

India: Enhancing India's Capacity for Green and Resilient Coastal and Marine Ecosystems Management: Pathway for a Sustainable Blue Economy

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India's Blue Growth

Coastal Zone Management World Bank Engagement in India

By World Bank - Blue Team,
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WORLD BANK GROUP

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Cairo



INDIA ENGAGEMENT - Long Term Partnership Supporting India's Sustainable Coastal and Marine Development

National Policies & Priorities

1991 | Coastal Regulation Zone (CRZ) Notification issued

2004 | Gol develops vision for long-term CZM

2008 | India releases National Action Plan on Climate Change (NAPCC).

2011 | MoEF issues CRZ Notification 2011

2015 | India Committed its NDCs to UNFCCC; Climate benefits from ICZM Project recognized as part of India's NDCs.

2019 | MoEFCC issues CRZ Notification 2019; CRZ zoning definitions changed to allow sustainable coastal development. Gol deliberates "National Coastal Mission (NCM) under NAPCC" in Parliament

World Bank Engagement

2008 | WB requested to support long-term CZM in India

2010 | WB's ICZM Project working with MoEF and 3 Coastal States.
WB supported Gol's reform agenda from Command & Control to Management, Decentralization and Inter-Sectoral Collaboration

Covid pandemic and Change of Priorities of the Gol

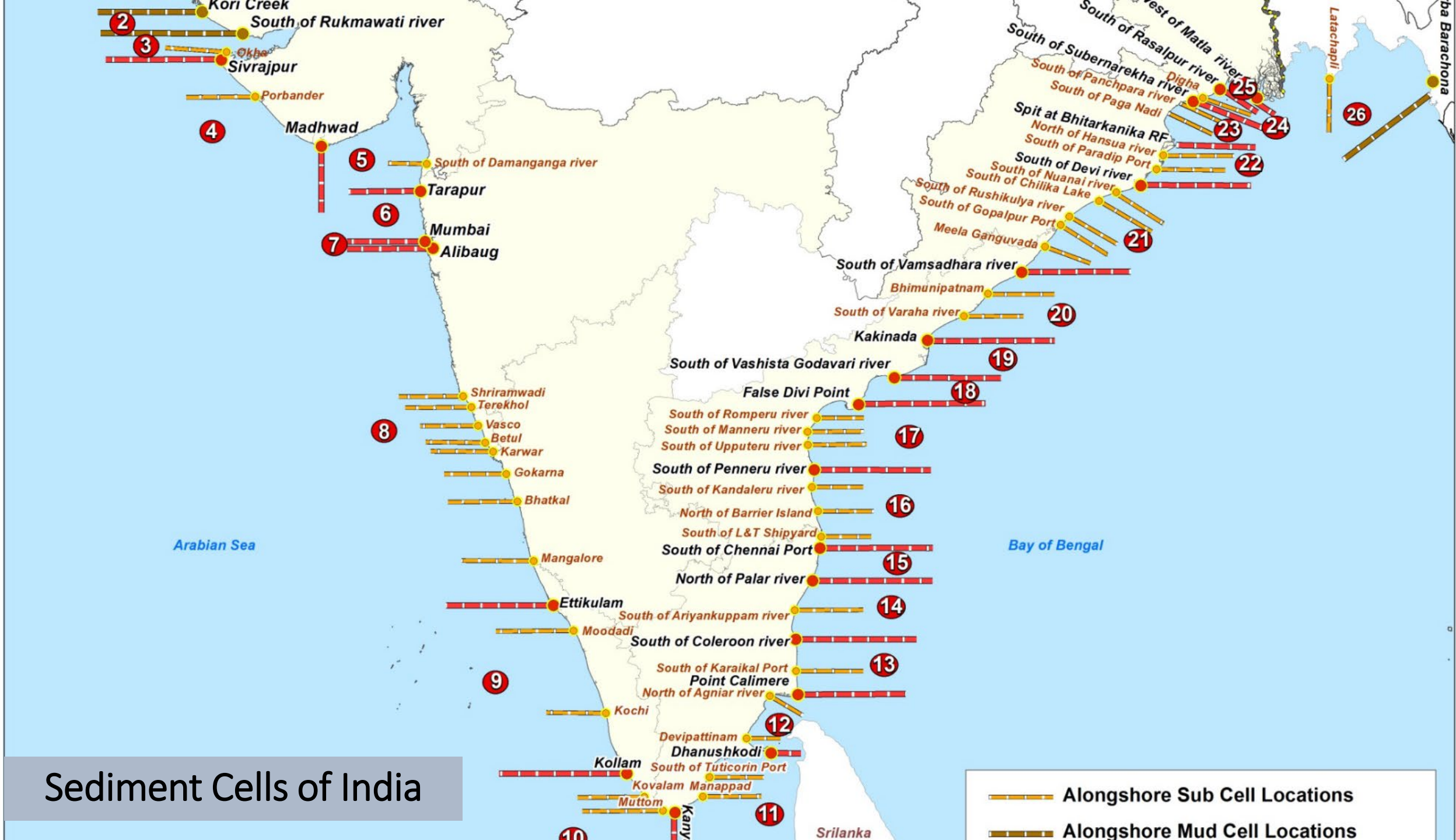
2023 Project "SHORE" under Preparation
"Strengthening Coastal Resilience and Economy"



