ANNUAL Report

2022 - 2023

NCSCM

National Centre for Sustainable Coastal Management
Ministry of Environment, Forest & Climate Change
Anna University Campus, Chennai 600 025

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT

ANNUAL REPORT

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1. About NCSCM

The National Centre for Sustainable Coastal Management (NCSCM) was established by the Ministry of Environment, Forest and Climate Change (MoEF&CC) in 2011, as an autonomous institution to support the protection, conservation, rehabilitation, management, and policy advice of the coast. NCSCM supports the nationwide adoption of the Integrated Coastal Zone Management (ICZM) approach by utilizing decision support systems based on cutting-edge science and knowledge and through networking with communities, government structures, and relevant reputable national and international institutions.

India has a long coastline of 7,500 km, harbouring diverse ecosystems and unique biodiversity. However, the coast faces myriad issues including destruction and degradation of the rich ecosystems, pollution from agriculture run-offs, domestic and petrochemical industries, and importantly, the vast coastal population exerting pressure on the natural resources for livelihoods and sustenance. Moreover, the coastal and marine waters are also potential areas for development, which is promoted by the Government to support economic growth. Realizing the necessity for an integrated approach towards coastal management and conservation, the Government of India embarked upon the Integrated Coastal Zone Management Project (ICZMP) for the holistic development of the coast within the regulatory framework of Coastal Regulation Zone (CRZ) Notification, 2011 and the Island Protection Zone (IPZ) Notification, 2011.

2. Vision and Mission

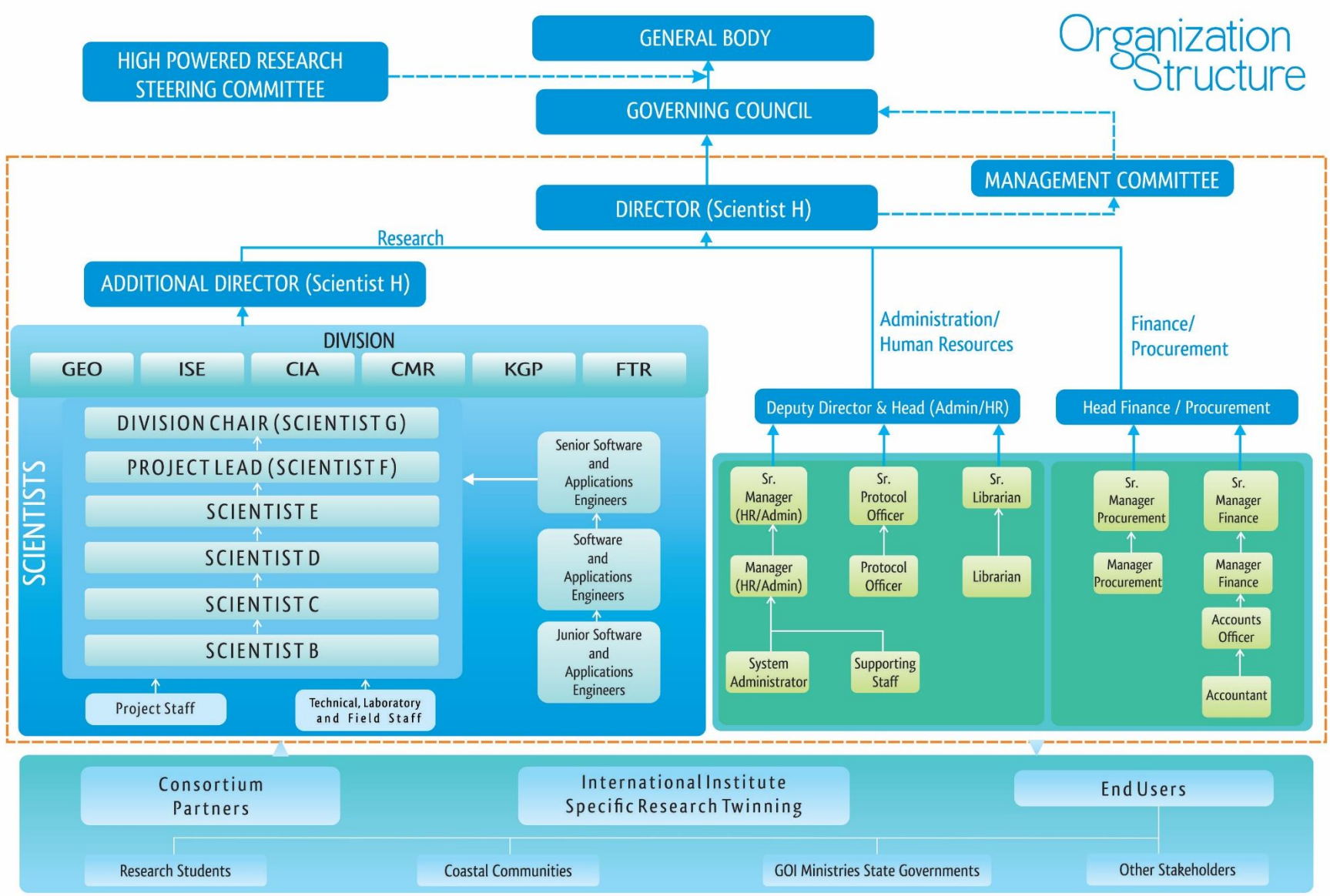
Vision

Promote sustainable coasts through increased partnerships, conservation practices, scientific research and knowledge management for the benefit and wellbeing of current and future generations.

Mission

Support integrated management of the coastal and marine environment for livelihood security, sustainable development and hazard risk management by enhancing:

- KNOWLEDGE
- PARTNERSHIPS AND NETWORK
- RESEARCH AND ADVISORY SUPPORT
- COASTAL COMMUNITY INTERFACE


Organization Structure
GENERAL BODY
HIGH POWERED RESEARCH STEERING COMMITTEE
GOVERNING COUNCIL
MANAGEMENT COMMITTEE
DIRECTOR (Scientist H)
Research
ADDITIONAL DIRECTOR (Scientist H)
Administration/ Human Resources
Finance/ Procurement
DIVISION
GEO
ISE
CIA
CMR
KGP
FTR
SCIENTISTS
DIVISION CHAIR (SCIENTIST G)
PROJECT LEAD (SCIENTIST F)
SCIENTIST E
SCIENTIST D
SCIENTIST C
SCIENTIST B
Project Staff
Technical, Laboratory and Field Staff
Senior Software and Applications Engineers
Software and Applications Engineers
Junior Software and Applications Engineers
Deputy Director & Head (Admin/HR)
Head Finance / Procurement
Sr. Manager (HR/Admin)
Sr. Protocol Officer
Sr. Librarian
Manager (HR/Admin)
Protocol Officer
Librarian
System Administrator
Supporting Staff
Sr. Manager Procurement
Sr. Manager Finance
Manager Procurement
Manager Finance
Accounts Officer
Accountant
Consortium Partners
International Institute Specific Research Twinning
End Users
Research Students
Coastal Communities
GOI Ministries State Governments
Other Stakeholders

General Body

S. No.	Name of the Member
1	Hon'ble Union Minister for Environment, Forests and Climate Change, Government of India
2	Prof. M.S. Swaminathan, Member of Parliament (Rajya Sabha)
3	Dr. K. Kasturirangan, Member, Planning Commission
4	Shri. Madhav Gadgil, Member, National Advisory Council
5	Secretary, Ministry of Environment, Forests and Climate Change
6	Dr. Shailesh Nayak, Secretary, Ministry of Earth Sciences
7	Dr. K. Radhakrishnan, Chairman, ISRO, Bangalore
8	Vice Chancellor, Anna University, Chennai
9	Additional Secretary, MoEF
10	Registrar, Anna University, Chennai
11	Financial Advisor, MoEF&CC
12	National Project Director, SICOM, MoEF&CC
13	Adviser, Impact Assessment Division, MoEF&CC
14	Adviser (E&F), Planning Commission
15	Chairman, Central Pollution Control Board
16	Prof. A. Jayaraman, National Atmospheric Research Laboratory, Tirupati
17	Prof. M. Sekar, Dean, College of Engineering Guindy, Anna University, Chennai
18	Director, NCSCM, MoEF&CC
19	Director, National Institute of Ocean Technology, Chennai
20	Director General, Survey of India, Dehradun
21	Director, National Remote Sensing Centre, Department of Space
22	Director, National Institute of Oceanography, Goa
23	Director General (Fisheries), ICAR, New Delhi
24	Director, NLSIU, Bangalore
25	Director, Centre for Climate Change and Adaptation Research, Anna University, Chennai
26	Secretary, Environment and Forests Department, Government of Gujarat
27	Secretary, Environment and Forests Department, Government of Maharashtra
28	Secretary, Environment and Forests Department, Government of Goa
29	Secretary, Environment and Forests Department, Government of Karnataka
30	Secretary, Environment and Forests Department, Government of Kerala
31	Secretary, Environment and Forests Department, Government of Tamil Nadu
32	Secretary, Environment and Forests Department, Government of Puducherry
33	Secretary, Environment and Forests Department, Government of Andhra Pradesh
34	Secretary, Department of Environment, Government of Orissa

S. No.	Name of the Member
35	Secretary, Environment Department, Government of West Bengal
36	Additional Director and Head of Administration and Human Resources Development Unit of NCSCM
37	Six Divisional Chairs of NCSCM
38	Two representatives of NGOs engaged in development and social service activities in the coastal areas (one from the east coast and one from the west coast, nominated by the General Body)
39	Two representatives of coastal communities (one representative of the traditional coastal fisherpersons, and one representative of the traditional non-fishing trade of the coastal areas) (Nominated by the General Body)
40	Three women, of BPL families from among the traditional coastal communities, one each from three coastal states, nominated by NCSCM upon a majority decision of the General body provided it is duly recommended by the Governing Council. Each application for membership should be proposed and seconded by members of the General Body.

High Powered Research Steering Committee (HPSC)

S. No.	Name of the Member
1	Hon'ble Union Minister for Environment, Forests and Climate Change, Government of India [Ex-Officio Chairperson]
2	Prof. M.S. Swaminathan, Member of Parliament (Rajya Sabha) [Expert Member]
3	Dr. K. Kasturirangan, Member, Planning Commission [Expert Member]
4	Dr. K. Radhakrishnan, Chairman, ISRO, Bangalore [Expert Member]
5	Secretary, MoEF&CC [Ex-Officio Member]
6	Vice Chancellor, Anna University, Chennai [Ex-Officio Member]
7	Adviser, Impact Assessment Division, MoEF&CC [Ex-Officio Member]
8	Director, National Centre for Sustainable Coastal Management, Anna University Campus, Chennai [Ex-Officio Member]
9	National Project Director, SICOM, MoEF&CC [Ex-Officio Member-Secretary]

Governing Council (GC)

S. No.	Name of the Member
1	Vice Chancellor, Anna University, Chennai [Ex-Officio Chairperson]
2	Secretary/ Additional Secretary, MoEF [Ex-Officio Member]
3	Director, National Remote Sensing Centre, Department of Space, Government of India [Ex-Officio Member]
4	Registrar, Anna University, Chennai [Ex-Officio Member]
5	National Project Director, Society of Integrated Coastal Management, MOEF&CC [Ex-Officio Member]
6	The Adviser (E & F), Planning Commission [Ex-Officio Member]
7	Director, NIO, Goa [Ex-Officio Member]
8	Director General, Survey of India, Dehradun [Ex-Officio Member]
9	Director, NIOT, Chennai [Ex-Officio Member]
10	Director, NLSIU, Bangalore [Ex-Officio Member]
11	Director, Centre for Climate Change and Adaptation Research, Anna University, Chennai [Ex-Officio Member]
12	Chairman, CPCB [Ex-Officio Member]
13	Director General (Fisheries), ICAR, New Delhi [Ex-Officio Member]
14	Dr. K. Radhakrishnan [HPSC Representative]
15	Dr. K. Kasturirangan, Member, Planning Commission [Expert Member]
16	Shri. Madhav Gadgil, Member, National Advisory Council [Expert Member]
17	Dr. Shailesh Nayak, Secretary, MoES [Expert Member]
18	Prof. A. Jayaraman, National Atmospheric Research Laboratory, Tirupati [Expert Member]
19	Prof. M. Sekar, Dean, College of Engineering Guindy, Anna University, Chennai [Expert Member]
20	Director, NCSCM [Ex-Officio Member-Secretary]

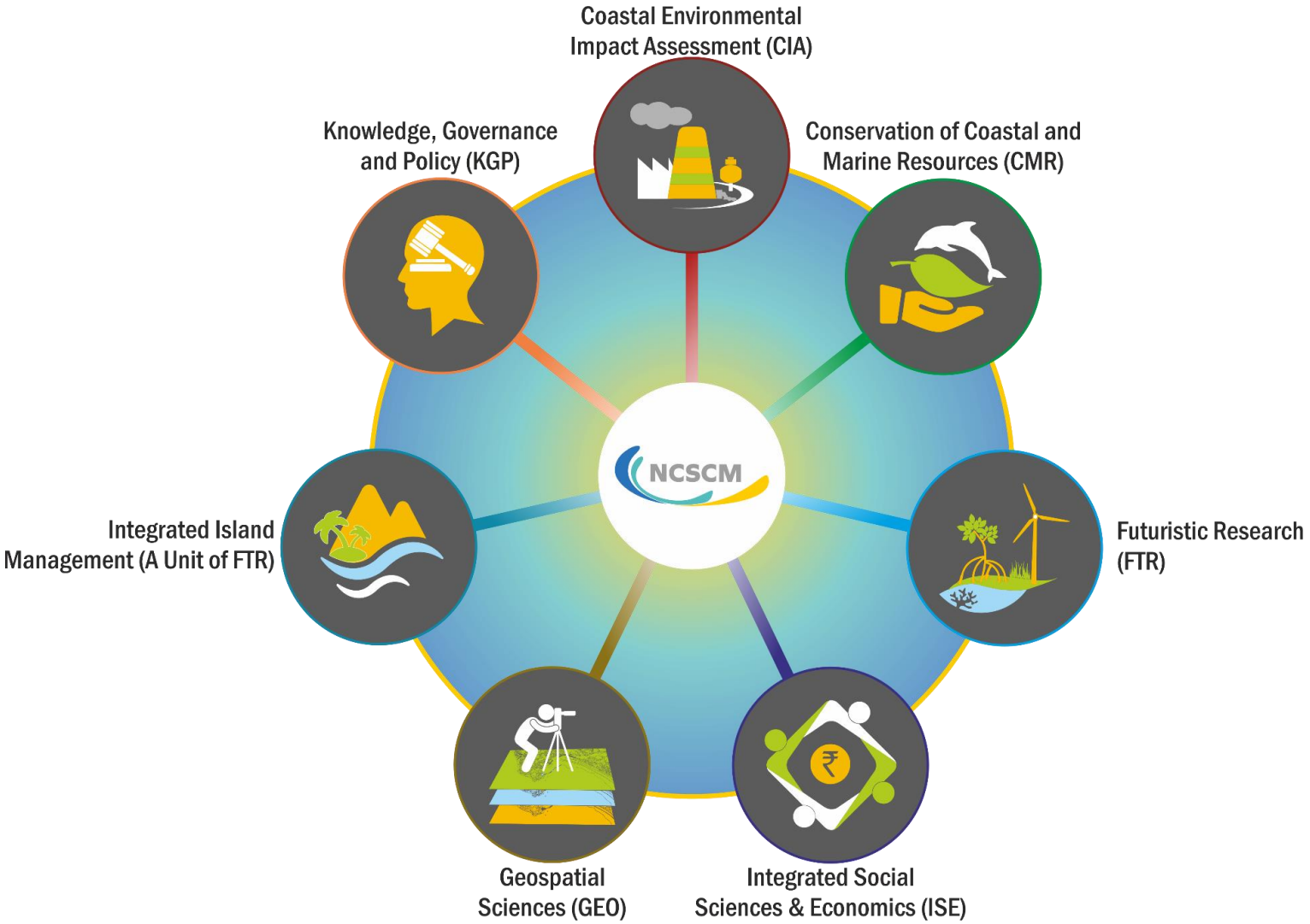
Management Committee (MC)

Sl. No.	Name of the Member
1	Special Secretary/Additional Secretary, MoEF&CC handling CRZ matters (Chairperson)
2	National Project Director, SICOM (Member)
3	Director, NCSCM (Member Secretary)

3. Divisions of NCSCM

- Promote sustainable coasts through increased partnerships, conservation practices, scientific research, and knowledge management for the benefit and wellbeing of current and future generations.

- Other Units: Information Technology; Administration and Human Resources; Finance and Accounts; Procurement



3.1. Coastal Environmental Impact Assessment (CIA)

The Coastal Environmental Impact Assessment Division (CIA) would undertake systematic monitoring and integration of environmental, social and economic impacts to overcome critical pollution limits on the coast and the adjoining marine environment.

CIA Division would provide input and advice on all components of coastal environmental impact assessment. This would incorporate components of a cumulative effect's assessment, including identification of sources of environmental impacts, notably- industrial expansion along the coast, port development, waste disposal from land based and sea-based sources, coastal aquaculture etc. The division would study all relevant aspects to establish baseline environmental conditions of specific coastal areas and the cumulative environmental, economic and social effects of regional development prospects on coastal and marine resources and environment. The CIA Division would suitably advise management measures for CVCAs in the coastal and marine areas. Studies to be conducted by the CIA Division include:

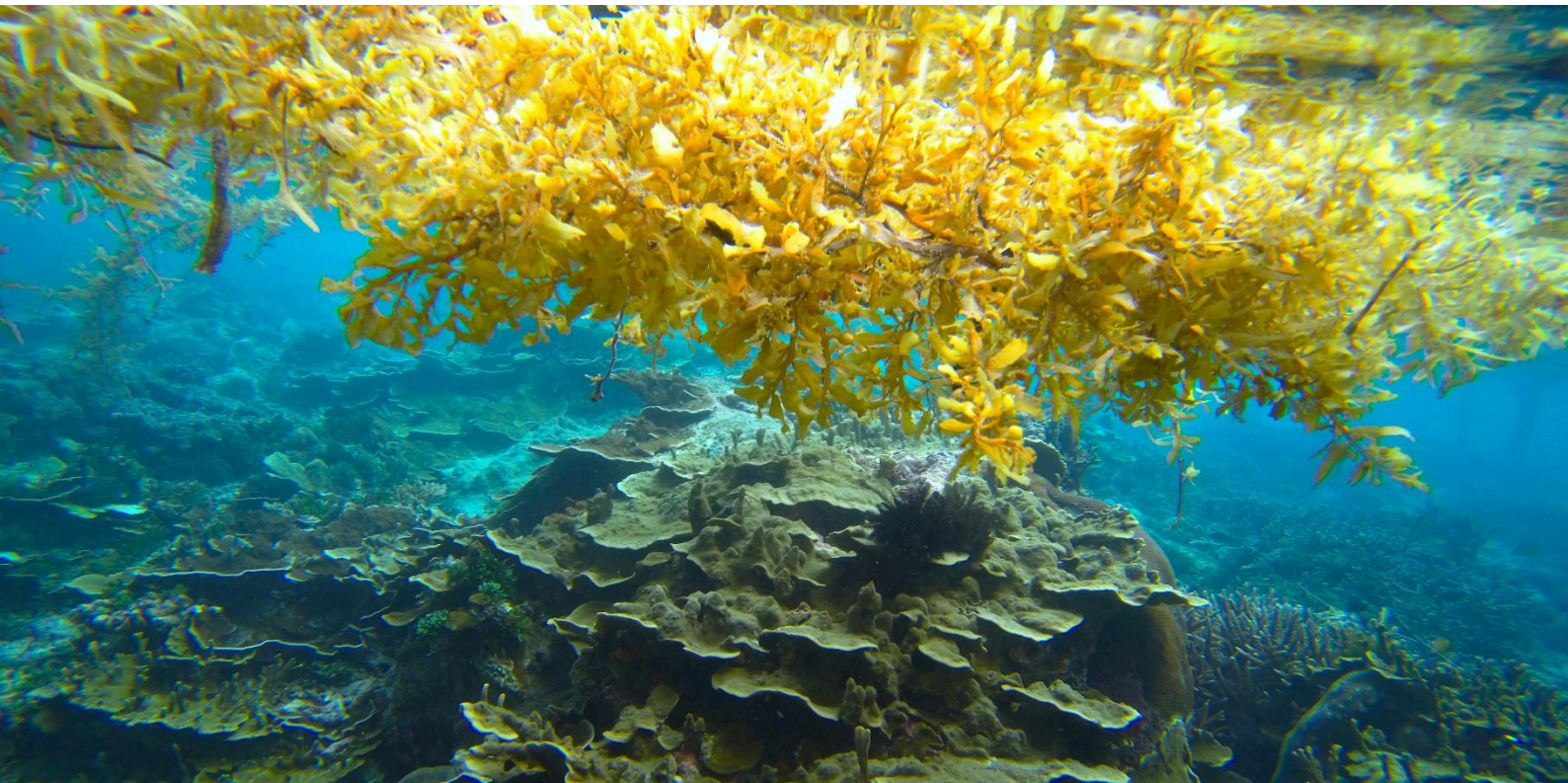
- Apportionment of coastal and marine pollution hotspots
- Study of Sentinel Sites
- Impact of urbanization on coastal megacities
- Coastal ecosystem health (including development of coastal Water quality index and report card)
- River Mouth System, incl. Deltas and Estuaries and coastal Aquifers
- Development of guidelines for cumulative analysis of coastal Infrastructure Development Projects
- Nutrient management and HABs

Additionally, a set of valuable coastal ecosystem components (viz. river mouths, deltaic systems, coastal aquifers, mangrove forests, coral reefs in addition to many others) was examined, focusing on circulation and siltation, coastal water quality, sediments and the benthic community. Based on observations, “tipping points”, to determine cumulative impacts arising from the aggregate of human activities, was developed. A comprehensive assessment of ecosystem health was developed using Ecosystem Health Indicators for use in driving policy decisions. This is to enhance and support the science, management and restoration of coastal ecosystems through the integration of geographically detailed assessments and forecasts.

3.2. Conservation of Coastal and Marine Resources (CMR)

The Conservation of Coastal and Marine Resources Division (CMR) develops guideline strategies for conservation and long-term sustainable use of coastal and marine resources that encompass societal interests and the integrity of ecosystems.

The primary mandate of CMR is to guide the use of the living and non-living natural resources for diverse, and often conflicting, sectoral activities, so that the continued viability of all aspects of resource usage and ecosystem health can be secured. The important aspect is to Strategy the conservation of coastal and marine resources in ways that promote human wellbeing, for present and future generations. Key issues in the management of coastal resources include the loss of biodiversity and habitats through human-related pressures, and the impacts of biodiversity loss to coastal livelihoods. The CMR Division provides inputs to the KGP Division to help promote knowledge about coastal and marine ecosystems and their functioning for effective ecosystem-based management. The CMR Division devise strategies and plans along with the ISE Division for reduction of current and emerging pressures on the coastal and marine resources through adaptive management and co-management activities.



The CMR division undertake research studies on the following key topics:

- Development of Critically Vulnerable Coastal Area (CVCA) management strategy/ plan
- Mapping of ESAs
- Mapping of coastal mineral resources
- Coastal ecosystem modelling
- Development of restoration strategies/ plans for degraded coastal and marine habitats

The CMR investigate the interactions between natural coastal resources and the coastal communities, with a view to establish the level of sustainable utilization, and thereafter the adoption of conservation ideas in the integrated coastal zone management plans in the country.

3.3. Futuristic Research (FTR)

The Futuristic Research Division (FTR) pursue innovative research and assess technological, policy and societal responses to inform adaptation and mitigation strategies to achieve sustainability and improve the resilience of coastal community.

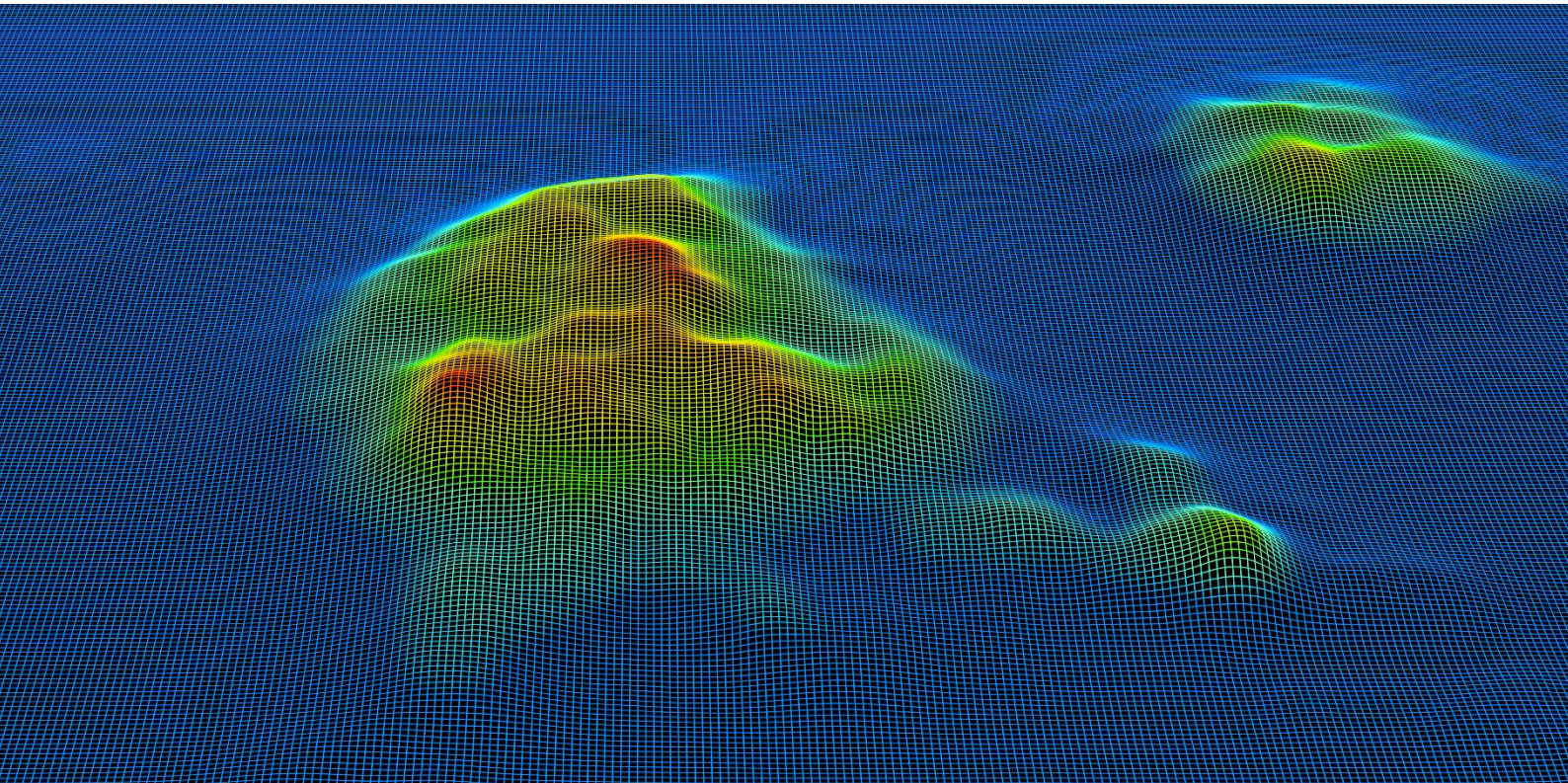
The objectives of the FTR Division are twofold: I) energy security for coastal community and ii) climate change adaptation and mitigation for improved resilience. This division assess risks, impacts and vulnerabilities through regional and decadal scale analysis and models by improving the benefits from forecasts of future environmental conditions and their consequences for people. Through innovative research, this division examine the potentials of energy security from renewable sources and those that have neutral impacts on other aspects of coastal sustainability.

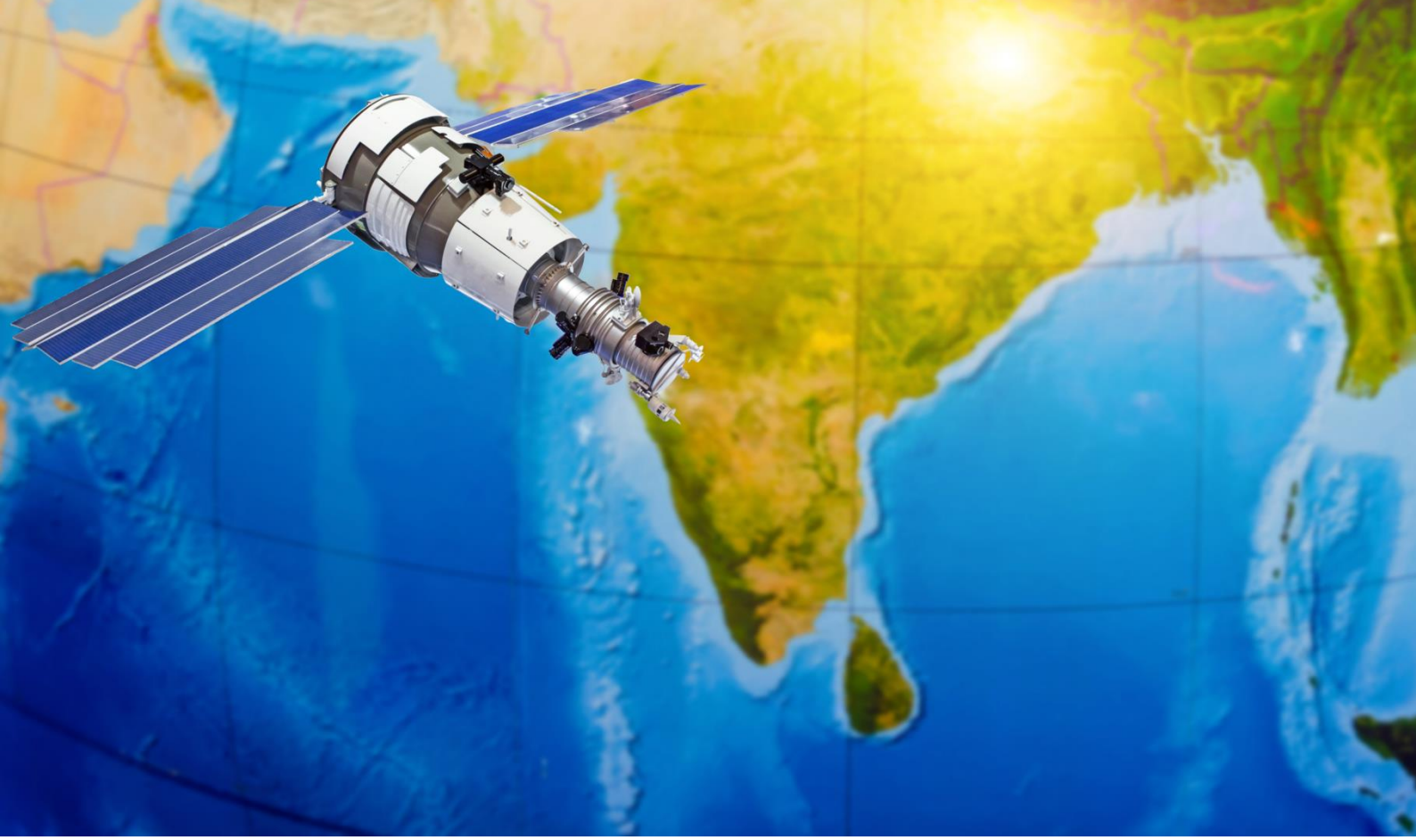
This include harnessing the potential of offshore wind energy for climate change adaptation and energy security in coastal regions of India. In another dimension, the FTR undertake advanced research towards minimizing carbon emissions and maximizing carbon sequestration and storage by sea grasses, tidal marshes and mangroves. The studies make an important contribution by ensuring that climate change concerns are better integrated with ongoing or planned activities that support ecosystem integrity including the management and use of bio-diversity resources. The FTR conducts targeted research and monitoring to quantify the greenhouse gas emissions from coastal ecosystems including those due to ecosystem degradation, land-based pollution and land use change. The FTR's core strength is on cutting-edge work in paleoclimate reconstruction, geochronology, modelling, and synthesis. Paleoclimate reconstructions is used as windows into physical mechanisms of climate change, and its implications on socio-ecological, coastal and marine systems. The aim of FTR is also to quantify and predict the impact of ocean acidification on bio-diversity and ecosystem functioning and the potential industrial scale production of biodiesel from halophyte cultivations.

