



Sri Lanka

(Output Paper)

# Policy Solution Prototypes for Marine Litter Prevention in Sri Lanka

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## Project Contribution to SDGs:



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## Introduction

Prevention of Marine Litter in the Lakshadweep Sea (PROMISE) is a 4-year project (2020-2024) supported by the European Union (EU) under the SWITCH Asia Programme.

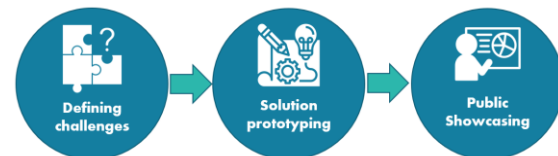
Tourism industries have been identified as major contributors to marine litter due to high consumption rates of fast-moving consumer goods (FMCG) and convenience products wrapped in single-use plastic packaging. In many touristic regions of the global south, this is aggravated by the absence of effective policy frameworks, a lack of consumer awareness and insufficient capacities of local authorities to handle the increasing solid waste. The Maldives, Sri Lanka and India have undergone substantial growth in tourism clusters located along their shorelines of the Lakshadweep Sea. While this has increased the economic well-being of the local population, these developments have also come at a high price (PROMISE, 2022).

The PROMISE project responds to this by preventing leakage of wastes from land-based sources into the Lakshadweep Sea in line with a Sustainable Consumption and Production (SCP) approach. To achieve the desired impact, the activities target tourism clusters located along the Lakshadweep shorelines in the Maldives, Sri Lanka and India.

As part the project PROMISE, a series of policy roundtables were organised with an aim to prototype policy solution mechanisms for challenges in prevention of marine litter. Three policy roundtables were organised, each focusing on Defining challenges (1<sup>st</sup>), Solution prototyping (2<sup>nd</sup>), and public showcasing of policy mechanisms (3<sup>rd</sup>). Every roundtable will feed-in inputs to the next one to prototype potential policy solutions that can help national policy makers in furthering marine litter prevention policies.

The policy roundtables serve as platforms that bring together a diverse array of stakeholders, including policy makers, governmental bodies,

institutions, development organizations, associations, NGOs, and social enterprises. These stakeholders are actively engaged in waste management and marine litter prevention projects. The aim is to engage in discussions and collaborative efforts using a co-creation methodology, supported by a series of policy mechanism design tools.



The inaugural policy roundtable, known as the "Defining Challenges" session, was held in Sri Lanka on 21.01.2022. During this session, participants delved into the existing challenges and gaps within Sri Lanka's policies related to marine litter prevention. The identified key challenges included:

- Lack of Monitoring and Evaluation systems for Waste Management
- Absence of coordination between stakeholders
- Insufficient incentives, mechanisms, and Extended Producer Responsibility (EPR) principles
- Deficiencies in Capacity Building, skill development, and awareness initiatives.

Building upon the insights gleaned from the first roundtable, the second session, titled "Solution Prototyping," was conducted on 24.01.2023. Participants focused on benchmarking best practices and exploring their adaptation to the Sri Lankan context. They worked collaboratively to design and develop prototype policy mechanisms to address the challenges outlined in the initial roundtable. This session witnessed active participation from representatives of governmental institutions, development organizations, universities, and NGOs.

The outcome of this session resulted in the creation of four policy solutions:

- Overarching Policy Framework for Monitoring and Evaluation

- Establishment of a National Waste Management Authority
- Creation of an Independent EPR Committee
- Development of a Waste Management Curriculum.

The culmination of these efforts was the third and final policy roundtable held on 6th June 2023. During this session, participants engaged in discussions regarding the outcomes of the policy prototypes. The focus was on refining these prototypes to ensure practicality and readiness for implementation within policy frameworks.

Through these policy roundtables, the collective aim is to provide actionable solutions and policy recommendations to address the pressing challenges of marine litter prevention. The collaborative efforts of stakeholders from various sectors aim to influence national policy makers towards the effective drafting and implementation of policies for a cleaner and more sustainable environment.

This document serves as the Output Paper, presenting a comprehensive summary of the prototypes co-created by each of the four groups during the Policy Roundtables in the prototype series. It also includes valuable inputs and feedback gathered from the public showcasing sessions. The subsequent section elaborates on the solutions/ prototypes devised by these groups, accompanied by detailed visualizations of the mechanisms created for each solution.

The overarching goal of this policy paper is to serve as a guiding document for policy makers, governmental bodies, relevant ministries, and development organizations in Sri Lanka. It aims to provide actionable insights and innovative solutions to be considered during the drafting and implementation of policies related to waste management and marine litter prevention. By sharing these prototypes, the paper endeavors to catalyze informed decision-making processes and foster a sustainable approach towards addressing environmental challenges in Sri Lanka.

This comprehensive resource aims to inspire collaboration, stimulate dialogue, and drive impactful change in policies and practices concerning waste management and marine litter prevention. Through the dissemination of these recommendations, it is envisaged that Sri Lanka will move closer to achieving a cleaner, healthier, and more sustainable environment for all.



## Group 1: Overarching policy framework for Monitoring and Evaluation Systems

<b>Focus:</b>	Fragmentation of policies for monitoring and evaluation
<b>Ecosystem Impact:</b>	Improved monitoring and evaluation framework, multiple stakeholder engagement, inter-agency approach
<b>Challenge:</b>	Improved decision-making process, increased efficiency in waste management

### Background

Sri Lanka's 2007 National Policy on Solid Waste Management is directed towards waste reduction, 3R implementation, capacity building, research and development, and regulation of sanitary landfills using best environmental practices and latest technologies. However, there was lack of focus on monitoring and evaluation systems and feedback mechanisms.

