

Plastic Waste Management Strategy and Action Plan: Implement, Monitor and Enhance

Module VA



Session Overview

Delineate implementation /operational model per activity

Delineate Implementation/Operational Model: Policy Oriented Actions

Delineate Implementation/Operational Model: Industrial/ R&D Engagement

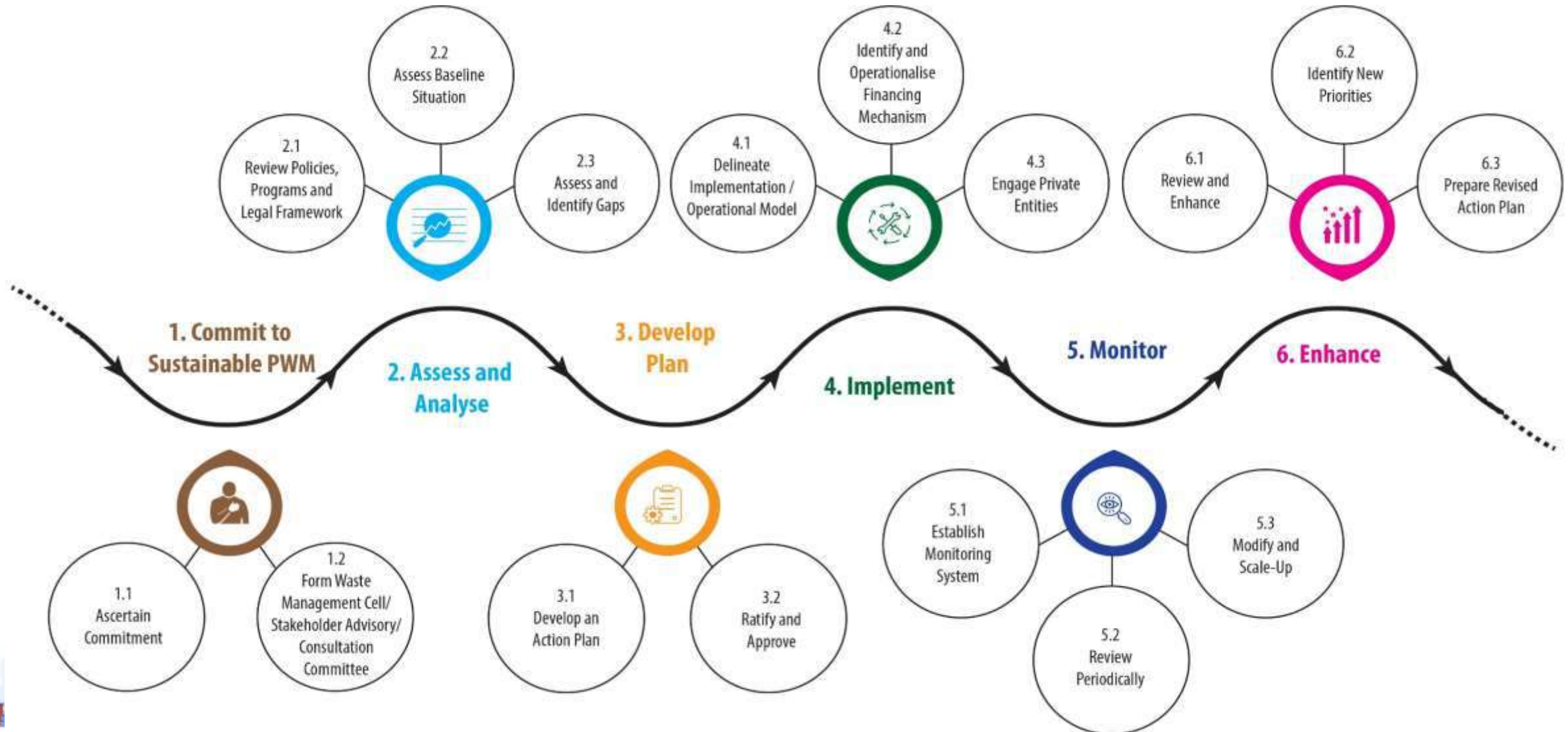
Delineate Implementation/Operational Model: Service provisioning

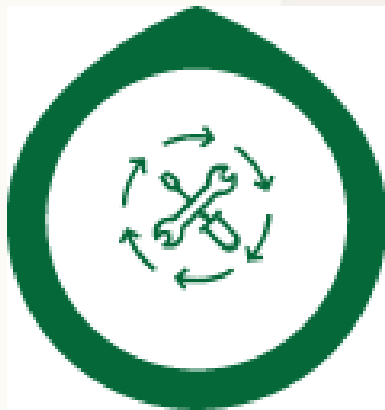
Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Delineate Implementation/Operational Model: IEC and Capacity Building



