



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

December 9-13, 2004

Bhubaneswar, Orissa, INDIA

Organised by:

Berhmapur University
Chilika Development Authority
ORSAC, Bhubaneswar
Institute of Mathematics and
Applications, Bhubaneswar
Karnataka Environment Research
Foundation, Bangalore
CES, IISc, Bangalore
CAS, IIT, Delhi

Co-Organisers:

Institute of Physics, Bhubaneswar
ILS, Bhubaneswar
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State Pollution Control Board,
Orissa

Conference Secretariat

Institute of Mathematics and
Applications
5- RF 1/4, Unit-9, Anada Bazar
Bhubaneswar - 751 022
Orissa, INDIA
Tel: +91 (674) 2542164,
2540165, 2542388,
06743200720 (mobile)
Fax : +91 (674) 2434485
E-mail: swadhyn@yahoo.com
pratap_mohanty@yahoo.com
lake2004@indiatimes.com

November 16, 2004

Dear Participant(s),

I welcome you to Lake 2004 and looking forward to see you in Bhubaneswar, Orissa during 9-13 December, 2004. Please find enclosed Lake 2004 Program. May I request you kindly to submit your full paper (two hardcopies and a softcopy preferably in CD-ROM) and your presentation (softcopy) at the registration desk before 24 hours of your presentation.

With warm regards,

Yours sincerely,

P.K. Mohanty
Organizing Secretary, Lake 2004

LAKE 2004 PROGRAM

Wednesday, December 8, 2004

15.00-17.00 Registration (Hotel Swosti Plaza)

Thursday, December 9, 2004

08.00-09.00	Registration	
09.00-11.00	Inaugural Ceremony (Chanakya Hall)	
11.00-11.30	TEA BREAK	
11.30-12.15	KN- 01: Integrated Water and Coastal Resources Management <i>Prof. C.R. Murthy, Centre for Inland Waters, Canada</i>	Plenary Session
12.15-13.00	KN- 02: Large-scale Monitoring of Anthropogenic Organic Compounds in Tropical Asia-toward Tropical Asia Core (TACO) Project <i>Prof. H. Takada, Tokyo Univ. of Agr. and Tech., Japan</i>	
13.00-14.00	LUNCH	
14.00-15.30	Special Session on Chilika Lake (Chanakya Hall) Chairpersons: Prof. Ghanashyam Das and Dr. S. Kaul Chilika-01: Restoration of Chilika Lagoon: An Overview <i>Dr.A.K. Pattnaik, Chief Executive, CDA, India</i> Chilika-02: Large Scale Employment Generation Through Mass Cultivation of Seaweeds at Chilika Lake <i>Dr. D. Sahoo, Delhi University, India</i>	Plenary Session
15.30-15.45	TEA BREAK	
15.45-17.30	Technical Session 1 (Chanakya Hall) Chairpersons: Prof. C. R. Murthy and Prof. A. D. Rao	
OR09_01	The effect of freshwater discharge on the coastal ocean circulation off Orissa. <i>A D Rao, Sujata Dash and S V Babu</i>	
OR09_02	High mountainous Lakes in India <i>H.S. Raina</i>	
OR09_03	Spatial heterogeneity of biogeochemical parameters in a subtropical Lake <i>I. Ostrovsky, A. Sukenik</i>	
OR09_04	Mixing and internal waves in a small stratified Indian Lake: Subhas Sarobar <i>N. R. Samal, Klaus D. Jöhnk, Frank Peeters, Erich Bäuerle and Asis Mazumdar</i>	
OR09_05	Eutrophication of Lake victoria in relation to hydrology of the winam gulf watershed. <i>Njuguna Henry, John Okungu and Felix Sangale</i>	
OR09_06	Study on growth and decay of water hyacinth in lakes – change in lake water quality and accumulation of organic matter <i>Rinku Verma and R. Venkataraman</i>	
OR09_07	Assessment of the Heavy Metals in the Sediments of Brahmani and Nandari Rivers Orissa, India <i>P.Rath, U.C Panda, D.Bhatta and B.N Sahoo</i>	
15.45-17.30	Technical Session 2 (Birbal Hall) Chairpersons: Dr. A. K. Pattnaik and Prof. N. K. Tripathy	
OR01_01	Status of Irrawaddy Dolphin (<i>Orcaella brevirostris</i> Gray, 1866) in Chilika lagoon, Orissa <i>A. K Pattnaik, M Khan., B. P. Behera</i>	
OR01_02	Ecology and faunal diversity of the littoral sedimentary meiobenthos at Ekakula in Bhitarkanika mangrove estuary, Mahanadi river system (India) <i>D.G.Rao, Satyanarayan Mishra, and A.L.N. Sarma</i>	
OR01_03	Amphibian Distribution Pattern to Assess the Ecological Status of an Aquatic Ecosystem <i>Gururaja, K.V., Sameer Ali and Ramachandra, T.V</i>	
OR01_04	Biodiversity assessment of algae of Chilika Lake, East coast of India <i>J. Rath and S. P. Adhikary</i>	
OR01_05	Ecological evaluation of irrigation tanks from Thiruvallur District of Tamil Nadu, India. <i>K. Sampath</i>	