The policy statements related to Monitoring, Evaluation, Feedback and Reporting defined the updated National Policy on Waste Management (2020), are targeted towards, system performance, performance of Waste Management Institutions and Service providers, performance of Enforcement Authorities, and contribution of Citizens, Community organizations and representatives.<sup>1</sup>

The new National Action Plan on Plastic Waste Management (NAPPWM) 2021-2030, sets out

actions based on 3Rs principle and covers the entire lifecycle of plastic waste management from importing, processing, usage, collection and disposal. It has 16 defined goals as well as a preparation, implementation, monitoring and evaluation plan using the use the PDCA (Plan-Do-Check-Action) cycle.<sup>2</sup> The planning phase includes drafting of the Action Plan based on consultation meeting and stakeholder workshops. This is followed by implementation and monitoring of the Action plan through appropriate administrative processes. Then, the implementation progress is reviewed to identify areas of success and failure so that the Action Plan can be revised and updated accordingly. Several synergetic projects have also been identified to strengthen stakeholder coordination and facilitate the Ministry to execute the action plan.

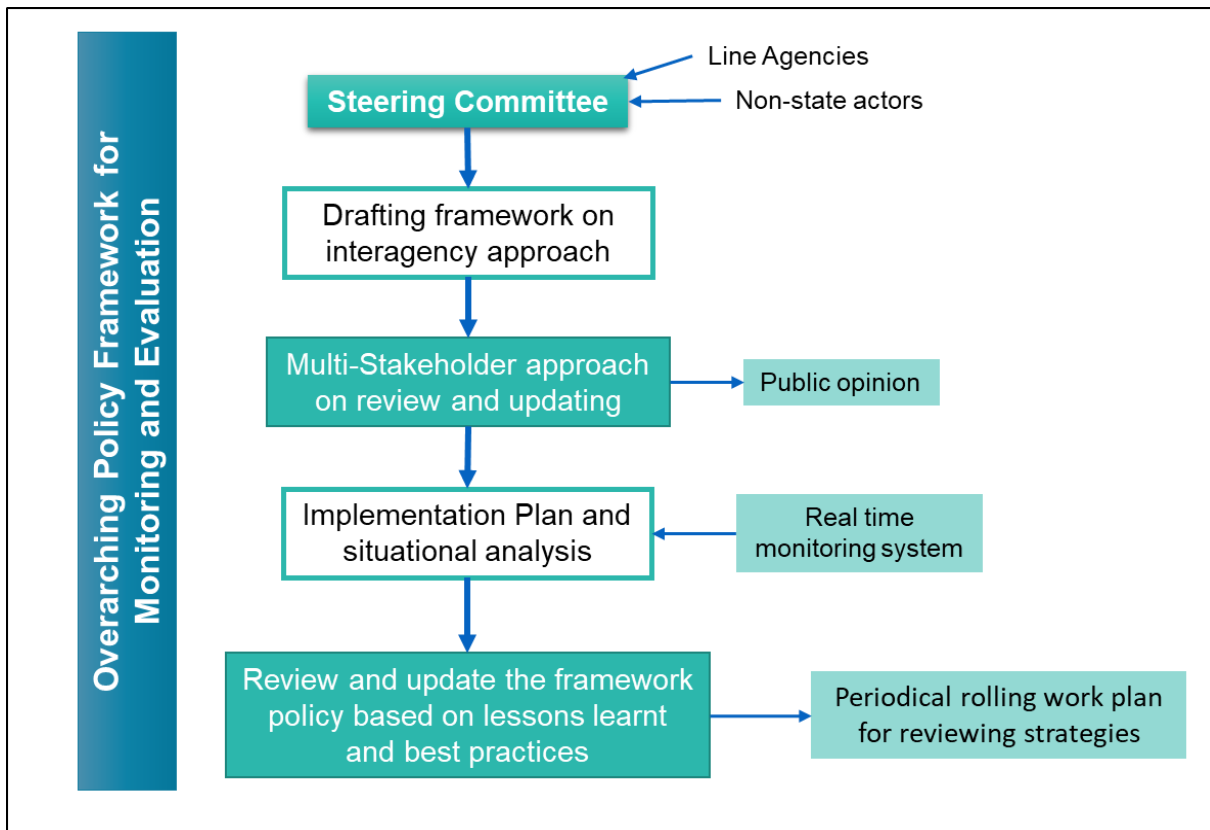
However, in spite of several existing policies and guidelines in place to protect marine environment and prevent plastic pollution, there seems to be a lack of implementation and enforcement of these frameworks. This is due to systematic gaps such as inadequate resources, lack of evaluation process and transparency in authorities, and absence of enforcement committees which become obstacles in policy implementation. Thus, it is key to have a dedicated monitoring and evaluation body that is separate from the state and has public interest.

### Solution overview

The first group proposed an inter-agency approach to establish a robust Monitoring and Evaluation (M&E) system for Waste Management policies. Central to their recommendation is the creation of an overarching policy framework for M&E, ensuring effective oversight and accountability. This framework begins with the formation of a steering committee comprising both non-state

<sup>1</sup> [http://www.env.gov.lk/web/images/pdf/policies/National\\_Policy\\_on\\_Waste\\_Management\\_English.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Policy_on_Waste_Management_English.pdf)

<sup>2</sup> [http://www.env.gov.lk/web/images/pdf/policies/National\\_Action\\_Plan\\_on\\_Waste\\_Management.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Action_Plan_on_Waste_Management.pdf)



actors and line agencies, fostering a collaborative governance structure.

policies in Sri Lanka. This framework emphasizes transparency, stakeholder engagement, and continuous improvement in waste management practices.

