



This event is supported by the European Union via the Seventh Framework programme (INCO-LAB) under GA 295092

## **India-EU Workshop on Coastal Zone Management and Impact on Society**

**6<sup>th</sup> -9<sup>th</sup> October 2014**

**VENUE: ABAD TURTLE BEACH RESORT, ALLEPPEY**

### **Objective of the workshop**

The coastal area or coastal zone is defined as the interface or transition zone, specifically that part of the land affected by its proximity to the sea and that part of the ocean affected by its proximity to the land – an area in which processes depending on the interaction between land and sea are most intense. Coastal zones encompassing coral reefs, mangroves, sea grasses, sand dunes, mudflats, salt marshes, estuaries, lagoons etc are fragile, dynamic and productive ecosystems, often under pressure from both anthropogenic activities and natural processes. Coastal zones throughout the world have historically been among the most heavily exploited areas because of their rich resources. The management of coastal zone is a sensitive aspect which has to tackle highly explosive situations related to issues due to resource overuse, degradation of ecosystems, conflicts among stakeholders, coastal hazards, livelihood security, sustainable development, demographic issues and national defence. In India, about 35% of the population live within 100 km of the country's coast line extending around 7517 km. On an average, 5.2 depressions, 1.9 storms and 1.4 severe storms affect the Indian coast every year. All 73 coastal districts of India are vulnerable to coastal hazards. The primary coastal and marine ecosystem service is fisheries, which is a major driver and safety net for economic development and rural livelihoods. Coastal fishing employs a million people. To manage the coastal ecosystems in a sustainable manner, Govt. of India has implemented the Integrated Coastal Zone Management (ICZM) Project (2010-15) with the help of World Bank. The ICZM project aimed to directly benefit 1.1 million people with a budget of \$286 million is one of the largest attempts to finance knowledge generation and capacity building. With these perspectives in mind, INDO-MARECLIM attempts to examine the coastal environment and its management from 2 sides - the natural sciences and the social sciences.

The workshop will address the problems in Coastal zone management (CZM) from an oceanographic and technological viewpoint, management and governance. The invited lectures by experts in respective fields will focus on the issues, scientific solutions and effective management measures of the coastal zone not only of India, but also of different EU countries. Participant presentations are intended to bring to limelight the scientific efforts done in India and EU to attend to the problems of coastal environment. On the last day of the workshop, round table discussions are designed to bring together all participants of the workshop onto a common platform to discuss the gaps in Coastal zone research and also to find out avenues of future collaboration between the different institutions.





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## PROGRAMME

**Venue: Abad Turtle Beach Resort, Mararikulam, Alappuzha.**

**Date: Monday 6<sup>th</sup> October 2014**

- |         |                                 |   |
|---------|---------------------------------|---|
| 9.00 am | WELCOME ADDRESS                 | <b>Dr. K. Ajith Joseph</b> , Director, NERCI &<br><b>Prof. Ola.M. Johannessen</b> , Chairman, Steering committee, INDO-MARECLIM |
| 9.05 am | PRESIDENTIAL ADDRESS            | <b>Prof. T. J. Pandian</b> ,<br>National Professor, Madurai Kamaraj University  |
| 9.15 am | INAUGURAL ADDRESS               | <b>Dr. S. S. C. Shenoi</b> ,<br>Director, Indian National Centre for Ocean Information Services (INCOIS), Hyderabad             |
| 9.25 am | INTRODUCTION TO THE<br>WORKSHOP | <b>Prof. N.R.Menon</b> , Co-ordinator,<br>INDO- MARECLIM<br><b>Lasse H. Pettersson</b> , Deputy Co-ordinator<br>INDO- MARECLIM  |
| 9.30 am | VOTE OF THANKS                  | <b>Dr. Eddy Moors</b> , Co-Convener, India-EU workshop  |

