

Lake 2004



International Conference on Conservation, Restoration and Management of Lakes and Coastal Wetlands

December 9-13, 2004

Bhubaneswar, Orissa, INDIA

Organized by:

Berhampur University
Chilika Development Authority
Orissa Remote Sensing Application Centre
Institute of Mathematics and Applications

1. Background

The lake conference was started by the Karnataka Environment Research Foundation and the Centre for Ecological Sciences, Indian Institute of Sciences, Bangalore in the year 2000. The basic idea was to bring out the trends in aquatic ecosystem conservation, restoration and management including the hydrological, bio-physical, peoples participation and the role of non-governmental, educational and the governmental organizations and the future research needs. Lake-2002, the second conference in the series, was held in the Indian Institute of Sciences, Bangalore in the year 2002, thus making the event a biennial one. Lake-2004 will be the third in the series and will be held in Bhubaneswar, Orissa.

2. Prologue

Lakes and costal wetlands play vital role in the global ecosystems. Their importance has been recognized in the maintenance of biodiversity, ecology, hydrology and recreation. They provide habitat for wide variety of flora and fauna and help maintain the life cycle of many species. Many of world's lakes and coastal wetlands have deteriorated due to exploitative use and improper management, causing irreparable damage to the existing ecosystems and the life and culture of people living around. Increased demands for drainage of wetlands have been accommodated by channelisation, resulting in further loss of stream habitat, which has led to aquatic organisms becoming extinct or imperiled in increasing numbers and to the impairment of many beneficial uses of water, including drinking, swimming and fishing. Indeed, freshwater deterioration and scarcity has been threatening many forms of life and may carry serious consequences for humans. Recognizing the ongoing and impending threats to the lakes and wetlands in the Asian region, region wise initiatives such as Asian Wetland Inventory and Asia Pacific Migratory Waterbird Conservation Strategy: 2001-2005 have already began. However, it has been recognized that the human and financial resources currently allocated to the conservation and wise use of lakes and wetlands in the Asian region are not sufficient and needs to be strengthened.

Successful conservation of lakes and wetlands greatly depends on the proper management of their watersheds, but there are conflicting interests in the use of their resources. Therefore, it is very important to involve all of those concerned in the process of restoration, conservation and management of lakes and coastal wetlands. Thus, there is an imminent need to promote regional linkages, develop strategic partnership and follow good practices in the conservation and managements of lakes and coastal wetlands. It is also essential to establish new, and strengthen ongoing regional and international co-operation, linkages and strategic partnership between governments, international agencies, universities, research institutions, non-governmental organizations, local communities, the private sector and individuals.

3. Objective

The main objective of the conference is to provide a platform for all concerned to work together to restore wetland biodiversity and ecosystem functions, to conserve and wisely use coastal wetlands and lakes for the present and future benefit of mankind.

4. Conference Outline

- Name of the Conference: **LAKE-2004.**
- Theme: **Conservation, restoration and management of lakes and coastal wetlands.**
- Date: **9-13 December, 2004.**
- Venue: **Bhubaneswar, Orissa, India**
- Language: **English.**
- **Organizers:** Berhampur University; Chilika Development Authority; Orissa Remote Sensing Application Centre; Institute of Mathematics and Applications.
- **Co-organizers:** Institute of Physics; Institute of Life Sciences; Regional Research Laboratory and Utkal University.
- **Secretariat:** Institute of Mathematics & Applications, Bhubaneswar

5. Awards

- **Best paper presentation award:** Award carrying a citation and a cash prize of Rs. 2000/- given for the best paper presented by a student.
- **Best Poster Presentation award:** Award carrying a citation and cash prize of Rs. 2000/- is given for the best poster presentation by a student. (Certification of student status at the time of the conference is a pre-require for competing for awards)

6. Exhibition

An exhibition of software and hardware related to GIS, GPS, Remote Sensing, Image Processing and Cartography, as well as other organizations and agencies working in the area related to the theme of the conference, will be organized.

Organization/Agencies can participate in the exhibition on payment of fee of Rs. 15000/-. Registered agencies will be allowed to make 15 minutes presentation. Interested agencies may contact and remit the fee through DD drawn in favour of "Lake-2004" payable at Bhubaneswar.