Upon establishment of this interagency platform, the group suggests drafting a comprehensive policy framework for the common M&E system. This framework would undergo thorough review processes involving multiple stakeholders, allowing for inputs from public opinion and expert insights. The committee is tasked with developing an implementation plan, encompassing situational analyses and the establishment of a real-time monitoring system for efficient data collection.

The proposed framework is designed to evolve over time, with periodic reviews and updates based on lessons learned and best practices. This iterative approach ensures adaptability and responsiveness to changing circumstances and emerging challenges. Through this systematic process, the group aims to establish a dynamic and effective M&E system that enhances the efficiency and impact of Waste Management

## Objective

- To formulate mechanism for proper M&E system and functions
- Inter-agency approach of implementation
- To enhance the capacity of stakeholders on M&E function
- To strengthen the interconnections among relevant organisation

## Key features

- Review and update Policy Strategies in a periodical rolling basis
- Real time monitoring systems and establishment of data base

- Right to the stakeholders to monitor and evaluate waste management system

- Identifying financial resources to establish a real-time monitoring system
- Identifying the legal authority of the steering committee of functions

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## Impact Potential

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- Environmental:
  - Avoid burden on landfills and waste flowing in sea through efficient waste management monitoring system in place
  - Minimising coastal/ marine pollution and minimising the degradation of marine resources
- Social:
  - Upgrade living standard of the coastal community
  - Increased inclusiveness among stakeholders in decision making on waste management policies
- Economic:
  - Efficient resource allocation and planning leading to reduction for waste management costs
  - New jobs and entrepreneurship boost in waste management sector

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## Further Recommendations

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Furthermore, during the discussions, participants emphasized the need for policy refinements and put forth additional recommendations. It was highlighted that prioritizing the already identified challenges is crucial, urging action towards addressing them promptly.

Additionally, participants stressed the importance of conducting a comprehensive stakeholder mapping exercise and a situational gap analysis, particularly through focused group discussions. This holistic approach provides a clearer understanding of the broader context, aiding in the development of more targeted and effective strategies.

In terms of ensuring long-term sustainability, participants proposed the establishment of a self-income mechanism. This self-sustaining model can be further bolstered through partnerships with donor agencies and private companies, leveraging their resources and expertise in financing mechanisms.

Lastly, participants underscored the necessity of establishing a dedicated committee with approval from the cabinet. This committee would oversee the entire framework and implementation mechanism, ensuring smooth and successful execution of the proposed policies. Approval from the cabinet would provide the necessary authority and support for the policy framework, enhancing its credibility and potential impact.

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## Foreseen Challenges

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In the third and final policy roundtable, the participants further discussed the policy prototype and identified the following foreseen challenges:

- Identifying the gaps in legal & policy framework
- Lack of synergies among functioning institutions
- Infrastructural gaps in implementing plans and achieving indicators
- Conflict of interest in functioning of the steering committee
- The availability of baseline data and setting up a mechanism for its collection

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## Implementation Steps

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- Step 1: Identifying the lead facilitator which is the *Ministry of Environment*
- Step 2: Stakeholder mapping and establishing of the committee
- Step 3: Getting the legal authority of the committee to function
- Step 4: Situational analysis and gap identification
- Step 5: Setting up mechanisms for data gathering
- Step 6: Implementation plan including time-bound indicators
- Step 7: Setting-up systems & monitoring in place
- Step 8: Periodical evaluation & reviewing in place



## Group 2: National Waste Management Authority

<b>Focus:</b>	Lack of clearly defined roles and responsibilities of stakeholders, and lack of accountability
<b>Ecosystem Impact:</b>	Institutional reform, Nodal agency formation for waste management
<b>Challenge:</b>	Better coordination between different stakeholders in waste management, improved regulatory framework and stricter implementation

### Background

There are several strategies and guidelines in Sri Lanka which recognize the participation of public sector, private sector and local communities e.g., the Coastal Action Plan (2000), the Biodiversity Legislation, the National Strategy for Clean Development Mechanism and the National Strategy for Solid Waste Management<sup>3</sup>. In spite of these policies which aim to promote higher stakeholder participation in governance, there currently seems to be a lack of coordination between different stakeholder groups of the waste management system in Sri Lanka.

The newly updated National Policy on Waste Management (2020) has policy statements related to Institutional mechanisms,

coordination and communication which highlight the following<sup>4</sup>:

- Coordination between national, provincial and local authority levels
- Involvement of public and private sectors
- Cooperation and coordination with communities and non-governmental organisations.
- And building sustainable partnerships

In the National Action Plan on Plastic Waste Management (2021-2030), goal 16 is to increased community participation of which key activities are (Ministry of Environment, 2021):

- 16.1: Increase community participation and networking to address the issue of plastic waste in each DS division
- 16.2: Strengthen media participation in plastic waste management

With plastic management a pressing global issue, in 2021, the Government of Sri Lanka developed the National Plastic Waste Management Action Plan (2021–2030) with assistance from UNEP (United Nations Environment Programme), IGES-CCET (IGES Centre Collaborating with UNEP on Environmental Technologies), and Japanese Ministry of Environment<sup>5</sup>. In line with this plan, the Centre for Plastic Management of Sri Lanka was also established under the purview of CEA (Central Environmental Authority), Ministry of Environment.