OR01_06	Biodiversity of polychaetous annelids in Sundarban mangrove environment, West Bengal: implications to monitoring and environmental assessment <i>Mahua Saha, Santosh kumar Sarkar, Sankar Giri and Asok Kumar Bhattacharya</i>
OR01_07	Algal biodiversity of Chilika Lake - diatoms and dinoflagellates <i>B. C. Jha, P. Patnaik and N. Das</i>
OR01_08	Monitoring cyanobacteria communities in Chilika Lake of Orissa. <i>S. B. Padhi, A. K. Mallik S. M. Samantaray</i>
OR01_09	Aquatic Ecosystem Conservation Value Assessment Using Fresh Water Fishes <i>Sreekantha, Gururaja K.V. and Ramachandra T.V</i>

Friday, December 10, 2004		
08.00-09.00	Poster presenters post their posters on boards	
09.00-09.45	KN-03: Open Water Resources of India and Its Utilisation <i>Prof. S. C. Mukherjee, Director, CIFE, Mumbai, India</i>	Plenary Session
09.45-11.15	Technical Session 03 (Chanakya Hall) <i>Chairpersons: Prof. S. K. Dash and Dr. V. K. Diwedi</i>	
OR18_01	Participatory Integrated Watershed Management Project in the catchment area of Chilika lagoon – an over view. <i>A. K. Pattnaik and K.N. Chari</i>	
OR06_01	Reef- an ecofriendly and cost effective hard option for coastal conservation <i>Kiran G Shirlal, Subba Rao, Venkata Ganesh and Radheshyam B</i>	
OR06_02	Wave interaction with floating/submerged dikes in a two-layer fluid <i>P. Suresh Kumar, J. Bhattacharjee and T. Sahoo</i>	
OR06_03	Experimental investigation on stability analysis of statically stable berm breakwaters with different slopes <i>Subba Rao, Subrahmanya K, Chandramohan V R, Balakrishna Rao K</i>	
OR14_01	Building a responsive information system coastal eco-management <i>R.N. Subudhi and A.K. Panda</i>	
OR15_01	Status of shrinkage of Indian Lakes and management strategies for conservation, development and management of Indian Lakes and their watershed <i>Vijay K. Dwivedi and K.K.S. Bhatia</i>	
OR15_02	Environmental Degradation and Deterioration of Chilika: Sources and Magnitude <i>Kishor C. Samal and Shibalal Meher</i>	
OR15_03	Ecosites of coastal wetlands of Kerala-as an instrument for sustainable utilization and conservation of wetlands <i>M.P. Nayar and P.C. Abhilash</i>	
OR15_04	Conservation and management of Coringa wetlands, Andhra Pradesh, India <i>R..J. Rao</i>	
OR15_05	Coastal wetlands as an input to integrated coastal zone management Plan for Karnataka - a case study <i>G. S. Dwarakish, Jagadeesha Pai Shivakumar J. Nyamathi, A. Vittal Hegde,</i>	
09.45-11.15	Technical Session 04 (Birbal Hall) <i>Chairpersons: Prof. S. C. Mukherjee and Prof. P. K. Mohapatra</i>	
OR01_10	SAHYADRI : Western Ghats Biodiversity Information System <i>Suja A., Vasu G.J and Ramachandra T.V</i>	
OR01_11	Ecorestoration impact on fishery biodiversity and population structure in Chilika lake <i>S. K. Mohanty, K.S. Bhatta, Rajeeb K. Mohanty, S. Mishra and A. Mohapatra</i>	
OR01_12	Wetlands in Assam: A Case Study of Sone Beel, The Biggest Wetland in the State <i>Devashish kar</i>	
OR20_01	Growth and Maturation of the Mud Crabs <i>Scylla Sp</i> In Chilika Lake, East Coast of India <i>D. Satapathy</i>	
OR20_02	Some aspects of growth and maturation of <i>Etroplus Suratensis</i> <i>S. K. Misra</i>	
OR20_03	Improvement of Fishery Resources of Chilika Lagoon in Post Dredging and/ Opening Period <i>K.S.Bhatta, S .Mishra, S.Mohapatra and A.K.Pattnaik</i>	