Some of the key innovative research FTR conducted includes:

- Offshore renewable and non-conventional energy source potential (macro-picture)
- Algal/ Halophyte cultivation for Bio-diesel (Industrial scale production)
- Blue carbon studies
- Coral bleaching
- Ocean acidification
- Invasive Alien Species
- Greenhouse gas fluxes from coastal ecosystems
- Urbanization of coastal zones

FTR's concerns include the vulnerability of coastal populations to natural disasters, and those related to climatic change.





3.4. Geospatial Sciences (GEO)

The Geospatial Sciences Division (GEO) is designed to provide information on the state of the coastal and marine environment through advanced observing and forecasting systems. The aim of the GEO Division is to examine the application of Geographic Information Systems (GIS) and Remote Sensing (RS) to coastal management, coastal and marine monitoring, and hazard assessment. The primary thrust of this division is to develop a “Shoreline Management Plan” for the coastal states of India, including its Island territories.

- Erosion Mapping Hazard Line Mapping (with inputs from Survey of India)
- Coastal Geomorphology
- Sediment Cell delineation
- Mapping, delineation and demarcation of Ecologically Sensitive Areas (ESAs)
- Mapping, delineation and demarcation of Critically Vulnerable Coastal Areas (CVCAs)
- Land-use Zoning
- Coastal protection measures
- Bathymetry
- Coastal process studies
- Sea-Use Zoning

The prime focus of GEO is to integrate coastal data and information to help guide management efforts such as coastal and marine spatial planning, and coastal zoning to derive science-based strategies towards Integrated Coastal Zone Management Plan (ICZMP).

3.5. Integrated Social Sciences and Economics (ISE)

The Integrated Social Sciences and Economics Division (ISE) conducts inter- and transdisciplinary research which takes account of coupled natural, social and economic systems.

ISE's key focus is on community-based approach to coastal vulnerability and coastal management. This division actively addresses the social-ecological dynamics in coastal systems, and the transitions towards an ecosystem approach and other means to address integrated coastal management. Methods include ecological and social field studies (inventories, interviews), meta-analysis, and theoretical development. The goal is to reduce vulnerability of coastal populations, especially to natural hazards that are likely to be exacerbated by climate change and to ensure true participation of community in coastal management for sustained benefits. Research interests of ISE include social aspects of coastal management, traditional knowledge, and regional and national level solutions for livelihood security and improved community level resilience against coastal hazards.

A few key examples of studies conducted by the ISE Division include:

- Socio-cultural profile of all traditional coastal communities
- Livelihoods Survey including development of coastal profile
- Survey and Mapping of fishing spaces
- Traditional Ecological Knowledge
- Customary and traditional institutions and Governance

- Assessment and valuation of coastal resources (living and non-living)
- Economic assessment of Ecosystems (Use and non-use values)
- Development of Co-management regimes
- Collect policy relevant economic indicator data on the economic value of the coastal and marine ecosystems
- Provide economic data and analysis to improve coastal and marine area management

3.6. Integrated Island Management (IIM) - (A Unit of FTR)

The goal of the IIM is to help ensure the future socio-ecological sustainability of the Indian islands, Andaman and Nicobar and the Lakshadweep by preparing an Integrated Island Management Plan. The IIM undertake scientific approaches, coupled with indigenous knowledge for the better management of the islands and its resources. The IIM consider the indigenous governance structures and knowledge – particularly in tribal dominated islands. The islands being pristine areas, this division undertake long-term historical analysis including monitoring of the oscillations of crucial environmental variables.

The IIM develops guidelines for hazard preparedness and evolve climate change adaptation and mitigation strategies for the Islands. Some of the major goals are to develop integrated island management / green island economy concept and to explore, in conjunction with island populations, ecotourism development as a particular option. The IIM provided tools for mainstreaming Disaster Risk Management based on experiences from selected island countries worldwide. The IIM division undertakes specific research to enhance the resilience of the island communities; will help in building regional capacity in risk management, and prepare long-term guidelines for integrated coastal management plans.

3.7. Knowledge, Governance and Policy (KGP)

The Knowledge, Governance and Policy Division (KGP) facilitate the overarching requirement in the area of knowledge and skills development in coastal management, considering the needs of the research community, stakeholders, policy makers and the society. The KGP Division integrate data relevant to coastal management and create a national scientific knowledge base that facilitates improved decision making and policy formulation at the highest government and sectoral levels. The KGP Division undertake the following major programs:

- Collection of all international best practices in ICZM and analysis of appropriate ICZM practice that can be used/ adopted in India with suitable modifications
- Preparation of the evolution of ICZM ideas in various countries
- Information on all base Coastal Zone Acts and judicial pronouncements of all countries to be collected
- A database of all judicial pronouncements related to coastal areas from the various Indian High Courts and the Supreme Court; and the Environmental Tribunals
- Guidelines for the preparation of ICZM Plan for State/ UT Governments (including sub-plans such as shoreline management plan) was evolved
- Training of trainers for integrated coastal planning and management
- Compilation of database and analysis of gender issues in coastal areas
- Communicating science and policy to the coastal communities and other key stakeholders
- Creation of a National database repository for coastal management

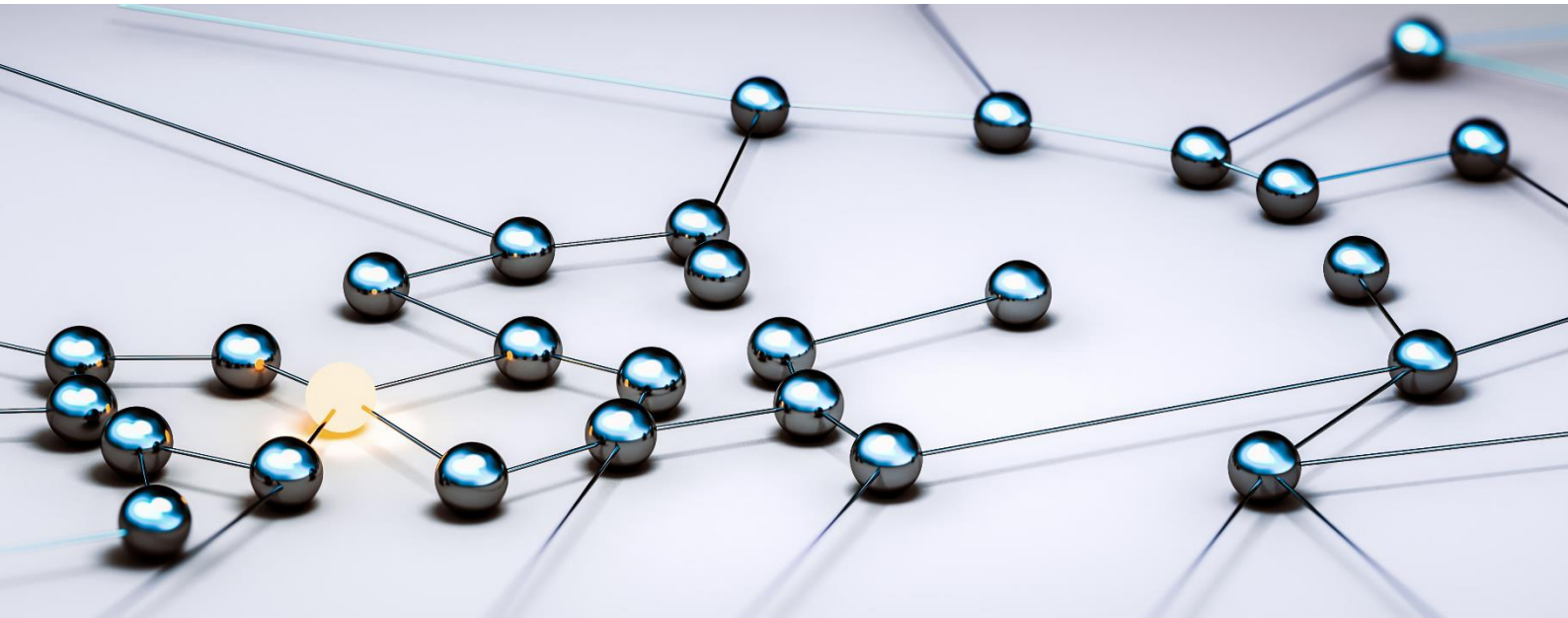
The KGP work as a central repository for the dispersed information on the Indian coast. The division prepares guidelines for the preparation of ICZM plans for State/UT governments including the various strategies to be evolved by the other departments such as for shoreline management. Coastal management requires all the stakeholders to be interconnected at different scales in order to share information, knowledge and data to solve problems and conflicts facing the coastal area and livelihood of the coastal communities.

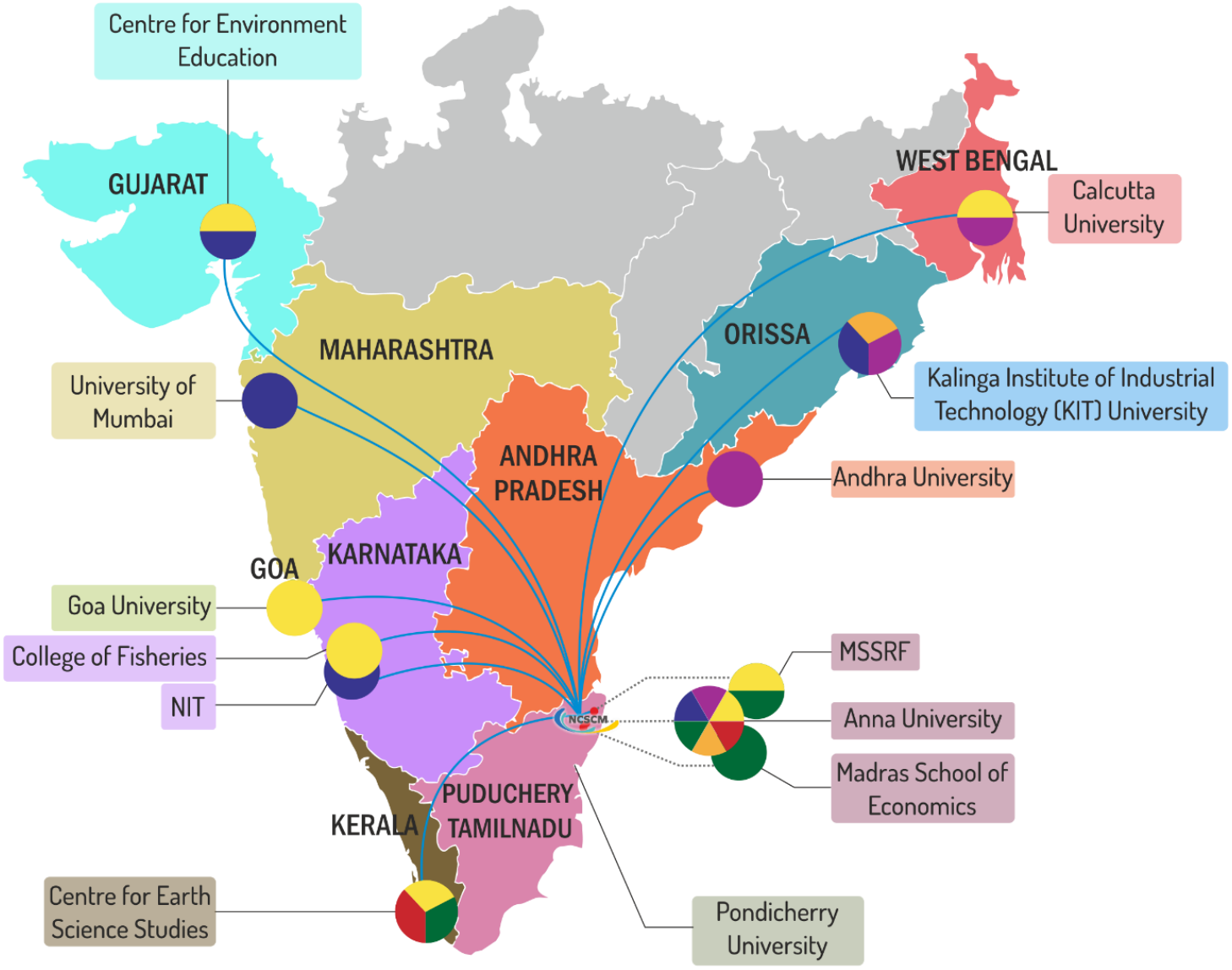
The division also enable networking at the local, regional, national and global levels. The KGP division is also be active in communicating science at various levels, especially at the local level in the vernacular. Training of trainers and other capacity building programmes are organized periodically to build a strong and viable system for sustainable coastal management.

4. Partnerships & Networking

The issues related to the coast are too diverse and complex to be addressed by one research organization and hence there is a need to strengthen the capacity of regional universities and research units along the coast so as to be the research partners of NCSCM, Chennai. The idea is novel and NCSCM is the first central research organization to have such a focused collaboration with regional universities. Fourteen institutions have formed a consortium with the National Centre for Sustainable Coastal Management.

NCSCM has put in place a road map for strengthening and expanding the existing NCSCM consortium, stakeholder network and prioritizing the community interface. NCSCM supports its partner consortium institutes by strengthening their core area of research, and building capacities on the core research mandates of the NCSCM. Such networks and partnerships will formalize multidisciplinary interactions in order to effectively address key coastal research problems. Research proposals are being prepared by the CIs jointly with the scientists of NCSCM in order to address the coastal issues through systematic research.





NCSCM DIVISIONS

- Geospatial Sciences (GEO)
- Integrated Social sciences and Economics Divisions (ISE)
- Coastal Impact Assessment Division (CIA)
- Conservation of Coastal and Marine Resources Division (CMR)
- Knowledge, Governance and Policy (KGP)
- Futuristic Research Division (FTR)

5. Key Research Activities

5.1	Holistic Conservation and Integrated Management Plan of Wetlands
5.2	Safety Risk Assessment and Bathing Water Quality Testing in three Beaches of India
5.3	Joint study on Seaweed Cultivation, Potential and Ecological Safeguards in the Gulf of Mannar, Tamil Nadu (along with ICAR-CMFRI and CSIR-CSMCRI)
5.4	Long Term Monitoring Plan for the Ecosystem based Conservation Management for Bhitarkanika Conservation Area Phase –II
5.5	Mangrove Community Zonation Atlas of India
5.6	Enhancing Climate Resilience of India's Coastal Communities
5.7	South Asia Nitrogen Hub Project (UKRI-GCRF, UK - 2021-2024)
5.8	Circular Economy Solution preventing Marine Litter in three Ecosystems (2022-2024)
5.9	Linking the Land-based Activities with Ecosystem Dynamics of Pulicat Lagoon in India

5.1. Holistic Conservation and Integrated Management Plan of Wetlands

Name of the Scheme/Programme: National Plan Conservation Aquatic Eco-systems (NPCA)

Wetlands and related ecosystems are playing an important role in ensuring supply of food, water and providing climate security. They are amongst the most productive ecosystems on Earth providing several key ecosystem services. Due to their distinct geographical distribution, water regimes, water quality, biodiversity (flora and fauna) and sediment characteristics they support diverse and unique habitats. At the same time, wetlands are extremely fragile, subjected to severe human alterations- hence becoming ecologically sensitive systems. Globally, the areal extent of wetland ecosystems ranges from 917 million hectares (m ha) (Lehner and Döll, 2004) to more than 1275 m ha (Finlayson and Spiers, 1999) with an estimated economic value of about US$15 trillion a year (MEA, 2005).

As per the Convention on Wetlands of International Importance (Ramsar Convention), wetlands are defined as “areas of permanent or periodic/ intermittent inundation, whether natural or artificial, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6m”.

India has a wealth of wetland ecosystems, existing in diverse geographical regions ranging from the Himalayas to the coastal plains. The available estimates on the areal extent of wetlands in India vary widely from a lowest of 1% to highest of 5% of the total geographical area but do support nearly a fifth of the known biodiversity (SAC, 2011). The most important priority at this juncture therefore is to adopt a balanced management approach addressing biodiversity conservation values while providing

for sustainable utilization in a way compatible with the maintenance of natural properties of the ecosystem. Wetland conservation and management has challenges that could benefit from a multidisciplinary perspective. The emergence of multidisciplinary strategies is providing new opportunities and innovative approaches to address issues such as climate change and wise use of wetlands.

Objectives:

1) Create a national database on Indian wetlands including transboundary- for information needs related to wetland management
2) Undertake cutting-edge research and development on key wetland challenges for management and maintaining wetland ecosystem health
3) Incorporate climate resilience as a core concept in the design and implementation of integrated management plans for wetlands
4) Evaluate and monitor the implementation of interventions for conservation, restoration, integrated management and wise use of wetlands
5) Develop modules and impart inter- and multi- disciplinary customized courses on various aspects of wetland management to enhance wetland managerial capacity
6) Advice the government and other stakeholders on policy and scientific matters related to wetlands.
7) Create a Platform for Information Exchange between various wetland-stakeholders
8) Network with wetland managers within the South Asia region to promote South-South exchange of best practices and lessons learnt in wetland management (long term)
9) Promote traditional knowledge and local capacity in management and wise use of wetlands

Holistic Conservation and Integrated Management Plan of Wetlands

No.	Activities	Outputs	Outcomes
I	**THRUST AREA 1: RESEARCH AND DEVELOPMENT**		
1	**Web portal, database and Inventory**	Comprehensive and holistic national wetland inventory and national wetland extent tracked	• Dynamic knowledge repository for wetlands • Providing a single point of access for information dissemination about the country's wetland sites, projects, initiatives, and trainings. • A platform for citizens to learn more about wetlands and become involved in their conservation and management.
2	**Undertake research on wetland protection intertwining environmental, ecological, socio-economic aspects and governance concerns**	• Healthy, functioning natural wetlands, improved human livelihoods and sustainable development • Links between wetland functions, services and values and between wetland ecology, functioning, wetland economics and values established • Economically feasible use of ecologically fragile resources of wetlands through eco-tourism established • Capturing synergies between wetlands and carbon cycle management, adaptation and resiliency to further enable policy makers and practitioners to protect wetland carbon and climate adaptation/ resiliency ecosystem services such as fisheries • Network of Ramsar Sites and other wetland areas enhanced. • Wetland mapping integrated into local planning (in Master Plans) for wise use and preparation of Integrated Wetland Management and Conservation Plan. • State of Wetland Reports developed periodically to enable decision support for management	• Management-oriented research to address knowledge gaps and improve the application of best practices in wetland management. • Formulation of Nature tourism • Actions to conserve wetland carbon and link the wetland to Green credit Programme

No.	Activities	Outputs	Outcomes
3	**Holistic Conservation, Restoration and Integrated Management**	Integrated Wetland Management developed for identified wetlands	• Enabling integrated management to ensure sustained provision of full range of ecosystem services and improve their biodiversity • Management strategies to particularly contribute to Sustainable Development Goals (SDGs) – SDG6 (Clean Water and Sanitation); SDG13: Climate Action; SDG14: Life Below Water; and SDG15: Life on Land
II	**THRUST AREA 2: TRAINING**		
4	Capacity Building – Training and Skill Development (provide training, enhance knowledge, and develop adaptive capacity towards wise use of wetlands)	Training and skill develop for managerial staff, stakeholders, and youth	• Enhance digital outreach and preparation of wetland management guidelines for knowledge disseminations
5	Knowledge and Advisory Support *(address the knowledge gaps to support decision-making for State/ UT Wetland Authorities- on wetlands conservation, management and governance)*	Knowledge and Advisory Support developed for wetland conservation, management, and governance	• Knowledge enhancement of SWAs to better management of the wetlands
III	**THRUST AREA 3: OUTREACH**		
6	**Partnership and Networking** *(increase the knowledge base, effectiveness, and strengthening existing state, national and transboundary networks for sharing and disseminating information and good practices on wetland conservation*	Network and partnership developed with state and UT authorities	• Technical backstopping for Amrit Dharohar implementation through collaboration among various knowledge partners and SWAs.
7	Community Interfacing and Outreach	Interpretation Centres, Demonstration sites and outreach material prepared	• Disseminate information to raise people's awareness and sensitivity to the wise use and conservation of wetlands.

5.2. Safety Risk Assessment and Bathing Water Quality Testing in three Beaches of India

Beaches provide a variety of ecological services, which directly and indirectly, bring many types of benefits to humans. Beaches are always tourist attraction for the recreational purpose. The choice of beaches that tourist choose depends on the quality of environment and mainly near shore water quality. Indian beaches provide a large range of recreational opportunities for the tourist and help in promoting economic activities important to coastal communities. The Ministry of Environment, Forest and Climate Change, with a view to protect and conserve the environment and control and abate pollution in beaches and the adjacent sea waters, have been surveyed along Iddya Beach, Karnataka, Sonapur Beach, Odisha, Bangaram and Kadmat Beach Lakshadweep for the purpose of internationally recognised “Blue Flag” Certification; whereas the stringent “Blue Flag” Certification Standards calls for responsible and sustainable amenities and infrastructure development, cleanliness, safety and security services etc.

Overall Project Objectives

1. Conducting Beach Suitability Assessment Survey (BSAS) considering various physical, ecological, environmental, social, and legal parameters.
2. Assess the risk and safety associated with various water activities
3. Documentation of ecology and biodiversity of the identified beach
4. Periodically assess beach water quality and provide site-specific interventions to mitigate the pollution load if any (e.g. beach litter, marine debris, plastics, solid waste, waste water)
5. Preparation of beach profile report

5.3. Joint study on Seaweed Cultivation, Potential and Ecological Safeguards in the Gulf of Mannar, Tamil Nadu (along with ICAR-CMFRI and CSIR-CSMCRI)

Name of the Scheme/Programme: Pradhan Mantri Matsya Sampada Yojana

More than 90% of the seaweeds processed annually worldwide are harvested from mariculture practices. Farmed seaweeds represented 97.1 percent by volume (biomass) of the total of 32.4 million wet tonnes (US$13.3 billion) tonnes of wild-collected and cultivated aquatic algae (FAO, 2020). Although technology for seaweed farming has been developed in India, large scale culture was not prevalent in our country until recently. The scenario has reversed since the commercial scale culture of *Kappaphycus alvarezii* in India since early 2000s. Culture of seaweeds has contributed in expanding livelihood options and has brought benefits in terms of enhanced income and local employment, but has also been accompanied by some conflicts with other users of the coastal zone and concerns over potential environmental impacts. In India, studies on commercial-scale cultivation of seaweeds and its implication on the health of the surrounding coastal/ marine waters has been in limited focus. The joint study aims to fill the lacuna that barring a few sporadic reports on the bio-invasion of introduced seaweeds, the potential impacts of large-scale seaweed farming on the sensitive coastal environment are still unclear.

Global Seaweed Cultivation

Farming of seaweeds is a relatively robust form of aquaculture. World production has been characterized by exponential growth during the last 50 years and more than tripled between 2000 and 2018, from 10.6 million tons to 32.4 million tons (Mt) (FAO, 2020). While seaweed farming is expanding rapidly in a few countries and slowly gaining acceptance in others, it is still far from becoming a common practice in most of the ~150 countries and territories of the world endowed with coasts. However, the already significant increase in the production of and demand for farmed seaweeds is indicative of their potential as a significant complement to agricultural crops. Besides extensive coastal areas, vast expanses of sea might be turned into ecofriendly cultivated fields.

Kappaphycus alvarezii, an economically important tropical red seaweed with its high demand worldwide for a cell wall polysaccharide, carrageenan. Over the past fifty, significant interest was devoted to the red seaweed, *Kappaphycus alvarezii* (Doty) Doty (Rhodophyta, Gigartinales, Areschougiaceae), as a source of industrially important source of carrageenan. The farming of this seaweed started in southern Mindanao in latter half of the 1960s in the Philippines using the local varieties selected from the wild. The farming has then expanded to other parts of the world, e.g., Indonesia, Fiji, Micronesia, Vietnam, China, South Africa.

Realizing the potential for commercial extraction of carrageenan, *K. alvarezii* was introduced to many countries for research, development, and commercialization by researchers and phycocolloid companies. *Kappaphycus* has been introduced to more than twenty countries in the past four decades for the development of farming efforts. Additionally, cultivar enhancement programs utilizing molecular techniques to increase productivity and to resist disease, herbivory, and epiphytism were also undertaken. As farming operations expanded, growing apprehensions over the impact of the introduction of exotic species to new environments, their interactions with endemic species, and its effect on biodiversity were also reported. However, after four decades of introductions resulting in *Kappaphycus* being the most widely cultivated commercial eucheumoid, there are only a few Environmental Impact Assessment (EIA) studies addressing the ecological impacts of *K. alvarezii* on the environment, even though recommendations for EIA studies have been suggested. Out of the 33 publications available on the impact of seaweed cultivation include (i) seagrass – 5 studies, (ii) meiofauna and diversity – 6 studies (iii) Corals – 8 studies, (iv) herbivorous fish assemblages – 2 studies and (v) overall no change – 2 studies.

Seaweed Culture in India

The first attempt for seaweed culture was conducted in culture ponds in the year 1964 at Porbunder (Thivy, 1964) by attaching small plants of *Sargassum* to coir (palm ropes) net, which paved way for the possible cultivation of Sargassum and other seaweeds in India. Central Salt and Marine Chemicals Research Institute (CSMCRI), a constituent lab of Council of Scientific and Industrial Research (CSIR) and Central

Marine Fisheries Research Institute (ICAR-CMFRI) have undertaken pioneering research on culture of marine algae in India. CSMCRI and ICAR-CMFRI have undertaken experimental mariculture of seaweeds such as *Gelidiella acerosa, Gracilaria edulis, Sargassum wightii, Gelidiopsis variablis, Acanthophora spicifera, Hormophysa triquetra, Hypnea valentiae* and *Ulva lactuca*.

Several cultivation techniques such as long line method, net culture, bottom culture, solid and hollow cylindrical cement blocks, single rope floating raft technique and bamboo rafts have been so far evaluated depending on the type of seaweed to be cultivated. *Gelidiella acerosa* is a red seaweed species with potential for large-scale culture and various experimental trials have been conducted Recently, suspended stone (SS) method has been developed for achieving higher biomass yield (528 to 3645 g fresh wt m^{-2}).

A detailed study on the socio-economic dimensions of seaweed farming in India was carried out by Krishnan and Kumar (2010) for *Kappaphycus alvarezii* culture undertaken in selected coastal villages of Ramanathapuram district.

These technologies together with the improved process for cultivation of *Kappaphycus alvarezii* (US Patent No. 6,858,430) has provided the much-needed impetus for promotion of seaweed cultivation industry in India in recent times. *Kappaphycus* seaweed production in the country is gaining prominence and has registered an 11-fold increase between 2005 (120 tonnes dry weight and 2010 (1350 tonnes dry weight).

India's Blue Economy

India's Blue Economy can be defined as a subset of the national economy comprising of the entire system of ocean resources and man-made economic infrastructure in marine, maritime and the onshore coastal zones within India's legal jurisdiction, which aid in the production of goods and services and have clear linkages with economic growth, environmental sustainability and national security. The Blue Revolution would be further expanded by promoting aqua culture, cage culture, seaweed and algal harvesting and sustainable marine capture by adopting an

eco-system approach to fisheries management. Mariculture such as production of algae will be promoted by enunciating a comprehensive National Mariculture Policy. Government of India is encouraging coastal states to take up seaweed farming under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) which places thrust on it as a means of job creation. In the 2021-22 budget, Union Finance Minister has announced a Multipurpose Seaweed Park in Tamil Nadu and considering seaweed farming "an emerging sector with potential to transform the lives of coastal communities".

