



PILOT PROJECT FOR MARINE LITTER

PRESENTATION

As plastic pollution recently entered the global environmental agenda, the problem is rising fast and is generating a wide range of complex concerns. However, while plastic pollution is a global problem, sources and outcomes differ greatly from place to place, it's why, to fight the issue at a global level, local and regional inputs are basic.

Assuming the sensible purpose of triggering action and inform decisions on marine pollution, we attempt to provide knowledge endorsed by direct experience of groundwork, delivering reliable strategies to help decision-makers, officialdoms and stakeholders to get an overview of proficient solutions.

Incorporating impactful groundwork and common sense knowledge with scientific advances in the area, we wish to inspire and drive policy-making grounded on 3 main clusters – literacy, prevention, removal.

Thus, a probing and precautionary approach, based on ground knowledge and local experiences, is crucial before undertaking costly remediation measures that have shown over time to be ineffective upstream, building their strength and inspiring better decisions and better actions.

PILOT PROJECT FOR MARINE LITTER

MEMORANDUM

As it became well-known, marine litter, generated from a wide variety of sources, and covering an extremely wide variety of materials, is one of the most serious fast mounting environmental problems.

Periodic assessment, monitoring, evaluation of sources, dispersal, fate and specific issues from all sectors have to be addressed for a better cognizance of marine litter pollution in order to secure prevention and reduction procedures – and, as far as possible, translating knowledge into guidelines.

Within such priority, a Strategic **PILOT PROJECT FOR MARINE LITTER [Literacy, Prevention & Removal]** was crafted to be acted by all those in duty to take decisions and trigger action – **our statutory authorities**.

The extant proposal is such a comprehensive tool for the assessment, prevention, collection, disposal and monitoring of litters on marine environment, so that a uniform protocol can be adopted in the entire State – based on simple, feasible and keen strategies, built on environmental friendly approaches, **involving all stakeholders to collaboratively solve the issues caused by marine debris**.

There are new suggested procedures, guidelines and business directions, clear instructions to the concerned **departments**, means for their sharing, outcomes of their function, and timelines for their completion.

0. BRIEF

This Memorandum was elaborated to impart how the project is defined, developed, and verified, making available a common understanding of its scope among all stakeholders.

It addresses chronic problems through **stringent corrective measures** to institute a new setting through **foundational steps** for **infrastructural and mounting changes**, scalable and replicable.

Current conditions, success factors, risks and constraints are presented, as well as stakeholders, roles, responsibilities, resources, strategies, new uplifting procedures, guidelines with check-list, along with corporate directions and timeline for its development are presented shortly in the **Executive Summary**.

1. RATIONALE

Over the last decades, our marine environments have undergone massive dangerous degeneration. To reverse it we must pledge sustained action through higher resolves distinctly showing promptness to act.

The generation and prevention of marine litter depends on a variety of human activities and policy areas, such as waste management, fisheries policies, consumption, behavioural patterns and product design.¹ Marine litter can be efficiently prevented through better waste management, namely plastic waste, increased recycling, stern ban of single-use plastics and rigorous outreach

¹ Not fully implemented, “Design for life cycle” and “Extended Producer Responsibility” (EPR) defy manufacturers and designers for the entire product’s life-cycle – its take-back, recycling and final disposal.

campaigns. Stringent execution of waste laws is a must to avoid litter entering the marine environment.

Information, Education and Training are vital in any effort towards a more waste-wise society. A tailored approach has to be used for different sectors (tourism, fisheries, industry, business, general public, etc.) to raise a massive awareness on the sources and effects of marine litter and the ways to reduce it upstream, **intensively focus on the costs of inaction and on the costs and benefits of action.**

Campaigns should target business and citizens, embracing formal and informal education, with a particular emphasis on coastal communities – but not exclusively. To keep ocean clean and marine life safe is a matter of urgency for India, for all of us.

2. STATE-OF-THE-ART

- The ocean is in a state of emergency: the problem of marine pollution is appalling, as the environmental impact of marine waste, especially plastics, has exceeded acceptable limits for possible regeneration of the oceans.
- In parallel with the criminal actions that have turned the sea into a global dump, there is a serious lack of decision threatening this common good, with unacceptable situations of environmental destruction, and disproportionate damage to the ocean.
- The volume of trash brought to the shoreline has exponentially increased, patenting a high input of fishery debris and inland waste.
- To protect the ocean **upstream prevention is preferable to downstream removal** as strategy, but the current dangerous disaster does not give a choice, and we have to go for both.
- All delays in removal imply unrecoverable losses especially due to micro and nanoplastics, already present in all natural systems, require rapid and robust action to halt the impact of their toxicity and to mitigate this irreversible tragedy.²
- Though marine litter is a world-wide problem and a multisectorial mounting defy, in addition to this global situation, for India, with the economic axis of fisheries and tourism making the sea an essential resource, **Marine Litter Policy for action is a priority.**
- Now, because situations of negligent governance devastating the ocean cannot last, exist, or emerge, anymore, this project ventures to address the wretched failure to keep this natural capital, protect livings, citizens and next generations from huge health suffering brought by marine breakdown.

3. EXECUTIVE SUMMARY

The first of its kind, crafted in partnership with other environmental NGOs, this pilot project is about promoting a paradigm shift in the way community leaders and young people can become **multiplying agents of ocean stewardship** through their enormous potential to convey the leading message to trigger behavioral change.

We all have to ensure that the framework will be able to sensitize and trigger action by Local Bodies (Urban and Rural), civil society groups, community based organizations and line concerned departments of statutory authorities such as Ecology and Environment, Fisheries, Tourism, Rural Development, Social Welfare, Education, etc. – **representatives and administrators.**

The project will shove outreach campaigns to fight and prevent marine litter, along with efficient cleanups, as every piece of litter removed from the shoreline, backwaters, rain drains and riverine streams, mitigates the hazardous contamination of the ocean.

