, and  
ILEC

Supported by : Environment Agency, Japan,  
The Commemorative Association for  
the Japan World Exposition (1970), and  
Chemicals Inspection and Testing Insti-  
tute, Japan

## Conservation and Management of Tropical Inland Waters: Problems, Solutions and Prospects

The conference titled "Conservation and Management of Tropical Inland Waters: Problems, Solutions and Prospects" was successfully held from 5 to 9 September 1991 at Hong Kong University. Over 80 delegates from 24 countries took part in this conference sponsored by Societas Internationalis Limnologiae (S.I.L), the Asian Wetland Bureau (A.W.B), and UNESCO/MAB. The International Lake Environmental Committee (ILEC) financially supported delegates with the K.C. Wong Education Foundation, the University of HongKong, and the Beijing — Hong Kong Academic Exchange Centre. Themes discussed at this conference including:

- "Conservation and management of African Inland Waters"
- "Rivers, Ecotones, and Watershed Processes"
- "Environmental Monitoring"
- "Wetlands and Ecotones"
- "Integrated Lake Management"
- "Research, Training, and Ways Ahead"

The following extract is a summary of the presentation given by Mikiyasu Nakayama — advisor to ILEC Secretariat — at this conference.

Application of Satellite Remote Sensing Technologies to estimate Water Quality of Japanese Lakes

Mikiyasu Nakayama

A number of lakes in developing countries are threatened by increased siltation, eutrophication and other human-induced degradation. Nevertheless, few lakes in the developing world have monitoring schemes on water quality. Conventional methodology, namely setting up a monitoring station equipped with a laboratory, is costly and therefore impractical. Application of satellite remote sensing technologies for water quality estimation may be a breakthrough because of its low cost and wide coverage. In the past, attempts had been made to employ such satellites as LANDSAT or SPOT for this purpose. However, these satellites had limited coverage both in terms of area (180 km by 180 km in LANDSAT/TM or MSS) and frequency (once every two weeks or less). NOAA/AVHRR yields even better

estimation of water-quality parameters than LANDSAT despite its large pixel size and fewer visual bands. NOAA/AVHRR can be used to estimate water quality of not only one but several Japanese lakes successfully.

## International Conference on Water and the Environment: Development Issues for the 21st Century

The international Conference on Water and the Environment was convened in Dublin, Ireland from 26 to 31 January 1992. The conference was attended by 338 government-designated experts from 113 countries, 13 experts from international Organizations, and 12 participants from Non-governmental Organizations.

The Conference's main focus was on the development, utilization and management of water resources in harmony with environmental conservation and the concept of sustainability. The latter concept needs to promote:

- (a) the synthesis of economic, social and environmental considerations;
- (b) processes which compare and evaluate alternatives which do not deplete the resource base and thus the present and future generations;
- (c) the greatest possible efficiency in the use of water and energy, including appropriate and safe reuse, recycling, and conservation of all water resources;
- (d) reduction of pollutants and pathogens in water and aquatic ecosystems and;
- (e) the quality of human life and the protection of the biosphere.

### 6 Main Topics and Themes of Each Working Group

- A Group. Integrated Water Resources Development and Management
- B Group. Water Resources Assessment and Impacts of Climate Change on Water Resources
- C Group. Protection of Water Resources, Water Quality and Aquatic Ecosystems
- D Group. Water and Sustainable Urban Development and Drinking Water Supply and Sanitation in the Urban Context
- E Group. Water for Sustainable Food Production and Rural Development and for Drinking Water Supply and Sanitation in the Rural Context
- F Group. Mechanisms for Implementation and Coordination at International, National, and Local Levels

## The General Conference Programme

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|------------|---|
| 26 January | Participants' Registration<br>Press Conference<br>Opening Ceremony and Cultural Programme                           |
| 27 January | Opening Remarks by the Minister for the Environment<br>Election of Chairpersons and Rapporteurs<br>Plenary Sessions |
| 28 January | Working Group Sessions  |
| 29 January | Working Group Sessions<br>Exhibition at Dublin Castle until 1 February<br>Poster Sessions at Dublin Castle          |
| 30 January | Working Group of the whole Lunch<br>Working Group of the whole Excursions   |
| 31 January | Adoption of Conference Report and Dublin Statement<br>Closing Ceremony & Press Conference                           |

4 participants (Dr. Joergensen, Dr. Ayibotele, Dr. Golubev, and Dr. Bruce) attended this conference from the ILEC Scientific Committee. All the participants to the Conference have recognized the need for fundamental new approaches to development and management which can only be brought about through political commitment and involvement at the highest levels of government to the smallest comments. The participants, through the world leaders assembled at the Earth Summit in Rio de Janeiro in June, urge all governments to study and means of implementation recommended in the body of this report, and to translate its recommendations into urgent programmes for sustainable development.