Overall Process to Develop Plastic Waste Management Action Plan





4. Implement



4.1 Delineate implementation / operational model



Description

- Identify operational/ implementation model per activity

Key Actions

- Identify responsible agencies for each activity in the action plan
- Identify all supporting and enabling actors
- Develop a detailed roles and responsibilities matrix for each action corresponding to each relevant actors



4.1.1 Identify operational/implementation model per activity

Prioritised Minimum Actions	Indicative Implementation / Operational Model
<ul style="list-style-type: none">• Implement and enforce ban on SUPs• Enhance availability and accessibility to alternatives of SUPs	<ul style="list-style-type: none">• Developing regulatory framework and penal action• Engagement of industry/R&D sector
<ul style="list-style-type: none">• Ensure 100% source segregation and door to door collection of waste on daily basis• Streamline collection and transport of waste to registered recyclers by installation of RVMs, engagement of LSPs• Set up Command Control Centre for integrated monitoring	<ul style="list-style-type: none">• Service provisioning



4.1.1. Delineate implementation / operational model per activity

Prioritised Minimum Actions	Indicative Implementation / Operational Model
<ul style="list-style-type: none">• Ensure plastic is recycled in environmentally compliant manner in all recycling and processing units• Increase market demand of recycled plastic through green certification, preferential procurement policy etc.	<ul style="list-style-type: none">• Developing regulatory framework and penal action• Specific target-oriented policy development
<ul style="list-style-type: none">• Capacity building and IEC campaign for all stakeholders across value chain to promote source segregation, importance of segregation on recycling and processing of plastic waste	<ul style="list-style-type: none">• Conduct IEC/capacity building exercise
<ul style="list-style-type: none">• Recruit adequate number of human resource across tiers of administrative units• Ensure interaction, data exchange and transparency across different key organisations in the PWM sector	<ul style="list-style-type: none">• Institutional strengthening

4.1.2 Delineate Implementation/Operational Model: Policy Oriented Actions

01

Identification of specific initiatives / incentives / penal measures

02

Official decision on scope of policy, implementation timeframe and framework

03

Preparation of draft document

04

Discussion with core team and stakeholders

05

Discussion with the Council

06

Preparation of draft document

07

Review and incorporate feedback to finalise the draft

08

Submission to City Council for approval

09

Adoption of final policy by City Council



4.1.3 Delineate Implementation/Operational Model: Industrial/ R&D Engagement

Need assessment (for e.g., Enhancing availability of alternatives/ research on developing new alternative)

Identify key industrial entities/ R&D institutes (e.g., IIT, CIPET, alternative manufacturing and marketing entities)

Analyse enabling environment for setting up industries/conducting R&D through stakeholder consultation



4.1.3 Delineate Implementation/Operational Model: Industrial/ R&D Engagement (Contd.)

Identify source of required infrastructure/financial support-leveraging governments programmes (Pradhan Mantri Mudra Yojana, Stand-up India Scheme, MEPMA etc.)