²cf. NGT order on Original Application No. 251/2022, 1 March 2023.

The large amount of abandoned or lost fishing gears present on marine litter shows that financial incentives/disincentives have to be fixed for fishermen to bring them to shore. Moreover, the Govt (within its Blue Economy Policy) must introduce **EPR** and **PPP** for fishing gear, and all the plastic components of the sector, to ensure its due collection and disposal, financing its environmentally sound waste management. The penalties for their mismanagement shall be effective, proportionate and dissuasive. The fight against marine litter has to be a joint effort between competent authorities, producers and consumers.

Understanding the sense and role of marine **environmental rules** is of paramount importance for our representatives to get involved and prioritize efforts to prevent, reduce, control and/or eliminate marine ruin from inland and marine activities. [cf. **ANNEXURE 1**]

4. MOVERS

The remediation of this environmental disaster demands frontrunners with superior knowledge, superior understanding, superior skills to locally conduct the Strategic Plan (District wise), but also to raise awareness, to sensitize, to instruct, to educate, to indoctrinate, all that are, in a way or another, in position to harm natural habitats or natural conditions, by doings – or no-doings.

It is not simply necessary to educate the ‘public’, the students, the children.

It is crucial to **involve all local governors as key Stakeholders** – from GPs and ULBs to MLAs, ZPs & Municipal Councilors. [cf. **ANNEXURE 2**]

Understanding the role and meaning of environmental regulations is crucial for bureaucrats and politicians to get involved and prioritize **efforts to prevent, reduce, control and/or eliminate marine ruin** from inland and marine activities. The project seeks also to incite representatives to prompt outreach prevention campaigns and clean-ups, advancing from their side suitable regional strategies to fight marine litter, as every piece of litter removed from the shoreline, backwaters, rain drains and riverine streams, mitigates the hazardous contamination of the ocean.

As **Education and Training** are vital in any effort towards a more environmentally alert, concerned and proactive society, we need a strong investment on formal and informal education. Thus, subsidiary to a general syllabus for environmental literacy, a tailored approach for coastal communities, privileging marine literacy is mandatory, as the only way to endorse a paradigm shift in community behavior **towards an oceanic environmental stewardship**.

5. ASSESSMENT of SNAGS

A – CHRONIC GROUND PROBLEMS

1. **Thousands of unlicensed tourism operators** (resorts, homestays, hotels, etc) breaching S&LW rules, with offensive sewer connection to drains, being completely disregarded by Administration.
2. **Thousands of unlicensed buildings** within CRZone not doing S&LW Management, dumping in the ocean, indulging in plastic pollution, waste burning, sewage, sewerage, encroachment of drains, roads, etc.
3. **Inaction of Local Authorities related to PWM Rules** allows massive use of all illegal plastics, reaching the drains and the sea, braking into micro and nano particles
4. **Blatant breach of PRA and SWM Rules by GPs** related to all types of Waste, with absence of SWM Plan and proper SWM charges.
5. **Legacy waste from GPs illegal open dumping** at seashore and Forest areas is leading to riverine and marine pollution
6. Common **open waste dumping or burning** is not met by Police authorities

7. As, due to lack of enforcement, legal and penal frameworks have not been enough to stop waste from entering the ocean, in order to safeguard it, **equal cleaning of contaminating waste [from the streets, roads, parks, bridges, catchments, etc.], has to be made from the seashore in a systematic way by Local Bodies and Tourism Department.**
8. Grams Panchayats of coastal region (with higher Tourism incidence), do not have Solid Waste Management plans, exactly where SWM plan is priority, nor guidance from Environmental Experts.
9. PDOs not only are unaware of such SWM Plan, as most are unacquainted with the existing rules on S&PWM rules and related Byelaws

B – CONSTRAINTS SPOTTED BY NGT [cf. ANNEXURE 3]

1. Most of the CEOs are unaware of the Solid Waste Management Rules, 2016 [immediately organize district/regional level trainings to the officials]
2. Public do not have knowledge about Solid Waste Management [more IEC activities publish advertisements in papers and TV channels]
3. NGT order OA 360/2018, which states the **District Environment Plan**, does not include Marine/Coastal environment
[it may be necessary to elaborate a Marine Action Plan separately]

6. OPERATIONAL ACTIONS REQUIRED TO AUTHORITIES by KP since 2020

1. Initiate stern actions on Marine Litter [**Policy, Literacy, Prevention and Removal**]
 - a) Expedite to the concerned Departments the **Draft for MARINE LITTER POLICY** to get suitable assessment and resolution
 - b) Call Government agencies to design and conduct a **Marine Literacy Program**
 - c) Create an Extraordinary Committee to design and implement an **Action Plan on Prevention and Removal of Marine Litter**
 - d) Ensure strict littering control by Police [esp. seashore, water bodies, storm water drains, riverine forests]
 - e) Call Coastal GPs and ULBs to pass a bylaw for **Seashore Waste Management Plan** [including chronic dumps and catchment areas]
 - f) Instruct Coastal GPs and ULBs to fix **warning boards** at identified vulnerable places
 - g) Ensure **random surveillance** by Police and Locally liable Officers of those places
2. Instruct IEC from Health and Education Departments to conduct an **Awareness Campaign** on hazards of plastics to human health, built on a **comprehensive informational kit**
3. Enforce a concomitant stern Plastic Ban
 - a) order the removal of all Flex banners at the entire State
 - b) order Local Bodies to strictly stop plastic suppliers/distributors
 - c) Instruct a stern plastic control by ULBs, GPs, Police, Food, Excise & Revenue Dept.
4. Fix **EPR for glass and plastic bottles**, and for **fishnets & all fisheries plastic items**
5. Create a **Master Plan for coastal Tourism Sustainable Development** within 6 months
6. Call summit of outstanding Environmental Engineers to propose a **Multi-sector Strategic Plan** with key solutions for assessed coastal problems
7. Instruct all **Local Bodies** to immediately submit an accurate Action Plan for averting waste to enter water bodies before monsoon.
8. Fill vacancies of the crucial posts directly responsible for SWM works
9. Create post of Environmental Officer for each Taluka.
10. Create a **Centre for Interpretation of Marine Litter** [to assess waste streams & sources]
11. Instruct Coastal GPs and ULBs to pass a bylaw for **Seashore Waste Management Plan**