*You are also invited to join us for tea after the inaugural function.*

Programme





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## Agenda

**Day 1: 6<sup>th</sup> October 2014**

**9.00 am – 9.30 Opening ceremony**

**Oceanographic facets of Coastal Zone Management**  
(30 min lecture followed by 15 min Q & A session)

**Chairman: Prof. Ola. M. Johannessen, Nansen Scientific Society, Norway**

9.30-10.15	<b>Prof. N. R. Menon</b> [Chairman, INDO-MARECLIM, Director, Nansen Environmental Research Centre India] - <b>Coastal Zone issues and management perspectives.</b>
10.15–10.45	Coffee & Tea Break
10.45 - 11.30	<b>Dr. Eddy Moors</b> [Head, Climate Change & Adaptive Land & Water Management, Alterra, Wageningen University & Research Center, The Netherlands] - <b>Coastal Zone issues and management in the Netherlands</b>
11.30 – 12.15	<b>Dr. T. Srinivasa Kumar</b> [Head, Advisory Services and Satellite Oceanography Group, Indian National Centre for Ocean Information Services, India (INCOIS)] - <b>Applications of remote sensing in management of coastal issues</b>
12.15 – 13.00	<b>Dr. P. V. Joseph</b> [Consultant Scientist, Nansen Environmental Research Centre India] - <b>Monsoon and its influence on the coastal zone</b>
13.00-14.00	Lunch
<b>Chairman: Prof. T. J. Pandian, National Professor, Madurai Kamaraj University, India</b>	
14.00-14.45 –	<b>Prof. Ola M Johannessen</b> [President, Nansen Scientific Society, Norway] – <b>Indian Ocean and sea level rise</b>





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14.45 – 15.30	<p><b>Prof. Ramesh. R.</b> [Director, National Centre for Sustainable Coastal Management, Ministry of Env't. &amp; Forests, India]</p> <p><b>- Climate sensitivity to estuarine systems</b></p>
15.30 – 16.00	<p><b>Participant presentations (10 min. presentation)</b></p> <ul style="list-style-type: none"> <li>• <b>Arindam Chakraborty.</b> [Birbal Sahni Institute of Palaeobotany, India] - <b>Conservation of Geo-Heritage sites of India with special reference to Andaman &amp; Nicobar Islands</b></li> <li>• <b>Jeyagopal Sriganesh</b> [National Institute of Ocean Technology, India] - <b>Management of coastal erosion along Pondicherry coast.</b></li> <li>• <b>Adam N Walker</b> [Wageningen University &amp; Research Center, The Netherlands] - <b>Spatial Optimal Control of Stochastically Spreading Invasive Species</b></li> </ul>
16.00- 16.30	Coffee & Tea break
16.30 – 17.30	<p><b>Participant presentations (10 min. presentation)</b></p> <ul style="list-style-type: none"> <li>• <b>Joeri Scholtens</b> [University of Amsterdam] - <b>Are fisheries really manageable? Learning from the Indo-Sri Lankan trans-boundary fishing conflict in the Palk Bay”</b></li> <li>• <b>Johny Stephen</b> [University of Amsterdam] - <b>A place to live and fish: relational place making among the trawl fishers of Palk Bay, India.</b></li> <li>• <b>Subhasree Sahoo</b> [Berhampur University, India] - <b>Noctiluca scintillans bloom in a coastal site of north-western Bay of Bengal.</b></li> <li>• <b>T. Thangaradjou &amp; Saravanakumar</b> [Annamalai University, India] - <b>Mapping seagrasses in India – issues, challenges and way forward</b></li> <li>• <b>Kajal Singh.</b> [Gujarat Ecology Commission, India] – <b>Eco-profiling coastal talukas in Gulf of Kachchh under ICZMP Gujarat.</b></li> <li>• <b>Jayaraju Nadimikeri</b> [Dept. of Geology, Y. V. University, India] - <b>Coastal marine tourism of Andaman isles, India: a socio-economic perspective.</b></li> </ul>





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## Day 2 : 7<sup>th</sup> October 2014

### Technological Aspects in Coastal Zone Management

Chairman: Dr. Eddy Moors, Wageningen University & Research Centre, The Netherlands