Objectives:

I. Environmental Monitoring

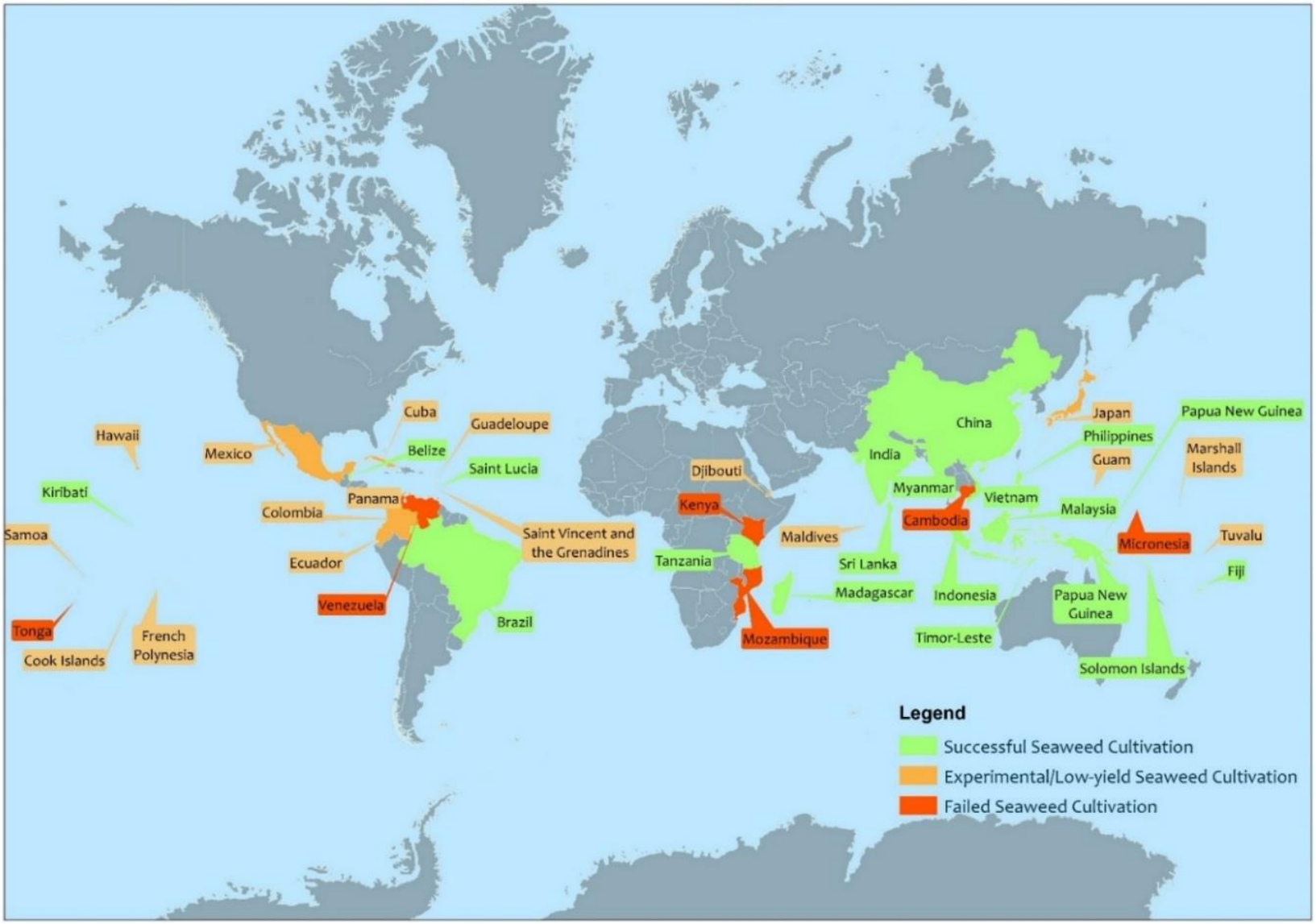
1. Identify the drivers of environmental change due to seaweed farming
2. Assessment of water quality from proposed six seaweed culture sites to evaluate baseline conditions, during culture and post-harvest at Gulf of Mannar and compare with the existing culture sites at Palk Bay
3. Undertake hydrodynamic surveys to determine waves, tides and currents at the farming sites and adjacent coastal waters
4. Determine organic carbon and nitrogen concentration in the surface sediments and particulates- from the culture sites and in the adjacent ecologically sensitive areas
5. Assessment of Plastic debris (including microplastics)

II. Ecological Monitoring

1. Assess primary productivity and plankton (phyto and zoo) community structure during and post seaweed cultivation in the experimental farms at Gulf of Mannar and in existing farms at Palk Bay in comparison to baselines prior to commencement of farming
2. Assessment of fish diversity, meiobenthic, benthic population epiphytes and epizooites at the experimental farming sites at Gulf of Mannar and in the existing farms at Palk Bay
3. Seaweed-Microbial interactions and key functions of seaweed-associated bacterial communities

III. Impact Assessment

1. Hydrodynamic modelling of waves, tides and currents to determine the flow conditions to the seaweed farm and the connected habitats
2. Determine impacts (both positive and negative) on ecologically sensitive areas such as coral reefs and seagrass ecosystems by assessing the coral health index and sea life index in systems adjacent to the seaweed farming sites
3. Evaluation of impacts (if any) on coral and seagrass health and herbivore fish population
4. Evaluation of the impact of seaweed farming on the fish diversity, meiobenthic, benthic population, epiphytes and epizooites
5. Preparation of guidelines for environmental and ecological safeguards.



Global map of seaweed cultivation in tropical coastlines (NCSCM)

S. No.	Activities	Outputs	Outcomes
1	**a) Environmental Monitoring**		
	Identification of drivers of environmental change due to seaweed farming	Better understanding on the environmental and ecological impacts/ benefits of long-term seaweed farming at the proposed culture sites and the surrounding coastal/ marine waters.	Identification of the precise drivers of environmental change due to the seaweed farming
	Water quality assessment during culture and post-harvest at Gulf of Mannar and compare with the existing culture sites at Palk Bay		A baseline for the water quality parameters of the study area and to evaluate the changes occurring during culture and post-harvest
	Hydrodynamic surveys to determine waves, tides and currents at the farming sites and adjacent coastal waters		Obtain a simulation with the hydrodynamic components and understand the fate of the seaweed debris and its mass flux in the other regions
	Organic carbon and nitrogen concentration in the surface sediments and particulates		Baseline and the changes in organic carbon and nitrogen concentration in the surface sediments and particulates from the culture sites
	Assessment of Plastic debris (including microplastics)		Baseline information on the artificial material such as plastic fragments and Microplastics in the area and its source determination
2	**b) Ecological Monitoring**		
	Primary productivity analysis and plankton (photo and zoo) community structure during and post seaweed cultivation	Understanding of the diversity and the changes in the microbes, phytoplankton, zooplankton, fish diversity, meiobenthic population, epiphytic life.	Resolve the gaps in understanding of the environmental and ecological impacts of seaweed cultivation on the coastal environment, coral reef and seagrass ecosystems.
	Fish diversity, meiobenthic, benthic population, epiphytes and epizooites		
	Seaweed-Microbial interactions and key functions of seaweed-associated bacterial communities		

S. No.	Activities	Outputs	Outcomes
3	**c) Impact Assessment**		
	Hydrodynamic modelling of waves, tides and currents	Influence of hydrodynamics on flow patterns surrounding the culture sites	Measures to minimize the associated environmental risks and to promote sustainable seaweed culture
	Impacts (both positive and negative) on ecologically sensitive areas such as coral reefs and seagrass ecosystems (coral health index and sea life index)	Effects due to the deployment of rafts including shading and mechanical trampling	
	Evaluation of impacts (if any) on coral and seagrass health and herbivore fish population		
	Impact assessment of seaweed farming on the fish diversity, meiobenthic, benthic population and epiphytes	Changes in fish diversity, meiobenthic population, epiphytic life, sensitive coastal habitats such as coral reefs and seagrasses;	
4	**d) Guidelines**		
	Preparation of guidelines for environmental and ecological safeguards.	Preparation of an environmental and ecological safeguards Guideline to balance environmental risks and benefits of long-term seaweed cultivation	Based on the proposed five cycles of seaweed farming, monitoring, impact analysis and the commercial significance, a guideline will be prepared to provide a set of “environmentally sustainable best practices” for seaweed farming without any impact on the adjacent ESA.
5	**e) Reporting**		
	Interim and Final Reports	The report aims to fill the lacuna that barring a few sporadic reports on the bio-invasion of introduced seaweeds, the potential impacts of large-scale seaweed farming on the sensitive coastal environment are still unclear.	

5.4. Long Term Monitoring Plan for the Ecosystem based Conservation Management for Bhitarkanika Conservation Area Phase –II

Name of the Scheme/Programme: OFSDS Project, Government of Odisha

Bhitarkanika Conservation Area is a rich, lush green, vibrant ecosystem lying in the estuarine region of Brahmani, Dhamra and Baitarani rivers in the north-eastern corner of Kendrapara District, Odisha, and East coast of India. It covers an area of 2731.92 km^2 (Figure 1). Bhitarkanika consists of two Protected Areas: (i) Bhitarkanika Sanctuary and (ii) Bhitarkanika National Park.

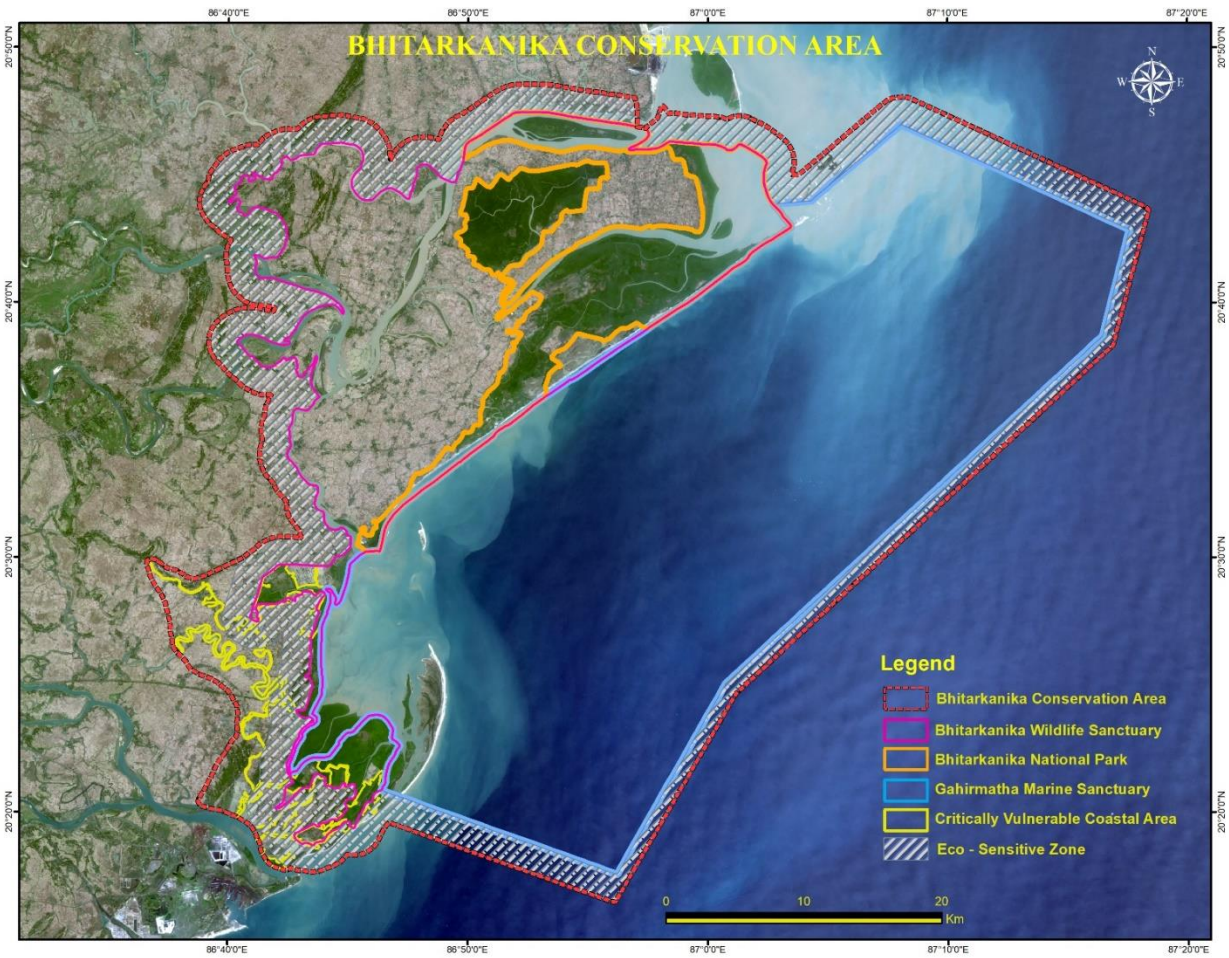
Bhitarkanika Sanctuary

Bhitarkanika Sanctuary spreads over an area of 721.97 km^2 including the protected forests, rivers, creeks and lands of Rajnagar, Rajkanika, Aul, Pattamundai, Talchua Marine, Tantiapal Marine, Jambu Marine and Mahakalpada Police Stations. The sanctuary encompasses 358 villages within its boundary. Bhitarkanika was the first Wildlife Sanctuary of the State to be declared in 1975 under Wildlife (P) Act, 1972. On getting approval of the Competent Authority, State Government in Forest & Environment Department vide Notification No. 2289 Dated 01.02.2020 notified the Bhitarkanika Sanctuary u/s 26 A of the Wildlife (Protection) Act, 1972 as per proposal of rationalization of sanctuary boundary. As per the new notification 36 uninhabited villages (33 in Rajnagar and 3 in Rajkanika Tahasils) are to be acquired on payment

to Revenue Department as per valuation to be made by the Collector. Further, 322 habited villages will remain inside the sanctuary limit as ringed out villages. Relocation of all 322 villages to outside would be a tremendous task requiring huge amount of money, alternate land and other logistics.

Bhitarkanika National park

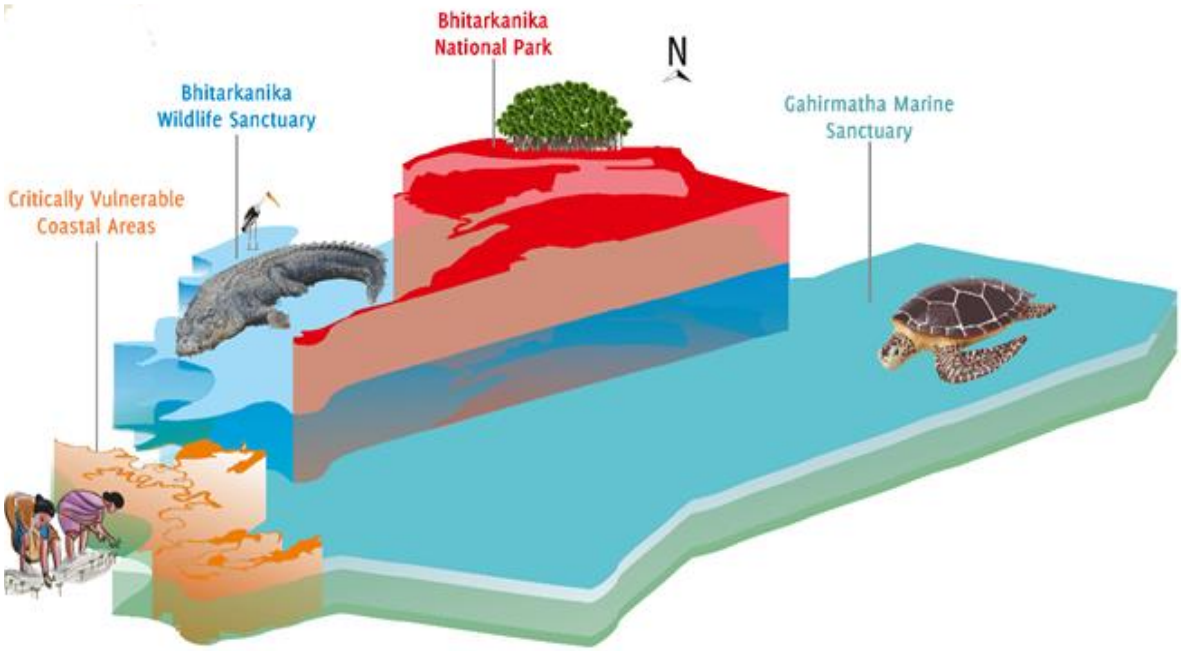
A total of 241.88 km^2 of mangrove area along with rivers, creeks and water bodies without any human habitation has been declared as Bhitarkanika National Park. The limits of National Park is considered as the internal boundary of the Protected Area. Amongst the mangrove communities at least 24 associations have been identified in the National Park Besides the rich wildlife of the National park includes estuarine crocodile, resident and migratory birds and a wide variety of flora and fauna. The core area is surrounded by villages all around it. As many as about 100 villages close to the National Park boundary are dependent on the National Park for partial subsistence. Bhitarkanika Conservation Area is bordered by the Bay of Bengal in the east, villages of Kendrapara District in the west, Baitarani, Brahmani and Dhamra Rivers in the north and the Mahanadi delta in the south, holding a population of around 0.9 million.



Boundary map of Bhitarkanika Conservation Area

A network of creeks with Bay of Bengal on the east intersects the area. The site has four different ecosystems, namely, terrestrial, freshwater, estuarine and marine ecosystems and varies in genetic and ecological diversities (Fig. 1-2). The peripheral areas in the buffer zones have numerous ornithologically important wetlands and are listed as IN 310 (A1, A4i) under Important Bird Areas (IBA). The estuarine region of the Bhitarkanika Conservation Area (BCA) can be classified into the outer funnel shaped estuarine zones and the inner narrow estuary. Tidal inundation causes heavy silt deposition and detrital content of the mangrove vegetation. The Government of Odisha declared this area as a sanctuary in 1975 for better protection of the habitat. Later, the core area (145 km^2) of the sanctuary was declared as National Park in 1998. The total mangrove area is a mixture of 13 protected reserve forests (PRF), 12 protected forests (PF) and one newly formed island (Pattnaik et al., 2008). Due to its rich diversity in flora and fauna, this mangrove area has been declared as a Ramsar site (No. 1205) in 19 August 2002, as wetland of international importance.

Bhitarkanika presents a variety of habitats, microhabitats and climatic conditions. Therefore, the floral and faunal component and its diversity are extremely high in comparison to other mangrove forest areas of India. The food and shelter are not limiting factors in Bhitarkanika, hence the biodiversity is extremely rich in this mangrove ecosystem. BCA has 300 plant species belonging to 80 families of both mangroves and non-mangroves. It supports one of the largest mangrove plant diversity in India and 82 species of mangrove and its associates have been recorded. Fifty-five of the 58 Indian mangrove species and 3 species of Sundari (*Heritiera s*pp.) including *H. kanikensis*, has been reported from BCA.



Ecological habitats of Bhitarkanika Conservation Area

Nalia grass, *Myriostachia wightiana*, found in the tidal banks and Bahumurga climber, *Flagellaria indica*, found in the mangrove forest, are used for basket and rope making. *Phoenix paludosa* is exploited for thatching purposes. Wild strains of salt-resistant paddy occur in these habitats and have immense potential for cultivation in salt-affected soils along the east coast of India. Bhitarkanika Sanctuary is a home for the largest number of saltwater crocodiles in the country. The wetland also hosts a large and diverse population of resident and migratory birds from Central Asia and Europe that congregate in Mathadiha heronry, an area of approximately 2.5 hectares within the Bhitarkanika Forest Block near Suajore creek during June to October every year providing living space for about 30,000birds. The animals that are associated with the mangroves cover a wide range of vertebrate and other invertebrates including protozoans and plankton.

The vertebrate faunal resources include a wide variety of fishes, amphibians, reptiles, birds, and mammals (including aquatic mammals). Also, the numerous wetlands scattered throughout the sanctuary serve as feeding and wintering grounds for more than 50,000 migratory birds during winter and early summer months. The Sanctuary has the World's largest mass nesting ground (Rookery) for the endangered Olive Ridley sea turtles (*Lepidochelys olivacea*), namely, Gahirmatha Beach, which separates the mangroves from the coastal waters of Bay of Bengal. Apart from being rich in biodiversity, BCA has immense social and cultural values. A large proportion of the local economy is reliant on the thriving fishing industry of *Hilsa ilisha*, and *Mullet spp*. The area is also an important source of fishes, like *Latescal carifer,* and *Mystus gulio,* and prawns, such as *Penaeus indicus* and *P. monodon*. Nearly 3000 to 5000 Kgs of honey are collected every year from February to May (Chadha and Kar, 1990), especially by the honey collecting tribe, 'Daleis'.

Presently, there are 900 revenue villages and hamlets in and around Bhitarkanika Conservation Area. The local population use mangrove forest for their day-to-day needs (e.g. firewood, fibre, timber, fishing poles and posts etc.). Although the area has protected status and legally no extraction is permitted, the villagers living in Bhitarkanika Conservation Area are directly or indirectly dependent on the mangroves for their basic needs and livelihood. This is resulted in humongous increase in stress on this ecosystem.

Objectives:

1. Environmental and Ecological Monitoring
2. Environmental Monitoring of Microplastics in BCA
3. Assessment of eco-flows to the BCA
4. Biodiversity Assessment
5. Ecosystem Goods and Services
6. Significance of BCA mangroves in climate mitigation
7. Ecosystem Health Report Card 2022 for BCA
8. Capacity Building

Objectives		Activities		Outcomes
1	Activity 1:Environmental and Ecological Monitoring	1.1	Real-time Water Quality Environmental Monitoring	Monitoring of mangrove ecosystem health on real-time basis
		1.2	Real-time Meteorological Monitoring	
		1.3	Periodic Monitoring for environmental and ecological variables	Long-term trend observation and capacity building to undertake monitoring post NCSCM observations
		1.4	Periodic Monitoring for Atmospheric Pollutants	Understanding influence of adjacent port activities on ambient air quality in BCA
2	Activity 2: Environmental Monitoring of Microplastics in BCA	2.1.	Quantification of beach debris	Impact of microplastics and marine litter its ecological ad social impacts
		2.2.	Analysis of microplastics in surface water, sediments and biota	
		2.3	Characterization, fate and transport of microplastics	
3	Activity 3: Assessment of eco-flows to the BCA	3.1.	Assessment of discharge of freshwater into the BCA through major rivers/ creeks.	Quantum of freshwater essential for long-term sustenance of the diverse mangrove ecosystem and associated wildlife of BCA.
		3.2.	Bathymetry of the major creeks	
		3.3.	Assessment of Shrinkage in major creeks due to lack of freshwater flow and tidal flux	Assessment of siltation in major creeks that do not receive tidal water even during spring tides
4	Activity 4. Biodiversity Assessment	4.1.	Understanding change in vegetation dynamics based on changing environmental settings	Identification of suitable species for restoration in degraded areas of BCA
		4.2	Characterization of mangrove for resilience to changing climate	Delineation of mangrove variability with salinity gradient and sediment characteristics
		4.3	Permanent 'preservation' plots for monitoring eco-sensitive changes in BCA	Re-establishing and monitoring 'preservation plots' are indicators of climate change in comparison to other mangrove areas within the BCA
		4.4.	Lichen diversity in the BCA mangroves - seasonality and as indicators of air pollution	Lichens as indicators of air pollution - considering the presence of two major ports on the east and west flanks of the BCA
		4.5	Fish diversity and fish resource availability	Fisheries diversity in the BCA

Objectives		Activities		Outcomes
		4.6.	Wild rice varieties in BCA	Identification of high saline - resistant species – resilience to sea level rise
		4.7.	Installation of Camera traps at multiple locations	Identification of rare and endangered species of animals & their distribution and habitat use.
5	Activity 5. Ecosystem Goods and Services	5.1.	Household surveys for determination of site-specific ecosystem goods and services in BCA and to capture community perception	Identification of ecosystem values, monetization of goods and services
		5.2.	Inclusion of crocodile in Ecosystem goods and services	Direct and indirect benefits of crocodile in the BCA
		5.3.	Livelihood analysis for enhancing capitals and capabilities for sustainable living	Trends in ecological and physical indicators in the BCA and way forward for its conservation management
		5.4.	Participatory Coastal Resource Assessment	Understand people's perception in 'wise use' of mangrove related resources
6	Activity 6: Significance of BCA mangroves in climate mitigation	6.2	Assessment of carbon stocks, carbon storage and sequestration rates	Quantification of blue carbon stocks and sequestration by mangroves of BCA as CO_2 and CH_4 sinks
		6.3	Real Time Emissions inventory of CO_2, CH_4	
7	Activity 7 Ecosystem Health Report Card 2022 for BCA			• Development of long-term database of 4 years and • periodic Health report cards • Web map application as decision making tool
8	Activity 8. Capacity Building			• Establishing environmental and ecological laboratory at Dangmal and building capacity of the Forest personnel for environmental survey and analysis (now under progress) • Capacity building of Forest officials to undertake monitoring


Bhitarkanika ecosystem health is "Excellent" A-
The Bhitarkanika Conservation Area, which includes the Eco Sensitive Zone, Bhitarkanika Wildlife Sanctuary, Bhitarkanika National Park, Critically Vulnerable Coastal Area, and the Gahirmatha Marine Sanctuary, as well as Mahanadi (Kansardia) mangroves, is depicted in the Bhitarkanika Health Report Card. The current report card (2022) represents results from six ring cells based on 2022 data availability and natural geographic divisions: (1) Bhitarkanika, (2) Maipura, (3) Dhamra, (4) Brahmani, (5) Mahanadi, and (6) Gahirmatha Marine Sanctuary. Overall, the Bhitarkanika ecosystem remained in "Excellent" condition, as it had the previous year. Bhitarkanika, Maipura, Dhamra, Mahanadi, and Brahmani also had "excellent" indicator scores, while Gahirmatha had a "good" score. Overall water quality (Dissolved Inorganic Nitrogen and Phosphorus - Nutrients) was found to have decreased from "Excellent" to "Good" from the previous year.
A Dhamra
This river forms at the confluence of the Brahmani and Baitarani rivers and joins the Bay of Bengal.
A Bhitarkanika
This is the main interconnecting channel facilitating proper flushing in the core mangrove zone.
A Brahmani
This is a perennial river and feeds the entire mangrove region with freshwater.
B Gahirmatha Marine Sanctuary
Gahirmatha is the world's largest nesting beach for Olive Ridley Turtles, separates the mangroves from the coastal waters of Bay of Bengal.
A Maipura
The beaches near the mouth of the Maipura river are the location of the first reported mass nesting of Olive Ridley Turtles.
A Mahanadi
The Mahanadi is a perennial river important to the state of Odisha for its silt deposits and fertile soils. Marginal increase in mangrove cover observed due to afforestation.
Bhitarkanika Conservation Area
Eco Sensitive Zone
Bhitarkanika Wildlife Sanctuary
Bhitarkanika National Park
Gahirmatha Marine Sanctuary
Critically Vulnerable Coastal Area
A 90-100% Excellent
B 80-90% Good
C 70-80% Moderate
D 60-70% Poor
F 0-60% Very Poor
Improving
No Change
Declining
Nutrient Management for Future
Mangroves are vulnerable to nutrient contamination, which can result in eutrophication, a situation in which the enrichment of nutrients promotes the excessive growth of algae and other aquatic plants. This might result in a fall in the health and productivity of mangroves, which would be harmful for other marine creatures. To keep these ecosystems healthy and productive, nutrient management for mangrove waterways is essential. For this purpose, threshold values of nutrient loads are defined to monitor and reduce their enrichment in estuaries and marine waters. Water quality data from Bhitarkanika Mangrove waters revealed that dissolved inorganic nutrient concentrations are mostly within the threshold limit, with marginal enrichment in Gahirmatha marine waters. The higher concentrations of inorganic phosphorous and nitrogen in Gahirmatha waters could be attributed to various anthropogenic activities and active transport through the Mahanadi and Dhamra Rivers. The following nutrient management practices are recommended to maintain and improve mangrove water quality:
1) Implementation of stringent regulations and best management practices to control the nutrient inputs from agriculture and aquaculture activities to the coastal waters.
2) Promote sustainable aquaculture (sustainability of fish feed etc.) and agriculture (organic/natural farming) practices within the catchment areas to minimize nutrient and soil pollution in the Mahanadi and Bhitarkanika waters.
3) Construction of riparian forest buffers, typically 15 to 30 meters wide, along the streams and major/minor channels can efficiently capture suspended silt and retain dissolved nutrients.
4) Detention ponds and constructed wetlands (horizontal/vertical flow) can be used to efficiently and consistently capture organic matter, inorganic nutrients, and suspended solids from water and aquaculture pond effluent.
5) Bioremediation techniques can be introduced to aquaculture and other industries to remove pollutants from the effluents.
6) Develop nutrient simulation studies for the Bhitarkanika waters from the long-term data for setting the nutrient load limits and shaping management decisions.
Acknowledgments
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2021 – 2022
BHITARKANIKA CONSERVATION AREA
NATURE TRAIL
BCA HEALTH REPORT CARD - 3
2023
BCA Mangrove Carbon Sink
Mangrove ecosystems play an important role in the global carbon cycle, as they are highly efficient at storing and cycling large amounts of carbon. The exchanges of CO_2, H_2O, and CH_4 between the mangrove biosphere and the atmosphere is therefore an important process to understand. The eddy covariance technique is used to interpret landscape-wide exchanges of CO_2, CH_4, H_2O and heat fluxes in these wetland ecosystems on a real-time basis. One such eddy covariance system was installed in the deep forest of Dangamal, Bhitarkanika, to quantify carbon sequestration capacity and associated ecosystem services provided by the mangrove ecosystems of Bhitarkanika.
Field measurement of CO_2 fluxes during 2022 from BCA mangroves revealed that the net CO_2 sink character (annual mean of 1.19 µmol $m^{-2}s^{-1}$) of the ecosystem. Positive CO_2 fluxes (emissions) were observed only during the months of April and May 2022, when the atmospheric temperature was high. Except for these two months, the mangrove ecosystem acted as a net sink of CO_2 with a significant negative CO_2 flux. At this mean sequestration rate of 16.52 Mg CO2 $ha^{-1}y^{-1}$, the total sink from Bhitarkanika mangroves (276 km^2) is estimated to be 456 Gg CO_2 y^{-1}. The study on carbon fluxes from the BCA mangroves revealed that, irrespective of uncertainties and the unique nature of implementing any Blue Carbon projects, mangroves are prime ecosystems for conservation, reforestation, and restoration. Among the various mangrove species, high carbon density and sequestration capacity was recorded for *Avicennia officinalis* and *Heritiera fomes*. In addition, two species, namely, *Heritiera littoralis* and *Kandelia candel* showed greater potentials to sustain biotic and abiotic stresses.
Nature based carbon credits of high quality are a valuable instrument for promoting climate mitigation and resilience through conservation and restoration of nature. The government of India has recently taken initiatives to establish a domestic carbon credit trading scheme in the country. Using the insights gained from the BCA research, private and public-sector funds may be mobilised to conserve and restore blue carbon ecosystems and generate high-quality carbon credit. This will help to better achieve climate goals by protecting people, considering local knowledge and tenure rights, and ensuring biodiversity benefits.
CO_2 O_2
Supratidal
Intertidal
Shallow Subtidal
Sediment C pool
1M
Bhitarkanika is a hotspot of rich biological diversity
Based on ecological and water quality indicators, the Bhitarkanika Conservation Area received an A- (91%) overall. Except for Zooplankton, all other ecological indicators are in excellent condition. Ridley, Olive Turtles, birds, and saltwater crocodiles had the highest **health scores (100%)** in the fauna, with a steady increase over the last few years. Secchi depth, which represents water turbidity, was the poorest performing indicator in water quality, which could be attributed to creek shrinkage.
Flora
Fauna
Water
Mangroves
Phytoplankton
Olive ridley sea turtles
Saltwater crocodiles
Bird Population
Zooplankton
Benthic
Dissolved Inorganic Phosphorus
Dissolved Inorganic Nitrogen
Secchi depth
Chlorophyll a
Dissolved oxygen
pH
Mangroves
With respect to the year 2021, no appreciable change is observed in mangrove cover for the year 2022. About 0.25 sq. km (25 ha) of new mangrove growth is observed in Kansardia region. Overall, the vigor of mangrove vegetation remains the same.
B-
Bird population
A total of 1,18,484 colonial-nesting birds were recorded in Bhitarkanika in 2022, with 24,264 nests in 1818 trees. The last three years (2020-2022) have seen a gradual increase in the number of nesting trees, nests, and colonial nesting birds. However, the number of bird species remained unchanged at 10.
A+
Water Quality
The preservation of water quality is critical to the structure of Bhitarkanika's ecosystem biomasses. The turbid water characteristic of mangroves significantly contributes in lowering the water quality score. The nutrient concentration in the Gahirmatha region was found to be higher than the previous year.
B+
Zooplankton
Zooplankton play a crucial role in aquatic food chains and ecosystems. Zooplankton serve as an important link between primary producers (phytoplankton) and higher trophic levels in the food chain. The Bhitarkanika Conservation Area zooplankton scored 87% based on diversity index, and copepods were the most abundant species due to the greater influence of both marine and freshwater inflow, which ensures the habitat is conducive for many euryhaline species. Areas represented by dense mangrove ecotone nursery and breeding grounds for fish because of the protection provided in the form of stilt roots and pneumatophores.
B+
Saltwater crocodiles
During the 2023 annual reptile census, 1793 saltwater crocodiles (*Crocodylus porosus*) were spotted. Compared to the 2022 census that documented 1784 numbers, an increase in crocodile population (9 numbers or 0.5% increase) was recorded. They scored 100%, due to the increase in population.
A+
Phytoplankton
Phytoplankton are vital to aquatic food chains and ecosystem health. Their primary production supports a diverse array of aquatic life, and the nutrient cycling and oxygen production ensures the proper functioning of aquatic ecosystems. Monitoring and understanding phytoplankton populations are essential for the management and conservation of aquatic environments. Based on the diversity index, phytoplankton in Bhitarkanika Conservation Area scored 96%, which is excellent. The maximum number of species was recorded at the Bhitarkanika River. However, species diversity was recorded at the Mahanadi River.
A+
Benthic fauna
Both macro and meiofauna were observed to be balanced in terms of species compositions but their abundance varied seasonally. Polychaetes dominated macrobenthic communities (43%) whereas Nematodes (35%) dominated the meiobenthic communities. There was no significant change from the previous ecosystem health report card except for the dominance of nematodes in the current reporting period to that of Foraminifera.
B+
Olive Ridley sea turtles
Gahirmatha Marine Sanctuary the world's largest rookery for the endangered Olive Ridley Sea Turtles (*Lepidochelys olivacea*) recorded 3,12,113 nests in 2023 which is a 2% increase compared to 2022 where 3,01,157 nests were recorded.
A+
Bhitarkanika Goods and Services
The benefits derived from fishery, fodder, honey, fuelwood, and freshwater benefits from the ESAs are meagre due to the protection status of Bhitarkanika; hence, the economic potential of the resources has been estimated for Rs. 63.01 crore/yr., using the Benefit Transfer method. The Bhitarkanika's regulation service to the human society through protection from cyclone hazards, carbon sequestration, nitrogen fixation, and water quality management has been contributing Rs. 832.78 crore/yr. By equating the tourism benefits of Bhitarkanika with similar international tourism sites using the benefit transfer method, the tourism potential has been estimated at Rs. 1804.43 crore/yr. The potential total economic benefits of Bhitarkanika ESAs have been estimated at Rs. 2700.22 crore/yr.
ESAs in the Bhitarkanika provide cultural services through tourism benefits including crocodile watching, turtle nesting, birding, scenic beauty, and other recreation activities. Crocodile populations have steadily increased in the Bhitarkanika Wild Life Sanctuary. Crocodiles are dangerous predators once they attack people and kill livestock of the local communities. The conservation and protection benefit of crocodiles are being estimated no. only by tourism and recreation benefits but also by estimating equivalent economic benefits such as skin, egg, tooth, bones, and flesh. It has been estimated that various goods and services produced by a single matured crocodile's economic benefits are equivalent to Rs. 68,000/-. The estimated economic values of crocodiles shall support awareness creation among the public and reserve managers to protect the crocodile habitat and involve the local communities through participatory management.
Ecosystem Goods and Services
BHITARKANIKA
Ecosystem Goods & Services Assessment
*values in crore
MUDFLATS 18.20
SALT MARSHES 0.95
MANGROVE 877.26
HORSESHOE CRABS HABITAT 0.039
NESTING GROUND OF BIRDS 1644
TURTLE NESTING GROUND 8.1
SAND DUNES 16.40

5.5. Mangrove Community Zonation Atlas of India

Delineation of mangrove community/species zonation spanning across the nine coastal states and four union territories (2018-2021) are undertaken. Landsat 8 OLI is used for mangrove community zonation due to its spatial, spectral (30m - coastal, blue, green, red NIR, SWIR-1, SWIR- 2), radiometric (12 bits rescaled to 16 bits) resolutions. The outputs include

- Mangrove Zonation Atlas (in digital form) depicting dominant mangrove species/ community distribution at 1:25000 SOI OSM grid for nine coastal states and 4 UTs
- Designing of atlas (A2 size) as per the 1:25000 SOI OSM grid
- Photo-documentation of dominant mangrove species/ communities
- State/ UT-specific write up of mangrove community distribution and area statistics
- Development of a dynamic web portal for cataloguing the spatial output for greater utilisation for mangrove conservation.