[including chronic dumps and catchment areas]

STRATEGIC PILOT PROJECT FOR MARINE LITTER

Literacy, Prevention and Removal

A – PROJECT TARGETS

1. Prevent marine litter pollution and its impact on marine organisms, habitats, public health
2. Enhance knowledge and awareness on marine litter issues
3. Remove all possible litter from the marine environment
4. Develop sustainable managing approaches to guide decision-making to implement the Strategic Project and frame its development, such as
 - **Integration:** taking Marine Litter Management (MLM) as a key part of SWM
 - **Public participation and stakeholders entailment:** ensuring a sense of public ownership building support to achieve the Project
5. Ensure cross-sectorial cooperation
6. Design proficient actions
 - to fight land & sea-based sources of marine litter
 - to conduct teaching and outreach programs on marine litter issues
7. Provide for each sector/community **Good Practices Guidelines** with check-list to monitor their implementation and reward their performance
8. Ensure the **governance of marine litter by all stakeholders**, jointly managing shoreline waste by means of
 - An **extraordinary steering committee** to assess and start action
 - **Effective strategies** to prevent marine litter at source
 - **Awareness raising campaigns**, education and capacity building
 - **Monitor its implementation**

B. FOUNDATIONAL STEPPING

Some simple but crucial actions can be triggered immediately by the **PROJECT EXECUTIVE** forming a Steering Committee to launch the foundational steps

- **Urge DCs to provide operational data to trigger the Project** (1 month), expressly
 - a) Identifying illegal sewage discharge at the coastal areas and action taken by CEOs & DUDCs
 - b) Identifying all CRZ encroachments
 - c) Listing traders on the coastal line and identify their licensed status
 - d) Tallying all Coastal Tourism Operators with identification of their licensed status
 - e) Identifying legacy waste dumped by LBs in coastal and adjacent forest area
 - f) Listing GPs which have framed and implemented S&PWW byelaws
 - i) Reporting on coastal LBs fitness on Solid & Plastic Waste Management
 - j) Reporting on Solid & Plastic Waste Management cases penalized, fined, booked by LBs and the other liable authorities
 - l) Broadly listing volunteer associations involved in seashore cleaning and migrant fish/coastal workers paid under MNREGA
- **URGE ZP/TP to provide accurate information** (1 month) on

- legacy waste kept in coastal villages and action prepared to handle it
 - the official/s in charge of S&L Waste Management
 - status of identification and allotment of land to villages for SWM
1. Call the foundation of State **Policy for Marine Literacy**
 2. Create a **Centre for Interpretation of Marine Litter** to assess waste streams & sources
 3. Appointing an IAS Nodal Officer as **Project Director** for Implementation of the Strategic Project and coordination of DCs
 4. Assign a **Seafaring Spark Force** to implement the Strategic Plan & start action [cf. **ANNEXURE 4**]
 5. Urge apt Government agencies [e.g., SICOM, KSCZMA, CMFRI, NIO, NCSCM] to design and conduct adjusted **Marine Literacy Program** for Coastal Communities
 6. Direct Tourism Department to submit a District wise **Master Plan for Blue Tourism** targeting prevention and removal of marine waste devising economic tools to hold coastal tourist spots clean
 7. Direct Karnataka Temples Endowment Commissioner to submit a **Coastal Waste Management Plan** (District wise), to make all temples and surroundings zero-waste [inclusive of the wet waste from eateries on their access roads]
 8. Direct coastal **GPs** and **ULBs** to pass a resolution for a **Seashore Waste Management Plan** [including chronic dumps and catchment areas], fixing needful **MBIs** (Market Based Instruments), EPR and PPP to decrease marine litter [cf. **ANNEXURE 1**]
 9. Instruct all **ULBs** and **TPs** to submit a **Plan for cleaning water bodies** and water flows before monsoon, inclusive of
 - Compulsory cleaning of drains, nalahas, channels, before rainy season
 - Compulsory installing appropriate traps/meshes to drains connecting to water bodies
 - Strictly ban to pass waste water to water bodies
 10. Instruct Coastal **GPs** and **ULBs** to adopt the **Chart for Offices Good Practices** [cf. **ANNEXURE 5**]
 11. Instruct Coastal **GPs** and **ULBs** to **fix warning boards** (with info on penalty) at the most vulnerable places to avoid littering and dumping
 12. Monitor the **strict implementation of Solid & Plastic Waste Management Rules 2016**
 13. Request **increase of patrols at sea** to monitor waste disposal from fish farms and boats
 14. Direct **random surveillance** lead by Police, PDOs, THOs, COs, HIs, EOs, KSPCB Officers of the most vulnerable places
 15. Call all **press media for a continual coverage** of the project development
 16. Appoint a **Seashore Managing Team** for each specified stretch with accurate assigned tasks, namely
 - a) to assess the waste producing activities, the waste streams and its clearance
 - b) to identify coastal legacy waste dumpsites
 - c) to identify situations where litter “escapes” into the marine environment
 - d) to identify schools and colleges willing to participate in the programs
 - e) to train youths, students, community based organizations (CBOs) and volunteer groups in driving seashore clean-ups and monitor its sanitation
 - f) to create a online platform, a forum for public to exchange experiences and ratings on **good cleaning practices** adapted by traders at seashore (also riverbanks, catchment areas, ports and inland waterways), monitoring traders performance and evaluating them focused on ecofriendly alertness, waste management, customer care, etc. Being publicly

available on Internet, such evaluation will help all traders to be attentive, knowing that better performers are recognised and awarded.³