Most recently, on 29<sup>th</sup> March 2023, the Japan International Cooperation Agency (JICA) signed a Record of Discussions with the Sri Lankan Government for a technical cooperation project, Strengthening Plastic Management Capacity<sup>6</sup>. This project aims to develop action plans and pilot activities related to plastic-waste reduction and, develop human resources for the Centre for Plastic Management as well as, establish a database and a monitoring mechanism. Through such activities, this project will build a system for sustainable plastic waste

<sup>3</sup>[https://projectpromise.eu/sites/projectpromise.eu/files/documents/promise\\_policy\\_brief\\_input\\_paper\\_sri\\_lanka.pdf](https://projectpromise.eu/sites/projectpromise.eu/files/documents/promise_policy_brief_input_paper_sri_lanka.pdf)

<sup>4</sup>[http://www.env.gov.lk/web/images/pdf/policies/National\\_Policy\\_on\\_Waste\\_Management\\_English.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Policy_on_Waste_Management_English.pdf),

<sup>5</sup> <https://www.unep.org/etc/resources/report/national-action-plan-plastic-waste-management-2021-2030>

<sup>6</sup>[https://www.jica.go.jp/Resource/english/news/press/2023/20230403\\_31.html](https://www.jica.go.jp/Resource/english/news/press/2023/20230403_31.html)

management, thereby contributing to the strengthening of Sri Lanka's plastic management capacity.

However, existing policies and guidelines for waste management lack not only clear mention of roles and responsibilities of different actors but also the proper guidelines for coordination between those actors. There seems to be lack alignment between central and provincial waste management coordination systems and centralized management system.

With no proper coordination, several activities may be duplicated while other important activities get delayed due to lack of initiative or lack of finances. Since several stakeholders have overlapping responsibilities, there needs to be a defined communication process which ensures that all players contribute equally and efficiently to the waste management system. This can be achieved by developing a Nationally coordinated process for waste management to ensure proper implementation.

coordination mechanism through the creation of a 'National Waste Management Authority'. This Authority is envisioned as a centralized body responsible for coordinating mandates, roles, and clearly defined responsibilities in the realm of waste management.

The proposed structure of the National Waste Management Authority includes a sectoral committee comprising 25 members representing governmental institutions, private organizations, and NGOs. This diverse representation ensures a holistic approach to policy formulation and implementation.

The primary function of the Authority is to develop sectoral policies aligned with the national waste management objectives. These policies will be accompanied by detailed sectoral implementation plans and robust monitoring mechanisms to track progress and ensure accountability.

The process begins with the drafting of the Authority's framework and institutionalization mechanism, which will be submitted to the central government for approval. Once approved by the cabinet, members of parliament will be engaged to facilitate the

**Solution Overview**



implementation of the framework at the national level.

The policy solution proposed by group 2 aims to establish a sustainable and effective

Furthermore, the Authority members will actively engage with international development agencies and relevant institutions to refine the monitoring and implementation processes. This collaborative approach seeks to leverage external expertise and best practices to enhance the effectiveness of waste management policies in Sri Lanka.

In essence, the establishment of the National Waste Management Authority aims to streamline coordination, enhance efficiency, and promote sustainable waste management practices across sectors. Through this centralized mechanism, Sri Lanka aims to achieve significant strides towards a cleaner and more environmentally conscious future.

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## Objective

- Formation of a nodal agency to oversee efficient implementation of waste management policies.
- National waste management coordination mechanism
- Propose consolidated funding mechanisms through waste management (revenue earned from licences, taxation, fines, fees, and sales of secondary raw materials.)

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## Key Features

- Include provincial governments & non-governmental actors in the authority
- Include Monitoring and evaluation mechanisms that are handled by third party organisations
- Conduct cost effectiveness and readiness assessments of policies before implementation (including human capital, and physical infrastructure)
- Total annual budget evaluation for the overall waste management policy implementations

- Looping in monetary benefits from waste management activities into annual budget contribution

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## Impact Potential

- Better coordination within different waste management stakeholders
- Creating strong regulatory framework and stricter enforcement
- Lowering the dependency on the general treasury for annual waste management budget
- Each local govt. authority would have a comprehensive business plan which could be achieved through encouraging public-private partnerships in waste management sector

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## Foreseen Challenges

The participants further discussed the policy prototype and identified the following foreseen challenges:

- The formulation process of the National Waste Management Act
- Transferring existing regulatory responsibilities
- Opposition from existing regulatory entities is anticipated
- Issues surrounding constitutional devolution

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## Further Recommendations

During the discussions on the national waste management bill, participants emphasized the importance of establishing a robust institutional structure for the National Waste Management Authority. This includes defining roles and responsibilities for key positions such as the Board of Directors, Chairmen, Director General,

Directors, Assistant Directors, and Waste Management Officers. Clarity in the organizational hierarchy is vital for effective decision-making and streamlined operations within the Authority.

In addition to the institutional setup, participants stressed the need for comprehensive rules and regulations governing the waste management sector. These regulations will serve as the guiding framework for waste management practices, ensuring uniformity, efficiency, and adherence to environmental standards. The formulation of such rules is imperative for the smooth functioning and compliance of all stakeholders involved.