The output of the study is aimed at developing long term conservation and management plans by the concerned State Governments.

- Accordingly, field work for training set collection and accuracy assessment, LAI measurement and photo-documentation were conducted.
- 593 map sheets encompass all of India's mangrove forests
- Mangrove Zonation Atlas of Gujarat prepared

Key findings

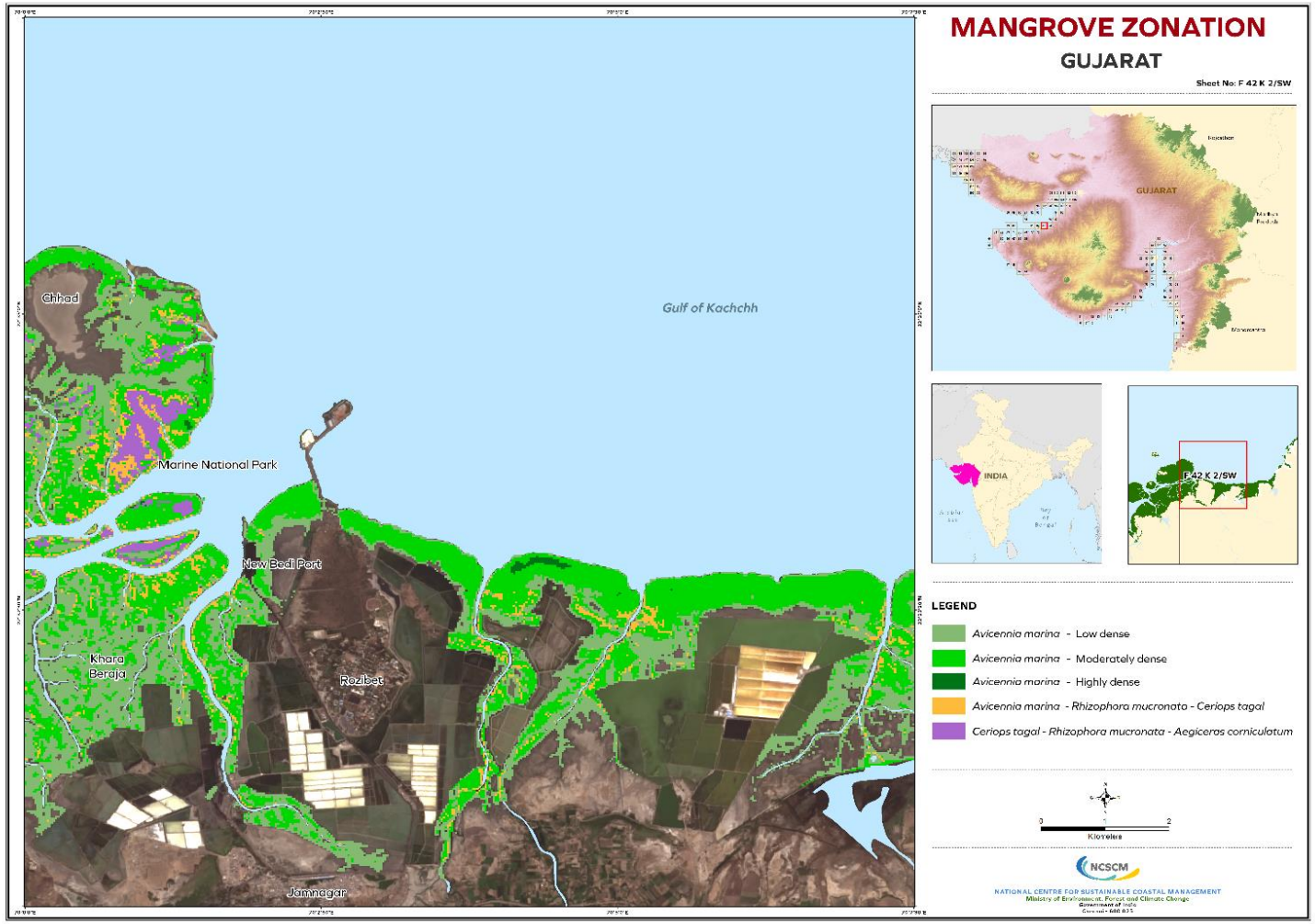
— Gujarat harbours about 1505 sq km of mangrove vegetation, the dominant species being *Avicennia marina, Ceriops tagal, Sonneratia apetala* and *Aegiceras corniculatum*.

— Dominant mangrove zones of Sundarbans are *Avicennia marina, Avicennia alba, Ceriops decandra, Exoecaria agallocha, Heritiera fomes* and *Phoenix paludosa* mixed with other mangrove species of lesser proportion. The sate of West Bengal sustains 2112 sq km of mangrove cover.

— Andhra Pradesh sustains two major mangrove patches at Godavari and Krishna river estuaries. The Krishna river estuary is dominated by A. marina and *Excoecaria agallocha,* and the Godavari river estuary is dominated by A. officinalis*, A.marina, A.alba and Excoecaria agallocha zones..*

— The dominant species of Maharashtra includes *Avicennia marina, Avicennia officinallis, Rhizophora mucronata, Rhizophora apiculata, Sonneratia alba, Aegiceras corniculatum, Luminitzera racemosa, Heretiera fomes, Excoecaria agallocha, Bruguiera cylindrica, Bruguiera gymnorrhiza, Ceriops tagal, Xylocarpus granatum etc*. The state sustains 318 sq km of mangrove cover.

— Goa covers an area of 36 sq km of mangrove forest in which the dominant species are *Avicennia officinallis, Avicennia marina, Sonneratia alba, Rhizophora mucronata, Sonneratia caseolaris, Rhizophora apiculata and Bruguiera gymnorrhiza.* Mangrove associates like *Derris trifoliata, Acrostichum aureum* etc are also present.



5.6. Enhancing Climate Resilience of India's Coastal Communities

Name of the Scheme/Programme: India | United Nations Development Programme (UNDP)

Part A: Enhancing Resilience of Coastal and Marine Ecosystems and their Services

India has a long coastline of over 7500 km with a vast extent of diverse sensitive ecosystems and landforms that not only provide livelihood support to millions residing along the coast but also play an important role in protecting the coast and the coastal communities from various coastal hazards. The Indian coast is also vulnerable to the impacts of climate change as indicated in the INCCA report (2010). In the last decade, there have been a series of cyclonic storms of varying intensity that have resulted in extensive economic losses. While the number of casualties has gone down thanks to early warning systems and standard operating procedures for evacuation, the economic losses have been crippling. With the thrust on blue growth, it is necessary that coastal areas are managed to respond to the threats of climate change with focus on ecosystem-based adaptation to climate change.

The Indian coast is densely populated (>500 persons per km^2) with coastal communities highly dependent on coastal resources and ecosystems for their livelihoods. Most of these communities are poor. Repeated disasters within short spans of time do not allow the coastal communities to recover sufficiently and result in

their spiraling into a decline. Hence it is important to put into action plans to build community resilience to enable them to adapt to climate challenges forced upon them. Women in these communities are known to bear a high burden not only because they have to take care of the home and family but also because they may have livelihoods to pursue that contribute to the family's finances.

Although the entire Indian coast is at high risk to climate change impacts, the impacts are uneven with certain locations/ districts being more vulnerable than others, and a changing vulnerability profile as well. However, a database that enables decision makers to identify such locations for priority assistance is not available nor is clarity available on how are gendered climate related impacts. Hence the Government of India through the Ministry of Environment, Forest and Climate Change, with support from the Global Climate Fund is implementing the project "Enhancing Climate Resilience of India's Coastal Communities" focusing on increasing resilience of some of the most vulnerable people and communities and ecosystems.

Activities undertaken under this output will generate a range of adaptation and sustainable development benefits through the conservation, restoration and maintenance of coastal and marine ecosystems to enhance their resilience. At a national scale and in all the coastal states, a long-term system will be established for undertaking vulnerability assessment of the coast, for undertaking restoration of coastal ecosystems, and for systematic monitoring of the results, including for carbon sequestration.

Overall Project Objectives

The project aims to establish pathways to up-scale ecosystem-based adaptation practices across India's 13 coastal states, islands and union territories where coastal districts house 14.2% of India's total population. The proposed project will promote climate-adaptive livelihoods for vulnerable coastal communities in the target states – with an emphasis on women as beneficiaries – as well as build adaptive capacity through restoration of ecosystems that buffer against the impacts of current and future climate change.

Three major outputs of the project are envisaged as:

- Output 1. Enhanced resilience of coastal and marine ecosystems and their services
- Output 2. Climate-adaptive livelihoods for enhanced resilience of vulnerable coastal communities; and
- Output 3. Strengthened governance and institutional framework for climate-resilient management of coastal areas.

The work in Outputs 1 and 3 will be carried out both at national level and across all of India's 13 coastal States and Union Territories. In the case of Output 2, the work will be piloted in targeted landscapes of three states- Odisha and Andhra Pradesh on the

east coast and Maharashtra on the west coast. Best practices and processes followed in the work in Output 2 will feed into Output 3 to be replicated in other states of India. Knowledge, especially scientific inputs, from Output 1 will inform choice of locations within the targeted landscapes to be restored in Output 2.

This section (Part A) addresses Output 1 i.e. Enhanced resilience of coastal and marine ecosystems and their services in specific detail.

Mapping of Coastal Cumulative Vulnerability Index (CCVI), which includes bio-physical, socio-economic and ecological vulnerabilities, will be undertaken for all the mainland coastal State/ UT of India. Three target states – Andhra Pradesh, Maharashtra and Odisha – have been selected for undertaking on-the-ground activities focused on protecting and restoring coastal ecosystems and promoting livelihoods activities to enhance the resilience of coastal communities. These target states were selected by Government of India based on high vulnerability to the impacts of climate change; and representation of the range of India's coastline, including both east and west coast areas.

Twenty-four (24) target landscapes in the three coastal states (Figure 1) have been selected, and it is expected that communities will collaborate closely with the Forest Department in a co-management approach, both as recipients of work opportunities in restoration efforts, and as ongoing partners in maintaining the resource in a healthy condition by managing harvesting of timber and non-timber forest products, and by controlling pollution.

In addition, the selection of these three states enables the Government of India to implement ecosystem-based adaptation to climate change across a range of circumstances, in terms of:

i) biophysical vulnerability to climate impacts;
ii) coastal ecosystems (including mangroves, seagrass, salt marshes, coral reefs and coastal lagoons);
iii) socio-economic vulnerability including per capita income level (including states with very low, low and medium per capita incomes)

The project will create platforms to scale up this work on restoration and livelihoods across India's nine coastal states, two coastal Union Territories and two island territories and their 78 coastal districts.

Objectives

The primary objective of the project is to enhance the resilience of the lives and livelihoods of the most vulnerable populations, particularly women, in the coastal areas of India to climate change and extreme events, using an ecosystem-centric and community-based approach.

Part B: Strengthen governance and institutional framework for climate-resilient management of coastal areas

This output provides pathways to replication and scale by extending the approaches to ecosystem restoration carried out in Output 1 and approaches to climate-adaptive livelihood support carried out in Output 2 (*by the 3 pilot states*), scaled up to India's 13 coastal States and Union Territories, and also shares knowledge on coastal resilience with countries in the wider South Asian region. This includes integrating adaptation into public and private sector policies, plans and budgets (Activity 3.2) in all coastal states through a network of institutions (Activity 3.1), and undertaking targeted valuation and cost-benefit analyses, to motivate for new investments in EbA as well as knowledge sharing on the evidence base for such investments (Activity 3.3).

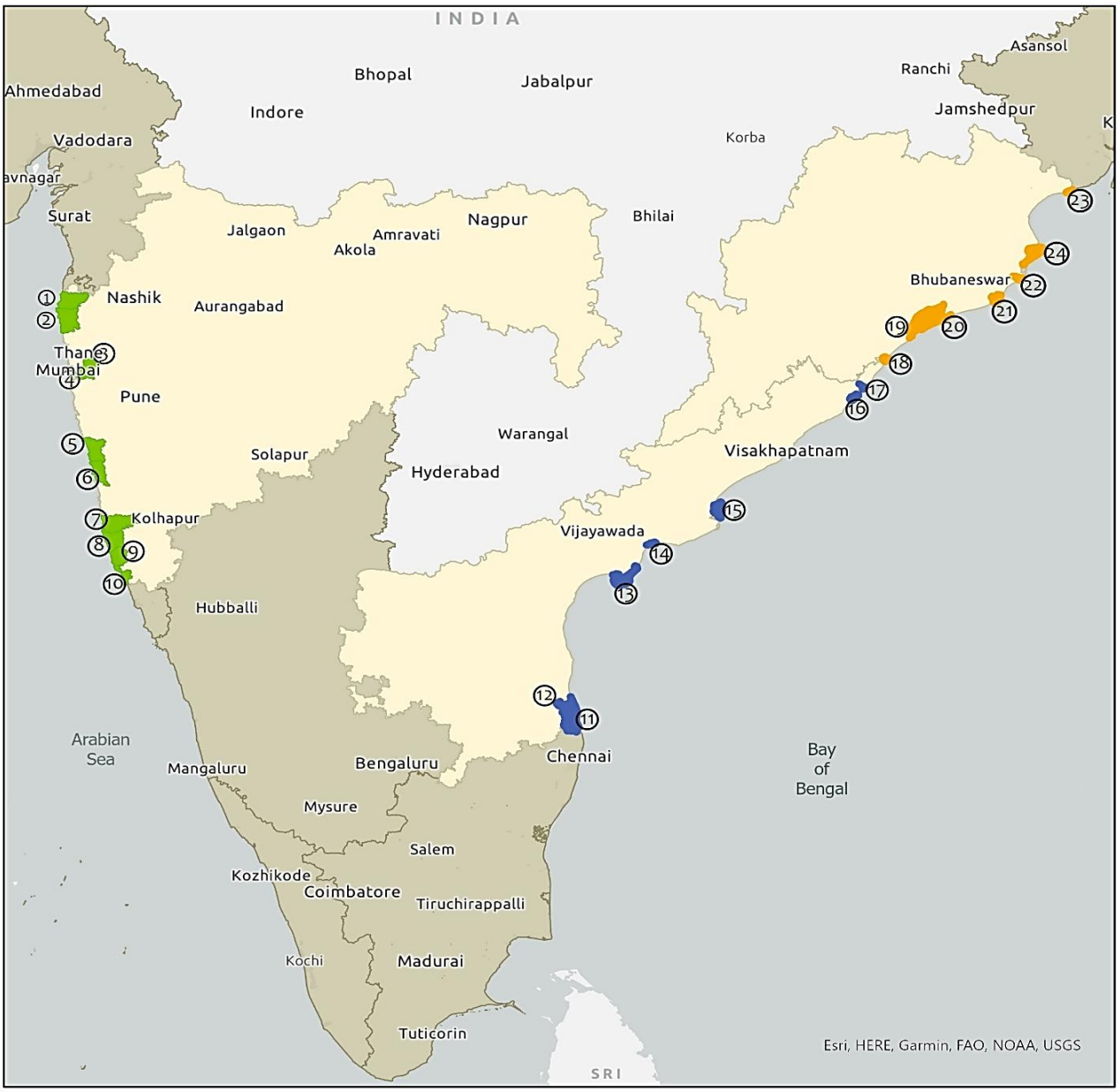
This activity addresses Output 3 i.e. *Strengthened governance and institutional framework for climate-resilient management of coastal areas* in specific detail.

Three target states – Andhra Pradesh, Maharashtra and Odisha – have been selected for undertaking on-the-ground activities focused on protecting and restoring coastal ecosystems and promoting livelihoods activities to enhance the resilience of coastal communities. Processes followed during the project for restoration of ecosystems as well as interventions for livelihood activities are to be documented. The learning from these activities will be used in training programmes for mainstreaming ecosystem-based adaptation. The project will create platforms for networking and building a community of practitioners for climate resilience. This will eventually be extended to the South Asian countries.

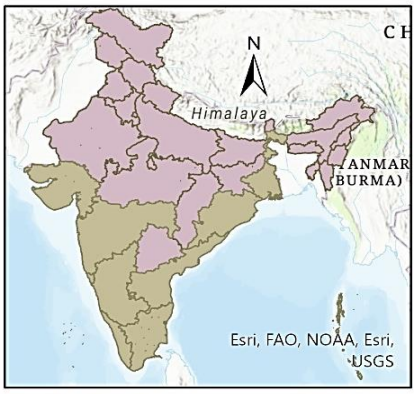
Output 3 of the project will create platforms to scale up this work on restoration and livelihoods across India's nine coastal states, two coastal Union Territories and two island territories and their 78 coastal districts.

Objectives

The primary objective of the project is to enhance the resilience of the lives and livelihoods of the most vulnerable populations, particularly women, in the coastal areas of India to climate change and extreme events, using an ecosystem-centered and community-based approach. The project will also work towards mainstreaming ecosystem-based adaptation to climate risks in all plans and programmes at various levels in the country.



① Dahanu
② Palghar
③ Panvel
④ Uran
⑤ Dapoli
⑥ Guhagar
⑦ Rajapur
⑧ Devgad
⑨ Malvan
⑩ Vengurla
⑪ Pulicat Lake
⑫ Nelapattu Bird Sanctuary
⑬ Krishna Wildlife Sanctuary
⑭ Bantumilli Wetlands
⑮ Telineelapuram
⑯ Coringa Wildlife Sanctuary
⑰ Sompeta
⑱ Bahuda River
⑲ Chilika Lake (Ganjam)
⑳ Chilika Lake (Puri)
㉑ Devi River Mouth
㉒ Mahanadi River Mouth
㉓ Talasari
㉔ Bhitarkanika



Map of Twenty-four (24) target landscapes in three coastal states – Maharashtra, Andhra Pradesh and Odisha

Act. No.	Activity	Outputs	Outcomes
1.1	**Conducting vulnerability assessment of the coast to inform planning of ecosystem- and community-based adaptation interventions**		
1.1.1	Supporting coastal research and research and management institutions to add ecosystem-related parameters to methodologies for guiding vulnerability assessment and national- and state-level planning and decision-making on adaptation and management measures to address climate change (for three implementing States)	Ecosystem-based vulnerability assessments carried out using InVEST model to determine physical, ecological and social vulnerabilities for the entire coast of India and national vulnerability framework and Coastal Cumulative Vulnerability Index (CCVI) developed	— Updated methodology for collecting and analysing data to prepare comprehensive climate vulnerability assessments for India's entire coastline. — Identified risks posed by climate change impacts and prioritisation of intervention sites for EbA.
1.1.2	Applying the enhanced/ revised methodology to establish a gender-sensitive system for periodic detailed assessment of vulnerability and adaptive capacity for three implementing States, using the analysis to inform planning of restoration and livelihoods activities for climate change adaptation	Site specific and gender-sensitive social vulnerability index methods developed for entire coast of India	Capacity built for assessment of gender-sensitive social vulnerability and adaptive capacity on climate change
1.1.3	Developing a gender-sensitive Decision-Support Tool and associated mobile phone application for adaptation planning at state and national levels that integrates district-level data with site/district-level assessments to provide decision-makers with dynamic information that is regularly updated using data from census, ecological surveys and other sources	38.6 million direct and indirect women beneficiaries (77.19 million total coastal population) at the national level benefited from the development of a decision support tool	Access to the decision-support tool will be through an online platform and smart-phone app. This will provide dynamic, "live" information to decision-makers and planners, allowing them to use the most up-to-date data available to inform adaptation planning.

Act. No.	Activity	Outputs	Outcomes
1.1.4	Producing a national series of restoration guidelines (mangrove, coral reefs, seagrass, salt marsh, sand dunes) based on the information used for the Decision Support Tool – one booklet /pdf per ecosystem type, drawing on site-level experience	Number of National series of restoration guidelines/booklet prepared	An awarded community for the restoration guideline and DSS
3.1	**Network of institutions for enhanced climate resilience and integrated planning and governance in all coastal states**		
3.1.1	Establishing multi-stakeholder coordination structures in target landscapes in the three states to provide a platform for dialogue and coordination of climate-resilient development planning and co-management of coastal ecosystems	Line departments/ ministries/ stakeholder harmonized through multi-stakeholder coordination structures for the states of Maharashtra, Odisha and Andhra Pradesh	Well defined multi-stakeholder coordination structures in three states established
3.1.2	Using existing interdepartmental platforms in 13 coastal states and UTs – particularly State Action Plans for CC and CZM Authorities – to facilitate integration of EbA approaches into relevant policy and legislation and to share lessons learned and best practices from target landscapes from the 3 implementing states	Interdepartmental platforms created in 13 coastal states and UT for EbA approaches	EbA approaches integrated into relevant policy and legislation
3.1.3	Establishing a pan-Indian Coastal Resilience Network of organizations, tertiary institutions, coordination platforms and coastal districts – to promote knowledge exchanges on integration of	Pan-Indian Coastal Resilience Network developed with a number of organizations, tertiary institutions, coordination platforms and coastal district	knowledge exchanges on integration of climate change adaptation into coastal development planning, with a focus on EbA

Act. No.	Activity	Outputs	Outcomes
	climate change adaptation into coastal development planning, with a focus on EbA		
3.1.4	Supporting the National Coastal Mission in integrating climate change adaptation and EbA into its programme of work	Number of direct and indirect beneficiaries	EbA approaches integrated in the National Coastal Mission
3.3	**Knowledge management for coastal resilience (require co-financing support)**		
3.3.1	Supporting the National Coastal Mission to establish a system for collating data and information on global best practices, lessons learned, evidence from the field and scientific knowledge on ecosystem- and community- based approaches to adaptation in the coastal zone of India.	Database developed for ecosystem- and community- based approaches to adaptation in the coastal zones of India.	Global best practices, lessons learned, evidence from on ecosystem- and community- based approaches collated
3.3.2	Establishing a series of annual workshops (5 in project period) under the auspices of the pan-Indian Coastal Resilience Network, involving tertiary institutions, research organizations and relevant NGOs to share research findings related to coastal EbA	Number of annual workshops with the pan-Indian Coastal Resilience Network organised.	Capacity built and knowledge disseminated through annual workshops
3.3.3	Developing and piloting a training course or curricula on EbA, for delivery through administrative training and other relevant institutes at national and state levels, incorporating project experience and lessons especially on community-based adaptation – at least one in each of 3 target states	Number of training course or curricula on EbA developed and piloted for all 3 target states	Capacity built through training course on EbA incorporating project experience and lessons especially on community-based adaptation

Act. No.	Activity	Outputs	Outcomes
3.3.4	Working through the Pan-India Coastal Resilience Network to develop and disseminate knowledge products at national, regional and international levels and to share experience and learning.	Number of Knowledge products at national, regional and international levels developed	EbA Knowledge products disseminated at regional, national and international levels
3.3.5	Developing 12 district specific, gender-sensitive knowledge products translated into local languages for use in the community-level training courses for village self-help groups and CBOs, and women's capacity development programmes.	Numbe12 district specific translated knowledge products for community-level training programme developed and disseminated	Capacity of village self-help groups and CBOs, and collective women development programmes.
3.3.6	Undertaking exposure and exchange visits (involving 3 target states) for national, state and district-level government officials and community leaders to promote knowledge sharing on cross-sectoral coastal governance, climate change adaptation and EbA.	Number of exposure and exchange visits with the 3 targeted states organized	Knowledge sharing on cross-sectoral coastal governance, climate change adaptation and EbA. Is promoted
3.3.7	Creating a knowledge exchange platform involving South Asia's five coastal countries with 3 international events for dialogue and sharing learning on ecosystem-and community-based adaptation to climate change in the coastal zone, building on existing forums.	3 international events organised by using different dialogue and sharing learning platform	a knowledge exchange platform involving South Asia's five coastal countries developed for building regional capacity

5.7. South Asia Nitrogen Hub Project (UKRI-GCRF, UK - 2021-2024)

Nitrogen pollution damages human health, threatens biodiversity, and contributes to global climate change. The project is tackling the nitrogen challenge by bringing together experts from over 32 leading research organizations (research partners) from across South Asia and the UK. We work with researchers from all eight South Asian countries and are dedicated to international co-operation for a healthier planet. The Hub includes research on how to improve nitrogen management in agriculture and investigates how nitrogen is impacting our ecosystem. There are four major Research Programs in this project.

Research Program 1: Building the Nitrogen Policy Arena for South Asia

1) That a joined-up approach to assessing the benefits of better nitrogen management will strengthen the 'gravity of common cause', so contributing to overcoming the barriers.
2) That a resource efficiency perspective mobilizing nitrogen value chains in the circular economy will help drive change by linking business goals with environmental and health co-benefits.
3) That progress in co-developing solutions with key actors will be strengthened by improving understanding between weakly linked actor groups (policy, farmers, civil society, and business.)
4) That public awareness and education will be critical to overcome barriers, so linking science to simple messages may be transformative, e.g. quantified benefits of a goal to 'halve nitrogen waste.
5) That coupling off N flows, impacts and methodologies will allow innovative fundamental and applied insights, e.g. aerial vs aquatic symbioses; national nitrogen policy effectiveness.

Work Package 1.2 - Development of future visions and scenarios for nitrogen in South Asia

This WP will facilitate the development of clear visions by SACEP governments, by the co-design of future storylines and scenarios for SA (WP1.2), including technological options, equity, and food security/choice issues that interact with human and livestock health (drawing on RPs 2, 3 & 4). To ensure consistency, the activity will draw on and feed into the Global Nitrogen Scenarios work of INMS, including establishment of Shared Socio-economic Pathways (SSPs) focused on nitrogen. A specific hypothesis to be examined is that global exchange of aspirations will influence future nitrogen flow and impact trajectories, i.e. choices by European citizens will affect South Asian ambitions/ trajectories and vice versa. Exploration of this hypothesis will be aided by structured engagement with civil society, starting with the Nourish Scotland and SIT 'Nitrogen Forums'.

Work Package 1.4 - Development of guidance/ tools for policy makers and practitioners

This WP focuses on the development of farm-level N management software for decision support to non-experts, and production of guidance for policy makers. Building on work by NEWS India-UK on electronic leaf colour sensing and on the 'Cool Farm Tool', the team will deliver a free-to-use Nitrogen App made available through the Cool Farm Platform. The App will support decision making on fertilizer and manure/urine practices, including leaf colour sensing by the phone camera to help tune fertilizer/urine inputs and timing. The App will be parameterised using field data from WP2.1 for deployment in WP2.2, evaluating a range of nitrogen interventions, and identification of good practices as a function of farm location and typology. Testing of the App will consider acceptability, cost-effectiveness and reliability. The findings, together with input from hub experts, will inform policy guidance as a South Asian contribution to INMS. The published guidance (following UNECE standards of TFRN14 and experience of GPNM), will also be delivered as a web-based tool.