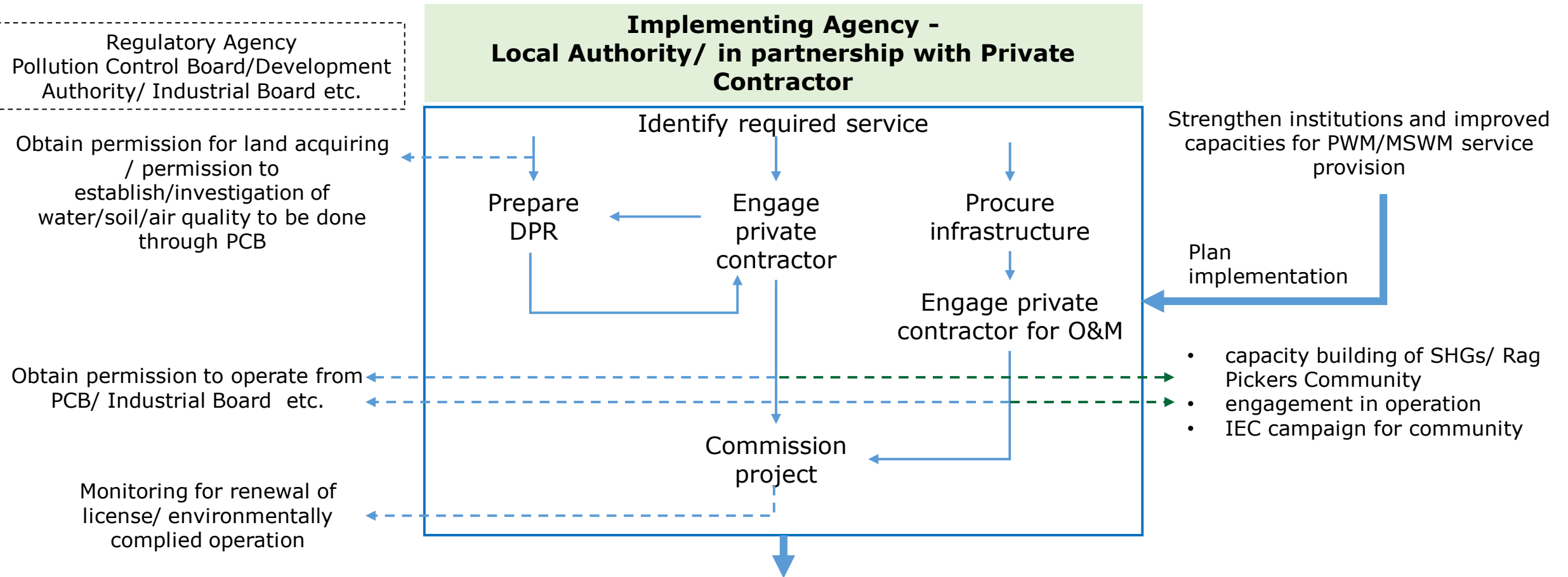
Mobilize support to industries/R&D sector

Promotion of new products

- Certify products as per PCB norms
- Conduct life cycle assessment of products in comparison to SUP items



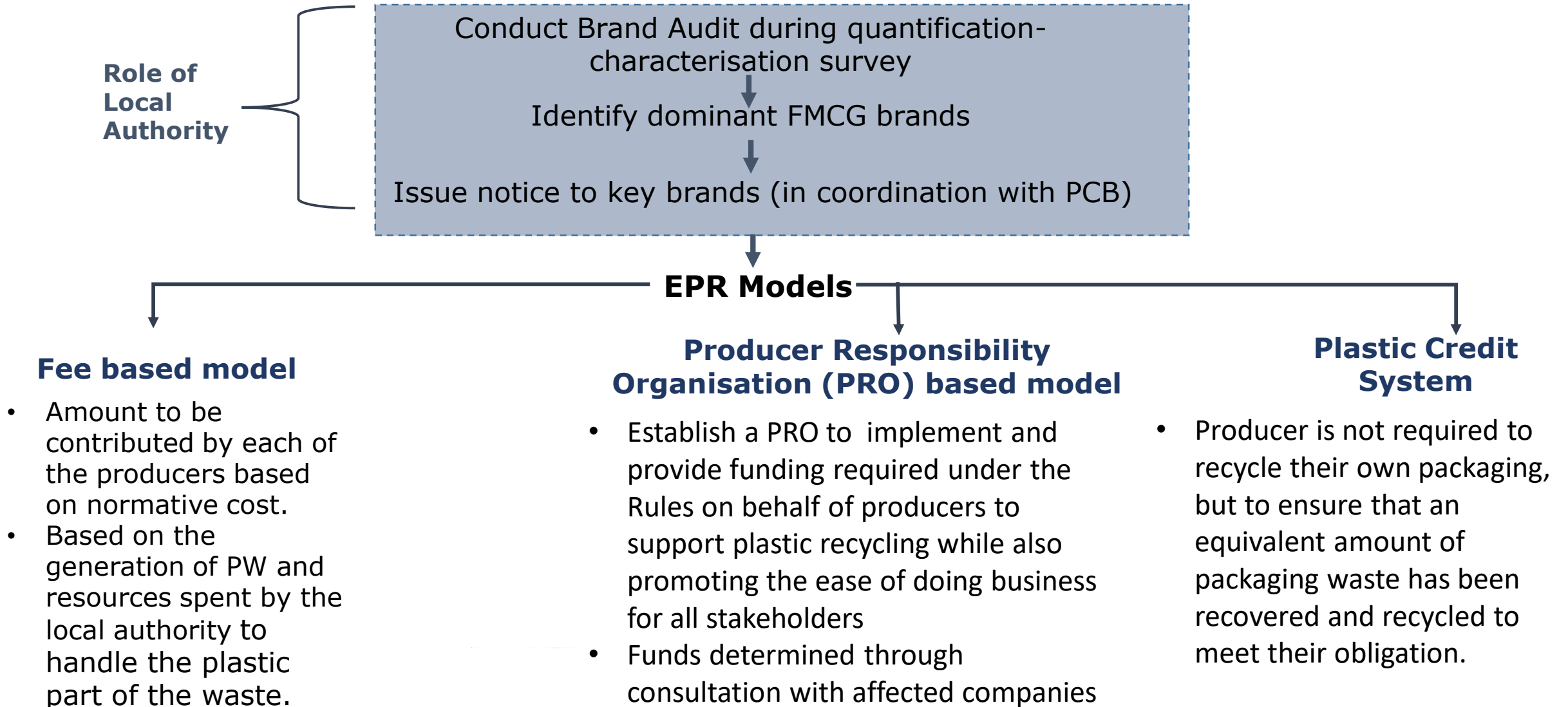
4.1.4 Delineate Implementation/Operational Model: Service provisioning