9.30 – 10.15	<b>Prof. Dr. K. Murali</b> [Professor, Department of Ocean Engineering, Indian Institute of Technology Madras, India (IIT)] <b>- Stability of Tidal inlets and their Training.</b>
10.15 – 10.45	Coffee & Tea Break
10.45 – 11.30	<b>Dr. Tom Ysebaert</b> [Institute for Marine Resources and Ecosystem Studies, Wageningen University & Research Center, The Netherlands] <b>- Ecosystem based coastal defence: opportunities &amp; steps to be taken</b>
11.30 – 12.15	<b>Ton van der Burg</b> [Director, Van Oord India Pvt. Ltd, India] <b>- Building with Nature approaches to coastal management from a dredging perspective</b>
12.15 – 13.00	<b>Mr. Darius Bartlett</b> [University College, Cork, Ireland] <b>- Fifty Years of Exploring our Seas and Coasts with Geoinformatics</b>
13.00 – 14.00	Lunch
<b>Chairman: Mr. Darius Bartlett, University College, Cork, Ireland</b>	
14.00 – 14.45	<b>Dr. N. P. Kurian</b> [Director, Centre for Earth Science Studies, India (CESS)] <b>– Coastal hazards and management</b>
14.45 – 15.30	<b>Mr. Lasse. H. Pettersson</b> [Director International Cooperation and Marketing, Nansen Environmental Remote Sensing Center, Norway] <b>- Monitoring of harmful algae blooms in coastal waters in support of aquaculture in Europe</b>
15.30 – 16.00	Tea/coffee break





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<p>16.00 – 16.45</p>	<p><b><i>Dr Marcos Llope</i></b> [Scientist, Instituto Español de Oceanografía, Spain] – <b>Climate and fishing steer ecosystem regeneration to uncertain economic futures in the Baltic Sea</b></p>
<p><b>Chairman: Dr. Harenduprakash. L, Nansen Environmental &amp; Research Centre India</b></p>	
<p>16.45 – 18.15</p>	<p>Participant presentations (<b>10 min. presentation</b>)</p> <ul style="list-style-type: none"> <li>• <b><i>Kanmani Shanmugha Priya</i></b> [Institute of Remote sensing, Anna University, India] - <b>Estimation of long shore sedimentation rate nearby offshore structures</b></li>   <li>• <b><i>Poornima K V</i></b> [SRM University, India] <b>Analysis of rate of change of shoreline by ports using remote sensing and GIS for the northern chennai coast.</b></li>   <li>• <b><i>Pradeep Chandra Bose</i></b> [Anna University, India] <b>Storm surge simulations for the Tamil Nadu coast using delft 3D- an open source numerical model</b></li>   <li>• <b><i>Srineash V K</i></b> [Indian Institute of Technology, Madras, India] - <b>Artificial reef as soft engineering approach</b></li>   <li>• <b><i>Sucheta Basu</i></b> [Calcutta University, India]- <b>Global coral reef vulnerability issues and possible monitoring mechanisms based on the recent bleaching episodes at Andaman Sea.</b></li>   <li>• <b><i>Ayyaru Gopalakrishnan &amp; P. Murugesan</i></b> [Annamalai University, India]- <b>Sustainable coastal livelihood options- Opportunities and challenges</b></li> </ul>





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	<ul style="list-style-type: none"><li>• <b>Sarah. S</b> [National Geophysical Research Institute Hyderabad, India ] - <b>Surface-ground water interaction; a key issue to Coastal Zone Management</b></li><li>• <b>David Smith</b> [Plymouth Marine Laboratory, UK] - <b>Remote sensing – ballast water applications.</b></li></ul>
19.30 – 21.30	Conference dinner





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### Day 3: 8<sup>th</sup> October 2014

#### Socio- Economic issues in the coastal Zone

**Chairman: Dr. D. Chandramohan, National Centre for Sustainable Coastal Management, Ministry of Env't. & Forests, India**