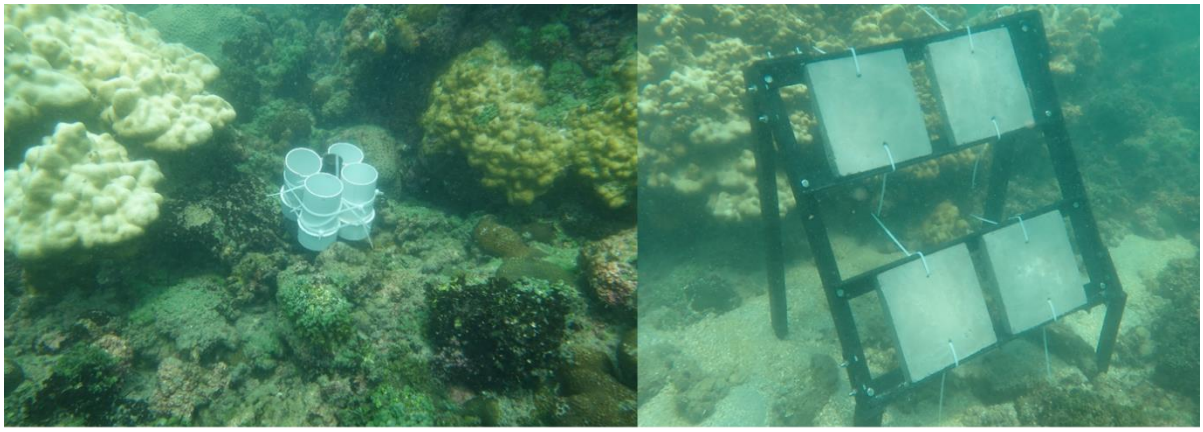
Research Programme 3: Improving understanding and awareness of key nitrogen threats

1) That a joined-up approach to assessing the benefits of better nitrogen management will strengthen the '*gravity of common cause',* so contributing to overcoming the barriers.
2) That a resource efficiency perspective mobilising nitrogen value chains in the circular economy will help drive change by linking business goals with environmental and health co-benefits.
3) That public awareness and education will be critical to overcome barriers, so linking science to simple messages may be transformative, e.g. quantified benefits of a goal to '*halve nitrogen waste.*
4) That coupling off N flows, impacts and methodologies will allow innovative fundamental and applied insights, e.g. aerial vs aquatic symbioses; national nitrogen policy effectiveness.

Work Package 3.2 - Role of eutrophication in exacerbating coral bleaching and coastal impacts

The aim of this work package is to address the threat of eutrophication to coral reefs, which can both predispose and prevent recovery following temperature-driven 'coral bleaching' (e.g., the 2016 event led to >95% coral death in some areas). Technology deployment by UK and India will allow investigation of historical change and source attribution using 15N techniques, while sharing reef monitoring protocols (inc. coral recruitment, predation) and strengthening capacity with Sri Lanka and Maldives, with additional support through UN Environment, SACEP and IUCN. Comparison of

uninhabited/populated atolls, supported by data on herbivorous fish stocks (inc. Laccadive, Andaman & Nicobar) in the context of ocean acidity, will help inform how much agricultural and waste-water measures could aid coral recovery. The comparison of the forest epiphyte and coral symbioses will inform both biological understanding and societal perceptions of 'value' in comparison to other key threats.



Sediment trap Coral Settlement Panel

Research Programme 4: Integrating regional nitrogen flows & impacts in South Asia

1) That a joined-up approach to assessing the benefits of better nitrogen management will strengthen the '*gravity of common cause',* so contributing to overcoming the barriers.
2) That a resource efficiency perspective mobilizing nitrogen value chains in the circular economy will help drive change by linking business goals with environmental and health co-benefits.
3) That public awareness and education will be critical to overcome barriers, so linking science to simple messages may be transformative, e.g. quantified benefits of a goal to 'halve nitrogen waste.
4) That coupling off N flows, impacts and methodologies will allow innovative fundamental and applied insights, e.g. aerial vs aquatic symbioses; national nitrogen policy effectiveness.

Work Package 4.1 - Harmonization of data and integration of nitrogen flows in South Asia

The WP4.1 team will identify common and special data needs across all WPs under RP4 (Integrating regional nitrogen flows and impacts in South Asia), taking account of spatial and temporal scales, data quality and uncertainty, data access and sharing requirements. This will be carried out collaboratively across all partners involved in WP4.1 and with input from the modelling communities under RP4 (air, soil and water quality & health, greenhouse gases and climate resilience).
WP4.1 will deliver:

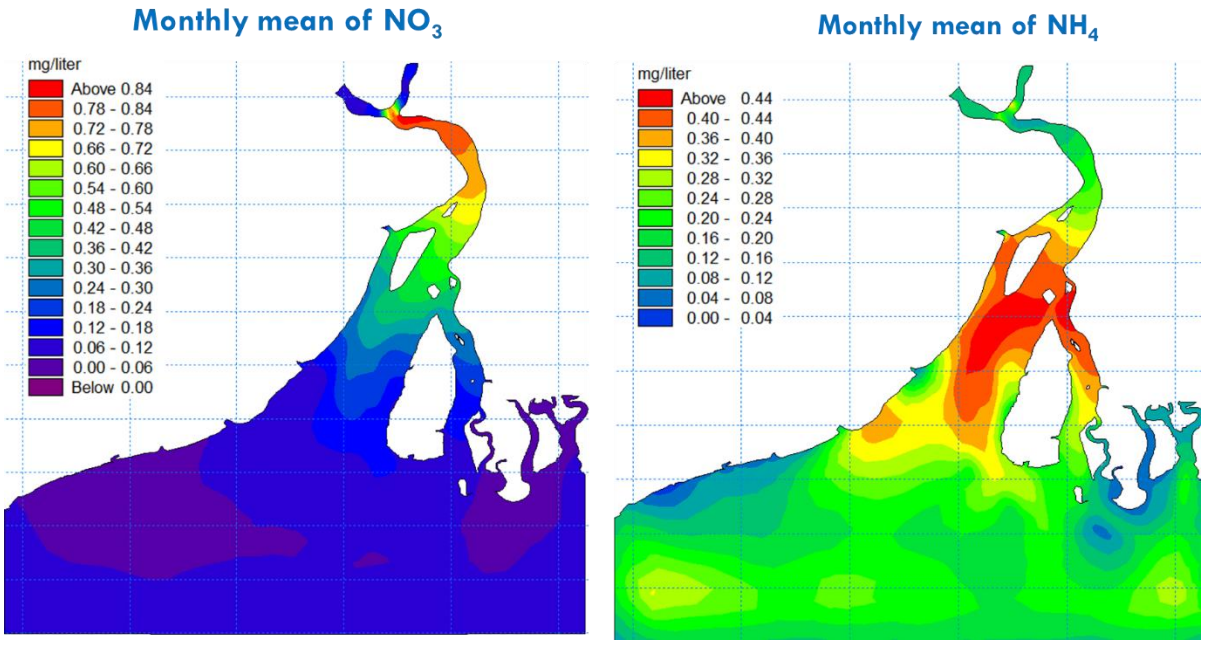
- Harmonized datasets (including human population, livestock, crops, fertiliser, land cover, soils etc.)
- High resolution atmospheric emission maps
- Scenario modelling output (working with WP1.2 on scenario development and across RP4 to implement future scenarios)
- South Asia-wide and national nitrogen budgets (combining outputs from across RP4)

Work Package 4.2 - Role of urban and rural nitrogen sources for air quality and health

This Work Package will apply an ensemble of leading atmospheric models (EMEP4Earth, WRFChem, MOZART, UKCA) for SA to assess the contribution of Nr emissions to particulate matter (PM), NO2 and NH3 concentrations and their human health impacts (drawing on published dose-response) and ecosystem impacts (WP3.1). Model assessment against existing networks (e.g. NPL-India, SAFAR) and new measurements will allow model application for abatement scenarios (WP1.2, 4.3, 4.4). Improvement of the measurement database will focus on the wider IGP, the world NH3 hotspot. A 10-site network for N_r measurement operated for 24 months from the IGP to the Himalayan foothills will deliver validation data and help elucidate the underlying chemical transformations.

Work Package 4.3 - Role of urban and rural nitrogen source for soil, water quality & health

This Work Package aims to understand the complex system of nutrient sources and demands, and to quantify the impact of various (agric., waste, landscape, consumption) scenarios on lives and livelihoods in SA. We will create a process-based simulation model of the region (Fig. 3) linking air, land, freshwater and marine nutrient flows and impacts based on LTLS-NEMO-ERSEM. Working with regional partners, the system will be validated with satellite and in-situ observations. It will be used to explore impacts of urban and rural land use and climate change, following stakeholder scenario consultation (WP1.2).
Assessment of health risks will combine analysis of clinical data, qualitative interviews with local communities and review of whether WHO guideline values are adequate (e.g. as Nnitrosamines combines with additional carcinogenic risks). Supporting data collation will consider costs of care and early detection, recognition & chronic management of N-linked disease.



Transformation, mixing and transport of inorganic nitrogen within Hooghly Estuarine zone

Work Package 4.4 - Role of nitrogen management for greenhouse gases and climate resilience

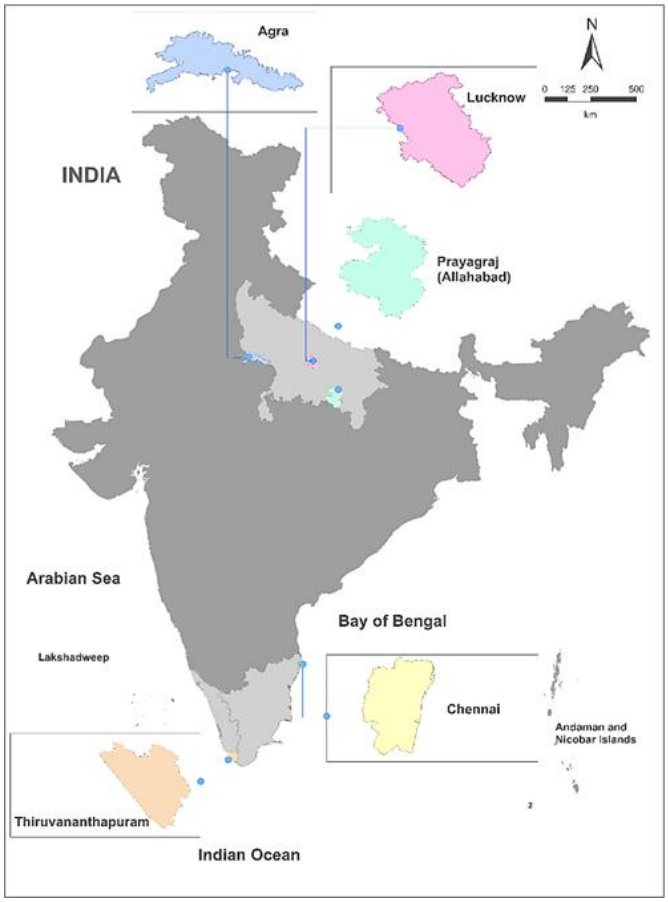
This Work Package focuses on regional modelling of soil N_2O emissions, and other greenhouse gases (GHG) were appropriate. We will use the IPCC methodologies for GHG modelling, to assess the impact of agricultural N management on direct (N_2O, CH_4, CO_2) and indirect GHG emissions (NH_3, NO, O_3) at regional and country scales under climate and N policy scenarios developed in WP1.2. The primary focus is to upscale N_2O emissions using the IPCC Tier 1,2 and 3 methods (IPCC 2006). The first task for WP 4.4 will be to identify the data (GHG data and activity data) required and data available within each country and region for Tier 1,2,3 modelling. This will be done in close collaboration with WP 4.1, and through expert knowledge of the participating scientists from each SANH country.

The IPCC methodologies increase in complexity, from the universal applicable Tier 1 emission factors, to country specific emission factors (Tier 2), and for Tier 3 multiple regression equations or process based models. Tier 1 emission factors will be applied to all countries and regions within, following the IPCC methodology for agriculture and land use change and forestry emission sectors. Input data are available from global databases (with WP4.1), in case there are insufficient 'hard' data available for some regions/countries.

5.8. Circular Economy Solution preventing Marine Litter in three Ecosystems (2022-2024)

Name of the Scheme/Programme: Indo-German bilateral project

The ongoing Indo-German bilateral project Circular Economy Solutions Preventing Marine Litter in Ecosystems (CES) project is working on technological approaches to track and monitor litter in marine ecosystems and supports the implementation of Extended Producer Responsibility (EPR) in collaboration with the Ministry of Environment, Forests and Climate Change (MoEFCC). CES is piloted in the Indian states of Kerala, Tamil Nadu, and Uttar Pradesh. Extended Producer Responsibility helps to reduce, reuse, and recycle plastics with the participation of the private sector, such as the recycling industry and other stakeholders, packaging producers, and informal waste recyclers. This project supports relevant regulatory authorities, like the Central Pollution



CES-ML Project sites India

Control Board (CPCB) and State Pollution Control Boards (SPCBs) in Kerala, Tamil Nadu, and Uttar Pradesh, in developing and using digital technologies to quantify and track marine litter, monitor leakages in the selected ecosystems, and work on implementing EPR.

Objectives:

1. Riverine/Lake/Marine leakages and transport of plastics is monitored to assess the sources of microplastics and hotspots are identified in the three locations
2. Mapping of site-specific distribution of plastics, microplastics and litter in riverine systems to enable Decision Support System (DSS)
3. The training and capacity building for tracking leakage of litter in coastal and riverine ecosystems using digital tools
4. Technological solutions for litter management are identified and demonstrated in riverine and marine ecosystems in the states of Kerala, Tamil Nadu and Uttar Pradesh
5. Creating an evidence-based reference for project implementation at partner state

Circular Economy Solution preventing Marine Litter in three Ecosystems

S. No.	Objective	Outputs	Outcomes
1	Riverine/Lake/Marine leakages and transport of plastics is monitored to assess the sources of microplastics and hotspots are identified in the three locations	• Formulation of the project management team at NCSCM • National scoping consultation workshop for establishment of a technical working group • One workshop and two consultations across various stakeholders will be organised • Minutes of meetings specifying the agreement on digital tools for tracking leakages of marine litter for selected ecosystems between SPCBs/CPCB and relevant stakeholders • Baseline data on the marine litter and microplastic from the selected sites will be established and illustration of scientific information through infographics and brief reports • The magnitude and sources, typology of marine litter including household items like plastic items, detergents and cosmetics, paints, tyres etc. • Ecosystem cleanliness will be classified using various Indices. • Litter flux from major rivers • Predicting the pathways (Fate and transport) and Hot spots identification of marine litter and microplastics.	– Baseline data for microplastics and marine litter were obtained from 3 states (Kerala, Tamil Nadu and Utter Pradesh) – Litter flux from major rivers of the 3 states – Identification of "leakage hotspots" of plastics

S. No.	Objective	Outputs	Outcomes
		• Documentation of tracking leakages of marine litter and microplastics for selected ecosystems	
2	Mapping of site-specific distribution of plastics, microplastics and litter in riverine systems to enable Decision Support System (DSS)	• Mapping of various thematic layers on marine litter and microplastic pollution (sources, quantity, types and impacts • Two consultations across various stakeholders will be organised for DSS • Documentation of marine litter and microplastic atlas for selected ecosystems • A decision support system for plastic litter management will be developed. Department of Environment and SPCB will be the key anchor of this DSS.	– Decision support system (DSS) for plastic litter management for policy/decision making.
3	The training and capacity building for tracking leakage of litter in coastal and riverine ecosystems using digital tools	• Regional networking and knowledge sharing • Three stakeholder consultations will be organised for training and capacity building for tracking leakage of litter in coastal and riverine ecosystems • Raising awareness and public outreach • Consultation meeting with the scientific community on the Extended producer responsibility (EPR) on plastics and its usage like a waste to energy (pyrolysis) plants, road making, a design change in packaging and by promoting alternative materials for packaging and policy approach towards the collection of end-of-life fishing gears (recycled plastics).	– Collection of end-of-life (EOL) fishing gears, towards extended producer responsibility (EPR), at selected fishing harbours – Litter management strategies and technological solutions for coastal environment. – The National Centre for Sustainable Coastal Management (NCSCM) has actively participated in or organized in various outreach programmes within the framework of GIZ's Circular Economy Solutions Preventing Marine Litter

S. No.	Objective	Outputs	Outcomes
		• Capacity building training for plastic litter through technological solutions for government officials. • Documentation of the issuing of guidelines by government authorities (CPCB, SPCBs, ULBs). • Capacity building (producers, recyclers and stakeholders) for plastic management and policy reforms. • Stakeholder meeting with CPCB, SPCB and representatives from local self-governments to identify the best suitable EPR Model. • Being multi-stakeholder involvement in the microplastic generation, consultations across various stakeholders, ranging from manufacturers, of home appliances, textiles, tyres, agriculture, cosmetics etc. • Consultation meeting with consumer products manufacturers, waste pickers, Waste Recyclers, and Waste Management Agencies for defining roles and responsibilities of stakeholders along packaging value chains.	in Ecosystems project (CES-ML). The outreach programmes are listed below – Ghost net retrieval is vital for marine biodiversity conservation. – Uttar Pradesh Plastic Waste Management Conclave – Participated in a workshop on Extended Producer Responsibility – Participated in a workshop on "Circular Economy Solutions (CES)" – NCSCM participated in the "National Expo on Eco-Alternatives for Banned SUPs and Start up Conference" in Chennai
4	Technological solutions for litter management are identified and demonstrated in riverine and marine ecosystems in the states of Kerala, Tamil Nadu and Uttar Pradesh	• One workshop and Two stakeholder consultations will be organised for litter management and demonstration. • Minutes of meetings for the planning and implementation of technological solutions. • Marine litter management plan developed.	– Resource efficient and circular economy approaches for closing material cycles of marine litter in an ecosystem using technology-based solutions.

S. No.	Objective	Outputs	Outcomes
		• Management strategies to control marine litter from the commercial fishing. • Community awareness and participation in periodic clean up (Beaches and Riverbank) on the selected ecosystem. • Formulation and promotion of green protocols. • Sustainable packing material and eco-design through national and international best practices. • Documentation of the dissemination of best practices, such as newsletters, mailings, brochures, entries/publications/ websites, etc. • Bilateral communication with producers or recyclers	– Technology based waste re-use, recycling and recovery opportunities. – NCSCM participated in a "Beach Cleanup Campaign and Public Awareness Event" on Neelankarai Beach, Chennai. – NCSCM was involved in the "Swachh Sagar Surakshit Sagar Coastal Clean-up Event and Awareness Drive" at Promenade Beach, Puducherry, India. – Mission LiFE awareness and outreach on waste management and sigile use plastics.
5	Creating an evidence-based reference for project implementation at partner state	• A standardized methodology for microplastics assessment in riverine/ coastal ecosystems • Marine debris action plan through understandings from related stakeholders • Two stakeholder meetings will be organised to creating an evidence-based reference for project implementation at partner state. • Documentation of knowledge products in minutes of meetings in the course of the decision-making process of the national EPR framework.	– Based on the order of The Hon'ble National Green Tribunal (NGT), NCSCM contributed towards developing a uniform methodology for microplastics analysis in various environmental matrices. – Safeguarding the ecosystem as a whole- The fishermen of Kerala are cleaning the sea to sustain their livelihoods and protect the ecosystem – Beach cleaning activities. Clean beaches increases tourism potential.

S. No.	Objective	Outputs	Outcomes
		• Bilateral written communication with players involved in the decision-making process of the national EPR framework mentioning the consideration of knowledge products. • Assist the states to be able to upscale and replicate the strategies that can be taken up across the riverine ecosystem or coastal ecosystem of the partner states. • List of training programmes to be organised in future for the implementation of new projects. • Dedicated web portal for dissemination of work done in CES-ML project. • Final marine litter management plan incorporating suggestions from stakeholders	

5.9. Linking the Land-based Activities with Ecosystem Dynamics of Pulicat Lagoon in India

The presence of nitrogen in coastal ecosystems is a major management issue due to high inputs from surface runoff and groundwater contamination. Recent studies have estimated that anthropogenic N from grey water footprints can contribute up to 32.6 million tons per year to freshwater systems, resulting in widespread problems with eutrophication and hypoxia. In addition, urban watersheds receive N inputs from indirect sources, such as atmospheric deposition, diffuse land-based practices (e.g., fertilizers), unregulated discharges, leaky septic pipes, and misconnections. Nutrient over-enrichment of coastal ecosystems generally triggers ecological changes that decrease the biological diversity of bays and estuaries. In some ecosystems, moderate nutrient enrichment can occasionally lead to increased populations of economically valuable fishes. Intense enrichment of nutrient in the same waters, however, leads to losses of catchable fish and loss of biological diversity. Other coastal ecosystems are highly vulnerable to eutrophication so that even small increases in nutrient inputs can be quite damaging. Coral reefs and seagrass beds, for instance, are particularly susceptible to changed conditions.

The impacts of the rapid changes on the nitrogen cycle in coastal ecosystem and the interactions with other altered biogeochemical cycles are issues that demands immediate attention. With increasing realization of the adverse impacts of chemical agriculture and climate change on availability and quality of water in many parts of the world, it is essential to quantify the nitrogen use efficiency for a sustained resource utilization. Identification of suitable management practices are required to reduce

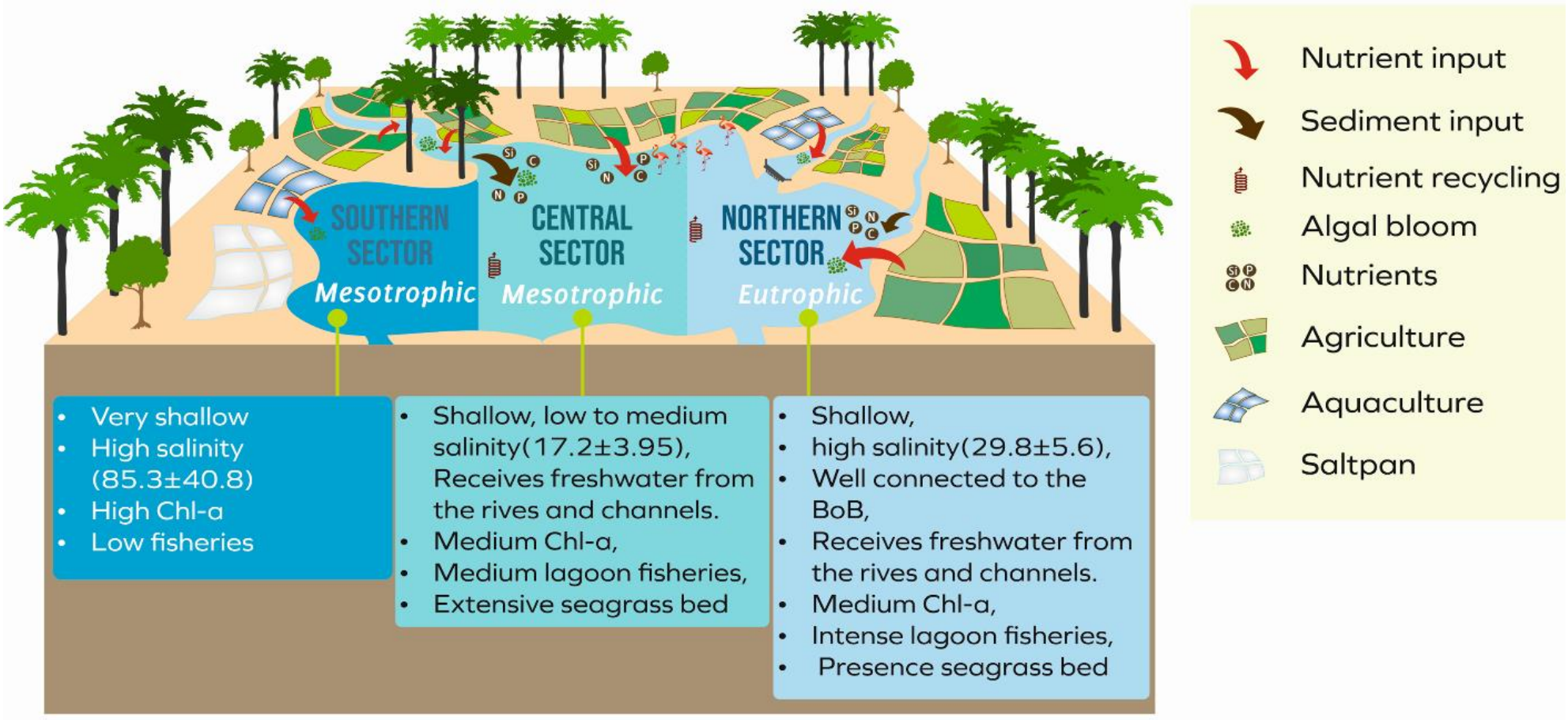
dependency on inorganic N use in coastal environment and manage various negative impacts of the anthropogenic N loading.

Objectives:

1. Analysis of Land use and Land cover around Pulicat lagoon
2. Identification of land-based and coastal/marine sources of nitrogen to the Pulicat lagoon
3. Quantifying the Nitrogen Use efficiency
4. Nutrient management and Spatial planning
5. Evaluation of ecosystem services and Preparation of health report card

Pulicat Lagoon Ecosystem Health during the summer 2021 is estimated to be "Moderate" with spatial variations among the three distinct sectors. Southern and central sector of the lagoon moderately influenced by seawater exchange scored C+. Whereas the Northern sector with limited seawater mixing, enhanced shallowness and reduced biodiversity scored C. Continued unsustainable land use practices could substantially increase the macro algal biomass in the lagoon. Decomposing of dead algal biomass could result severe oxygen depletion (hypoxia and anoxia) and coastal acidification. Changes in nutrients, light, and oxygen cause likely shift in the community structure of phytoplankton, zooplankton, and bottom-dwelling (benthic) communities. On the contrary, adequate lagoon management supported by sustainable land use practices in the Pulicat watershed could be useful to restore the lagoon ecosystem. For achieving sustainable watershed management, suitable recommendations have been made based on the present scenarios of the Pulicat lake and the existing land use practices.

Sustainable agricultural practices to enhance nutrient use efficiency and water use efficiency were recommended. Adopting organic farming activities and usage of fertilizers according to soil and crop requirement can reduce the fertilizer input in the lagoon. It is recommended that fertilizer materials that are better in terms of NUE than urea should be promoted to get a higher fertilizer use efficiency. In order to reduce agricultural water demand and loss of N, adequate use of organic manure and use of biofertilizers is recommended in an integrated nutrient management strategy should be followed. Promotion of highly efficient fertilizer products, biochar etc. that better synchronize N release and crop N demand (e.g., slow and controlled-release fertilizers, such as the use of neem-coated urea/ urea super-granules/ innovative N fertilizers, and nano-fertilizers, etc.) are essential. Decision support systems: Based on agro-climatic, edaphic and other resource availability computer-based models or simple field assessment tools and interpretation aids (mobile app-based) may be promoted among the farmers. Lack of awareness and scientific knowledge in NUE agriculture is resulting in excessive nutrient loses from the field to the adjacent water bodies and eventually to the Pulicat lagoon. Mass awareness about the importance of soil testing and balanced and integrated fertilizers application needs to be promoted to reduce the anthropogenic pressure on the lagoon ecosystem.



Characteristics and Sectors of Pulicat Lagoon

6. Accreditation and Certification of NCSCM

NCSCM, is rated as a PLATINUM CERTIFIED LEED Building with 14 advanced multidisciplinary laboratories; 115 scientists and staff on contract; and received the following Certifications and Accreditations.

(a) National Accreditation Board for Testing and Calibration Laboratories (NABL)

(b) ISO 9001:2015

(c) ISO 45001:2018

(d) Atomic Energy Regulation Board (AERB)

(e) Central Pollution Control Board (CPCB)

(f) National Accreditation Board for Education and Training (NABET)

ISO 9001:2015

Certificate of Registration

This certificate has been awarded to

National Centre for Sustainable Coastal Management (NCSCM), Ministry of Environment, Forest and Climate Change

Anna University Campus, Chennai, Tamil Nadu, 600025, India

in recognition of the organization's Quality Management System which complies with

ISO 9001:2015

The scope of activities covered by this certificate is defined below

Please refer to the Appendix

Certificate Number:	Date of Issue: (Original)	Date of Issue:
112179/B/0001/UK/En	25 July 2020	25 July 2020
Issue No:	**Expiry Date:**	
1	24 July 2023	

Issued by: *On behalf of the Schemes Manager*

0043

If there is any doubt as to the authenticity of this certificate, please do not hesitate to contact the Head Office of the Group on info@urs-certification.com.
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Appendix to Certificate

To Provide Laboratory Testing of Chemical and Biological Material, Conduct Coastal Environmental Impact Assessments (CIA), Cumulative Environmental Impact Assessments (CEIA) and Research and Development Services through NCSCM Divisions, Laboratory Facilities and Infrastructure

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URS is a member of United Registrar of Systems (Holdings) Ltd, United House, 4 Hinton Road, Bournemouth, BH1 2EE, UK. Company Registration no. 5298466

ISO 45001:2015

Certificate of Registration

This certificate has been awarded to

National Centre for Sustainable Coastal Management (NCSCM), Ministry of Environment, Forest and Climate Change

Anna University Campus, Chennai, Tamil Nadu, 600025, India

in recognition of the organization's Health and Safety Management System which complies with

ISO 45001:2018

The scope of activities covered by this certificate is defined below

Please refer to the Appendix

Certificate Number:	Date of Issue: (Original)	Date of Issue:
112179/A/0001/UK/En	25 July 2020	25 July 2020
Issue No:	**Expiry Date:**	
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NABL Certification

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT(NCSCM) MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

NCSCM, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, CHENNAI, TAMIL NADU, INDIA

in the field of

TESTING

Certificate Number:	TC-4116		
Issue Date:	09/05/2023	Valid Until:	08/05/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT (NCSCM)

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

7. Knowledge dissemination and Capacity Building (Including virtual workshop, meetings and conferences)

Development of knowledge products during 2022-2023

NCSCM has undertaken many research studies pertaining to coastal as well as its resource management. The highlights from the finding of these studies were brought as research publications, technical reports, atlases, brochures etc. in order to sensitize the importance of coastal and marine environment.