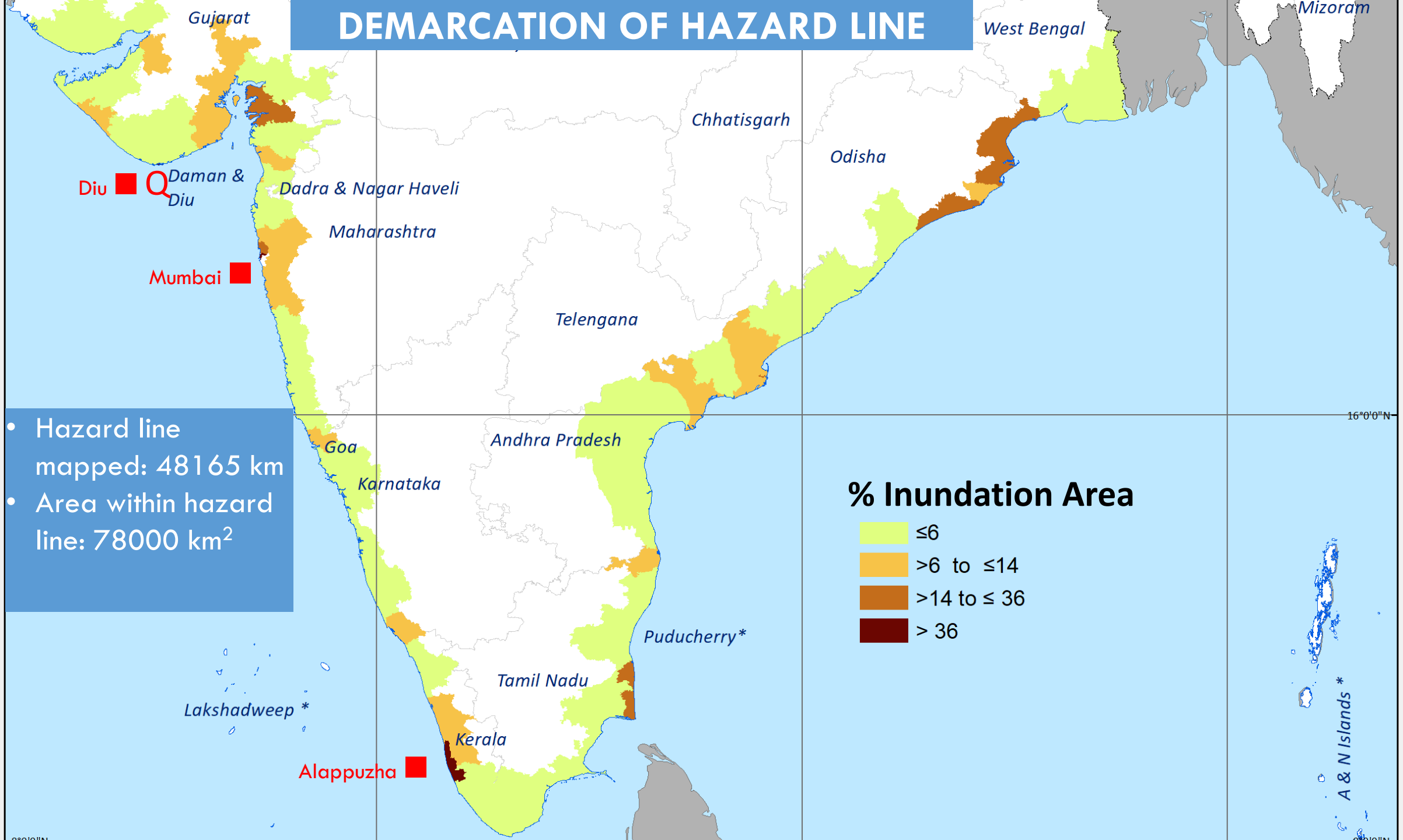
2010 - 2020|

World Bank's ICZM Project Milestones

- Under auspice of MoEFCC, established the National & State Technical ICZM Secretariats
- Established World-class *National Centre for Sustainable Coastal Management*
- Hazard-line mapping (Composite Flood + Erosion Line) for entire coastline
- Identification of Ecologically Sensitive Areas + Delineation of Critically Vulnerable Areas
- Nationally demonstrated community-led restoration models, e.g. 16,500 h.a of Mangroves restored

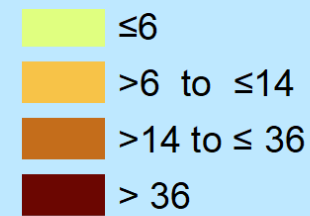


DEMARCATATION OF HAZARD LINE



- Hazard line mapped: 48165 km
- Area within hazard line: 78000 km²

% Inundation Area



India's ICZM Demonstration Sites

Gujarat:

1. Gulf of Kachchh

Odisha:

2. Gopalpur to Chilika

3. Paradeep to Dhamra

West Bengal

4. Digha-Sankarpur

5. Sagar Island in Sundarban



Restoration of Seagrass



Coral gardening



Climate Smart Villages



Integrated agri-aqua farming



Centre of Excellence



8. Blue Flag Beaches

Success Stories

Lessons Learnt – Key Success Factors

ICZM/BE is a long-term commitment and requires....