Financial sustainability of the Authority was highlighted as a crucial aspect for its independence and effectiveness. To achieve this, the establishment of a Consolidated Fund was recommended. This fund will serve as a dedicated source of revenue for the Authority, supplemented by revenue generation mechanisms such as licensing fees, fines, taxation on waste-related activities, and sales. These measures will empower the Authority to carry out its mandate without external dependencies.

Furthermore, recognizing the need for accurate data and documentation, participants underscored the importance of replacing the provincial waste database with a comprehensive national database. This database will serve as an official repository of information on all private sector waste management companies, both operational and non-operational. Regular updates and maintenance of this list by the National Waste Management Authority will ensure transparency and facilitate effective decision-making in the waste management sector. Additionally, creating a conducive and well-regulated business environment for private sector waste management companies was highlighted as a key factor for encouraging competitive business ventures and fostering innovation in the sector. These measures collectively aim to strengthen the foundation of the proposed policy solution

and pave the way for effective waste management practices in Sri Lanka.

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## Implementation Steps

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- Step 1: Hold a multi-sectoral state holder constitution
- Step 2: Draft a National Waste Management Bill (NWMB)
- Step 3: Refer the NWMB to cabinet administration for central government approval
- Step 4: Upon clearance, send the draft bill to AGDSL for clearance and then to LDD for official finalization
- Step 5: Submit the draft bill for parliament approval by the subject Minister of Environment
- Step 6: Encourage a push from civil society so the draft bill is placed on the parliamentary order paper
- Step 7: Begin the enforcement process for the bill

## Group 3: Independent EPR Committee

<b>Focus:</b>	Lack of viable Producer Responsibility Organisation (PRO)
<b>Ecosystem Impact:</b>	Improving EPR implementation, transparency and accountability
<b>Challenge:</b>	Involvement of multiple stakeholders, robust policy implementation, improved EPR operations

### Background

In Sri Lanka, manufacturers and distributors are not responsible for the end life cycle of plastic packaging under the domestic legislation. Stakeholders have divergent views when it comes to the dialogue on Extended Producer Responsibility for plastic waste management in Sri Lanka, and there is absence of legal provisions to impose EPR. The private sector was initially displeased when the state-led EPR approach was presented.

However, in October 2018 the Ceylon Chamber of Commerce (CCC) together with Biodiversity Sri Lanka (BSL), launched a project to develop an Extended Producer Responsibility (EPR) mechanism for plastic waste management in Sri Lanka. With financial support from the United States Agency for International Development (USAID), CCC and BSL developed an EPR Roadmap in 2021, to provide a strategic plan for plastic waste management <sup>7,8</sup>.

<sup>7</sup> <https://www.chamber.lk/index.php/news/9-media-releases/1185-ceylon-chamber-and-ministry-of-environment-propose-collect-back-plastic-waste-management-model-for-the-private-sector>

<sup>8</sup> [https://pdf.usaid.gov/pdf\\_docs/PA00XV7B.pdf](https://pdf.usaid.gov/pdf_docs/PA00XV7B.pdf)

In this process, several sectoral stakeholder consultations targeting key industry sectors yielded some useful policy-level inputs and insights. Simultaneously, a review of global EPR practices from six countries helped to identify applicable EPR policy instruments for Sri Lanka. The implementation of the Mandatory Reporting and Collect-Back (MRCB) model was recommended under this EPR Roadmap.

Additionally, under the National Action Plan on Plastic Waste Management (NAPPWM) 2021-2030 one of the goals (goal 7) mainly focuses on “Introducing legal requirements to operationalize EPR and pilot implementation for selected products by 2022”<sup>9</sup>.

Besides the lack of mandatory regulations, another problem is that SUP (Single Use Plastic) and plastic packaging is still the cheapest option compared to more durable and sustainable alternatives mainly for FMCGs (Fast Moving Consumer Goods). In order to shift market demand and production lines away from plastic, the alternatives need to be subsidized and made cheaper.

The Government ministries play a key role in bringing in new EPR policy mandates. Whereas, provincial councils and municipalities are important in ensuring effective implementation of the policies. However, policy change is not enough to bring about drastic and rapid results. There also needs to be a shift in societal mindset away from high plastic usage and dependency. This is where entrepreneurs and R&D facilities become important to innovate and promote sustainable and cost-efficient alternatives to plastic.

### Solution Overview

The policy solution proposed by Group 3 involves the establishment of an independent