7.1. Research Articles

S. No	Year	Details of the Publication
30	2023	Mugilarasan, M., Karthik, R., Robin, R.S., Subbareddy, B., Hariharan, G., Anandavelu, I., Jinoj, T.P.S., Purvaja, R. and Ramesh, R., (2023), Anthropogenic marine litter: An approach to environmental quality for India's southeastern Arabian Sea coast. (Impact factor: 9.8)
29	2023	Saravanakumar, C., Neethu, C. S., Purvaja, R., Sunantha, G., Robin, R. S., Ramesh, R., (2023) Networking and co-occurrence of virulent and multidrug resistant environmental bacteria in different aquatic systems: A gap in MDR-virulence transfer (Impact factor: 9.8)
28	2023	R. S. Robin, R. Karthick, A. Nithin, R. Purvaja Ramachandran, (2023), Removal of marine litter and its impact along the coast of India
27	2023	R.S. Robin, R. Karthick, A. Nithin, R. Purvaja Ramachandran, (2023), Synergetic effects of marine litter and climate change in coastal and marine ecosystems
26	2023	Dhviya S., N. Karthi, S. Balamurugan and Devaraj Asir Ramesh., 2023., Valuing ecologically sensitive areas' Ecosystem Services in Bhitharkanika: implications for sustainable management. In Science of Sustainable Systems.
25	2023	Devaraj Asir Ramesh, N. Karthi, S. Dhivya, Amali Infantina and P. Priya., (2023), System of Environmental Economics Accounting (SEEA) - coastal and marine ecosystem economic accounting in Karnataka state, India (Impact factor: 2.462)
24	2023	Darwin Ramteke, K. Paramasivam, C. Viswanathan, K.R. Abhilash, J. Joyson Joe Jeevamani, V. Deepak Samuel, R. Sankar, R. Muruganandam, R. Purvaja, R. Ramesh, (2023), Assessment of benthic habitats of highly threatened oyster reefs of Pulicat Lake, India (Impact factor: 2.1)
23	2023	Hariharan, G., Sunantha, G., Robin, R.S., Darwin, R., Purvaja, R. and Ramesh, R., (2023), Early detection of emerging persistent perfluorinated alkyl substances (PFAS) along the east coast of India.(Impact factor: 9.8)
22	2023	Lincoln, S., Chowdhury, P., Posen, P.E., Robin, R.S., Ramachandran, P., Ajith, N., Harrod, O., Hoehn, D., Harrod, R. and Townhill, B.L., (2023), Interaction of climate change and marine pollution in Southern India: Implications for coastal zone management practices and policies.(Impact factor: 9.8)

S. No	Year	Details of the Publication
21	2023	Painter, S.C., Artioli, Y., Amir, F.H., Arnull, J., Ganeshram, R.S., Ibrahim, N., Samuel, V.D., Robin, R.S., Raghuraman, R., Purvaja, R. and Ramesh, R., (2023), Anthropogenic nitrogen pollution threats and challenges to the health of South Asian coral reefs. (Impact factor: 3.7)
20	2023	Saravanan Couppoussamy, Kakolee Banerjee, Paneerselvam arumughan, Purvaja ramachandran, R, Ramesh Ramachandran. (2023), Determination of natural radioactivity in coralline beach sands of Lakshadweep Islands (Kavaratti and Minicoy), India (Impact factor: 1.827)
19	2023	Mamidala, H.P., Ganguly, D., Purvaja, R., Singh, G., Das, S., Rao, M.N., Ys, A.K., Arumugam, K. and Ramesh, R., 2023. Interspecific variations in leaf litter decomposition and nutrient release from tropical mangroves. Journal of Environmental Management, 328, p.116902. (Impact Factor: 8.91).
18	2022	Sachithanandam, V., Bonthu, S., Mageswaran, T., Singh, K.S., Vimala, J., Sridhar, R., Purvaja, R. and Ramesh R., 2022. Effect of hydrodynamic conditions on seagrass ecosystems during Cyclone Lehar in the South Andaman Islands, India. Ecohydrology & Hydrobiology. (Impact Factor: 2.957).
17	2022	Neethu, C.S., Saravanakumar, C., Purvaja, R., Robin, R.S. and Ramesh R., 2022. Arsenic resistance and horizontal gene transfer are associated with carbon and nitrogen enrichment in bacteria. Environmental Pollution, 311, p.119937. (Impact Factor: 9.988)
16	2022	Parthiban, A., Sachithanandam, V., Sarangapany, S., Misra, R., Muthukrishnan, P., Jeyakumar, T.C., Purvaja, R. and Ramesh R., 2022. Green synthesis of gold nanoparticles using quercetin biomolecule from mangrove plant, Ceriops tagal: Assessment of antiproliferative properties, cellular uptake and DFT studies. Journal of Molecular Structure, 1272, p.134167. (Impact Factor: 3.841)
15	2022	Rajakumari, S., Sundari, S., Kamatchi, G.A. and Ramesh R., 2022. Assessment of challenges to Radhapuram due to temporal coastal infrastructures using hybrid approach. Journal of Coastal Conservation, 26(5), pp.1-14. (Impact Factor: 2.098)
14	2022	Saravanakumar, C., Neethu, C.S., Purvaja, R., Sunantha, G., Robin, R.S. and Ramesh R., 2022. Networking and co-occurrence of virulent and multidrug resistant environmental bacteria in different aquatic systems: A gap in MDR-virulence transfer?. Science of The Total Environment, p.159221. (Impact Factor: 10.753)
13	2022	Balachandar, K., Viswanathan, C., Robin, R.S., Abhilash, K.R., Sankar, R., Samuel, V.D., Purvaja, R. and Ramesh R., 2022. Benthic foraminifera as an environmental proxy for pollutants along the coast of Chennai, India. Chemosphere, p.136824. (Impact Factor: 8.943)
12	2022	Rajakumari, S., Mahesh, R., Sarunjith, K.J. and Ramesh R., 2022. Volumetric change analysis of the Cauvery delta topography using radar remote sensing. The Egyptian Journal of Remote Sensing and Space Science, 25(3), pp.687-695. (Impact Factor: 6.393)
11	2022	Shah, H and Ramesh, R. (2022). Development-aligned mangrove conservation strategy for enhancement of Blue Economy: A successful model from Gujarat, India. Estuarine and Coastal Shelf Science. https://doi.org/10.1016/j.ecss.2022.107929
10	2022	Bansal, S., Raghuram, N., Adhya, T.K., Rahman, M.M., Tshering, D., Dahal, K.R., Wakeel, A., Aminath, S., Safi, Z., Nissanka, S. and Pathak, H., …. and Ramesh R., Mark A.S. (2022). Long-term trends of direct nitrous oxide emission from fuel combustion in South Asia. *Environmental Research Letters*, *17*(4), p.045028. (Impact Factor: 6.793)

S. No	Year	Details of the Publication
9	2022	Noufal, K.K., Sanjana, M.C., Latha, G. and Ramesh, R., 2022. Influence of internal wave induced sound speed variability on acoustic propagation in shallow waters of North West Bay of Bengal. *Applied Acoustics*, *194*, p.108778. (Impact Factor: 2.639).
8	2022	Rajakumari, S., Mahesh, R., Sarunjith, K.J. and Ramesh, R., 2022. Building spectral catalogue for salt marsh vegetation, hyperspectral and multispectral remote sensing. *Regional Studies in Marine Science*, p.102435. (Impact Factor: 1.624).
7	2022	Mamidala, H. P., Ganguly, D., Purvaja, R., Reddy, Y., Selvam, A. P., Singh, G Kakolee., Robin RS. Ramesh R., (2022). Distribution and dynamics of particulate organic matter in Indian mangroves during dry period. *Environmental Science and Pollution Research*, 1-12. (Impact factor: 4.306)
6	2022	Karthik R., Robin R.S., Purvaja R., Karthikeyan V., Subbareddy B., Balachandar K., Hariharan G., Ganguly D., Samuel V.D., Jinoj TPS. and Ramesh R. (2022). Microplastic pollution in fragile coastal ecosystems with special reference to the X-Press Pearl maritime disaster, southeast coast of India. *Environmental Pollution*, *305*, p.119297. (Impact Factor: 8.071)
5	2022	Hariharan G., Purvaja R., Anandavelu I., Robin R.S. and Ramesh R., (2022). Ingestion and toxic impacts of weathered polyethylene (wPE) microplastics and stress defensive responses in whiteleg shrimp (Penaeus vannamei). *Chemosphere*, *300*, p.134487. (Impact Factor: 7.086).
4	2022	Dev P.J., Geevarghese G.A., Purvaja R. and Ramesh R., (2022). Measurement of in-vivo spectral reflectance of bottom types: Implications for remote sensing of shallow waters. *Advances in Space Research*, *69*(12), pp.4240-4251. (Impact Factor: 2.152)
3	2022	Parthiban A., Sachithanandam V., Lalitha P., Elumalai D., Asha R.N., Jeyakumar TC., Muthukumaran J., Jain M., Jayabal K., Mageswaran T. Sridhar R., Purvaja R. and Ramesh R. (2022). Isolation and biological evaluation 7-hydroxy flavone from Avicennia officinalis L: insights from extensive in vitro, DFT, molecular docking and molecular dynamics simulation studies. *Journal of Biomolecular Structure and Dynamics*, 1-13. (Impact Factor 3.39)
2	2022	Singh K.S., Bonthu S., Bhaskaran P.K., Purvaja R. and Ramesh R., (2022). Impact of time step size on different cumulus parameterization schemes in the numerical simulation of a heavy rainfall event over Tamil Nadu, India. *Pure and Applied Geophysics*, *179*(1), 399-423. (Impact Factor: 2.335)
1	2022	Malakar B., Rajendran A.K., Govindasamy H., Kumar DSV., Gogoi NK., Purvaj R. and Ramesh R., (2022). Record of a Dugong Feeding Trail with a Note on Recent Dugong-Related Incidents Along the Coast of Tamil Nadu, India. *Aquatic Mammals*, *48*(1), 21-25. (Impact Factor: 1.382).

7.2. Technical Reports

S. No	Year	Title of the report
11	2023	Holistic Conservation and Integrated Management Plan of Wetlands – Annual Report
10	2023	TN Blue Flag Beach – Kovalam Beach – BWQT & SRA
9	2023	Enhancing Climate Resilience of India's Coastal Communities – Annual Report
8	2023	South Asia Nitrogen Hub Project – Annual Report

S. No	Year	Title of the report
7	2023	Joint study on Seaweed Cultivation, Potential and Ecological Safeguards in the Gulf of Mannar, Tamil Nadu (along with ICAR-CMFRI and CSIR-CSMCRI) – Final Report
6	2023	Long Term Monitoring Plan for the Ecosystem based Conservation Management for Bhitarkanika Conservation Area Phase –II – Annual Report
5	2023	Circular Economy Solution preventing Marine Litter in three Ecosystems – Annual Report 2023
4	2022	National Coastal and Marine Spatial Plan – A framework and Action Plan
3	2022	Long Term Monitoring Plan for the Ecosystem based Conservation Management for Bhitarkanika Conservation Area - 3nd Annual Report & Project Completion Report
2	2022	Linking the Land-based Activities with Ecosystem Dynamics of Pulicat Lagoon in India (UNEP, Nairobi; Yr2021)
1	2022	Safety Risk Assessment and Bathing Water Quality Testing in three Beaches of India

7.3. Factsheets & Brochures

Bhitarkanika Conservation Area Report Card 3: (Yr2021-Yr2022)

8. Capacity building (Training / Internships)

Number of Internships for the year 2022-2023	**17**
Number of Dissertation for the year 2022-2023	**20**

Date	Title of Training	Organised by
30th January to 3rd February 2023	Training programme on Climate Resilience and Scientific Management of Coastal Areas and Related Filed Visits for Maharashtra Maritime Board (MMB) from 30th January to 3rd February 2023 held at NCSCM	NCSCM
20th and 21st October 2022	Phase III - Capacity Building Program for the Scientists of MoEF&CC 20th & 21st October 2022, held at NCSCM	NCSCM
22nd July 2022	NCSCM hosted an exposure visit to 25 interns with the National Biodiversity Authority (NBA) on 22nd July,2022, on the Scientific Activities of NCSCM	National Biodiversity Authority (NBA)

9. Revenue Generation Projects

66 EDC Project reports completed during the year 2022-2023

Consultancy projects - CRZ/CZMP/ICRZ/IIMP/Shoreline Change Mapping etc.

Towards building NCSCM as a self-supporting research centre, NCSCM has undertaken several scientific consultancies in multi-disciplinary projects since September 2015 pertaining to coast and marine development and conservation. A road map for strengthening capabilities and generating revenue to build a corpus of Rs. 100 Crores over a period of 10 years (2025) is prepared to meet a part NCSCM expenses.

Projected earnings from the corpus interest and the consultancy/ research projects as per the Business Plan of NCSCM, the Centre would become operationally self-sufficient - partly by 2025 and fully self-reliant by 2030. The broad thematic areas under the GIS as a part of the GIS Mapping Projects are as follows:

(1) Coastal Regulation Zone Mapping
(2) Coastal Zone Management Plan
(3) Island Coastal regulation Zone mapping
(4) Integrated Island management Plan
(5) Assessment of Shoreline Change
(6) Topographic Survey Coastal Area
(7) Sale of Data Products / Map Service
(8) Mapping of Coastal Land use Land cover
(9) Decision Support System for Coastal Management

Coastal Regulation Zone Mapping

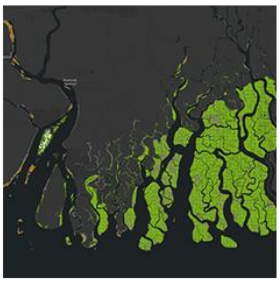
Preparation of Coastal Zone Management Plan

Island Coastal Regulation Zone & Integrated Island Management Plan

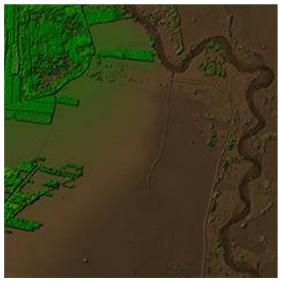
Shoreline Change mapping & Shoreline Management Plan

Topographic Survey of Coastal Areas

Decision Support System for Coastal Management



Mapping of Coastal Land use Land cover



Sale of Data Products / Map Services

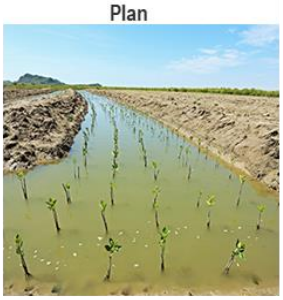
Consultancy projects - EIA/ REIA, Wetlands etc.

NCSCM is an ISO/IEC 17025:2017 (NABL), and National Accreditation Board for Education and Training (NABET) certified organization. The institute also functions with the aim of supporting integrated management of coastal and marine environments for livelihood security, sustainable development, and hazard risk management by enhancing knowledge, undertaking research and advisory support, developing partnerships and networks, including coastal community interfaces. The Institute is well positioned to undertake various studies and advise on sectoral programs and projects. It houses capacities and skills to interface with stakeholders like state governments, international agencies, and national monitoring agencies in studying, monitoring, and demonstrating ideas and solutions with scientific-technological support. A team of highly qualified young scientists and professionals with expertise in inter-disciplinary sciences related to coastal management serves as the backbone of the centre. As a part of the EIA/ REIA/ management plans related work, NCSCM undertakes various coastal infra-projects under Sector 33- Ports/ Harbours/ Dredging and Breakwaters for government and private sectors. Major thematic areas include *inter alia* the followings:

(1) EIA Projects under Sector 33
(2) Environmental safeguards and Monitoring Plan (Offshore and floating solar)
(3) Post-Project Monitoring
(4) Cumulative Environmental Impact Assessment
(5) Conservation management plan
(6) Shoreline management plan
(7) Pollution management plan
(8) Disaster management plan
(9) Livelihood management plan
(10) Fisheries management plan
(11) Water Resources Management plan
(12) Eco-tourism Management plan
(13) Coastal and marine environmental monitoring
(14) Integrated Coastal Zone Management Plan
(15) Coastal and Marine Spatial Plan
(16) Carrying Capacity Assessments
(17) Biomonitoring and Risk Assessments
(18) Eco-labelling of Beaches
(19) Beach Water Quality Assessments
(20) Safety and Risk Assessment of Beaches
(21) Wetland Management plan
(22) Ecosystem Health Report Cards
(23) Carbon Stock and sequestration Assessments of blue carbon systems
(24) Fisheries management plan
(25) Numerical modelling
(26) Coastal Process studies
(27) Air Quality assessment and modelling
(28) Coastal and marine microbiology
(29) Marine biotechnology
(30) Blue Economy
(31) Circular economy solutions
(32) Climate change adaptation and mitigation plans

Environmental Impact Assessment Sector 33

Environmental Monitoring Plan



Post-Project Monitoring

Cumulative Environmental Impact Assessment

Conservation Management Plan

Shoreline Management Plan

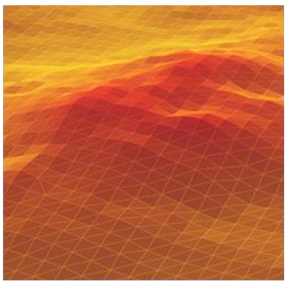
Coastal and Marine Environmental Monitoring

Integrated Coastal Zone Management Plan

Eco-tourism Management Plan

Carrying Capacity Assessment (Ecological, Tourism)

Numerical Modelling



Beach Safety and Risk Assessment

Pollution Management Plan

Disaster Management Plan

Beach Bathing Water Quality Testing (BWQT)

10. Events (2022 – 2023)

Date	Title of Event	Organised by	Place
08th March 2023	International Women's Day 2023	NCSCM	NCSCM
30th January to 3rd February 2023	Training programme on Climate Resilience and Scientific Management of Coastal Areas and Related Filed Visits for Maharashtra Maritime Board (MMB) from 30th January to 3rd February 2023 @NCSCM	NCSCM	NCSCM, Chennai
26th January 2023	Republic Day	NCSCM	NCSCM
20th and 21st October 2022	Phase III - Capacity Building Program for the Scientists of MoEF&CC 20th & 21st October 2022	NCSCM	NCSCM, Chennai
26th and 27th September 2022	Eco alternative Expo and Start-up Conference	Government of Tamil Nadu and MoEFCC	Chennai Trade Center
10th and 11th September 2022	National Conference on Sustainable Coastal Management in India	UNDP with Odisha Government	Bhubaneswar, Odisha
27th August 2022	Swachh Sagar, Surakshit Sagar Coastal Clean-up Event & Awareness Drive	MoEFCC	Promenade Beach, Puducherry
15th August 2022	75th Independence Day Celebrations @NCSCM	NCSCM	NCSCM, Chennai
22nd July 2022	NCSCM hosted an exposure visit to 25 interns with the National Biodiversity Authority (NBA) on 22nd July,2022, on the Scientific Activities of NCSCM	National Biodiversity Authority (NBA)	NCSCM, Chennai
21st May 2022	'SAHBHAGITA' Workshop for Conservation and Wise-Use of Wetlands	MoEFCC	NCSCM, Chennai
22nd May 2022	International Day of Biological Diversity 2022	National Biodiversity Authority	Kalaivanar Arangam, Chennai
29th June 2022 to 3rd July 2022	Uttar Pradesh Plastic Waste Management Conclave - 2022	Department of Environment, Forest and Climate Change and Urban Development Department, Government of Uttar Pradesh in collaboration with GIZ India	Indira Gandhi Pratishthan, Lucknow

International Women's Day 2023

Training programme on Climate Resilience and Scientific Management of Coastal Areas and Related Filed Visits for Maharashtra Maritime Board (MMB) from 30th January to 3rd February 2023 @NCSCM

Republic Day 2023

Phase III - Capacity Building Program for the Scientists of MoEF&CC 20th & 21st October 2022

Eco alternative Expo and Start-up Conference

National Conference on Sustainable Coastal Management in India

Swachh Sagar, Surakshit Sagar Coastal Clean-up Event & Awareness Drive


Coastal Cleanup Awareness Drive
Walkathon (நடைபயணம்)
Swachh Sagar Surakshit Sagar


Coastal Cleanup Awareness Drive
Swachh Sagar

75th Independence Day Celebrations @NCSCM

NCSCM hosted an exposure visit to 25 interns with the National Biodiversity Authority (NBA) on 22nd July,2022, on the Scientific Activities of NCSCM

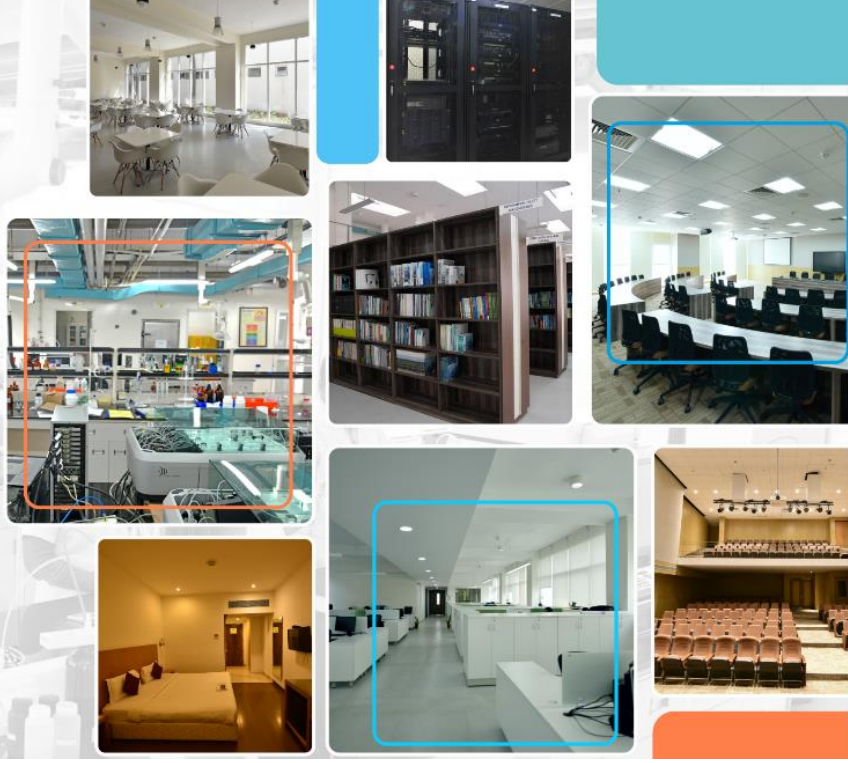
'SAHBHAGITA' Workshop for Conservation and Wise-Use of Wetlands

International Day of Biological Diversity 2022


TOP PREDATORS
HIGHER TROPHIC LEVEL
MID-TROPHIC LEVEL
LOWER TROPHIC LE
PRIMARY PRODUCERS


12
21 Century Polymers, North West, Delhi
POLYMER COMPOUNDS
11
SAAHAS- Zero Waste, Bengaluru, Karnataka
TOP PREDATORS
HIGHER TROPHIC LEVEL
MID-TROPHIC LEVEL
RECOVERY
RECYCLE
Convert materials to new products

FACILITIES



DELTA

The Auditorium

DELTA auditorium is the central important place to deliver professional seminars, conferences, presentations and important meetings apart from screening research oriented movies. The entire facility is fully air-conditioned with a dedicated power back-up. Delta auditorium has a seating configuration for 220 people with acoustic audio visual facilities. Other facilities includes video conferencing, Personnel assistance system, digital projection, and WiFi facilities. It has an excellent stage to be used for all common functions/events. Behind the stage, support and service room is also available.

ROSETTE

Convention Centre

Rosette hall is a well-furnished and very spacious fully air conditioned Conference Hall with state of the art audio, video facilities. It has a capacity to accommodate up to 70 participants. This premier space is designed for various lectures by Guest Speakers, Exhibitions, Seminars, programmes and conferences.

CLIFF

Visiting Scientist's Hostel

NCSCM offers well-designed spacious 2-storeyed Visiting Scientist’s Hostel for the comfortable stay for the delegates, researchers and scientists. Cliff Visiting Scientist Hostel has 13 AC rooms, consisting of 4 Suites and 9 Standard rooms. All the rooms

are well-equipped with Television set, intercom, Hi speed Wi-Fi and other basic amenities.

For reservation email the downloaded application to admin[at]ncscm[dot]org

Chlorophyll

The Café

NCSCM has air conditioned Cafeteria with modern facilities within its campus, which is open for staff, students and visitors. It has a seating capacity of 64 serves at a time. Healthy and hygienic food, meals and fresh fruit juices are available. Hard-working, well-trained staff ensures a prompt and environmentally sustainable services by using resources conscientiously.

Cafeteria is open for public from Monday to Saturday (9:00 AM to 6:30 PM).

Library

ATHENAEUM

NCSCM library collection includes books, periodicals, newspapers, manuscripts, research films, maps, printed resources, manuscript, online databases, theses and ephemeral collections to support the scholarly and subject information needs of the researchers. Athenaeum has a reading hall with seating capacity of 36, and 85″ smart TV for displaying recent research works, research movies, underwater videos about different species and its habitat. The mezzanine floor has a dedicated e-library with Science Direct subscription. 16 touch screen personal computers are available. Dedicated library staff are present to provide assistance for issuing and returning of books. NCSCM invites all to visit the library in order to enjoy the wealth of printed resources available on our shelves.

SCIENTIFIC LABORATORIES

NCSCM laboratories are equipped with highly sophisticated equipment for specialized analyses. Several multi-disciplinary research studies are undertaken as part of the Integrated Coastal Zone Management Project and coastal ecosystem science for management. This state-of-the-art facility is used to further NCSCM research mandates and are open for use by researchers, students and for expanding the business plan of NCSCM.

1. Coastal Biomonitoring Facility

2. Climate Change Research Facility

3. Environmental Radiochemistry Lab

4. Coastal Ecology Lab

5. Coastal Hydrogeochemistry Facility

6. Marine Microbiology Lab

7. Marine Biotechnology Lab

8. Marine Litter Research Lab

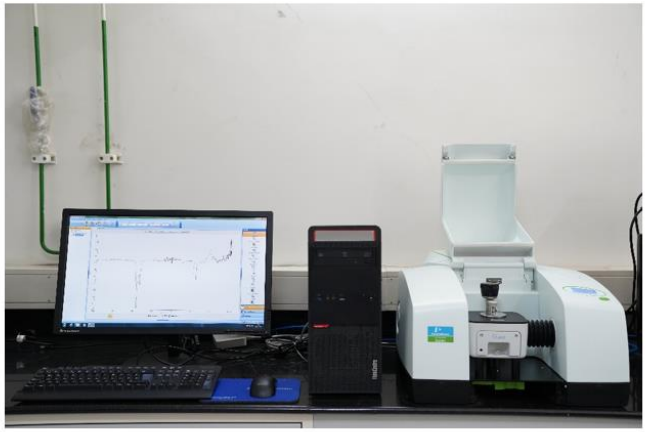
9. Advanced Imaging and Analytical Facility

10. Paleoclimate Reconstruction Lab

11. Marine Plankton Imaging Lab

12. Persistent Organic Pollutant Research Lab

13. Beach Monitoring Lab

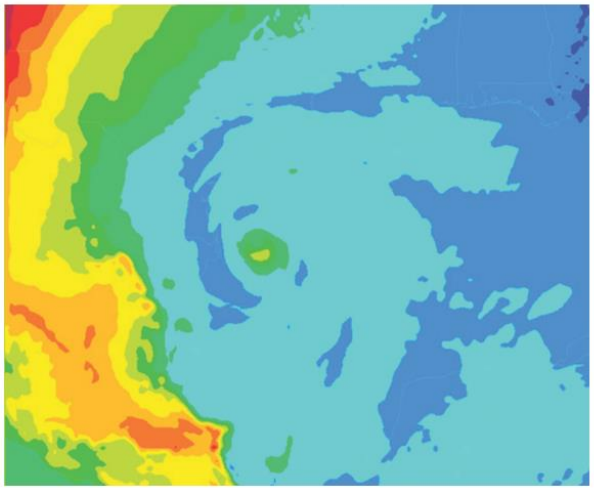


14. Air Quality Monitoring Lab

15. Remote Sensing & GIS Facility

16. Real-Time Monitoring System Facility

17. Numerical Modelling Facility



11. Right to Information

6

RTI Annual Return Information System

Quaterly Return Form

Public Authority : National Centre for Sustainable Coastal Management (NCSCM)

Quarter : Ist Quarter (April-June)2022-2023

* Block I (Details about the requests and appeals)

	Opening Balance as on begining of	No. of application received as transfer from other PAs u/s 6(3)	Progress during Quarter: Received during the Quarter(including cases transferred to other PAs)	Progress during Quarter: No. of Cases transfered to other PAs u/s 6(3)	Progress during Quarter: Decisions Where requests/appeals rejected	Progress during Quarter: Decisions Where requests/appeals replied
Requests	0	1	4	0	0	5
First Appeals	0	N/A	0	N/A	0	0

Total no. Of CAPIOs designated	Total no. Of CPIOs designated	Total no. Of AAs designated
0	1	0

* Block II (Details about fees Collected,penalty imposed and disciplinary action taken)

Registration Fee Collected(in Rs.) u/s 7(1)	Addl. Fee Collected(in Rs.) u/s 7(3)	Penalty Amount Recovered(in Rs.) as directed by CIC u/s 20(1)	No. Of Cases where disciplinary action taken against any Officer u/s 20(2)
0	0	0	0

* Block III (Details Of various provisions of section 8 while rejecting the requested information)

No. Of times various provisions were invoked while rejecting requests

Relevant Sections Of RTI Act 2005

Section 8(i)										Section			
a	b	c	d	e	f	g	h	i	j	9	11	24	other
0	0	0	0	0	0	0	4	0	0	0	0	0	2

* Block IV (Details Regarding Mandatory Disclosures)

A. Is the Mandatory Disclosures under Sec. 4(1)(b) posted on the Website of Public Authority ?	Provide the detail/URL of webpage,where the disclosure is posted (max 150 chars)
Yes	www.ncscm.res.in
B. Last Date of updating of Mandatory disclosure under Section 4(1)b	2023-01-10
C. Has the Mandatory Disclosure been audited by third party as per DOPT vide OM No. 1/6/2011-IR dated 15-04-2013?	Provide the detail/URL of webpage,where the Audit report is posted (max 150 chars)
Yes	https://cic.gov.in/sites/default/files/Transparency%
D. Date of audit of Mandatory disclosures under Sec. 4(1)(b)(Format dd/mm/yyyy)	2018-11-12

to

RTI Annual Return Information System

Quaterly Return Form

Public Authority : National Centre for Sustainable Coastal Management (NCSCM)

Quarter : 2nd Quarter (July-Sept)2022-2023

* Block I (Details about the requests and appeals)

	Opening Balance as on begining of	No. of application received as transfer from other PAs u/s 6(3)	Progress during Quarter: Received during the Quarter(including cases transferred to other PAs)	Progress during Quarter: No. of Cases transfered to other PAs u/s 6(3)	Progress during Quarter: Decisions Where requests/appeals rejected	Progress during Quarter: Decisions Where requests/appeals replied
Requests	0	1	4	0	0	5
First Appeals	0	N/A	0	N/A	0	0

Total no. Of CAPIOs designated	Total no. Of CPIOs designated	Total no. Of AAs designated
0	1	0

* Block II (Details about fees Collected,penalty imposed and disciplinary action taken)

Registration Fee Collected(in Rs.) u/s 7(1)	Addl. Fee Collected(in Rs.) u/s 7(3)	Penalty Amount Recovered(in Rs.) as directed by CIC u/s 20(1)	No. Of Cases where disciplinary action taken against any Officer u/s 20(2)
0	0	0	0

* Block III (Details Of various provisions of section 8 while rejecting the requested information)

No. Of times various provisions were invoked while rejecting requests

Relevant Sections Of RTI Act 2005

Section 8(i)										Section			
a	b	c	d	e	f	g	h	i	j	9	11	24	other
0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Block IV (Details Regarding Mandatory Disclosures)

A. Is the Mandatory Disclosures under Sec. 4(1)(b) posted on the Website of Public Authority ?	Provide the detail/URL of webpage,where the disclosure is posted (max 150 chars)
Yes	www.ncscm.res.in
B. Last Date of updating of Mandatory disclosure under Section 4(1)b	2023-01-10
C. Has the Mandatory Disclosure been audited by third party as per DOPT vide OM No. 1/6/2011-IR dated 15-04-2013?	Provide the detail/URL of webpage,where the Audit report is posted (max 150 chars)
Yes	https://cic.gov.in/sites/default/files/Transparency%
D. Date of audit of Mandatory disclosures under Sec. 4(1)(b)(Format dd/mm/yyyy)	2018-11-12

RTI Annual Return Information System

Quaterly Return Form

Public Authority : National Centre for Sustainable Coastal Management (NCSCM)

Quarter : 3rd Quarter (Oct-Dec)2022-2023

* Block I (Details about the requests and appeals)