7. Special Session Themes

❖ *The Chilika Lagoon*

The special session on Chilika lagoon will provide an opportunity for the participants to be introduced to the Chilika lagoon story, functions/activities of Chilika Development Authority (CDA), present status and future prospects of the lagoon. Participants may identify, through Chilika lagoon experience, many issues facing their own lakes/lagoons.

❖ *NGO forum*

❖ *Educational aspects of coastal wetlands and lakes*

- * Ecological functions of lake and its importance.
- * Chilika-its influence on the socio-economic conditions
- * Environmental Education programmes for lakes and coastal wetlands
- * Environmental education and awareness among educators, school and college students.

8. Technical Session Themes

a) *Scientific and Technical aspects of coastal wetlands and lakes*

- * Biodiversity of coastal wetlands and lakes
- * Water Quality Assessment
- * Environmental Risk Assessment
- * Ecosystem functions
- * Monitoring, Modelling and Prediction
- * Coastal Engineering
- * Persistent Problems: Anthropogenic and Natural
- * New technologies and Instrumentation
- * Limnology of lakes and coastal wetlands
- * Watershed Hydrology and Hydrogeology
- * GIS and Remote Sensing
- * Emerging issues: Global warming, climate change and their impacts on coastal zone ecosystem

b) *Restoration Methodologies, Conservation and Management aspects of coastal wetlands and lakes*

- * Restoration methodologies and conservations strategies
- * Information management systems and decision supporting system
- * Management of coastal wetlands and lakes

- * Environmental protection laws and policy options.
- * Socio-economic considerations, people's participation and awareness
- * Community based management: conflicts and solutions
- * Recreation and eco-tourism
- * Resource utilization, growth, development and integrated management approach.

9. Program Outline

The program includes the following five components.

1. **Plenary:** Will feature keynote speeches (in opening) and session summary presentations (in closing)
2. **Oral Session:** Will include keynote presentations, selected individual oral presentations and discussion
3. **Poster session:** Standard poster board (0.9 x1.2 m²) will be provided to each paper.
4. **Free meetings:** NGOs, citizens, scientists and other concerned may organize their own meetings outside the formal conference program but in close collaboration with the conference organizer.
5. **Field visit:** A field visit to *Chilika Lagoon* will be organised to enjoy the pristine beauty of the lagoon and to gain first-hand experience about Chilika.

10. Call for papers

Call for Abstracts: All participants wishing to present papers as either an oral or poster presentation are required to submit the abstract no later than May 31, 2004.

Submission of abstract and manuscript: Detailed instructions on submission of abstract and manuscript will be described in the second announcement which will be published around December 2003.

Registration: Detailed instructions on registration will be described in the second announcement.

11. About Chilika Lagoon:

Chilika Lagoon is the largest brackish water lagoon in Asia and is a hot spot of biodiversity. Having an approximate age of 6000 years the lagoon has been strongly associated with cultural heritage and socio-economic status of the state of Orissa. Located on the

east coast of India the lagoon is separated from the Bay of Bengal by a sand bar of 60 km in length. The water-spread area of the lagoon varies between 1165 to 906 Km² during monsoon and summer. The lagoon hosts approximately 160 species of birds during peak migratory season of which 97 are intercontinental. Irrawady dolphin is an elusive species found in various parts of the Chilika lagoon. The lagoon receives fresh water through rivers and canals draining into it and marine water through inlet mouth connected to the Bay of Bengal. The lagoon has spatial and temporal salinity gradient, which gives rise to a multitude of niches inhabited by a large diversity of plant and animal species. About 127, 000 people living in 122 villages in an around Chilika lagoon directly depend on the fishery resources for their livelihood. Chilika lagoon which was enlisted as the first "Ramsar site: Wetland of international importance" of the country in 1981. Further, owing to the ecological threats that Chilika was facing, the lagoon was included in the Montrux Record in 1993. However, following successful rehabilitation efforts, Chilika in the meanwhile has been removed from the Montrux Record in November, 2002. Chilika Development Authority, because of its effective restoration and conservation measures, has been awarded with the Ramsar Wetland Conservation Prize in the year 2002. Besides the strategies for biodiversity conservation of Chilika lagoon, eco-tourism development, community participation, integrated watershed management, hydrological monitoring and modelling activities are being undertaken by CDA in collaboration with various national and international institutions.

12. ADDRESS

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