OR20_04	Bioprospecting of Biotoxins from Coastal Fishes <i>S.S.Khora</i>	
OR20_05	Use and misuse of antibiotics in aquaculture <i>K. Pani Prasad and S.C. Mukherjee</i>	
OR16_01	Chilika Lease Policy: Threat to environment and fisherman <i>Amrita Pritam Ray and Subrat Ray</i>	
11.15-11.30	TEA BREAK	
11.30-13.00	Technical Session 05 (Chanakya Hall) <i>Chairpersons: Prof. C. S. Panda and Prof. B. K. Sahu</i>	
OR02_01	Heavy metal transport and fate in aquatic environments <i>B. Bhattacharya and Kasturi Mitra</i>	
OR02_02	Heavy metal status of water, sediment, fish and water hyacinth samples of Singanallur Lake, Coimbatore, Tamilnadu <i>K. Shanthi, P.M. Ayyasamy, K. Ramasamy and P. Lakshmanaperuma samy</i>	
OR02_03	Ecosystem characterization by Hydrobiological investigations <i>Karthick B and Ramachandra T.V</i>	
OR02_04	Biogeochemistry of Vembanadu Lake near the Kochi estuary mouth- a recent appraisal <i>P.P. Ouseph and G Madhusoodanan Pillai,</i>	
OR02_05	A chemical assessment approach for evaluating status of Chilika Lake - a brackish water Lake along east coast of India <i>S. C. Tripathy, V. V. Sarma, A. K. Ray, A. Sravanthi and P. C. Padhy</i>	
OR02_06	Water quality of kodaikanal Lake, tamilnadu in relation to physico-chemical and bacteriological characteristics <i>S. Rajakumar, P. Velmurugan, K. Shanthi, P.M. Ayyasamy and P. Lakshmanaperumalsamy</i>	
OR02_07	Nutrients Dynamics and Assessment of Eutrophication in Chilika Lagoon Using Nutrient Index as a Tool <i>U. C. Panda, K.S. Bhatta and A.K. Pattnaik</i>	
11.30-13.00	Technical Session 06 (Birbal Hall) <i>Chairpersons: Prof. T. Komatsu and Dr. S. N. Dash</i>	
OR13_01	Conservation and Restoration of Wetlands in India: A Strategic Approach for Sustainable Management <i>C. Pattanaik, D. Swain, S.B. Choudhury and Rashmita Dash</i>	
OR13_02	Restoration need of Kumaon Himalayan lakes with special focus to Nainital Lake – India <i>K.K. Vass and H.S. Raina</i>	
OR13_03	Restoration need of Kumaon Himalayan lakes with special focus to Nainital Lake – India <i>A.K. Majumdar, G.K. Bhattacharyya, S.C. Saha, and S.K. Bhattacharyya</i>	
OR13_04	Sidescan sonar with high frequency ultra-sound is a practical tool for mapping bottom features for planning a strategy for conservation of coastal ecosystem <i>Teruhisa Komatsu, Tatsuyuki Sagawa, Atsuko Mikami, Keiko Shibatani, Yoshihumi Sato, Kazutaka Shono, Tomohiro Kamoshita</i>	
OR08_01	Low Cost Adsorbents for Removal of Heavy Metals in Constructed Wetlands <i>N. Ahalya, T.V. Ramachandra and R.D. Kanamadi</i>	
OR08_02	Biodegradation of Distillery wastewater in Batch and continuous reactors using a fungal strain <i>P. Mullai, B. Chirsabesan and S. Sathian</i>	
13.00-14.00	LUNCH	
14.00-14.45	KN- 04: Mapping of seagrass and seaweed beds with remote sensing for sustainable development of coastal waters <i>Prof. T. Komatsu, Univ. of Tokyo, Japan</i>	Plenary Session
14.45-15.30	KN- 05: Aquatic Ecosystems: Ecological Impacts Assessment Due To Developmental Projects <i>Prof. T. V. Ramachandra, CES, IISc, Bangalore, India</i>	
15.30-15.45	TEA BREAK	
15.45-16.45	Technical Session 07 (Chanakya Hall) <i>Chairpersons: Prof. T. Sugimoto and Dr. L. N. Pattnaik</i>	
OR03_01	Agricultural practices and their impacts on surface and ground water systems	