C – ENACTION STEPPING

is accomplished by the **PROJECT DIRECTOR** to ensure, through specific stakeholders to

1. Create a marine literacy syllabus for coastal communities – **DDPI**
2. Run education campaigns, awareness and capacity building to ensure sustainable governance of marine litter by all stakeholders – **Directorate of Mass Education**
3. Spark stewardship of coastal communities for discarded fishnets and domestic waste – **e. g., Mogaveera Samyuktha Sabha, Fish Marketing Federation, Kharvi Samyuktha Sabha**
4. Promote environmental awareness workshops for fishermen, fisherwomen and fisheries sector – **Deputy Director of Fisheries**
5. Operationalize the disposal system of fish gears ordering fishermen to remove all abandoned, lost and otherwise discarded fishing gear (ALDFG), handing them to ULB or GP – **Deputy Director of Fisheries**
6. Launch Incentive schemes for fishnet trade (e.g., discount on purchasing new fishnet if returning **x** discarded ones), for fish market packaging, for fish breaks composting, etc.) – **Deputy Director of Fisheries**
7. Mandate periodic and regular “fishing for plastics” to trawl operators at all the coast – **Deputy Director of Fisheries**
8. Create a scheme (e.g., *Fishing for Litter*) for fishermen to collect and bring waste to land handing it to Local Body – **Deputy Director of Fisheries**
9. Provide waste bins at visitors areas (tourist and pilgrim) – **GPs, ULBs, Tourism Dept**
10. Establish a flawless system for collection, transportation, treatment, storage and disposal of solid waste, inclusive of the informal sector – **GPs, ULBs**
11. Levy waste collection fees from coastal visitors and traders – **GPs, ULBs**
12. Since the beaches with higher Tourism incidence are located under the jurisdiction of GPs (lacking SWM Plans, facilities and technical guidance), **while promoting coastal eco-tourism projects, Solid & Plastic Waste disposal Plans should be made mandatory** for all projects – **GPs Tourism Dept**
13. Design and implement Good Practices Chart for Port Authorities (civil and military) [attached proposal, cf. **ANNEXURE 6**]
 - fishermen – **Mogaveera Samyuktha Sabha**
 - fisherwomen (household and fish market level) – **Mogaveera Samyuktha Sabha, Dept. of Women & Child Development**
14. Where development infrastructure is made by Tourism Dept, joint maintenance system of Local Body and Tourism Dept. should be strictly ensured. Such system should be annually validated by KSPCB for environmental related features.

³ Private Online platforms are available on internet (e.g., Tripadvisor, Agoda, Google Review, etc.), widely used by public to select hotels, restaurants, resorts, etc., based on their customer feedbacks and ratings. Traders consider this system seriously and always try to improve their ratings by upgrading quality of service. Considering it as a case study, similarly, if a online platform is created by GOVT. where public/customers can gauge the handling wastes, environmental concerns, forest conservation, rain water harvesting, etc. along with customer care by service providers, such traders will be kept attentive and motivated. Best performers shall be awarded yearly based on annual public feedback results.

15. Plan exhaustive removal of accumulated trash along the seashore (directed by guidelines for collection and disposal, with performance check-list) – **DCs**
[cf. **ANNEXURE 5**]
16. Trigger and direct the recourse to needful **MBIs, EPR and PPP** by ULBs and GPs
[cf. **ANNEXURE 1**] – **DMA, UD, RDPR**
17. Call meetings of grass root people of defined coastal stretches to present the Project action points and the steps for their implementation – **GPs, ULBs, DWCD, CDPO, NGOs**
[e.g., Dharmasthala Gramabhivruddhi Samsthe, Mogaveera Samyuktha Sabha, etc.]
18. Ensure suitable and lawful disposal facilities to all Coastal GPs and ULBs – **DCs**
19. Ensure that all coastal LBs have a flawless waste management system – **DCs**
20. Implement the **Control Rooms** notified by NGT – **DCs**
21. Get government officers ready to perform their identified responsibilities – **CS**
22. Instruct all **Departments involved in tourism activities** to accurately plan the management of all wastes produced and, based on established marks, certificate the best performers in a given stretch, publicly announcing them – **TDept**
23. Labelling of guest-houses and hoteliers according to their performance on Wastes Management offering bonds to incentivize them based on the public feedback system – **TDept**
24. Fix rewards for coastal clean villages and clean beaches based on the public feedback system – **RDPR**
25. Monitoring the implementation of the **Strategic Project by the Seafaring Spark Force** – Board comprising Chairman of DLSCs, DCs, SPs, CEOs, ACs, Tahashildars, KSPCB, EOs and PDs of DUDC.

4. KEY CHALLENGES AND RECOMMENDATIONS

The key challenges and the potential issues for the Project's achievement are mostly rooted on

1. The achievement of strict and proficient time bound actions to close the assessed gaps and for meeting environmental norms
2. The lack of identification by the State of the coastal regional issues, and of the constraints for implementation of Environmental rules
3. The unavailability of skilled/semi skilled technical staff at Local Bodies creating huge trouble to the Waste system.