(Adapted from CPHEEO Manual on Municipal Solid Waste Management, 2016)



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Fee based Model

- To ensure proper implementation of EPR mechanism at the national level through the fee based model, the framework supports:
 - ULBs to implement waste management system and generate revenue as well
 - Formalise and strengthen plastic assembler and recycler and waste-pickers
 - IEC activity to promote effective waste segregation, collection, transportation and recycling
- A Committee will be constituted at the central level for overall monitoring the implementation of EPR
- The State Level Advisory Boards (SLABs) constituted under the SWM Rules, 2016 at the state level to be engaged for disbursing the funds to the ULBs, recyclers and for IEC activity. Representative of producers/importer/brand owner become a part of SLABs.



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Producer Responsibility Organisation (PRO) based model

- PRO is an organization authorized and financed collectively or individually by producers, which can take the responsibility for collection and channelization of plastic waste generated from the 'end-of-life' of their products to ensure environmentally sound management of such plastic waste.
- Producers/importer/brand owner (PIBO) to choose to either engage individually (through buy-back or deposit refund schemes) or collectively (through registered PROs)
- All the registered PROs shall be the members of PRO Association (PROA) by CPCB and share all their data and information. Further, PROA shall submit all the data/information of EPR with CPCB.



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Producer Responsibility Organisation (PRO) based model (Contd.)

- PRO is an organization authorized and financed collectively or individually by producers, to take the responsibility for collection and channelization of plastic waste generated from the 'end-of-life' of their products and ensure its environmentally sound management
- Producers/importer/brand owner (PIBO) to choose to either engage individually (through buy-back or deposit refund schemes) or collectively (through registered PROs)
- All the PROs to be registered with CPCB. Registered PROs shall be the members of PRO Association (PROA) at CPCB and share all their data and information



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Producer Responsibility Organisation (PRO) based model (Contd.)

- All the PROs to be registered with CPCB. Registered PROs shall be the members of PRO Association (PROA) at CPCB and share all their data and information with CPCB
- Independent Certifying Agency to audit waste recycled / disposed by the recycler based on the GST bills and the weigh-bridge bill of the recyclers and other important factors (QR Code system suggested for efficiency)



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Producer Responsibility Organisation (PRO) based model (Contd.)

- The guiding principles for PRO include:
 - PIBO by their own or through PRO required to ensure that an equivalent amount of plastic is being collected and processed
 - The program shall promote the inclusion of waste pickers to improve their working conditions and incomes
 - PRO/Producers/Importers can also obtain certificates from accredited processors (recyclers, W2E plant operators, cement co-processors, users utilizing plastic in road) in exchange of an evidence of recycling or recovery
 - Producers/importer/brand owner (PIBO) to choose to either engage individually (through buy-back or deposit refund schemes) or collectively (through registered PROs) with the ULBs, processors and the informal sector



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Producer Responsibility Organisation (PRO) based model (Contd.)

- 3 types of mandates/targets for PIBOs
 - **Product take-back mandates** manufacturers and/or retailers individually or collectively take back products at the end of their lives to meet the recycling /waste diversion targets
 - **Product take-back mandate and recycling rate targets**, with a tradable recycling credit scheme to allow trade among firms to meet the industry-wide recycling rate target
 - **Voluntary product take-back with recycling rate targets allows** firms in an industry to organize a take-back system for their products and set recycling goals. There is no law or government regulation mandating compliance and no penalties for not meeting the goals.