	Surya N. Acharya
OR12_01	Climatological changes due to air pollution – An Overview Dilip Bose
OR12_02	Adaptation to salinity change induced by sea-level rise In Hinuma Lake, Japan Motivation and purposes Hisamichi Nobuoka and Nobuo Mimura
OR12_03	Evaluation techniques for air pollution models P. Goyal and Neeru Jaiswal
OR12_04	Factors responsible for greenhouse gas emissions from wetlands Chilika lagoon, a case study S.N.Das and Ruby Das
15.45-16.45	Technical Session 08 (Birbal Hall) Chairpersons: Prof. T. V. Ramachandra and Prof. D. Satapathy
OR04_01	Nutrient Budgets For Muthupet Lagoon, Southeastern India G.V.M.Gupta, M.V.Ramana Murthy, Usha Natesan, B.R.Subramanian, V.G.Sravan Kumar, M.S.Bhat and Ajay Kumar Ray
OR04_02	Evaluation of the primary productivity in Lake Tanganyika Jaya Naithani , Eric Deleersnijder , Véronique Gosselain , Pierre-Denis Plisnier and Jean-Pierre Descy
OR04_03	Comparison of the physiological responses of two aquatic plants of Lake ‘Chilika’ as influenced by various seasonal conditions N.Lata and P.K.Behera
OR04_04	Ecosyki: study of the functioning of Lake kivu ecosystem and perspectives for its sustainable management Véronique Gosselain, P. Isumbisho, H. Sarmiento, B. Kaningini, C. Kanangire, J. Naithani, E. Deleersnijder, J. Donnay, J.-P. Descy
OR03_02	Effect of UV-B radiation on growth and physiology of a Cyanobacterium <i>Anabaena variabilis</i> M.M.Issaq and G. Abraham
16.45-17.30	Poster Viewing (P 01- P 37)