Provisional permission to hire outsource staff by LB's own assets would mitigate the issue

4. The dearth of protection of seashore/marine areas.

Responsibility should be assigned to Coast Guards (to monitor and penalize violators disposing waste on seashore areas), for which Coast Guard Dept. should approve some workforce like watchers. In the line of Home-Guards, and in coordination with Coast Guards, a team could be created as volunteer taskforce for maintenance of clean seashore, with incentives such as recognition, off-their official work, marks for promotion, etc..

5. The generalised illiteracy on Marine liiter.

Explicit and detailed guidelines should be designed to handle wasteS management (including KSPCB, GPs, ULBs, Muzrai, Tourism Dept, etc.)

ANNEXURE 1

LEGAL FRAMEWORK AND GUIDING PRINCIPLES

1. REGULATORY FRAMEWORK (Rules, Regulations and Policies)

- The Merchant Shipping Act
- The Wild Life (Protection) Act
- The Environment (Protection) Act
- The Maritime Zones of India Act
- The Coast Guard Act & Coast Guard (General) Rules
- The Marine Products Export Development Authority (MPEDA)
- The Territorial Sea, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Acts
- The Coastal Regulation Zone (CRZ)
- The Biological Diversity Act
- The Indian Fisheries Act
- The Coastal Aquaculture Authority Act
- Marine Fisheries (Regulation and Management) Bill
- Indian Ports Bill, 2011
- Marine Fishing Regulation Acts (MFRA)
- Wetlands (Conservation and Management) Rules
- National Policy on Marine Fisheries
- Marine Protected Areas
- The Wetlands (Conservation and Management) Rules
- National Policy on Marine Fisheries
- National Tourism Policy
- CRZ Notification
- The Marine Fishing Policy
- All Waste Management Rules (Solid, Plastic, E-waste, Bio-medical, Construction & Demolition, etc.)

2. PRINCIPLES TO BE ADOPTED

- **Ecosystem approach**
- **Precautionary and preventive stance**
- **Best available clean & eco-friendly technology**
- **PPP** (Polluter Pays Principle)
- **PAYT scheme** (Pay As You Throw)
- **EPR** (Extended Producer Responsibility)
- **IPP** (Integrated Product Policy)
- **MBIs** (Market Based Instruments)¹

¹ **MBIs** offer a complimentary approach to address the marine litter issue along awareness and legal framework. Such economic tools include taxes, charges, penalties, liability and compensation schemes, subsidies, incentives. and incorporate the Polluter Pays Principle (PPP) and the User/Beneficiary Pays Principle (U/BPP), acting as incentives to change behaviour, ensuring also true cost of environmental impact.

SAMPLE of MBIS

- Deposit-refund programmes on plastic and glass bottles –to reuse the bottles and reduce litter
- Tourist taxes, car parking fees (e.g., near seashore), and seashore business charges.
- Award-based incentives for coastal villages
- Incentives to fishermen for reporting on/and remove debris
- Financial and technical support to install waste management system on fishing vessels

ANNEXURE 2

PROJECT STAKEHOLDERS

A – GOVERNING CLUSTERS

1. LOCAL ADMINISTRATION (Inclusive of concerned coastal **Government Officers** from LBs)

- **GPs** coordinated by CEOs and **ULBs** coordinated by DUDC
- PDOs, EOs, CEOs, ACs, DHOs, THOs, Tahshildars, ROs (PCB) coordinated by DCs

2. STATE ADMINISTRATION

Director Forest Ecology & Environment
 Director of Fisheries
 Director of Ports
 Coast Guard
 Coastal Security Police
 DMA/UDD
 KSPCB
 Karnataka State coastal zone Management Authority
 DDPI
 Coastal Environmental Engineers
 Director General of Police
 Secretary of Tourism Dept
 Principal Secretary PSE
 Chief Secretary HFW
 Chief Secretary Revenue Dept.
 Assistant Director Commercial Tax Dept
 COMM of Information and Public Relations
 COMM of Survey & Settlement
 COMM of Industries and Commerce
 Additional Chief Secretary of FEE
 COMM Social Welfare
 Head of Dept Dharmika Datti Ilakhe
 Chief Secretary of Youth Empowerment & Sports
 Principal Secretary of RDPR

3. EDUCATION [formal and informal] coordinated by DDPI [Eco-Clubs, BEOs]

Minister of Education
 Deputy Director of Public Instruction (DDPI)
 Director of Mass Education
 BEOs
 Education Coordinators
 Eco-Clubs Coordinators
 Cluster Resource Persons
 NCC & NSS Directors (Creation of a “marine brigade” among NSS and NCC)
 Schools
 Fisheries Colleges

4. MARINE RELATED BODIES

Central Wetland Regulatory Authority

Department of Ocean Development
 Department of Animal Husbandry, Dairying & Fisheries (coordinated by Deputy Director of Fisheries)
 National Centre for Sustainable Coastal Management (NCSCM)
 Society of Integrated Coastal Management (SICOM)
 Karnataka State Council for Science and Technology (KSCST)
 Central Marine Fisheries Research Institute (CMFRI)
 National Institute of Ocean Technology (NIOT)
 National Institute of Oceanography (NIO)
 Suchitwa Sagaram

B – CORPORATE CLUSTERS

- 1. SEAFRONT TRADERS** directed by LBs/Excise/ Commercial Taxes Dept/Tourism Dept/Fisheries
 - Hoteliers
 - Tourism Operators [coordinated by District Tourism Dept]
 - Fishers (male/female) [coordinated Mogaveera Samyuktha Sabha Presidents & Dept. of Women & Child Development]
 - Temples Management Committees [**TEMPLES** coordinated by Muzrai]
 - Restaurants

NOTE - Eventually Gramabhivruddhi Samsthe, Sharavathi Estuary Stakeholders Union, Fish Marketing Federation, Banks (as CSR), Industries Association, Merchant Unions.