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Plastic Credit Model

- Producers and processors/ exporters may exchange plastic credits for a financial transaction at a price and other terms as negotiated between them
- Accredited processors receive additional funding for every tonne of packaging waste they reprocess and have an incentive to acquire further tonnage, thereby driving up recovery rates.
- Funding may be directed to remove bottlenecks in the material recovery chain through market corrections.
- Businesses will have incentive to support long-term investments to support their efforts.

Processors include businesses involved in:

- Plastic Recycling
- Cement Co-processing
- Waste to Energy
- Alternate User- Plastic to Oil/ Plastic in road construction etc.
- Accredited/ authorized exporters involved in export of post-consumer plastic packaging waste



4.1.5 Delineate Implementation/Operational Model: Extended Producer Responsibility (EPR)

Plastic Credit Model (Contd.)

- Three components to ensure transparent and efficient system:
 - Accreditation and registration of the recycler/processor
 - EPR portal for registering the traceability of the plastic waste such that no plastic waste re-enter the value chain
 - Certificates of end-use to be certified by a certified auditor



4.1.6 Delineate Implementation/Operational Model: IEC and Capacity Building

Planning

- Identify key message of IEC / capacity building
- Identify target group
- Identify frequency of events

Execution



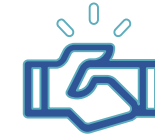
Engage NGOs / SHGs /
CSOs/CBOs



Organise event



Use of social media, mass
media + Engagement of
brand ambassadors



Collaborate with R&D and
Educational Institutes



Organise event

Monitor impact



Indicative target group and message for IEC and capacity building

Target Group	Key Message
Waste Generators	<ul style="list-style-type: none">● Minimize use of single-use plastics● Build awareness about alternative materials● Reiterate importance of maximum possible reuse and recycle● Stop open dumping, littering and burning of waste● Harmful impact of plastic waste● Awareness on segregated waste storage at point of generation● Awareness about specifications of recycled products, their characteristics, content and restrictions of use.● Sensitization towards waste collectors● Regular payment of user charges● Information on how collected plastic waste is processed and/or disposed



Indicative target group and message for IEC and capacity building (Contd.)

Target Group	Key Message
Senior Officers	<ul style="list-style-type: none">● Field level implementation, monitoring and supervision● Welfare of field staff and feedback or reporting innovations● Capacity building of field and administrative staff
Field level sanitation staff (collection and transport staff)	<ul style="list-style-type: none">● 100% door to door collection in regular and timely manner, Daily clearance of community bins, Transport of segregated waste● Use of PPEs● Collection of user charges and report of defaulters● Vehicle routing and preventive maintenance● Real value of waste● Impact of waste segregation on processing systems● Education to sell recyclables to only registered scrap dealers, DRCCs or registered recyclers



Indicative target group and message for IEC and capacity Building (Contd.)

Target Group	Key Message
DRCCs, Recyclers and Manufacturers	<ul style="list-style-type: none">• Quantification of waste received at plant• Process design and O&M of plant machinery• Disposal of rejects• Fire, health, safety• Education on transportation of waste only to registered processing facilities or ISWM facility• Awareness on what should be sent to landfills• Awareness on registration process with PCB• Awareness on strict application of environmental control mechanisms while recycling



Indicative target group and message for IEC and capacity building (Contd.)

Target Group	Key Message
Elected representatives	<ul style="list-style-type: none">• Policy formation, plan preparation and legislation Infrastructure development• Supervision and monitoring continuous improvement• Human resource development budgeting and finance• Ensure co-operation of citizens