9.30 – 10.15	<b>Dr. E. Vivekanandan</b> [Emeritus Professor, Central Marine Fisheries Research Institute, Chennai] <b>- Reducing vulnerability and enhancing resilience of fishing communities to climate change</b>
10.15 – 11.00	<b>Dr. Harikumar. P.S.</b> [Senior scientist & Head, Chemical Sciences Division, Centre for Water Resources Development & Management, India] <b>- Drinking water and sanitation problems in coastal areas and its management</b>
11.00- 11.15	Coffee & Tea Break
11.15 – 12.00	<b>Dr. Rolf Groeneveld</b> [Assistant professor, Environmental Economics Group of Wageningen University and Research Centre, the Netherlands] <b>– Holistic approaches to coastal and marine ecosystem management: an economic perspective</b>
12.00– 12.45	<b>Dr Linda Nøstbakken</b> [Associate professor, Department of Economics of Norwegian School of Economics (NHH), Norway] <b>– Reactive or proactive fisheries management – lessons from Norway</b>
12.45– 13.30	<b>Dr. Natasha Bhatia</b> [Institute of Estuarine & Coastal Studies (IECS),The University of Hull, UK] <b>- Valuing ecosystem services and societal benefits in estuaries</b>
13.30 – 14.00	Lunch
14.15 - 18.30	Field trip: familiarization of the living conditions of fisher folk Organized by <b>Mrs. C. R. Satyavathy</b> [Joint Director of Fisheries, Kerala State, India] & <b>Mr. Kesavadas. V</b> [Consultant scientist, NERCI, India]







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## Day 4: 9<sup>th</sup> October 2014

### Coastal Zone Management and Governance

**Chairman: Mr. Lasse. H. Petterson, Nansen Environmental Remote Sensing Centre, Norway**

9.30 – 10.15	<b>Dr. Anne Brønsten Osland</b> [Norwegian Directorate of Fisheries, Norway] - <b>30 yrs of coastal zone planning and management in Norway</b>
10.15 – 10.45	Coffee & Tea Break
10.45 – 11.30	<b>Prof. T. Balasubramanian</b> [Director & Dean, Centre for Advanced Studies in Marine Biology, Annamalai University, India] - <b>Coastal bioresources augmentation lively hood need for promotion and governance</b>
11.30 – 12.15	<b>Dr Andries Richter</b> [Center for Ecological and Evolutionary Synthesis, University of Oslo, Norway] - <b>Socio-ecological complexity in marine governance</b>
12.15 – 13.00	<b>Participant presentations (10 min. presentation)</b> <ul style="list-style-type: none"> <li>• <b>Annisa Triyanti</b> [Amsterdam Institute for Social Science Research, The Netherlands] - <b>Interactive governance of coastal disaster case studies of Indonesian and Indian coastal area</b></li> <li>• <b>Anton Stanovic</b> [NGO Green Step, Montenegro] - <b>Empowering local community in Ulcinj (Montenegro) through assessing sustainability indicators and building a common ICZM vision</b></li> <li>• <b>Elvir Zecevic</b> [Ulcinj Business Association, Montenegro] - <b>Empowering local community in Ulcinj (Montenegro) through assessing suitable indicators and building a common ICZM vision.</b></li> <li>• <b>Pranay Kumar Singh</b> [CSIR-NISCAIR, India] - <b>EBM and ICZM based developmental policies and planning for small islands: with special</b></li> </ul>