- **Coast – Marine – Ocean Interface needs Collaboration**
- **Strong Knowledge Base and Institutional Capacity**
- **Strong State – UT level engagement and Capacity Building**
- **Local government Ownership**
- **Inter-agency, Multi-sectoral Integration**
- **Stakeholder Participation**
- **External Assistance and Global Knowledge & Partnerships**

Oct. 12-13, 2020
Virtual-Zoom Platform

Virtual Knowledge Exchange on Sustainable Coastal Management

OBJECTIVES

Sharing India's issues and current conditions of coastal management associated with climate changes and previous experiences

- **Understanding Korea's experiences and institutional set up with the objectives to maintain sustainable coastal management**
- **Discussing innovative concepts, technologies and good practices on coastal management**

Participants:

1. World Bank Group
2. Korea Green Growth Trust Fund (KGGTF)
3. SAR -Environment, Natural Resources & Blue Economy Global Practices

Korean Counterparts

1. Korea Maritime Institute (KMI)
2. Korea Institute of Ocean Science & Technology (KIOST)
3. Korea Marine Environment Management Corporation (KOEM)

Client: 30+ clients from India including-

- Ministry of Environment, Forest & Climate Change (MoEFCC)
- Society of Integrated Coastal Management (SICOM)
- National Centre for Sustainable Coastal Management (NCSCM)
- 11 Coastal State Governments

1. Marine Pollution Management (Part 1)

Hye-min Jung

Deputy Manager | Korea Marine Environment Management Corporation

Oct. 12-13, 2020

Virtual-Zoom Platform

2. Marine Pollution Management (Part 2)

Su-min Song

Associate | Korea Marine Environment Management Corporation (KOEI)

3. Best practice on Coastal Pollution Management

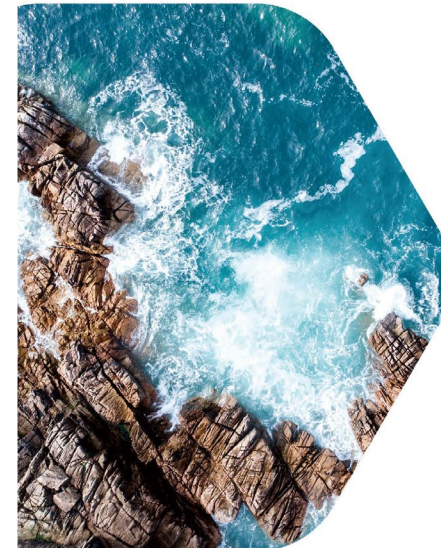
Dr. Won-geun Chang

Research Fellow | Korea Maritime Institute (KMI)

4. Coastal Erosion Management

Dr. Sung-soon Yoon

Research Fellow | Korea Maritime Institute (KMI)



Virtual Knowledge
Exchange on Sustainable
Coastal Management

Government of India's mandate towards its Coastal Zones

*A Shift from **Regulatory
Approach**
to
Management Approach*

- IMPLEMENTATION of **NATIONAL COASTAL MISSION**
- CAPITALIZING India's Blue Economy Potential in a sustainable manner
- MANAGING Development through Adoption and Enforcement of Coastal Regulation Rules (CRZ -2019)
- New Government Programs like **BLUE ECONOMY POLICY, Sagarmala (Port led development), India Maritime Mission 2030, Greening of Ports, PMMSY (Promoting Mariculture), Swadesh Darshan(Coastal Tourism) etc.**
- Integrate approach for multisectoral regime (tourism, plastics, ports, fisheries, agriculture)
- Science Based Decision Making
- Learn - Collaborate – Replicate/Scale up – Converge

Ongoing Collaboration

The World Bank

Landscapes and Airshed
Management for Resource Efficient
and Resilient Growth (P178721)

KGGTF Grant (GFR ID:
0000043014)

1. National & State-Level Blue Economy Roundtables aimed to establish a stakeholder engagement platform that will promote and mainstream Blue Economy concepts and Integrated Eco-system based Management approaches
2. Leveraging successful Korean & International best practices and innovative approaches to inform future lending operations

Outputs - In the form of guidance notes, policy toolkits and frameworks will include *Tool kits on NBS, Marine Litter Management and Marine Spatial Plans*

Conclusion

Topics for further collaboration and knowledge exchange

1. Hybrid Hard & Soft Coastal Protection Structures
2. Implementing Circular Economy - Recycling approach for Marine Debris/Litter, Micro Plastics, Macro Plastic and Nano Plastic, Quantifying Plastic Pollution
3. Ocean Accounting and Innovative Finance in Blue Economy
4. Continuous Monitoring Systems for CZM
5. Governance and Institutional Setups for ICZM/Blue Economy Implementation
6. Implementing Marine Spatial Plans
7. Management and Greening Of Ports



KOREA GREEN INNOVATION DAYS

KGID CAIRO