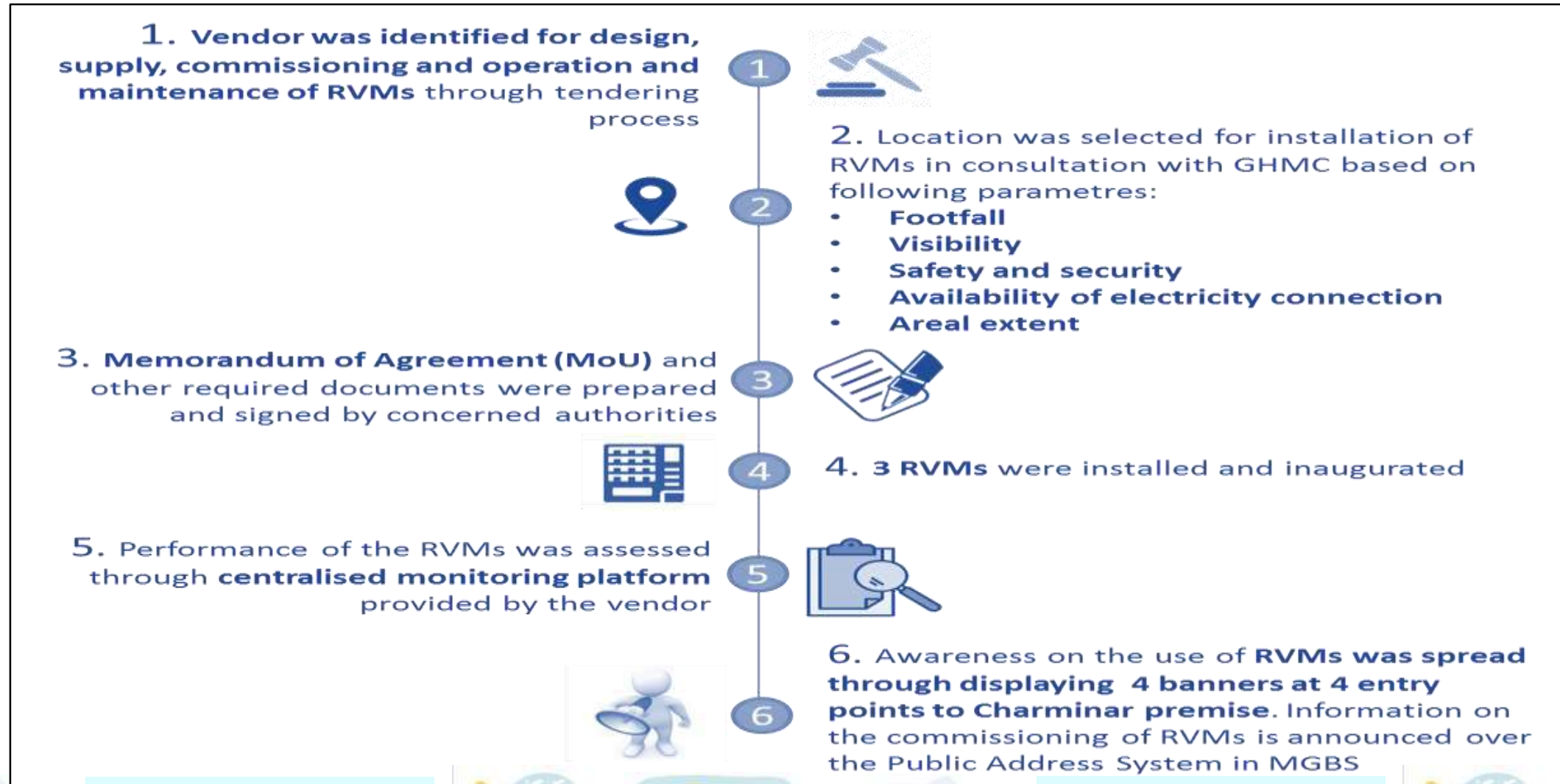
Roles and responsibility matrix

Indicative Roles and Responsibilities

Key Action Points	Responsible Authority
Conceptualising action plan	● Local Authority
Preparing plan of implementation	● Local Authority/ Private entity in case of PPP contract
Securing finance	● Local authority leveraging government finance ● Assurance of EPR contribution from FMCG brands ● Collaborate with NGO's for grant
On-ground implementation	● Local Authority/ Private entity in case of PPP contract
Monitoring environmental compliance	● SPCB in collaboration with Local Authority vigilance team
Monitoring	● Local Authority/ Private entity in case of PPP contract
Reporting	● Private entity to Local Authority to SPCB



Example: Pilot level commissioning of Reverse Vending Machine (RVM) in Hyderabad



END OF MODULE VA





Disclaimer

The Training Modules on developing 'Plastic Waste Management Strategy and Action Plan for Urban Local Bodies(ULBs)' is prepared by ICLEI-Local Governments for Sustainability, South Asia under the contract- Development of Knowledge, Training and Capacity Building Materials on Plastic Waste Management based on the activities of GHMC, supported by the IGES Centre Collaborating with UNEP on Environmental Technologies (CCET). The views expressed in this document do not necessarily represent the official decision or stated policy of the United Nations Environment Programme. The citing of trade names in this document does not constitute any endorsement.

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