2. VOLUNTEERS

- NGOs [Sneha Kunja, Khushi Parisara, Dharmasthala]
- Civic groups [informal NGOs]
- Youth and Social Clubs such as Rotary, Lions, JCI, etc.
- Regular volunteers [e.g., National Cadet Corps, etc.]
- Casual volunteers [e.g., visitors, tourists, etc.]

3. RAGPICKERS – coordinated by LBs

4. REPRESENTATIVES (MP, MLA, TP, ZP, GP & Councilors) coordinated by respective office heads like ZP-CEO, TP-EO, GP-PDO, ULB-CO, and MP, MLA, MLC-DC

ROLE OF IDENTIFIED STAKEHOLDERS

1. Public

- Practice source reduction and source segregation
- Cooperate with local bodies in their operations
- Pay for waste management

2. Local Bodies

- Keep waste management a priority
- Provide infrastructures and services as per the laws
- Have a fixed logistic setup with trained staff
- Implement rules and penalize violators
- Praise public/private participation
- Procure informal sector participation

3. Town planners

- Keep waste management in mind while developing coastal city plans
- Fix space for waste management facilities with ideal buffer zones

4. NGOS/social workers

- Take lead in forming ward committees for community participation
- Network with similar oriented groups for joint interventions
- Organize clean seashore initiatives

5. Teachers/schools

- Provide knowledge on all clusters of waste management
- Be role models
- Inculcate a strict discipline in students and school staff on waste management

6. Senior citizens & unemployed youth

- Give support to NGOs on outreach and cleanliness drives

7. Children/students

- Segregate garbage
- Influence and keep check parents & helps

8. Shopkeepers

- Keep dustbin outside the shop
- Ensure that customers do not throw the garbage outside the shops
- Ensure that the waste is properly handed to local body workers/ragpickers

9. Politicians

- Lead the Clean seashore initiatives with the **Seafaring Spark Force**
- Pressurize ULBs/GPs to prioritize the Clean seashore initiatives

10. Corporations

- Ensure that all employees understand the waste management and follow the Chart of Good Practices in the premises and surroundings
- Support the Clean seashore initiatives of **Seafaring Spark Force**

ANNEXURE 3

FOCI FOR ASSESSMENT OF COASTAL STATUS BY AUTHORITIES

1. REGIONAL DIRECTORS FOR ENVIRONMENT OF COASTAL DISTRICTS must

1. Indicate the number and matter of Applications for clearance of permissible activities, under CRZ Notification 2011, submitted at the District.
2. Indicate the number and matter of Clearances of permissible activities, under CRZ Notification 2011, given at the District.
3. Identify, by sectors and categories, all the running licensed and unlicensed activities/units within CRZ at the District

2. COASTAL ZYLLA PANCHAYATS must

1. Provide full report on the works connected to waste collection and S&L Waste Management accomplished under MGNREGA scheme at the Coastal Talukas on the last 4 years
2. Provide list of all licensed and unlicensed tourist operators (guesthouses, homestays, lodges, shacks, hotels, rooms, etc.), both for tourists and pilgrims, at the Coastal ZP

3. COASTAL TALUK PANCHAYATS must

1. Provide reports on the implementation of Gram Panchayat S&L WM Bylaw
2. Provide detailed report on the supervision made by Taluk Panchayat, during the last 4 years, for the implementation of
 - a) Solid Waste Management Plan (under SWM rules 2016)
 - b) Plastic Waste Management (under PWM rules 2016)
 - c) Hazardous and E-waste (under E-Waste & Hazardous Waste rules 2016)
3. Indicate steps taken by Taluk Panchayat for the implementation of Control Room directed by NGT
4. Provide detail of all measures taken by Taluk Panchayat, for the last 4 years, to stop the entrance and massive circulation of illicit plastics in Taluk area

4. COASTAL LOCAL BODIES must

1. Indicate number of licensed & unlicensed permanent buildings existing within CR Zone
2. Indicate the number of licensed & unlicensed tourism operators at GPs/ULBs area (hotels, restaurants, resorts, homestays, lodges, etc.), pilgrims included.
3. Indicate the number of households
 - a) with toilet and septic tank
 - b) without toilet
 - c) with toilet and without septic tank.
4. Indicate all the decisions made within the frame of **Panchayat Raj Act** and **Karnataka Municipalities Act** related to
 - a) Solid Waste
 - b) Liquid Waste
 - c) Plastic Waste
5. Report the number of cases filled by GPs/ULBs against shops and traders for illegal plastic use along with the amount of seized material and the penalties imposed
6. Provide detailed Solid Waste Management Plan under SWM rules 2016
7. Indicate if the Control Room advised by NGT was already set up, and if not, the reason

8. Indicate the total amount of the SWM fee collected up to date from waste producer

5. COASTAL POLICE DPIS must

deliver official clear information on the intervention taken by the local coastal Police on waste related issues/rules, namely

1. Indicate the number of cases related with waste dumping that have been filled by Police on the last 4 years
2. Indicate the number of cases related with waste burning that have been filled by Police on the last 4 years
3. Indicate the number of cases related to the trade and use of illicit plastics that have been filled by Police on the last 4 years
4. Indicate the number of cases on garbage related public nuisances filled by Police on the last 4 years under the Karnataka Police Act, 1963

6. DIRECTOR-GENERAL OF INDIAN COAST GUARD must

Provide report with a comprehensive description of Indian Coast Guard intervention for the preservation and protection of marine environment and control of marine pollution, under the duties assigned by Indian Coast Guard Act, on the last 4 years.