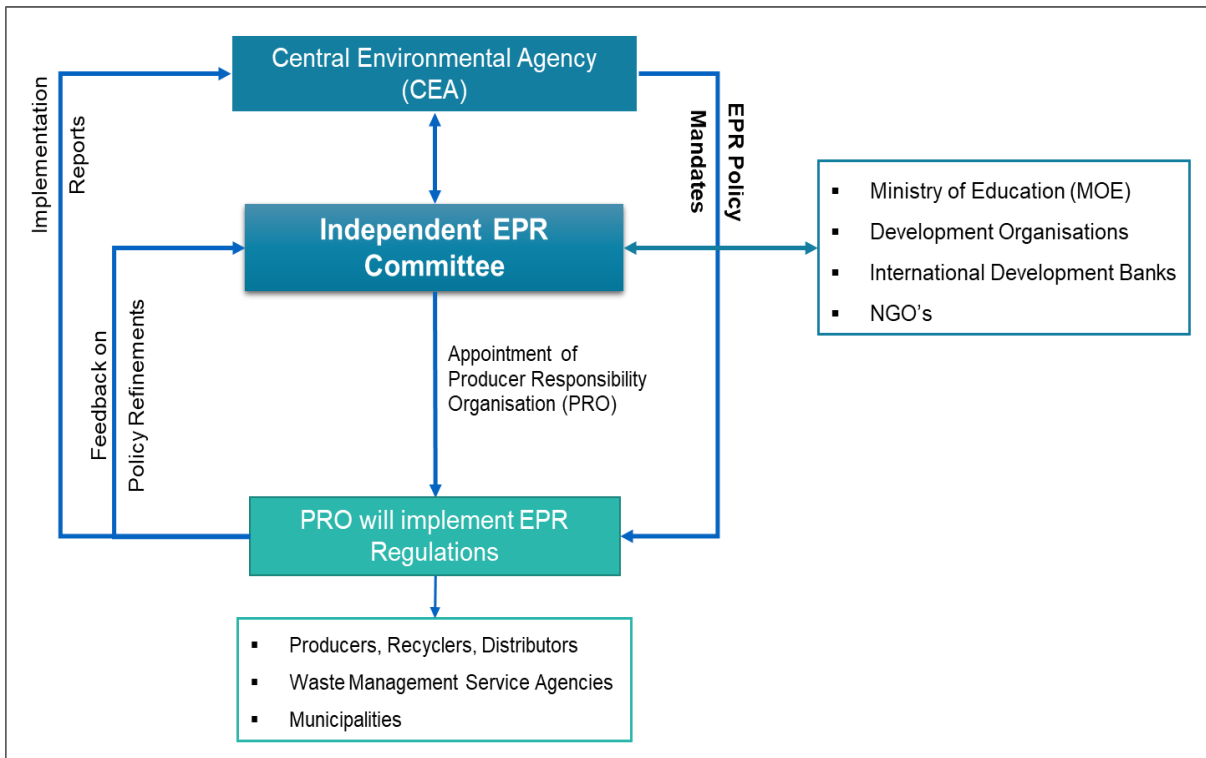
<sup>9</sup> [http://www.env.gov.lk/web/images/pdf/policies/National\\_Action\\_Plan\\_on\\_Waste\\_Management.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Action_Plan_on_Waste_Management.pdf)



Extended Producer Responsibility (EPR) committee. This committee is designed to enhance accountability and efficiency in managing waste produced by various industries. The proposed committee will comprise members from diverse backgrounds, including representatives from the Ministry of

Environment, developmental organizations, international development banks, and NGOs. They will collaborate closely with the Central Environmental Agency (CEA) to ensure effective implementation of EPR regulations and policies.

Once appointed, the PRO will assume the responsibility of implementing the EPR regulations and policies mandated by the Central Environmental Agency. This includes overseeing the collection, recycling, and proper disposal of waste produced by the industries under the EPR scheme. The PRO will also be



Environment, developmental organizations, international development banks, and NGOs. They will collaborate closely with the Central Environmental Agency (CEA) to ensure effective implementation of EPR regulations and policies.

required to submit regular implementation reports to the CEA, providing updates on progress and compliance.

The first step outlined by the group is to initiate an open tender call for the appointment of a Producer Responsibility Organisation (PRO). This process invites third-party organizations to apply for hosting the PRO role. The Independent EPR committee will then evaluate the applications based on relevant credentials and the best bid submitted. The selection process aims to choose a PRO with the expertise and capacity to effectively manage EPR responsibilities.

Furthermore, the PRO will play a vital role in providing feedback to the EPR committee regarding policy refinements and improvements. This feedback loop ensures that the EPR system remains adaptive and responsive to changing environmental needs and industry dynamics. By establishing this independent EPR committee and appointing a capable PRO, Group 3 aims to create a robust system for managing producer responsibilities in waste management, contributing to a more sustainable and environmentally conscious approach in Sri Lanka.

## Objective

- Transparent and trustworthy committee to select PRO
- Provide expert advice on EPR policy updates
- Establish mandatory reporting process and EPR compliance by companies
- Conflict resolver between CEA and other members
- Create an independent body to control data.

## Key Features

- An independent committee to appoint PRO
- Involving international development organisations and development banks interested in the EPR policy and implementation
- Data driven feedback loop to amend policies and regulations as required

## Impact Potential

- Transparency and data security which builds trust amongst industry players
- Optimize waste supply chain and management
- Ensure cost-cutting in Waste Management
- Improve waste segregation and disposal
- Better EPR operations and smoother implementation process through PRO
- Reduced burden on Central Environmental Agency

## Foreseen Challenges

In the third policy roundtable, the participants further discussed the policy prototype and identified the following foreseen challenges:

- Maintaining the independence of the EPR committee
- Effective management of the EPR committee
- Data and submission & validation
- Lack of implementation on Waste Management
- Lack of financial resources to enforce independent EPR committee.

## Further Recommendations

In addition to the proposed policy solution of establishing an independent Extended Producer Responsibility (EPR) committee, the participants further recommend the implementation of a mandatory polluter-pays financial mechanism. This mechanism will require industry players and private stakeholders to contribute financially towards the EPR activities, ensuring their active participation and accountability in waste management practices. The funds generated through this mechanism will not only support the operational activities of the committee but also incentivize responsible waste management practices among producers. By mandating this financial contribution, the committee can sustainably fund its initiatives, such as waste collection, recycling programs, and environmental awareness campaigns. Moreover, the polluter-pays principle aligns with international best practices in waste management, promoting a shift towards a circular economy model. This financial mechanism also encourages innovation and investment in sustainable waste management technologies, fostering a greener and cleaner environment for Sri Lanka's future. Through the collective efforts of industry stakeholders and the EPR committee, this recommendation aims to create a self-sustaining system that effectively addresses the challenges of waste management and environmental protection.