Saturday, December 11, 2004		
09.00-09.45	KN-06: The Role of Benthos and Epiphyte on the Material Cycle in Akkeshi Lake, Japan <i>Prof. M.J. Kishi, Hokkaido University, Japan</i>	Plenary Session
09.45-10.30	KN-07: Lake Chilika: GIS and the challenge of Spatial Management <i>Prof. G.J.Meaden, Christ Church Univ., U.K.</i>	
10.30-10.45	TEA BREAK	
10.45-13.00	Technical Session 09 (Birbal Hall) Chair Persons: Dr. C. S. Trisal and Prof. A. K. Pattanayak	
OR19_01	Eco-tourism and Chilika Lake A.K. Pattanayak and Devasis Jena	
OR19_02	Travel cost demand function for recreation in Chilika Lake N.C. Sahu and Dillip Kumar Tarai	
OR19_03	Problems and prospects of Ecotourism in Orissa Arun Kumar Panda and Prakash Chandra Misra	
OR19_04	Tourism and Biodiversity: a case study of Chilika Lake Amita Choudhury and Deepak Bisohoyi	
OR17_01	Community Based Management and Solution G.S. Das	
OR17_02	Native photography and photo elicitation: seeing aquaculture through local eyes Eial Dujovny	
OR17_03	Socio-economic conditions of the fisherman community in the coastal zone of Orissa, India Meera Swain	
OR17_04	In search of alternative bioresources to supplement, conserve and enhance the ecology and socio-economics of Chilika Lake	

	Brahma B. Panda, Sachitra K. Rath, and Madhumita Panda	
OR17_05	An evaluation of community based fishery management approach for sustainability of Chilika Lake fisheries. <i>Purushottam Sahu and Dr. N.B.Pradhan</i>	
10.45-13.00	Technical Session 10 (Chanakya Hall) Chairpersons: Prof. G.J. Meaden and Dr. G. Behera	
OR11_01	Mapping of aquaculture and fishing facilities, and seagrass meadows in Sanriku Coast, Japan, using aerial and satellite images for conservation of coastal ecosystem <i>Teruhisa Komatsu, Tatsuyuki Sagawa, Atsuko Mikami, Keiko Shibatani, Masahiro Takahashi</i>	
OR11_02	Transformation of Chilika Lagoon: A study based on remote sensing and field observations. <i>U.S. Panda, P.K. Mohanty, S. R. Pal and G. Jayaraman</i>	
OR11_03	Geo-environmental changes in and around the Chilika lagoon – a study based on remote sensing and GIS techniques <i>A.S. Rajawat, N.C. Das, B.K. Nayak, Mukesh Gupta1, P. Kumar, P.K. Panigrahy, G. Behera, B.C. Acharya and Shailesh Nayak</i>	
OR11_04	Remote Sensing & GIS approach for the management of watersheds – a case study <i>B. Radheshyam, Subba Rao, Ramesh K. S, Kiran G. Shirlal and Mahaganesha K</i>	
OR11_05	Assessment and monitoring the coastal wetland ecology using RS & GIS with reference to mangroves of Orissa <i>C.Pattanaik, Ch. Sudhakar Reddy, M.S.R. Murthy and D.Swain</i>	
OR11_06	Impact of Urbanization on Aquatic Ecosystems: Assessment using GIS and Remote Sensing <i>H. S. Sudhira and T. V. Ramachandra</i>	
OR11_07	Integration of remote sensing, GPS and GIS as tools for conservation and management of Chilika – a Ramsar site in India <i>Rabindro Nath Samal, Ajit K.Pattanaik, Mithun Karmakar, Nihar Ranjan Das</i>	
OR11_08	Environmental assessment of Chilika lagoon with high-resolution satellite data – a case study for Nalabana area. <i>S. K. Sasmal, S. B. Choudhury and B.Jena, R. Samal and A. K. Pattanaik</i>	
OR11_09	Hydrological Responses to Land use Changes using Remote Sensing and GIS <i>Saira Varghese K. and Ramachandra T.V.</i>	
OR11_10	Morphodynamics of Coringa <i>Sarika Jain, A. Surendran, B. Veera Narayan and P.N. Sridhar</i>	
OR11_11	Delineation and monitoring of coastal wetlands through high resolution remotely sensed data and G.I.S <i>Shivakumar J. Nyamathi, A. Vittal Hegde, G. S. Dwarakish, Jagadeesha Pai</i>	
13.00-14.00	LUNCH	
14.00-14.45	KN-08: Modelling Coastal Ecology <i>Prof. G. Jayaraman, CAS, IIT, Delhi, India</i>	Plenary Session
14.45-15.30	KN-09: Coastal Circulation and Sediment Dispersion in the Bay of Bengal <i>Dr. P. K. Mohanty, Berhampur University, India</i>	
15.30-15.45	TEA BREAK	
15.45-17.30	Technical Session 11 (Chanakya Hall) Chairpersons: Prof. M. J. Kishi and Prof. G. Jayarman	
OR05_01	Numerical simulation of salinity structure in Chilika Lake <i>A. Dube, G. Jayaraman, A. D. Rao and P.K. Mohanty</i>	
OR05_02	Hydrodynamics of Lake Tanganyika <i>Eric Deleersnijder and Jaya Naithani</i>	
OR05_03	Hydrological simulation and Modelling for the Hussain Sagar Lake, Hyderabad, India <i>Kapil Gupta</i>	
OR05_04	Estimating evaporation rates from a tropical lake using artificial neural networks <i>S. D. Khobragade, A. R. Senthil kumar, C.S.P. Ojha and K.K.S. Bhatia</i>	
OR05_05	Sensitivity of Penman Model to Albedo of Lake Water <i>S. D. Khobragade, C.S.P. Ojha and K.K.S. Bhatia</i>	
OR05_06	B-blooms - algal blooms : emerging problem for health and sustainable use of surface waters	