7. ADDITIONAL CHIEF SECRETARY TO THE GOVERNMENT

Provide report on the actions taken by the Special Task Force to eliminate single use plastic in the State.

ANNEXURE 4

SEAFARING SPARK FORCE

To implement the Strategic Project and start action instating a radical change of coastal waste management through a new approach, the **Seafaring Spark Force (SSP)** will provide judicious direction and leadership to ensure the achievement of the **STRATEGIC PROJECT FOR MARINE LITTER**.

A – COMPOSITION

- The Team will be comprised by inherence of civil servants from local bodies (PDOs, CEOs, COs, EEs, DUDCs, ROs PCB), as well as by the higher officers of concerned departments, who will be accountable for the achievement of the assigned tasks
- Special executive clusters/teams will tackle diverse sectors of the project
- Steering committee and executive clusters will launch the foundational steps
- Participation in the group is open to civic societies and general public

B – OPERATIONALITY

1. Roles and Responsibilities

a) The team is accountable for:

- create a **steering committee**
- form top **executive clusters**
- raise collaboration
- remove obstacles
- maintain the focus of the team on its scope
- manage factors outside team's control

b) Members will bind to:

- attend all scheduled meetings
- committedly supporting the group and the group's work
- share all communication and information with all members
- make timely decisions and timely action
- notify members immediately of any matter deemed to affect its advance
- report the achievement of assigned tasks to the Project Director

c) Members will expect:

- to be timely offered complete, accurate and needful information
- to be immediately alerted to potential risks and issues impacting the project
- open and honest discussions
- all coverage and support for ground endeavors

2. Meetings

- Meetings will be called by Project Director and chaired by the president of the **Steering Committee**
- Meetings will be held for no more than 2 hours at specified location
- topics for the agenda will be generated by the Project Director, who can also invite non-members

3. Working strategies

- a) **all** possible stabs to make applied the regulatory framework available about **Marine Litter Prevention and Removal**
- b) **all** traditional and novel tools for creating and expanding **Marine Literacy**
- c) all creative solutions to overcome hindrances, problems, concerns
- d) Sharing information & resources within and without the team, through a web space for the group
- e) local governance (CEOs and DUDCs/DCs) are answerable for the management of wastes (& buildings) on coastal zone
- f) a Team of the **SSF** will monitor the type activities, amount of waste collected and its clearance on each stretch of seashore

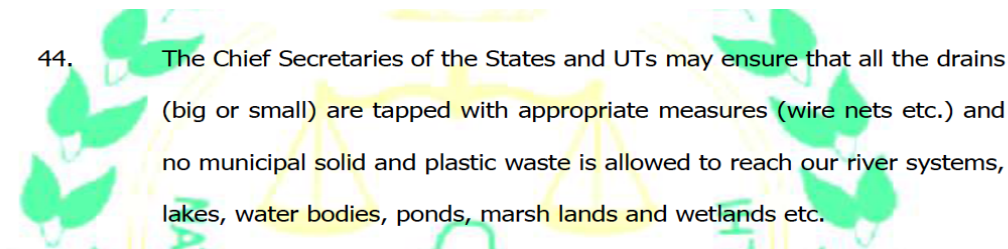
4. Boundaries

Regulations, principles, policies, guidelines, resources and constrains are detailed at the Pilot Project

5. Constrains

To overcome the local constrains for good practices an assessment will be done, working through all steps of the loop (information, knowledge, awareness, mindfulness and practice). The main recognized constrain is grounded on the fact that most of civil servants still do not have waste management and sanitation on their agenda, though the cost of inaction is heavily impacting.

6. NGT Priority Codicil



NGT has taken steps to tackle the growing MARINE AND RIVERINE LITTER issue, indicating that a framework should comprise different sustainable management approaches for forest, land, coastal and fisheries, promoting best practices, and take collaborative action from all these sectors.

Priority should be given to educate children and young adults, especially those living by upper streams, riverside towns, and cities even the ones that are hundreds or thousands of kilometers away from the ocean. There, trash is visible, reachable, collectible and disposable at lower charges, much more than after it reaches the sea.

Within a pro-active strategy towards integrated marine management, **Action/Strategic Plans** are vital to prevent and reduce marine debris, charting tactics for specific zones and specific sectors – forest, inland water ways, fisheries, coast, port, etc. They must endorse coordination of collaborative efforts of state agencies, civic groups, NGOs, academia, industry, to execute the strategies and help to **track their progress**, with accurate timelines and actors. Moreover, **policy initiatives** to combat marine litter are a steady interface to deliver technical knowledge and aid for implementation of Action Plans.

River keepers, and River conservation *samithis*, to prevent dumping of plastics to river or at the banks of river, are crucial for marine and riverine litter.

ANNEXURE 5

GUIDELINES for SOLID & LIQUID WASTE RUNNING PROGRAMS

CONTEXT

The environmental risks we are facing today, and will continue to face, are increasing due to our fragmented and precarious environmental governance.

Until now, both a **lack of decision** and **criminal actions** are hampering the common good and creating unacceptable situations of abuse and violation of our environment through **WASTE**, with outrageous collateral damage to all beings. Actually we have reached now a time of ZERO TOLERANCE (for irresponsible environmental governance and management) as there are situations that cannot last or exist, or emerge, anymore.

It seems that somewhere in time, somewhere in space, we have chosen the collapse.

We are still choosing it, everyday, with our action ... or ... **inaction**.

And now we realize that the costs of inaction are higher than those of action.

But, as it has been showed, and recognized by the world, India is trying to take big steps to save environment, especially when our prominent stakeholders lead the way and help people understanding the right thing to do!