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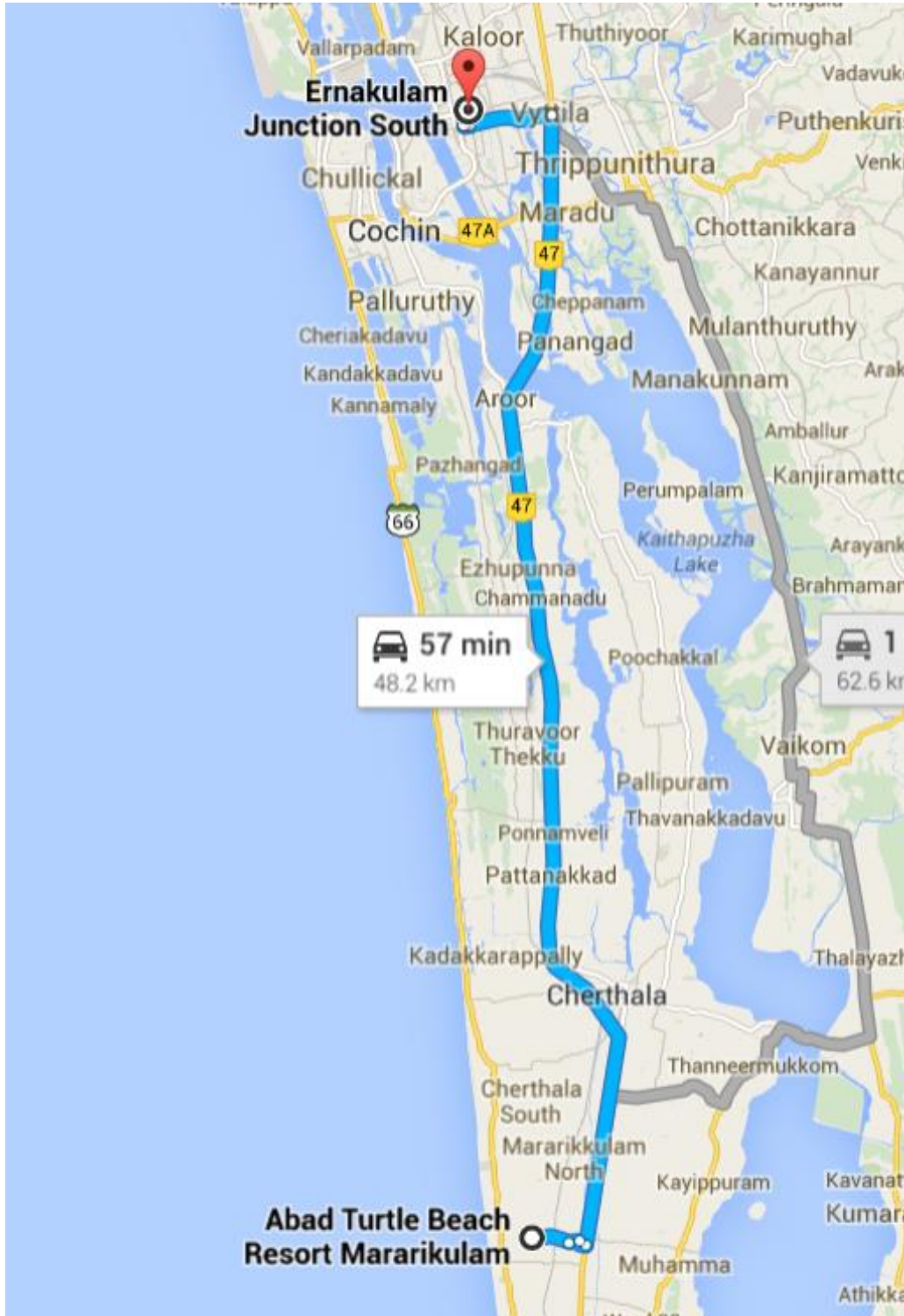
	<b>reference to Lakshdweep Islands</b>
13.00 – 14.00	Lunch
<b>Chairman: Prof. T. Balasubramanian, Annamalai University, India</b>	
14.00 – 14.40	<p><b>Participant presentations (10 min. presentation)</b></p> <ul style="list-style-type: none"> <li>• <b><i>Shraban Kumar Barik</i></b> [Berhampur University, India ] - <b>Coastal processes, their impacts on shoreline change and coastal management perspective in Odisha, East Coast of India.</b></li> <li>• <b><i>Vidhya R</i></b> [Institute of Remote sensing, Anna University, India] - <b>Need for case based factor analysis for stakeholder friendly appropriation in coastal zone regulation decisions</b></li> <li>• <b><i>Anna Marie Winter</i></b> [University of Oslo, Norway ] - <b>Fisheries management in context of climate change</b></li> <li>• <b><i>Bhumika Vaghela</i></b> [Gujarat Ecology Commission, India] - <b>Monitoring the health of coastal water of GoK – an ICZM experience</b></li> </ul>
14.45 -15.30	<b>Round table discussions</b> on India-EU CZM research collaboration and funding possibilities for the four different topics
15.30 – 16.00	Coffee & Tea Break
16.00 – 17.00	<b>Presentations of the round table discussions</b> (10 min each group) and closure / summary /conclusion of the workshop
17.15	<b>Concluding remarks – Prof. N. R. Menon / Mr. Lasse H. Pettersson</b>





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**ROUTE MAP FROM ERNAKULAM RAILWAY STATION (ERNAKULAM JUNCTION/ERNAKULAM SOUTH) TO THE VENUE**





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### ROUTE MAP FROM COCHIN INTERNATIONAL AIRPORT TO THE VENUE