	<i>Véronique Gosselain, A. Wilmotte, W. Vyverman, J.-P. DescyI, C. Boutte, K. Van der Gucht, J. Van Wichelen, H. Sarmento, B. Leporcq</i>
OR10_01	Watershed planning and management– an integrated Approach. <i>H. Ramesh A. Mahesha</i>
OR10_02	Rock magnetic study of two sallow cores from Shambhar Lake: to reconstruction of magnetic mineral flux and paleomonsoons. <i>Narendra Kumar Meena , Dr. G. J Chakrapani</i>
OR10_03	Spatial And Temporal analysis of Watershed <i>Purnima G.B. and Ramachandra T.V.</i>
15.45-17.30	Technical Session 12 (Birbal Hall) <i>Chairpersons: Prof. B. K. Nayak and Prof. A. K. Mohanty</i>
	NGO Forum: VASUNDHARA, JANAMANGAL MAHILA SAMITI, PALLISHREE etc.

Sunday, December 12,2004	FIELD VISIT TO CHILIKA
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Monday, December13, 2004		
09.00-09.45	KN-10: <i>Dr. P. Satyanarayana, NRSA, Hyderabad, India</i>	Plenary Session
09.45-10.30	Session-13 (School Students) <i>Chairpersons: Prof. G. Das and Dr. S.B.Choudhary</i>	
10.30-10.45	TEA BREAK	
10.45-12.00	Session-13 (School Students) Cont.	Plenary Session
12.00-13.30	Session-14 (College Students) <i>Chairpersons: Prof. Banikanta Mishra and Prof. R. C. Mohanty</i>	
13.30-14.30	LUNCH	
14.30-17.00	Closing Ceremony	Plenary Session

Presentation Code: OR: Oral, P: Poster and KN: Key Note lecture

<i>Theme No.</i>	<i>Technical Session Themes</i>	<i>No. of Papers</i>
01	Biodiversity of Coastal Wetlands and Lakes	12
02	Water Quality Assessment	07
03	Environmental Risk Assessment	02
04	Ecosystem functions	04
05	Monitoring, Modelling and Prediction	06
06	Coastal Engineering	03
07	Persistent Problems: Anthropogenic and Natural	00
08	New technologies and Instrumentation	02
09	Limnology of lakes and coastal wetlands	07
10	Watershed Hydrology and Hydrogeology	03
11	GIS and Remote Sensing	11
12	Emerging issues: Global warming, climate change and their impacts on coastal zone ecosystem	04
13	Restoration Methodologies and Conservations strategies	04
14	Information management systems and decision supporting system	01
15	Management of Coastal Wetlands and Lakes	05
16	Environmental protection laws and policy options.	01
17	Socio-economic Considerations, people's Participation and Awareness	05
18	Community based management: Conflicts and Solutions	01
19	Recreation and Eco-Tourism	04
20	Resource Utilization, Growth, Development and Integrated Management Approach.	05

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