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## Implementation Steps

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- Step 1: Gather consensus from all stakeholders
- Step 2: Identify relevant stakeholders & convene them to discuss process
- Step 3: Identify opportunities & challenges among parties
- Step 4: Putting forward the final draft for public comments
- Step 5: Amend the National Environmental Act
- Step 6: Make a legal provision to issue regulatory gazettes for developments on EPR law
- Step 7: Identify Resources needed to implement the law

## Group 4: Waste Management Curriculum

<b>Focus:</b>	Lack of knowledge and capacity in Waste Management
<b>Ecosystem Impact:</b>	Awareness raising on Waste Management, Knowledge dissemination
<b>Challenge:</b>	Creating socially and environmentally responsible citizens, reduction in waste generation

### Background

There is currently a systematic gap waste management educations and knowledge dissemination. In the past years, there hasn't been any major efforts in Sri Lanka towards capacity building or awareness rising for waste management solutions.

There seems to be lack of skill development and capacity building mechanism at provincial and municipality levels, as well as lack of awareness and knowledge amongst stakeholders. Moreover, there is lack of incentives for recycling and waste to value initiatives and lack of funding mechanisms to promote such activities.

However, in the National Action Plan on Plastic Waste Management (NAPPWM) 2021-2030 the Goal 12 directly talks about the education and training requirements to enhance knowledge and competency in plastic waste management of relevant stakeholder groups by 2030<sup>10</sup>. Which includes conducting Training of Trainers (ToTs) at provincial level, enhancing knowledge

and practices for plastics & plastic waste management in educational institutions and awareness raising programs amongst stakeholders. The curriculum for which will be developed by the Training Centre for Waste Management established by Western Province Waste Management authority in Karadiyana.

The National Policy on Waste Management (2020) also highlights knowledge management and capacity building by education and awareness raising and by skill development, training, and conducting research<sup>11</sup>. This includes incorporating life cycle issues into the educational curriculum system from pre -school level up to higher levels and technical education curriculum at university level covering environment, economic and social aspects. The policy also focuses on technology development, usage and transfer along with infrastructure development in the waste management system.

When it comes to awareness, academic and research institutions play an important role in educating students from an early age. Research is necessary to collect data to realization of the status of waste generation and update the society to adapt to control situations. This leads to change in overall societal behaviour and brings an increased sense of responsibility amongst consumers. Hence, schools and universities should be the primary focal point of waste-management education.

### Solution Overview

The policy solution put forth by Group 4 addresses the lack of awareness surrounding waste management through the development of a new school curriculum. This innovative approach aims to equip students with practical knowledge and hands-on experience in waste management practices, starting from the primary and secondary school levels.

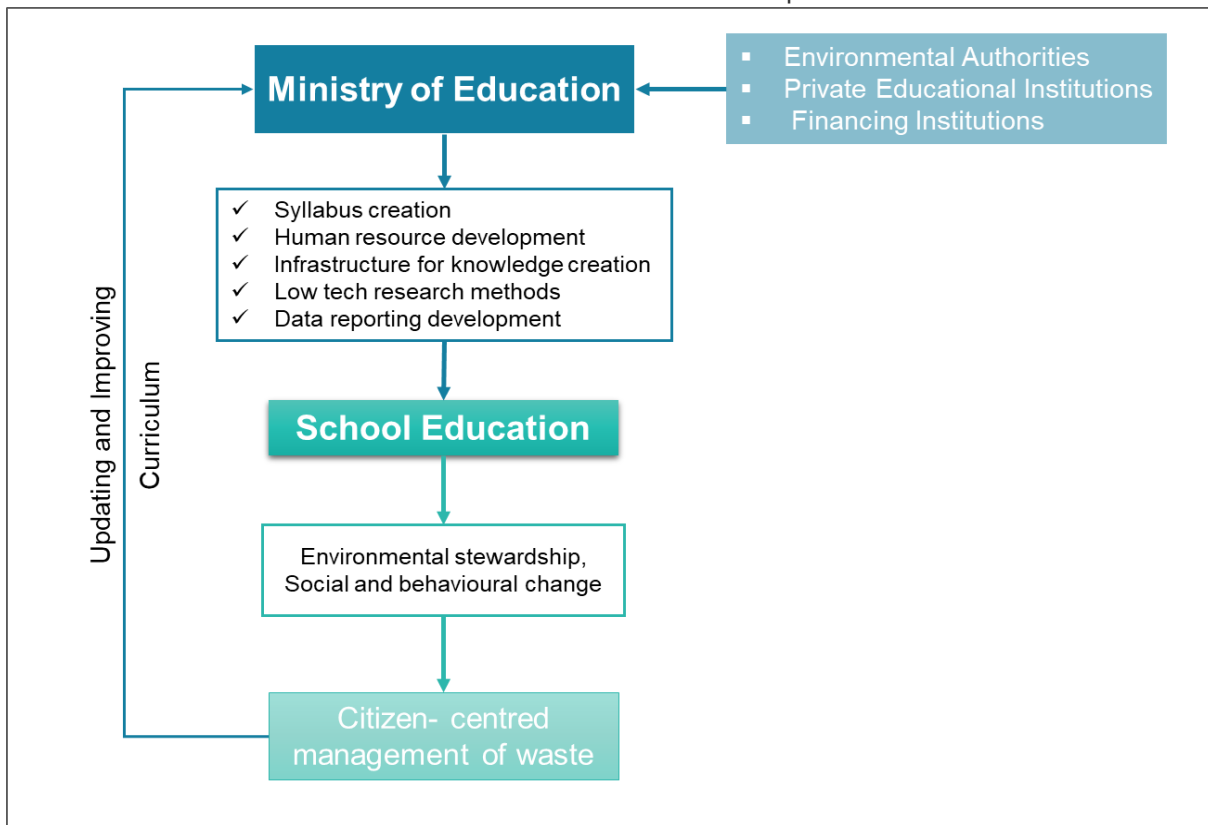
<sup>10</sup>[http://www.env.gov.lk/web/images/pdf/policies/National\\_Action\\_Plan\\_on\\_Waste\\_Management.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Action_Plan_on_Waste_Management.pdf)