	Opening Balance as on begining of	No. of application received as transfer from other PAs u/s 6(3)	Progress during Quarter: Received during the Quarter(including cases transferred to other PAs)	Progress during Quarter: No. of Cases transfered to other PAs u/s 6(3)	Progress during Quarter: Decisions Where requests/appeals rejected	Progress during Quarter: Decisions Where requests/appeals replied
Requests	0	4	0	2	0	2
First Appeals	0	N/A	0	N/A	0	0

Total no. Of CAPIOs designated	Total no. Of CPIOs designated	Total no. Of AAs designated
0	1	0

* Block II (Details about fees Collected,penalty imposed and disciplinary action taken)

Registration Fee Collected(in Rs.) u/s 7(1)	Addl. Fee Collected(in Rs.) u/s 7(3)	Penalty Amount Recovered(in Rs.) as directed by CIC u/s 20(1)	No. Of Cases where disciplinary action taken against any Officer u/s 20(2)
0	0	0	0

* Block III (Details Of various provisions of section 8 while rejecting the requested information)

No. Of times various provisions were invoked while rejecting requests

Relevant Sections Of RTI Act 2005

Section 8(i)									Section				
a	b	c	d	e	f	g	h	i	j	9	11	24	other
0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Block IV (Details Regarding Mandatory Disclosures)

A. Is the Mandatory Disclosures under Sec. 4(1)(b) posted on the Website of Public Authority ?	Provide the detail/URL of webpage.where the disclosure is posted (max 150 chars)
Yes	www.ncscm.res.in
B. Last Date of updating of Mandatory disclosure under Section 4(1)b	2023-01-10
C. Has the Mandatory Disclosure been audited by third party as per DOPT vide OM No. 1/6/2011-IR dated 15-04-2013?	Provide the detail/URL of webpage.where the Audit report is posted (max 150 chars)
Yes	https://cic.gov.in/sites/default/files/Transparency%
D. Date of audit of Mandatory disclosures under Sec. 4(1)(b)(Format dd/mm/yyyy)	2018-11-12

RTI Annual Return Information System

Quaterly Return Form

Public Authority : National Centre for Sustainable Coastal Management (NCSCM)

Quarter : 4th Quarter (Jan-Mar)2022-2023

* Block I (Details about the requests and appeals)

	Opening Balance as on begining of	Progress during Quarter				
		No. of application received as transfer from other PAs u/s 6(3)	Received during the Quarter(including cases transferred to other PAs)	No. of Cases transfered to other PAs u/s 6(3)	Decisions Where requests/appeals rejected	Decisions Where requests/appeals replied
Requests	0	3	2	1	0	4
First Appeals	0	N/A	0	N/A	0	0

Total no. Of CAPIOs designated	Total no. Of CPIOs designated	Total no. Of AAs designated
0	1	1

* Block II (Details about fees Collected,penalty imposed and disciplinary action taken)

Registration Fee Collected(in Rs.) u/s 7(1)	Addl. Fee Collected(in Rs.) u/s 7(3)	Penalty Amount Recovered(in Rs.) as directed by CIC u/s 20(1)	No. Of Cases where disciplinary action taken against any Officer u/s 20(2)
0	0	0	0

* Block III (Details Of various provisions of section 8 while rejecting the requested information)

No. Of times various provisions were invoked while rejecting requests

Relevant Sections Of RTI Act 2005

Section 8(i)										Section			
a	b	c	d	e	f	g	h	i	j	9	11	24	other
0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Block IV (Details Regarding Mandatory Disclosures)

A. Is the Mandatory Disclosures under Sec. 4(1)(b) posted on the Website of Public Authority ?	Provide the detail/URL of webpage,where the disclosure is posted (max 150 chars)
Yes	www.ncscm.res.in
B. Last Date of updating of Mandatory disclosure under Section 4(1)b	2023-05-18
C. Has the Mandatory Disclosure been audited by third party as per DOPT vide OM No. 1/6/2011-IR dated 15-04-2013?	Provide the detail/URL of webpage,where the Audit report is posted (max 150 chars)
Yes	https://cic.gov.in/sites/default/files/Transparency%
D. Date of audit of Mandatory disclosures under Sec. 4(1)(b)(Format dd/mm/yyyy)	2018-11-12

12. Audit Report (FY2022-2023)

INDEPENDENT AUDITORS REPORT

To

The Director

NATIONAL CENTRE FOR SUSTAINABLE COSTAL MANAGEMENT
Add: **Anna University Campus, Guindy, Chennai - 600025**

Report on the Financial Statement

We have audited the accompanying financial statement of **NATIONAL CENTRE FOR SUSTAINABLE COSTAL MANAGEMENT** which comprises the balance sheet as at 31st march 2023, the income & expenditure statement and the receipt & payment statement for the period then ended and summary of significant accounting policies and other explanatory information on that date annexed thereto.

Management's Responsibility for the financial statement

The Society's management is responsible for the preparation of these financial statement that give a true fair view of financial position financial performance of the Society in accordance with the accounting standards issued by the institute of chartered accountants of India. These responsibilities includes the design, implementation and maintenance of internal controls relevant to the preparation and presentation of the financial statement that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these finance statement based on our audit. We have conducted our audit in accordance with the standards on auditing issued by the institutes of chartered Accountants of India. Those standards require that we comply with the ethical requirement and plan and perform the audit to obtain reasonable assurance about whether the financial statement is free material misstatement.

An audit involves performing procedures to obtain audit evidences about the amounts and their disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessments of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the Society preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstance.

An audit also includes evaluating the appropriateness, as well as evaluating the overall financial presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient [illegible] our audit opinion

Opinion

In our opinion and to the best of our information and according to the explanations gives to us, the financial statement gives the information in the manner so required and gives true fair view in conformity with the accounting principles generally accepted in India.

1. In the case of the balance sheet, of the state of affairs of the Society as at 31st march 2023 and,
2. In the case of the income & expenditure statements of the excess income of over expenditure of the Society for the period ended on the date and,
3. In the case of the receipts & payment statement, of the cash flow of the Society for the period ended on the date.

Report on other legal and regulatory requirements

a) We have obtained all the information and explanation which to the best of our Knowledge and belief were necessary for the purpose of our audit;

b) In our opinion proper books of accounts as required by law have been kept by the Society as far as appears from our examination of such books;

c) The balance sheet income & expenditure statement and receipt & payment Statements dealt with by this report are in agreement with the books of accounts;

For Rangamani & CO.
Chartered Accountants

Nima Nirmala
(Partner)
M. NO. 226394
Date: - 28/09/2023
Place: Delhi
UDIN- 23226394BGXVDY6897

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
CONSOLIDATED BALANCE SHEET AS ON March 31, 2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	₹ 80,35,69,037.64	₹ 1,64,35,06,526.07
RESERVES AND SURPLUS	2	₹ 0.00	₹ 0.00
1.Capital Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
3.Special Reserves:		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS	3	₹ 0.00	₹ 0.00
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets		₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
Net Balance as at the year -end (a+b+c)		₹ 0.00	₹ 0.00
SECURED LOANS AND BORROWINGS	4	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due		₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS	5	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	₹ 0.00	₹ 0.00
CURRENT LIABILITIES AND PROVISIONS		₹ 34,88,48,052.80	₹ 43,06,62,486.25
A.CURRENT LIABILITIES		₹ 32,72,68,353.24	₹ 40,90,83,075.09
1.Acceptances		₹ 0.00	₹ 0.00

Director In-charge
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Manager - Finance & Accounts
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
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Fr RANGARAJAN & CO.
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CA Nima Nirmala M.Com.FCA
M. No.-226394
Partner

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI
600 025

2.Sundry Creditors (a) for goods (b) others	7	₹ 0.00	₹ 0.00
3.Advances received		₹ 26,17,43,323.96	₹ 32,20,13,343.91
4.Interest accrued but not due on(a) secured loan/borrowings, (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00
5.Statutory Liabilities		₹ 1,50,64,284.48	₹ 8,10,86,593.18
6.Other current Liabilities		₹ 5,04,60,744.80	₹ 59,83,138.00
B.PROVISIONS		**₹ 2,15,79,699.56**	**₹ 2,15,79,411.16**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 2,15,79,699.56	₹ 2,15,79,411.16
TOTAL		**₹ 1,15,24,17,090.44**	**₹ 2,07,41,69,012.32**
ASSETS			
FIXED ASSETS	8	**₹ 56,48,68,831.95**	**₹ 1,40,73,80,032.84**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 33,89,20,917.01	₹ 62,35,63,119.40
3.PLANT MACHINERY& EQUIPMENT		₹ 16,84,31,207.92	₹ 47,68,87,961.33
4.VEHICLES		₹ 8,86,898.65	₹ 28,86,557.00
5.FURNITURE, FIXTURES		₹ 9,70,048.93	₹ 20,04,965.00
6.OFFICE EQUIPMENT		₹ 23,86,101.67	₹ 68,99,669.00
7.COMPUTER/PERIPHERALS		₹ 3,60,57,014.46	₹ 26,49,31,758.00
8.ELECTRIC INSTALLATIONS		₹ 46,52,793.30	₹ 1,10,50,526.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 1,25,63,850.01	₹ 1,91,55,477.11
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS	10	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	**₹ 58,75,48,258.49**	**₹ 66,67,88,979.48**
A.CURRENT ASSETS		**₹ 14,50,25,408.52**	**₹ 23,07,35,502.60**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 98,78,910.31	₹ 1,34,53,604.94
3.Cash Balance in Hand		₹ 0.00	₹ 4,033.00
4.Bank Balances		₹ 13,51,46,498.21	₹ 21,72,77,864.66
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 44,25,22,849.97**	**₹ 43,60,53,476.88**
1.Loans		**₹ 2,97,20,204.74**	**₹ 2,10,27,030.74**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity		₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 2,97,20,204.74	₹ 2,10,27,030.74
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 45,89,656.95**	**₹ 83,14,188.00**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 45,89,656.95	₹ 83,14,188.00
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 40,82,12,988.28**	**₹ 40,67,12,258.14**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 1,15,24,17,090.44**	**₹ 2,07,41,69,012.32**

National Centre for Sustainable Coastal Management
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Director

Manager - Finance & Accounts

CHENNAI 600 025

Fr RANGAMANI & CO.
Chartered Accountants
CA Nima Nirmala M.Com.FCA

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON March 31,2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 2,09,43,960.00**	**₹ 7,37,31,096.00**
1.Income from Sales		₹ 0.00	₹ 0.00
2.Income from Services		₹ 2,09,43,960.00	₹ 7,37,31,096.00
GRANTS/SUBSIDIES	13	**₹ 21,87,64,087.75**	**₹ 16,02,70,763.70**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 21,87,64,087.75	₹ 16,02,70,763.70
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 0.00	₹ 0.00
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 33,87,150.00**	**₹ 47,34,868.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 33,87,150.00	₹ 47,34,868.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 0.00	₹ 0.00
OTHER INCOME	18	**₹ 2,02,833.56**	**₹ 1,12,677.80**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 2,02,833.56	₹ 1,12,677.80
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 24,32,98,031.31**	**₹ 23,88,49,405.50**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 14,05,19,595.99**	**₹ 11,14,61,138.00**
(a)Salaries and Wages		₹ 11,28,97,490.99	₹ 10,67,76,968.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 2,70,47,968.00	₹ 13,59,782.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 5,74,137.00	₹ 33,24,388.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 9,86,03,623.76**	**₹ 7,52,45,392.45**
a)Purchases		₹ 32,12,982.57	₹ 84,74,114.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 85,63,591.56	₹ 89,67,155.00
e)water charges		₹ 1,46,025.00	₹ 98,000.00
f)Insurance		₹ 46,871.67	₹ 8,88,109.00
g)Repairs & maintenance		₹ 1,32,96,784.13	₹ 2,40,75,512.12

National Centre for Sustainable Coastal Management
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Director

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NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00
k)Postage, Telephone and communication charges		₹ 18,128.90	₹ 35,574.00
l)printing and stationery		₹ 1,21,284.44	₹ 7,15,470.00
m)Travelling and conveyance charges		₹ 1,23,21,714.10	₹ 68,81,542.50
n)Expenses on seminar/workshops		₹ 84,94,056.00	₹ 4,82,808.48
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 28,03,451.00	₹ 28,04,587.88
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 2,74,032.08	₹ 5,48,429.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 37,908.75	₹ 70,263.50
z)Others(Specify)		₹ 4,92,66,793.56	₹ 2,12,03,826.97
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 23,91,23,219.75**	**₹ 18,67,06,530.45**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 41,74,811.56**	**₹ 5,21,42,875.05**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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Partner

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
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Director
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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT			
SCHEDULES FORMING PART OF CONSOLIDATED BALANCE SHEET AS AT 31/03/2023			
SCHEDULE 1- CORPUS/CAPITAL FUND			
BALANCE AT THE BEGINNING OF THE YEAR		₹	**1,63,83,48,319.77**
ADD:	**CONNTRIBUTION TOWARDS CORPUS/CAPITAL FUND**	₹	41,87,028.51
	NCSCM-ICZMP-ACITIVITES	₹	41,87,028.51
	NCSCM-ESA-ACTIVITIES	₹	-
	NCSCSM-EDC ACTIVITIES	₹	-
	NCSCM-USERS FEE	₹	-
	NCSCM-OGIA	₹	-
ADD:	**BALANCE OF NET INCOME/EXPENSES TRANSFERRED FROM THE INCOME & EXP A/C**	₹	**-83,89,66,310.64**
	NCSCM-ICZMP-ACITIVITES	₹	-79,32,03,080.64
	NCSCM-ESA-ACTIVITIES	₹	-3,54,38,509.23
	NCSCSM-EDC ACTIVITIES	₹	-45,65,197.09
	NCSCM-USERS FEE	₹	6,35,836.71
	NCSCM-OGIA	₹	-63,95,360.39
BALANCE AS AT THE YEAR END		₹	**80,35,69,037.64**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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M. No.-226394
Partner

NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OF CONSOLIDATED BALANCE SHEET AS AT 31/03/2023		
SCHEDULE 2- RESERVE&SURPLUS-4-GENERAL RESEREVE		
BALANCE AT THE BEGINNING OF THE YEAR		₹ -
ADD:	CONNTRIBUTION TOWARDS CORPUS/CAPITAL FUND	₹ -
	NCSCM-ICZMP-ACITIVITES	₹ -
	NCSCM-ESA-ACTIVITIES	₹ -
	NCSCSM-EDC ACTIVITIES	₹ -
	NCSCM-USERS FEE	₹ -
	NCSCM-OGIA	₹ -
ADD:	BALANCE OF NET INCOME/EXPENSES TRANSFERRED FROM THE INCOME & EXP A/C	₹ -
	NCSCM-ICZMP-ACITIVITES	₹ -
	NCSCM-ESA-ACTIVITIES	₹ -
	NCSCSM-EDC ACTIVITIES	₹ -
	NCSCM-USERS FEE	₹ -
	NCSCM-OGIA	₹ -
BALANCE AS AT THE YEAR END		₹ -

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OF CONSOLIDATED BALANCE SHEET AS AT 31/03/2023		
SCHEDULE 7 CURRENT LIABILITIES & PROVISIONS		
SCHEDULE	**ACCOUNTS**	**AMOUNT**
7-A-3	**CURRENT LIABILITIES-ADVANCE RECEIVED**	
	NCSCM-ICZMP-ACITIVITES	-₹2,87,68,437.12
	NCSCM-ESA-ACTIVITIES	₹1,99,458.00
	NCSCSM-EDC ACTIVITIES	₹24,93,54,299.08
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹4,09,58,004.00
SUB TOTAL		**₹26,17,43,323.96**
7-A-5-B	**CURRENT LIABILITIES-STATUTORY LIABILITIES**	
	NCSCM-ICZMP-ACITIVITES	**₹15,83,035.00**
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹83,17,864.19
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹51,63,385.29
SUB TOTAL		**₹1,50,64,284.48**
7-A-6	**OTHER CURRENT LIABILITIES**	
	NCSCM-ICZMP-ACITIVITES	₹4,82,91,044.80
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹16,23,473.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹5,46,227.00
SUB TOTAL		**₹5,04,60,744.80**
7-B-3	**PROVISION-SUPERANNUATION/PENSION**	
	NCSCM-ICZMP-ACITIVITES	₹0.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		**₹0.00**
7-B-6	**PROVISION-OTHERS**	
	NCSCM-ICZMP-ACITIVITES	₹14,717.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹2,14,71,609.00
	NCSCM-USERS FEE	₹93,373.56
	NCSCM-OGIA	₹0.00
SUB TOTAL		**₹2,15,79,699.56**

NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT ★ CHENNAI 600 025

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M. No.-226394
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Fr. Rangamani & Co. Chartered Accountants

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OF CONSOLIDATED BALANCE SHEET AS AT 31/03/2023		
SCHEDULE 8: FIXED ASSETS		
SCHEDULE	**ACCOUNTS**	**AMOUNT**
8-A-7	COMPUTER/PERIPHERALS	
	NCSCM-ICZMP-ACITIVITES	₹3,15,06,635.44
	NCSCM-ESA-ACTIVITIES	₹21,91,972.49
	NCSCSM-EDC ACTIVITIES	₹12,77,294.96
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹10,81,111.57
	SUB TOTAL	₹3,60,57,014.46
8-A-2	BUILDING	
	NCSCM-ICZMP-ACITIVITES	₹33,89,20,917.01
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	₹33,89,20,917.01
8-A-3	PLANT & MACHINERY& EQUIPMENTS	
	NCSCM-ICZMP-ACITIVITES	₹16,73,57,799.04
	NCSCM-ESA-ACTIVITIES	₹1,35,370.08
	NCSCSM-EDC ACTIVITIES	₹32,321.72
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹9,05,717.08
	SUB TOTAL	₹16,84,31,207.92
8-A-4	VEHICLES	
	NCSCM-ICZMP-ACITIVITES	₹1,41,330.25
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹7,45,568.40
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	₹8,86,898.65
8-A-5	FURNITURE&FIXTURE	
	NCSCM-ICZMP-ACITIVITES	₹9,70,048.93
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	₹9,70,048.93
8-A-6	OFFICE EQUIPMENTS	
	NCSCM-ICZMP-ACITIVITES	₹23,86,101.67
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	₹23,86,101.67

For Fr RANGAMANI & CO.
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8-A-8	**ELECTRICAL INSTALLATION**	
	NCSCM-ICZMP-ACITIVITES	**₹30,46,895.76**
	NCSCM-ESA-ACTIVITIES	₹12,22,261.87
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹3,83,635.67
SUB TOTAL		**₹46,52,793.30**
8-A-11	**OTHER FIXED ASSETS**	
	NCSCM-ICZMP-ACITIVITES	**₹1,18,78,389.41**
	NCSCM-ESA-ACTIVITIES	₹6,65,195.33
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹20,265.27
SUB TOTAL		**₹1,25,63,850.01**

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OFCONSOLIDATED BALANCE SHEET AS AT 31/03/2023		
SCHEDULE-11-CURRENT ASSETS LOAND AND ADVANCES		
11-A-2	SUNDRY DEBTOR	
	NCSCM-ICZMP-ACITIVITES	₹ 0.00
	NCSCM-ESA-ACTIVITIES	₹ 0.00
	NCSCSM-EDC ACTIVITIES	₹ 98,53,910.31
	NCSCM-USERS FEE	₹ 25,000.00
	NCSCM-OGIA	₹ 0.00
SUB TOTAL		₹ 98,78,910.31
11-A-3	CASH BALANCES IN HAND	
	NCSCM-ICZMP-ACITIVITES	₹0.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹0.00
11-A-4A	DEPOSIT WITH SCHEDULE BANKS	
	NCSCM-ICZMP-ACITIVITES	₹1,32,99,302.24
	NCSCM-ESA-ACTIVITIES	₹76,920.05
	NCSCSM-EDC ACTIVITIES	₹7,44,46,776.74
	NCSCM-USERS FEE	₹18,15,120.28
	NCSCM-OGIA	₹4,55,08,378.90
SUB TOTAL		₹13,51,46,498.21
11-B-1-C	TRAVEL ADVANCE TO STAFF	
	NCSCM-ICZMP-ACITIVITES	₹4,66,104.16
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹2,85,74,094.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹6,80,006.58
SUB TOTAL		₹2,97,20,204.74
11-B-2B	ADV TO INSTITUTE	
	NCSCM-ICZMP-ACITIVITES	₹32,21,758.00
	NCSCM-ESA-ACTIVITIES	₹1,22,537.95
	NCSCSM-EDC ACTIVITIES	₹11,57,500.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹87,861.00
SUB TOTAL		₹45,89,656.95
11-B-4	CLAIMS RECEIVABLE	
	NCSCM-ICZMP-ACITIVITES	₹85,69,475.48
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹39,36,00,007.58
	NCSCM-USERS FEE	₹1,32,460.00
	NCSCM-OGIA	₹59,11,045.22
SUB TOTAL		₹40,82,12,988.28

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OFCONSOLIDATED BALANCE SHEET AS AT 31/03/2023		
SCHEDULE-12-INCOME FROM SALES/SERVICES		
12-2-B	INCOME FROM PROFESSIONAL SERVICES	
	NCSCM-ICZMP-ACITIVITES	₹0.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹2,03,26,272.00
	NCSCM-USERS FEE	₹6,17,688.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹2,09,43,960.00

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OF CONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 13- GRANTS/SUBSIDIES		
13-3	GRANTS FROM GOVERNMENT AGENCIES	
	NCSCM-ICZMP-ACITIVITES	₹7,73,42,680.96
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹14,14,21,406.79
		₹0.00
SUB TOTAL		₹21,87,64,087.75

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SCHEDULES FORMING PART OF CONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 14- FEES/SUBSCRIPTION		
14	NCSCM-ICZMP-ACITIVITES	₹0.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
		₹0.00
SUB TOTAL		**₹0.00**

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SCHEDULES FORMING PART OF CONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 17- INTEREST EARNED		
17-2-A	NCSCM-ICZMP-ACITIVITES	₹12,013.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹28,41,748.00
	NCSCM-USERS FEE	₹45,787.00
	NCSCM-OGIA	₹4,87,602.00
SUB TOTAL		**₹33,87,150.00**

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SCHEDULES FORMING PART OF CONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 18- OTHER INCOME		
18-4	NCSCM-ICZMP-ACITIVITES	₹1,38,833.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹29,000.40
	NCSCM-USERS FEE	₹0.16
	NCSCM-OGIA	₹35,000.00
SUB TOTAL		**₹2,02,833.56**

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OF CONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 20		
20-A	SALARIES & WAGES	
	NCSCM-ICZMP-ACITIVITES	₹2,02,71,511.63
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹1,01,83,642.70
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹8,24,42,336.66
SUB TOTAL		₹11,28,97,490.99
20-C	CONTRIBUTION TO PROVIDENT FUND	
	NCSCM-ICZMP-ACITIVITES	₹2,70,47,968.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹2,70,47,968.00
20-E	STAFF WELFARE EXPENSES	
	NCSCM-ICZMP-ACITIVITES	₹5,74,137.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹5,74,137.00

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NATIONAL CENTER FOR SUSTAINABLE COASTAL MANAGEMENT		
SCHEDULES FORMING PART OFCONSOLIDATED INCOME STATEMENT AS AT 31/03/2023		
SCHEDULE- 21		
21-A	PURCHASES	
	NCSCM-ICZMP-ACITIVITES	₹0.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹32,12,982.57
SUB TOTAL		₹32,12,982.57
21-D	ELECTRICITY & POWER	
	NCSCM-ICZMP-ACITIVITES	₹85,63,591.56
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹85,63,591.56
21-E	WATER CHARGES	
	NCSCM-ICZMP-ACITIVITES	₹1,46,025.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹1,46,025.00
21-F	INSURANCE	
	NCSCM-ICZMP-ACITIVITES	₹46,871.67
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹46,871.67
21-G	REAPAIRS&MAINTENANCE	
	NCSCM-ICZMP-ACITIVITES	₹1,32,78,630.13
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹18,154.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹1,32,96,784.13
21-K	POSTAGE,TELEPHONE&COMMUNICATE CHARGES	
	NCSCM-ICZMP-ACITIVITES	₹18,128.90
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹18,128.90
21-L	PRINTING&STATIONERY	
	NCSCM-ICZMP-ACITIVITES	₹1,21,284.44
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
SUB TOTAL		₹1,21,284.44
21-M	TRAVELLING& CONVEYANCE EXPENSES	
	NCSCM-ICZMP-ACITIVITES	₹27,47,775.60
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹24,59,292.50
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹71,14,646.00
SUB TOTAL		₹1,23,21,714.10
21-N	EXPENSES ON SEMINAR/WORKSHOP	
	NCSCM-ICZMP-ACITIVITES	₹4,01,765.00

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	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹80,92,291.00
	SUB TOTAL	**₹84,94,056.00**
21-P	**EXPENSES & FEES**	
	NCSCM-ICZMP-ACITIVITES	₹28,03,451.00
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	**₹28,03,451.00**
21-R	**HOSPITALITY EXPENSES**	
	NCSCM-ICZMP-ACITIVITES	₹2,74,032.08
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	**₹2,74,032.08**
21-Y	**ADVERTISEMENT & PUBLICITY**	
	NCSCM-ICZMP-ACITIVITES	₹37,908.75
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹0.00
	NCSCM-USERS FEE	₹0.00
	NCSCM-OGIA	₹0.00
	SUB TOTAL	**₹37,908.75**
21-Z	**OTHERS**	
	NCSCM-ICZMP-ACITIVITES	₹4,07,744.20
	NCSCM-ESA-ACTIVITIES	₹0.00
	NCSCSM-EDC ACTIVITIES	₹92,89,049.37
	NCSCM-USERS FEE	**₹9,484.45**
	NCSCM-OGIA	₹3,95,60,515.54
	SUB TOTAL	**₹4,92,66,793.56**

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FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project : ICZMP -BALANCE SHEET AS ON March 31,2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	₹ 55,64,57,369.20	₹ 1,34,96,60,449.84
RESERVES AND SURPLUS	2	**₹ 0.00**	**₹ 0.00**
1.Capital Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
3.Special Reserves:		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS	3	**₹ 0.00**	**₹ 0.00**
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets		₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		**₹ 0.00**	**₹ 0.00**
Net Balance as at the year -end (a+b+c)		**₹ 0.00**	**₹ 0.00**
SECURED LOANS AND BORROWINGS	4	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due		₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS	5	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	**₹ 0.00**	**₹ 0.00**
CURRENT LIABILITIES AND PROVISIONS		**₹ 2,11,20,359.68**	**₹ 3,14,80,688.95**
A.CURRENT LIABILITIES		**₹ 2,11,05,642.68**	**₹ 3,13,79,581.95**
1.Acceptances		₹ 0.00	₹ 0.00
2.Sundry Creditors (a) for goods (b) others		₹ 0.00	₹ 0.00
3.Advances received		-₹ 2,87,68,437.12	₹ 2,27,55,537.95
4.Interest accrued but not due on(a) secured loan/borrowings, (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00

Director
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Government of India, Anna University Campus
Chennai-600 025, India

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
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NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI
600 025

For RANGAMANI & CO.
Chartered Accountants

5.Statutory Liabilities	7	₹ 15,83,035.00	₹ 42,38,002.00
6.Other current Liabilities		₹ 4,82,91,044.80	₹ 43,86,042.00
B.PROVISIONS		**₹ 14,717.00**	**₹ 1,01,107.00**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 14,717.00	₹ 1,01,107.00
TOTAL		**₹ 57,75,77,728.88**	**₹ 1,38,11,41,138.79**
ASSETS			
FIXED ASSETS	8	**₹ 55,61,03,850.20**	**₹ 1,34,94,57,776.84**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 33,89,20,917.01	₹ 62,35,63,119.40
3.PLANT MACHINERY& EQUIPMENT		₹ 16,73,57,799.04	₹ 47,63,73,151.33
4.VEHICLES		₹ 1,41,330.25	₹ 9,09,706.00
5.FURNITURE, FIXTURES		₹ 9,34,845.31	₹ 19,21,565.00
6.OFFICE EQUIPMENT		₹ 23,86,101.67	₹ 68,99,669.00
7.COMPUTER/PERIPHERALS		₹ 3,14,37,571.75	₹ 21,56,80,611.00
8.ELECTRIC INSTALLATIONS		₹ 30,46,895.76	₹ 66,16,667.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 1,18,78,389.41	₹ 1,74,93,288.11
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS	10	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	**₹ 2,14,73,878.68**	**₹ 3,16,83,361.95**
A.CURRENT ASSETS		**₹ 1,20,48,593.04**	**₹ 33,93,705.53**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 0.00	₹ 0.00
3.Cash Balance in Hand		₹ 0.00	₹ 4,033.00
4.Bank Balances		₹ 1,20,48,593.04	₹ 33,89,672.53
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 94,25,285.64**	**₹ 2,82,89,656.42**
1.Loans		**₹ 4,66,104.16**	**₹ 5,70,235.16**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity		₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 4,66,104.16	₹ 5,70,235.16
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 3,89,706.00**	**₹ 41,79,432.00**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 3,89,706.00	₹ 41,79,432.00
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 85,69,475.48**	**₹ 2,35,39,989.26**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 57,75,77,728.88**	**₹ 1,38,11,41,138.79**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT CHENNAI 600 025

Manager - Finance / Accounts
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Government of India, Anna University Campus
Chennai-600 025, India

Director
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
PROJECT: ICZMP-INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON March 31,2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 0.00**	**₹ 0.00**
1.Income from Sales		₹ 0.00	₹ 0.00
2.Income from Services		₹ 0.00	₹ 0.00
GRANTS/SUBSIDIES	13	**₹ 7,73,42,680.96**	**₹ 13,02,40,157.78**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 7,73,42,680.96	₹ 13,02,40,157.78
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 0.00	₹ 0.00
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 12,013.00**	**₹ 8,556.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 0.00	₹ 0.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 12,013.00	₹ 8,556.00
OTHER INCOME	18	**₹ 1,38,833.00**	**₹ 50,265.00**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 1,38,833.00	₹ 50,265.00
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 7,74,93,526.96**	**₹ 13,02,98,978.78**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 4,78,93,616.63**	**₹ 8,38,38,685.00**
(a)Salaries and Wages		₹ 2,02,71,511.63	₹ 7,91,54,515.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 2,70,47,968.00	₹ 13,59,782.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 5,74,137.00	₹ 33,24,388.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 2,88,47,208.33**	**₹ 4,70,50,293.78**
a)Purchases		₹ 0.00	₹ 70,63,167.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 85,63,591.56	₹ 89,67,155.00
e)water charges		₹ 1,46,025.00	₹ 98,000.00
f)Insurance		₹ 46,871.67	₹ 8,88,109.00
g)Repairs & maintenance		₹ 1,32,78,630.13	₹ 2,40,75,512.12
h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00

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Director

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NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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For RANGAMANI & CO.
Chartered Accountants

k)Postage, Telephone and communication charges		₹ 18,128.90	₹ 35,574.00
l)printing and stationery		₹ 1,21,284.44	₹ 7,15,470.00
m)Travelling and conveyance charges		₹ 27,47,775.60	₹ 13,11,776.00
n)Expenses on seminar/workshops		₹ 4,01,765.00	₹ 3,79,375.48
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 28,03,451.00	₹ 28,04,587.88
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 2,74,032.08	₹ 5,48,429.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 37,908.75	₹ 70,263.50
z)Others(Specify)		₹ 4,07,744.20	₹ 92,874.80
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 7,67,40,824.96**	**₹ 13,08,88,978.78**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 7,52,702.00**	**-₹ 5,90,000.00**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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Chennai-600 025, India