And thus, in addition to the contribution of the Private Sector and Civil Society, we need the sound involvement of ALL Local Bodies, Governors and Managers, of ALL Public Servants – from DC to AC, from Tahshildar to MLA, from SP and CPI to PSIs, from Ecology & Environment Department to Health Officers, from Municipal Corporation to Gram Panchayats, from BEOs to NWRKTC Divisional Controller, from PCB to CEO... ALL!

Everyone **can** be a role model in its own cluster, in its own setting.

But we expect from major assigned stakeholders a sound and firm action to help us to preserve our land, air, ocean and land waters, bringing people to observe waste and plastic regulations.

Thanks for doing it!

Thanks for taking the lead on handling **SOLID AND LIQUID WASTES!**

Cleanup Programs are crucial initiatives for this. They are excellent occasions for **sharp ACTION** to improve the spoiled environment **IF** accurately planned and soundly conducted. Naturally such ACTIONS will evolve in a wide variety of ways, challenging local authorities, companies, public entities, all stakeholders who, in a way or another, were until now liable for negligence or environmental aggression.

Any Action Plan **handling SOLID AND LIQUID WASTES** should be able to

- catalyze change
- catalyze leadership for change
- catalyze sharing and networking
- catalyze planning, implementation and monitoring of steered initiatives

N.B. The following draft invites suggestions, additions, corrections.

GOOD PRACTICES GUIDELINES FOR PROFICIENT CLEAN-UPS

The practice of minded clean-ups unequivocally shows that their most important achievement is not the single cleaning of some area, but the end of its littering: **to prevent littering at source is the core target** of such programs. For that, the main wasters have to be identified and their sensitization, awareness and involvement is to be triggered, instructing and directing all participants on the procedure, before its launch.

The programs have to be properly planned and organized, inclusive of all possible stakeholders, with a comprehensive Action Plan (original and advanced, not a conventional one) specifying, *inter alia*:

- resources
- official backing
- public aid
- segregation of items to be collected (bottles, chips, glass, nets, etc,)
- disposal

Germinal steps

- To create a geo/temporalized gallery of occurrences needing intervention
- To plan interventions to terminate those occurrences

I – DISTRICT SUBDIVISION¹

1. FRAMEWORK

Operationalize a **Taskforce** of officers **headed by AC** blending for a responsible sectorial cleaning. Once in a month the **Subdivision Taskforce** should meet and plan with timelines and targets for the required tasks at Urban and Rural areas to pursue, *inter alia*,

- plastic ban
- disconnection of sewage to drains
- cleaning drains before monsoon
- mesh drains before monsoon
- conduct cleanliness drives on seashores, commercial areas, markets, rivers, forest areas
- awareness drives to waste generators (for prevention and segregation at source – insisting on home composted wet waste)

2. COMPOSITION

a) OFFICIALS

- AC
- BEO [should play the most important role (engage, assigning and timelining schools, training for clean-ups)]
- ZP Engineer
- DySP Police
- THO
- Tahshildar
- Food Inspector
- Labour Inspector

¹ **SOLID AND LIQUID WASTE MANAGEMENT** has to be made by Subdivision, hence officers are answerable and have to perform manifold tasks for it. Naturally they will be under radar if their performance is nil or not correct. What none wishes. It happens that they don't perform because there is no monitoring. This has to be done.

- Social Welfare Department (to monitor manual scavenging)
- Environmental Officer/ Assistant Environmental Officer (Karwar)

b) NON- OFFICIALS

- Trade Union President/representative
- Scrap Dealer(s)
- Service Organizations (Lions, Rotary, ENGOs, etc)
- Relevant members for local requirement (Unions, Societies, Civic groups, etc)

II – GRAM PANCHAYAT SUB-COMMITTEE

1. FRAMEWORK

Operationalize a composite **Taskforce [GP SUB-COMMITTEE]** that should meet once in a month to plan with timelines and targets for the required tasks at its local jurisdiction. It should run wide clean-up programs every month and EO should give a **monthly report** on the ventures (number of plastic raids, amount of seized plastic, amount of plastic sold to scrap dealers, extant number of illegal sewage connections, number of sewage discharge disconnections, etc.) to the **DISTRICT SUBDIVISION**.

It should conduct weekly scheduled and mapped drives by schools, gathering and segregating the collected items.

At EO office should be tabulated the rank of all **Subdivision Committees**, displaying the best performer (along with challenge evidential photos).

2. COMPOSITION

a) OFFICIALS

- PDO
- PHC
- PSI
- Sarpanch
- BEO subordinate

b) NON- OFFICIALS

- Trade Union President/representative
- Scrap Dealer(s)
- Service Organizations (Lions, Rotary, ENGOs, etc.)
- relevant members for local requirement (unions,

3. ACTION PLAN OUTLINE

- Indicate the mentor/facilitator for the deed
- identify the main Solid and Liquid Wasters at the area
- contact them for their sensitization, awareness and involvement
- list participants and each one's role
- indicate resources (bags, boxes for collection, boards, vehicle for collection,
- specify timings
- provide monitoring (during the action)
- deliver follow-up (after the action)
- report to District Subdivision

GOOD PRACTICES CHART FOR PORT AUTHORITY

1. Provide waste and recycling bins where boats can dispose of their waste
2. Fix sign boards urging boat operators to bring their litter back to shore, indicating where to dispose it
3. Apply the 'Polluter Pays Principle' to fine any boat throwing waste in the sea
4. Promote campaigns for marine related activities on management of waste created on board or collected during fishing activities
5. Foster 'Fishing for litter' initiatives, motivating fishermen to voluntary collect litter and bring it ashore
6. Implement stewardship models among coastal communities, explicitly for discarded fishnets and domestic waste
7. Largely inform about these initiatives and encourage everyone towards a responsible behaviour in pollution prevention and proper waste handling