<sup>11</sup>[http://www.env.gov.lk/web/images/pdf/policies/National\\_Policy\\_on\\_Waste\\_Management\\_English.pdf](http://www.env.gov.lk/web/images/pdf/policies/National_Policy_on_Waste_Management_English.pdf)

The proposed curriculum will be a collaborative effort involving environmental authorities, private educational institutions, financing institutions, and the Ministry of Education. Together, they will design a syllabus tailored to educate students on various aspects of waste management, including recycling, composting, and waste reduction strategies. Furthermore, the Ministry of Education will conduct teachers' training workshops to ensure effective delivery of the curriculum.

practices in their daily lives. This, in turn, will lead to broader environmental benefits and contribute to the overall well-being of society.

Furthermore, the flexibility of the curriculum allows for periodic updates based on new developments in waste management practices. Incorporating research data and adapting to changes in the waste management system ensures that students receive up-to-date and relevant education on environmental stewardship.



Additionally, the policy solution emphasizes the importance of building the necessary infrastructure for knowledge dissemination within schools. This includes establishing waste management facilities, recycling centers, and other resources to support hands-on learning experiences for students.

In conclusion, the proposed school curriculum represents a proactive and holistic approach to addressing the lack of awareness around waste management. Through collaboration among stakeholders and the integration of practical learning experiences, this policy solution aims to nurture a generation of environmentally conscious individuals capable of making positive contributions to Sri Lanka's environmental sustainability.

The implementation of this curriculum is expected to result in significant social and behavioral changes among students. By instilling a sense of environmental responsibility and awareness from a young age, it is anticipated that students will adopt sustainable





fostering a generation equipped with the knowledge and skills to champion environmental sustainability.

Step 9: Finalize the development curriculum

Step 10: Accredit the curriculum

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## Implementation Steps

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- Step 1: Conduct a feasibility study (include economic, social, and environmental factors)
- Step 2: Rank priorities with the help of leading agency
- Step 3: Conduct Pilot study
- Step 4: Consultation and draft proposal
- Step 5: Submitting proposal and seeking funds
- Step 6: Prepare directory of experts
- Step 7: Prepare curriculum with the help of local and overseas experts
- Step 8: Compatibility and practicality with the successful cases of the curriculum

## Recommendations

- Integrated Approach to Monitoring and Evaluation:** Implement an integrated approach to Monitoring and Evaluation (M&E) by establishing an overarching policy framework. This framework should encompass standardized indicators, data collection methods, and reporting mechanisms to ensure uniformity across all waste management initiatives. Regular assessments and reviews should be conducted to track progress and identify areas for improvement.
- Strengthening the National Waste Management Authority:** Enhance the functionality of the National Waste Management Authority by providing it with adequate resources, authority, and capacity-building programs. This includes expanding its scope to cover all aspects of waste management, from collection to disposal, and empowering it to enforce regulations effectively.
- Empowering the Independent EPR Committee:** Provide the Independent Extended Producer Responsibility (EPR) Committee with clear mandates, regulatory powers, and financial resources to carry out its responsibilities effectively. Encourage partnerships with industry stakeholders, environmental organizations, and financial institutions to promote shared responsibility and accountability in waste management practices.
- Incentivizing Industry Participation:** Develop a system of incentives and penalties to encourage active participation of industries in EPR schemes. This can include tax incentives for companies adopting sustainable waste management practices, as well as fines for non-compliance. Transparent and fair mechanisms should be established to ensure equity among stakeholders.
- Curriculum Integration for Waste Management Education:** Integrate the developed Waste Management Curriculum into the national education system from primary to secondary levels. Conduct regular training programs for teachers on waste management principles and practices to ensure effective delivery of the curriculum. Encourage hands-on learning experiences and partnerships with local waste management facilities for practical knowledge.
- Public Awareness and Participation:** Launch comprehensive public awareness campaigns on waste management, focusing on the importance of waste reduction, recycling, and responsible disposal. Engage communities through workshops, seminars, and community clean-up drives to foster a sense of ownership and responsibility towards waste management.
- Legislative Reforms and Policy Alignment:** Review and amend existing waste management legislation to align with international best practices and emerging environmental challenges. Ensure consistency and coherence among policies related to waste management and marine litter prevention.
- Research and Innovation Hub:** Establish a dedicated research and innovation hub for waste management, collaborating with universities, research institutions, and private sector entities. This hub will facilitate the development and implementation of innovative technologies, best practices, and sustainable solutions in waste management. Encourage knowledge sharing and capacity-building programs to foster a culture of continuous improvement in waste management policies and practices.

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