Director
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Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Fr RANGAMANI & CO.
Chartered Accountants
CA Nima Nirmala M.Com.FCA
M. No.-226394
Partner

Rangamani & Co. Chartered Accountants New Delhi

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project: ESA-BALANCE SHEET AS AT March 31, 2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	**₹ 42,14,799.77**	**₹ 3,96,53,309.00**
RESERVES AND SURPLUS	2	**₹ 0.00**	**₹ 0.00**
1.Capital Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
3.Special Reserves:		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS	3	**₹ 0.00**	**₹ 0.00**
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets		₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		**₹ 0.00**	**₹ 0.00**
Net Balance as at the year -end (a+b+c)		**₹ 0.00**	**₹ 0.00**
SECURED LOANS AND BORROWINGS	4	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due		₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS	5	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	**₹ 0.00**	**₹ 0.00**
CURRENT LIABILITIES AND PROVISIONS		**₹ 1,99,458.00**	**₹ 25,86,833.00**
A.CURRENT LIABILITIES		**₹ 1,99,458.00**	**₹ 25,86,833.00**
1.Acceptances		₹ 0.00	₹ 0.00
2.Sundry Creditors (a) for goods (b) others		₹ 0.00	₹ 0.00
3.Advances received		₹ 1,99,458.00	₹ 25,86,833.00
4.Interest accrued but not due on(a) secured loan/borrowings, (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00

Director
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Chennai-600 025, India

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT ★ CHENNAI 600 025

5.Statutory Liabilities	7	₹ 0.00	₹ 0.00
6.Other current Liabilities		₹ 0.00	₹ 0.00
B.PROVISIONS		**₹ 0.00**	**₹ 0.00**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 0.00	₹ 0.00
TOTAL		**₹ 44,14,257.77**	**₹ 4,22,40,142.00**
ASSETS			
FIXED ASSETS	8	**₹ 42,14,799.77**	**₹ 3,96,53,309.00**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 0.00	₹ 0.00
3.PLANT MACHINERY& EQUIPMENT		₹ 1,35,370.08	₹ 4,29,110.00
4.VEHICLES		₹ 0.00	₹ 0.00
5.FURNITURE, FIXTURES		₹ 0.00	₹ 0.00
6.OFFICE EQUIPMENT		₹ 0.00	₹ 0.00
7.COMPUTER/PERIPHERALS		₹ 21,91,972.49	₹ 3,39,95,863.00
8.ELECTRIC INSTALLATIONS		₹ 12,22,261.87	₹ 36,39,345.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 6,65,195.33	₹ 15,88,991.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS	10	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	**₹ 1,99,458.00**	**₹ 25,86,833.00**
A.CURRENT ASSETS		**₹ 76,920.05**	**₹ 76,920.05**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 0.00	₹ 0.00
3.Cash Balance in Hand		₹ 0.00	₹ 0.00
4.Bank Balances		₹ 76,920.05	₹ 76,920.05
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 1,22,537.95**	**₹ 25,09,912.95**
1.Loans		**₹ 0.00**	**₹ 0.00**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity		₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 0.00	₹ 0.00
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 1,22,537.95**	**₹ 25,09,912.95**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 1,22,537.95	₹ 25,09,912.95
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 0.00**	**₹ 0.00**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 44,14,257.77**	**₹ 4,22,40,142.00**

Fr PANCHAMANI & CO. Chartered Accountants

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT CHENNAI 600 025

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Director
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT

Project: ESA -INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS AT March 31, 2023

FY 2022-23

	Schedule	Amount (Rs) FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 0.00**	**₹ 0.00**
1.Income from Sales		₹ 0.00	₹ 0.00
2.Income from Services		₹ 0.00	₹ 0.00
GRANTS/SUBSIDIES	13	**₹ 0.00**	**₹ 22,618.40**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 0.00	₹ 22,618.40
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 0.00	₹ 0.00
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 0.00**	**₹ 0.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 0.00	₹ 0.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 0.00	₹ 0.00
OTHER INCOME	18	**₹ 0.00**	**₹ 0.00**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 0.00	₹ 0.00
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 0.00**	**₹ 22,618.40**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 0.00**	**₹ 0.00**
(a)Salaries and Wages		₹ 0.00	₹ 0.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 0.00	₹ 0.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 0.00	₹ 0.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 0.00**	**₹ 22,618.40**
a)Purchases		₹ 0.00	₹ 0.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 0.00	₹ 0.00
e)water charges		₹ 0.00	₹ 0.00
f)Insurance		₹ 0.00	₹ 0.00
g)Repairs & maintenance		₹ 0.00	₹ 0.00
h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00

National Centre for Sustainable Coastal Management, Ministry of Environment, Forest and Climate Change, Government of India, Anna University Campus, Chennai-600 025, India

Director

Manager - Finance / Accounts

National Centre for Sustainable Coastal Management, Ministry of Environment, Forest and Climate Change, Government of India, Anna University Campus

For RANGAMANI & CO.
Chartered Accountants

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT ★ CHENNAI 600 025

k)Postage, Telephone and communication charges		₹ 0.00	₹ 0.00
l)printing and stationery		₹ 0.00	₹ 0.00
m)Travelling and conveyance charges		₹ 0.00	₹ 22,583.00
n)Expenses on seminar/workshops		₹ 0.00	₹ 0.00
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 0.00	₹ 0.00
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 0.00	₹ 0.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 0.00	₹ 0.00
z)Others(Specify)		₹ 0.00	₹ 35.40
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 0.00**	**₹ 22,618.40**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 0.00**	**₹ 0.00**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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Chennai-600 025, India

Director
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Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Fr RANGAMANI & CO.
Chartered Accountants

CA Nima Nirmala M.Com.FCA
M. No.-226394
Partner

Rangamani & Co. Chartered Accountants New Delhi

CO & RANGAMANI
CHARTERED ACCOUNTANTS

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project: Other Grant In Aid -BALANCE SHEET AS ONT March 31, 2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	**₹ 79,10,405.00**	**₹ 1,43,05,765.39**
RESERVES AND SURPLUS		**₹ 0.00**	**₹ 0.00**
1.Capital Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year	2	₹ 0.00	₹ 0.00
3.Special Reserves:		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		**₹ 0.00**	**₹ 0.00**
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS		**₹ 0.00**	**₹ 0.00**
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets	3	₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		**₹ 0.00**	**₹ 0.00**
Net Balance as at the year -end (a+b+c)		**₹ 0.00**	**₹ 0.00**
SECURED LOANS AND BORROWINGS		**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due	4	₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS		**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)	5	₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	**₹ 0.00**	**₹ 0.00**
CURRENT LIABILITIES AND PROVISIONS		**₹ 4,66,67,616.29**	**₹ 9,74,65,398.17**
A.CURRENT LIABILITIES		**₹ 4,66,67,616.29**	**₹ 9,74,65,398.17**
1.Acceptances		₹ 0.00	₹ 0.00
2.Sundry Creditors (a) for goods (b) others		₹ 0.00	₹ 0.00
3.Advances received		₹ 4,09,58,004.00	₹ 8,93,95,742.88
4.Interest accrued but not due on(a) secured loan/borrowings, (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00

Director
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NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI
600 025

Fr RANGAMANI & CO.
Chartered Accountants

5.Statutory Liabilities	7	₹ 51,63,385.29	₹ 80,69,655.29
6.Other current Liabilities		₹ 5,46,227.00	₹ 0.00
B.PROVISIONS		**₹ 0.00**	**₹ 0.00**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 0.00	₹ 0.00
TOTAL		**₹ 5,45,78,021.29**	**₹ 11,17,71,163.56**
ASSETS			
FIXED ASSETS	8	**₹ 23,90,729.59**	**₹ 93,08,137.00**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 0.00	₹ 0.00
3.PLANT MACHINERY& EQUIPMENT		₹ 9,05,717.08	₹ 0.00
4.VEHICLES		₹ 0.00	₹ 0.00
5.FURNITURE, FIXTURES		₹ 0.00	₹ 0.00
6.OFFICE EQUIPMENT		₹ 0.00	₹ 0.00
7.COMPUTER/PERIPHERALS		₹ 10,81,111.57	₹ 84,40,425.00
8.ELECTRIC INSTALLATIONS		₹ 3,83,635.67	₹ 7,94,514.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 20,265.27	₹ 73,198.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS	10	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	**₹ 5,21,87,291.70**	**₹ 10,24,63,026.56**
A.CURRENT ASSETS		**₹ 4,55,08,378.90**	**₹ 9,60,96,421.63**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 0.00	₹ 0.00
3.Cash Balance in Hand		₹ 0.00	₹ 0.00
4.Bank Balances		₹ 4,55,08,378.90	₹ 9,60,96,421.63
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 66,78,912.80**	**₹ 63,66,604.93**
1.Loans		**₹ 6,80,006.58**	**₹ 5,65,130.58**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity		₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 6,80,006.58	₹ 5,65,130.58
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 87,861.00**	**₹ 0.00**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 87,861.00	₹ 0.00
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 59,11,045.22**	**₹ 58,01,474.35**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 5,45,78,021.29**	**₹ 11,17,71,163.56**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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Director
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Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT

Project : Other Grant In Aid -INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON March 31,2023

FY 2022-23

	Schedule	Amount (Rs) FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 0.00**	**₹ 0.00**
1.Income from Sales		₹ 0.00	₹ 0.00
2.Income from Services		₹ 0.00	₹ 0.00
GRANTS/SUBSIDIES	13	**₹ 14,14,21,406.79**	**₹ 3,00,07,987.52**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 11,53,49,138.73	₹ 1,97,90,763.56
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 2,60,72,268.06	₹ 1,02,17,223.96
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 4,87,602.00**	**₹ 2,25,460.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 4,87,602.00	₹ 2,25,460.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 0.00	₹ 0.00
OTHER INCOME	18	**₹ 35,000.00**	**₹ 0.00**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 35,000.00	₹ 0.00
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 14,19,44,008.79**	**₹ 3,02,33,447.52**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 8,24,42,336.66**	**₹ 1,06,48,485.00**
(a)Salaries and Wages		₹ 8,24,42,336.66	₹ 1,06,48,485.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 0.00	₹ 0.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 0.00	₹ 0.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 5,79,80,435.11**	**₹ 1,92,59,505.52**
a)Purchases		₹ 32,12,982.57	₹ 14,10,947.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 0.00	₹ 0.00
e)water charges		₹ 0.00	₹ 0.00
f)Insurance		₹ 0.00	₹ 0.00
g)Repairs & maintenance		₹ 0.00	₹ 0.00
h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00

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NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT ★ CHENNAI 600 025

k)Postage, Telephone and communication charges		₹ 0.00	₹ 0.00
l)printing and stationery		₹ 0.00	₹ 0.00
m)Travelling and conveyance charges		₹ 71,14,646.00	₹ 30,37,765.00
n)Expenses on seminar/workshops		₹ 80,92,291.00	₹ 1,03,433.00
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 0.00	₹ 0.00
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 0.00	₹ 0.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 0.00	₹ 0.00
z)Others(Specify)		₹ 3,95,60,515.54	₹ 1,47,07,360.52
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 14,04,22,771.77**	**₹ 2,99,07,990.52**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 15,21,237.02**	**₹ 3,25,457.00**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI
600 025

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Director
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Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Fr RANGAMANI & CO.
Chartered Accountants

CA Nima Nirmala M.Com.FCA
M. No.-226394
Partner

Rangamani & Co. New Delhi
Chartered Accountants

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project: Userfee -BALANCE SHEET AS ON March 31,2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	₹ 18,79,206.72	₹ 12,43,370.01
RESERVES AND SURPLUS	2	₹ 0.00	₹ 0.00
1.Capital Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
3.Special Reserves:		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS	3	₹ 0.00	₹ 0.00
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets		₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
Net Balance as at the year -end (a+b+c)		₹ 0.00	₹ 0.00
SECURED LOANS AND BORROWINGS	4	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due		₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS	5	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	₹ 0.00	₹ 0.00
CURRENT LIABILITIES AND PROVISIONS		₹ 93,373.56	₹ 6,695.16
A.CURRENT LIABILITIES		₹ 0.00	₹ 0.00
1.Acceptances		₹ 0.00	₹ 0.00
2.Sundry Creditors (a) for goods (b) others		₹ 0.00	₹ 0.00
3.Advances received		₹ 0.00	₹ 0.00
4.Interest accrued but not due on(a) secured loan/borrowings (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00

National Centre for Sustainable Coastal Management
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Government of India, Anna University Campus
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Fr RANGAMANI & CO.
Chartered Accountants

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI
600 025

5.Statutory Liabilities	7	₹ 0.00	₹ 0.00
6.Other current Liabilities		₹ 0.00	₹ 0.00
B.PROVISIONS		**₹ 93,373.56**	**₹ 6,695.16**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 93,373.56	₹ 6,695.16
TOTAL		**₹ 19,72,580.28**	**₹ 12,50,065.17**
ASSETS			
FIXED ASSETS	8	**₹ 0.00**	**₹ 0.00**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 0.00	₹ 0.00
3.PLANT MACHINERY& EQUIPMENT		₹ 0.00	₹ 0.00
4.VEHICLES		₹ 0.00	₹ 0.00
5.FURNITURE, FIXTURES		₹ 0.00	₹ 0.00
6.OFFICE EQUIPMENT		₹ 0.00	₹ 0.00
7.COMPUTER/PERIPHERALS		₹ 0.00	₹ 0.00
8.ELECTRIC INSTALLATIONS		₹ 0.00	₹ 0.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 0.00	₹ 0.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS	10	**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares		₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	**₹ 19,72,580.28**	**₹ 12,50,065.17**
A.CURRENT ASSETS		**₹ 18,40,120.28**	**₹ 11,25,275.17**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 25,000.00	₹ 0.00
3.Cash Balance in Hand		₹ 0.00	₹ 0.00
4.Bank Balances		₹ 18,15,120.28	₹ 11,25,275.17
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 1,32,460.00**	**₹ 1,24,790.00**
1.Loans		**₹ 0.00**	**₹ 0.00**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity		₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 0.00	₹ 0.00
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 0.00**	**₹ 0.00**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 0.00	₹ 0.00
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 1,32,460.00**	**₹ 1,24,790.00**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 19,72,580.28**	**₹ 12,50,065.17**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT CHENNAI 600 025

Fr RANGAMANI & CO. Chartered Accountants

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Director
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT

Project: Userfee -INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON March 31,2023

FY 2022-23

	Schedule	Amount (Rs) FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 6,17,688.00**	**₹ 48,805.00**
1.Income from Sales		₹ 6,17,688.00	₹ 48,805.00
2.Income from Services		₹ 0.00	₹ 0.00
GRANTS/SUBSIDIES	13	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 0.00	₹ 0.00
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 0.00	₹ 0.00
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 45,787.00**	**₹ 36,778.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 0.00	₹ 0.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 45,787.00	₹ 36,778.00
OTHER INCOME	18	**₹ 0.16**	**₹ 0.00**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 0.16	₹ 0.00
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 6,63,475.16**	**₹ 85,583.00**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 0.00**	**₹ 0.00**
(a)Salaries and Wages		₹ 0.00	₹ 0.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 0.00	₹ 0.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 0.00	₹ 0.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 27,638.45**	**₹ 1,555.82**
a)Purchases		₹ 0.00	₹ 0.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 0.00	₹ 0.00
e)water charges		₹ 0.00	₹ 0.00
f)Insurance		₹ 0.00	₹ 0.00
g)Repairs & maintenance		₹ 18,154.00	₹ 0.00
h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00

National Centre for Sustainable Coastal Management, Ministry of Environment, Forest and Climate Change, Government of India, Anna University Campus, Chennai-600 025, India

Manager - Finance / Accounts, National Centre for Sustainable Coastal Management, Ministry of Environment, Forest and Climate Change, Government of India, Anna University Campus, Chennai-600 025, India

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT ★ CHENNAI 600 025

RANGAMANI & CO. rtered Accountants

k)Postage, Telephone and communication charges		₹ 0.00	₹ 0.00
l)printing and stationery		₹ 0.00	₹ 0.00
m)Travelling and conveyance charges		₹ 0.00	₹ 0.00
n)Expenses on seminar/workshops		₹ 0.00	₹ 0.00
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 0.00	₹ 0.00
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 0.00	₹ 0.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 0.00	₹ 0.00
z)Others(Specify)		₹ 9,484.45	₹ 1,555.82
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 27,638.45**	**₹ 1,555.82**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 6,35,836.71**	**₹ 84,027.18**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
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Fr RANGAMANI & CO.
Chartered Accountants
CA Nima Nirmala M.Com.FCA
M. No.-226394
Partner

Rangamani & Co. Chartered Accountants New Delhi

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project: Revenue Activity -BALANCE SHEET AS ON March 31,2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
CORPUS/CAPTIAL FUND AND LIABILITIES			
CORPUS/CAPITAL FUND	1	₹ 22,89,20,228.44	₹ 23,34,85,425.53
RESERVES AND SURPLUS	2	₹ 0.00	₹ 0.00
1.Capital Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
2.Revaluation Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
3.Special Reserves:		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
4.General Reserve		₹ 0.00	₹ 0.00
As per last Account		₹ 0.00	₹ 0.00
Addition during the year		₹ 0.00	₹ 0.00
Less: Deductions during the year		₹ 0.00	₹ 0.00
EARMARKED/ENDOWMENT FUNDS	3	₹ 0.00	₹ 0.00
a) Opening balance of the funds		₹ 0.00	₹ 0.00
b) additons to the funds		₹ 0.00	₹ 0.00
i.Donations/grants		₹ 0.00	₹ 0.00
ii.Income from investments made on account of funds		₹ 0.00	₹ 0.00
iii.Other additions (specify nature)		₹ 0.00	₹ 0.00
TOTAL (a+b)		₹ 0.00	₹ 0.00
c) utilisation/expenditure towards objectives of funds		₹ 0.00	₹ 0.00
i.Capital Expenditure		₹ 0.00	₹ 0.00
-Fixed Assets		₹ 0.00	₹ 0.00
-Others		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
ii.Revenue Expenditure		₹ 0.00	₹ 0.00
-Salaries, wages and allowances etc		₹ 0.00	₹ 0.00
-Rent		₹ 0.00	₹ 0.00
-Other administrative expenses		₹ 0.00	₹ 0.00
Total		₹ 0.00	₹ 0.00
Net Balance as at the year -end (a+b+c)		₹ 0.00	₹ 0.00
SECURED LOANS AND BORROWINGS	4	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions(a)term loan (b)interest accrued and due		₹ 0.00	₹ 0.00
4.Banks		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7.Others (specify)		₹ 0.00	₹ 0.00
UNSECURED LOANS AND BORROWINGS	5	₹ 0.00	₹ 0.00
1.Central Government		₹ 0.00	₹ 0.00
2.State Government(specify)		₹ 0.00	₹ 0.00
3.Financial Institutions		₹ 0.00	₹ 0.00
4.Banks (a) Term Loans (b) other loans(specify)		₹ 0.00	₹ 0.00
5.Other institutions and agencies		₹ 0.00	₹ 0.00
6.Debentures and Bonds		₹ 0.00	₹ 0.00
7. Fixed Deposits		₹ 0.00	₹ 0.00
8.Others (specify)		₹ 0.00	₹ 0.00
DEFERRED CREDIT LIABILITIES	6	₹ 0.00	₹ 0.00
CURRENT LIABILITIES AND PROVISIONS	7	₹ 28,07,67,245.27	₹ 29,91,22,870.97
A.CURRENT LIABILITIES		₹ 25,92,95,636.27	₹ 27,76,51,261.97
1.Acceptances		₹ 0.00	₹ 0.00
2.Sundry Creditors (a) for goods (b) others		₹ 0.00	₹ 0.00
3.Advances received		₹ 24,93,54,299.08	₹ 20,72,75,230.08
4.Interest accrued but not due on(a) secured loan/borrowings, (b) unsecured loans/borrowings		₹ 0.00	₹ 0.00
5.Statutory Liabilities		₹ 83,17,864.19	₹ 6,87,78,935.89
6.Other current Liabilities		₹ 16,23,473.00	₹ 15,97,096.00

National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
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Director

Manager - Finance & Accounts

For RANGAMANI & CO.
Chartered Accountants

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT
CHENNAI

B.PROVISIONS		**₹ 2,14,71,609.00**	**₹ 2,14,71,609.00**
1.For Taxation		₹ 0.00	₹ 0.00
2.Gratuity		₹ 0.00	₹ 0.00
3.superannuation /pension		₹ 0.00	₹ 0.00
4.Accumulated Leave Encashment		₹ 0.00	₹ 0.00
5.Trade Warranties/ claim		₹ 0.00	₹ 0.00
6.others (specify		₹ 2,14,71,609.00	₹ 2,14,71,609.00
TOTAL		**₹ 50,96,87,473.71**	**₹ 53,26,08,296.50**
ASSETS			
FIXED ASSETS		**₹ 20,55,185.08**	**₹ 78,85,418.00**
1. LAND		₹ 0.00	₹ 0.00
2.BUILDINGS		₹ 0.00	₹ 0.00
3.PLANT MACHINERY& EQUIPMENT		₹ 32,321.72	₹ 85,700.00
4.VEHICLES		₹ 7,45,568.40	₹ 19,76,851.00
5.FURNITURE, FIXTURES	8	₹ 0.00	₹ 0.00
6.OFFICE EQUIPMENT		₹ 0.00	₹ 0.00
7.COMPUTER/PERIPHERALS		₹ 12,77,294.96	₹ 58,22,867.00
8.ELECTRIC INSTALLATIONS		₹ 0.00	₹ 0.00
9.LIBRARY BOOKS		₹ 0.00	₹ 0.00
10.TUBEWELLS & W.SUPPLY		₹ 0.00	₹ 0.00
11.OHTER FIXED ASSETS		₹ 0.00	₹ 0.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS		**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares	9	₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
INVESTMENTS-OTHERS		**₹ 0.00**	**₹ 0.00**
1. In Government securities		₹ 0.00	₹ 0.00
2.Other approved securies		₹ 0.00	₹ 0.00
3.shares	10	₹ 0.00	₹ 0.00
4.Debentures and Bonds		₹ 0.00	₹ 0.00
5.Subsidiaries and joint ventures		₹ 0.00	₹ 0.00
6.Others (to be specified)		₹ 0.00	₹ 0.00
CURRENT ASSETS, LOANS, ADVANCES ETC		**₹ 50,76,32,288.63**	**₹ 52,47,22,878.50**
A.CURRENT ASSETS		**₹ 8,43,00,687.05**	**₹ 12,89,37,621.92**
1.Inventories		₹ 0.00	₹ 0.00
2.sundry Debtors		₹ 98,53,910.31	₹ 1,34,53,604.94
3.Cash Balance in Hand		₹ 0.00	₹ 0.00
4.Bank Balances		₹ 7,44,46,776.74	₹ 11,54,84,016.98
5.Post Office-savings accounts		₹ 0.00	₹ 0.00
B.LOANS , ADVANCES AND OTHER ASSETS		**₹ 42,33,31,601.58**	**₹ 39,57,85,256.58**
1.Loans		**₹ 2,85,74,094.00**	**₹ 1,98,91,665.00**
a-staff		₹ 0.00	₹ 0.00
b-other entities engaged in actvities/objectives similar to that of the entity	11	₹ 0.00	₹ 0.00
c-Others-Adv to staff-travel		₹ 2,85,74,094.00	₹ 1,98,91,665.00
2.Advances and other amounts recoverable in cash or in kind or for value to be received		**₹ 11,57,500.00**	**₹ 11,57,500.00**
a-on Capital Account		₹ 0.00	₹ 0.00
b-Prepayments		₹ 11,57,500.00	₹ 11,57,500.00
c-Others		₹ 0.00	₹ 0.00
3.Income Accrued		₹ 0.00	₹ 0.00
4.claims receivables		**₹ 39,36,00,007.58**	**₹ 37,47,36,091.58**
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		**₹ 50,96,87,473.71**	**₹ 53,26,08,296.50**

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT CHENNAI 600 025

Fr RANGAMANI & CO.
Chartered Accountants

CA Nima Nirmala M.Com FCA
M. No.-226394
Partner

Manager - Finance / Accounts
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

Director
National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change
Government of India, Anna University Campus
Chennai-600 025, India

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)			
NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT			
Project: Revenue Activity -INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON March 31, 2023			
FY 2022-23			
		Amount (Rs)	
	Schedule	FY 2022-23	FY 2021-22
INCOME			
INCOME FROM SALES/SERVICES	12	**₹ 2,03,26,272.00**	**₹ 7,36,82,291.00**
1.Income from Sales		₹ 0.00	₹ 0.00
2.Income from Services		₹ 2,03,26,272.00	₹ 7,36,82,291.00
GRANTS/SUBSIDIES	13	**₹ 0.00**	**₹ 0.00**
1.Central Government		₹ 0.00	₹ 0.00
2.State Government		₹ 0.00	₹ 0.00
3.Government Agencies		₹ 0.00	₹ 0.00
4.Institutions/welfare agencies		₹ 0.00	₹ 0.00
5.International organisations		₹ 0.00	₹ 0.00
6.Others(specify)		₹ 0.00	₹ 0.00
FEES/SUBSCRIPTIONS	14	**₹ 0.00**	**₹ 0.00**
1.Entrace Fees		₹ 0.00	₹ 0.00
2.Annual fees/ subscriptions		₹ 0.00	₹ 0.00
3.Seminar/program fees		₹ 0.00	₹ 0.00
4.consultancy fees		₹ 0.00	₹ 0.00
5.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM INVESTMENTS (INCOME ON INVEST FROM EARMARKED/ENDOW, FUNDS TRANSFERRED TO FUNDS)	15	**₹ 0.00**	**₹ 0.00**
1.Interest		₹ 0.00	₹ 0.00
2.Dividends		₹ 0.00	₹ 0.00
3.Rents		₹ 0.00	₹ 0.00
4.Others (specify)		₹ 0.00	₹ 0.00
INCOME FROM ROYALTY, PUBLICATION ETC	16	**₹ 0.00**	**₹ 0.00**
1.Income from royalty		₹ 0.00	₹ 0.00
2.Income from publications		₹ 0.00	₹ 0.00
3.Others (specify)		₹ 0.00	₹ 0.00
INTEREST EARNED	17	**₹ 28,41,748.00**	**₹ 44,64,074.00**
1 On term Deposit		₹ 0.00	₹ 0.00
2.On savings accounts		₹ 28,41,748.00	₹ 44,64,074.00
3.On loans		₹ 0.00	₹ 0.00
4.Interst onDebtors and other receivables		₹ 0.00	₹ 0.00
OTHER INCOME	18	**₹ 29,000.40**	**₹ 62,412.80**
1 Profit on sale/disposal of assets		₹ 0.00	₹ 0.00
2.Export incentives realised		₹ 0.00	₹ 0.00
3.Fees for Miscellaneous services		₹ 0.00	₹ 0.00
4.Miscellaneous Income		₹ 29,000.40	₹ 62,412.80
INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS AND WORK-IN-PROGRESS	19	₹ 0.00	₹ 0.00
TOTAL(A)		**₹ 2,31,97,020.40**	**₹ 7,82,08,777.80**
EXPENDITURE		--	--
ESTABILLISHMENT EXPENSES	20	**₹ 1,01,83,642.70**	**₹ 1,69,73,968.00**
(a)Salaries and Wages		₹ 1,01,83,642.70	₹ 1,69,73,968.00
(b)Allowances and Bonus		₹ 0.00	₹ 0.00
(c)Contribution to Provident Fund		₹ 0.00	₹ 0.00
(d)Contribution to Other Fund (specify)		₹ 0.00	₹ 0.00
(e)Staff Welfare Expenses		₹ 0.00	₹ 0.00
(f)Expenses on Employees Retirement and Terminal Benefits		₹ 0.00	₹ 0.00
(g)Others (Specify)		₹ 0.00	₹ 0.00
OTHER ADMINISTRATIVE EXPENSES, ETC	21	**₹ 1,17,48,341.87**	**₹ 89,11,418.93**
a)Purchases		₹ 0.00	₹ 0.00
b)Labour and processing expenses		₹ 0.00	₹ 0.00
c)cartage and carriage inwards		₹ 0.00	₹ 0.00
d)Electricity and power		₹ 0.00	₹ 0.00
e)water charges		₹ 0.00	₹ 0.00
f)Insurance		₹ 0.00	₹ 0.00
g)Repairs & maintenance		₹ 0.00	₹ 0.00

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h)Excise duty		₹ 0.00	₹ 0.00
i)Rent, Rates & Taxes		₹ 0.00	₹ 0.00
j)Vehicles Running and maintenance		₹ 0.00	₹ 0.00
k)Postage, Telephone and communication charges		₹ 0.00	₹ 0.00
l)printing and stationery		₹ 0.00	₹ 0.00
m)Travelling and conveyance charges		₹ 24,59,292.50	₹ 25,09,418.50
n)Expenses on seminar/workshops		₹ 0.00	₹ 0.00
0)Subscription Expenses		₹ 0.00	₹ 0.00
p)Expenses on Fees		₹ 0.00	₹ 0.00
q)Auditors Remuneration		₹ 0.00	₹ 0.00
r)Hospitality Expenses		₹ 0.00	₹ 0.00
s)Professional Charges		₹ 0.00	₹ 0.00
t)Provision for Bad and Doubtful Debts/ Advances		₹ 0.00	₹ 0.00
u)Irrecoverable Balances Written-off		₹ 0.00	₹ 0.00
v)Packing Charges		₹ 0.00	₹ 0.00
w)Freight and Forwarding Expenses		₹ 0.00	₹ 0.00
x)Distribution Expenses		₹ 0.00	₹ 0.00
y)Advertisement and publicity		₹ 0.00	₹ 0.00
z)Others(Specify)		₹ 92,89,049.37	₹ 64,02,000.43
EXPENDITURE ON GRANTS, SUBSIDIES, ETC	22	₹ 0.00	₹ 0.00
a) Grants given to instutions/organisations		₹ 0.00	₹ 0.00
b) subsidies given to insituions/organisations		₹ 0.00	₹ 0.00
INTEREST	23	₹ 0.00	₹ 0.00
a) On fixed loans		₹ 0.00	₹ 0.00
b) On other loans (incl.bank charges)		₹ 0.00	₹ 0.00
c) Others(specify)		₹ 0.00	₹ 0.00
DEPRECIATION (NET TOTAL AT THE YEAR END-CORRESPONDING TO SCHEDULE 8)		₹ 0.00	₹ 0.00
TOTAL(B)		**₹ 2,19,31,984.57**	**₹ 2,58,85,386.93**
Balance being excess of Income Over Expenditure (A-B)		--	--
Transfer to Special Reserve (Specify each)		--	--
Transfer to/from General Reserve		--	--
BALANCE BEING SURPLUS(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		**₹ 12,65,035.83**	**₹ 5,23,23,390.87**

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