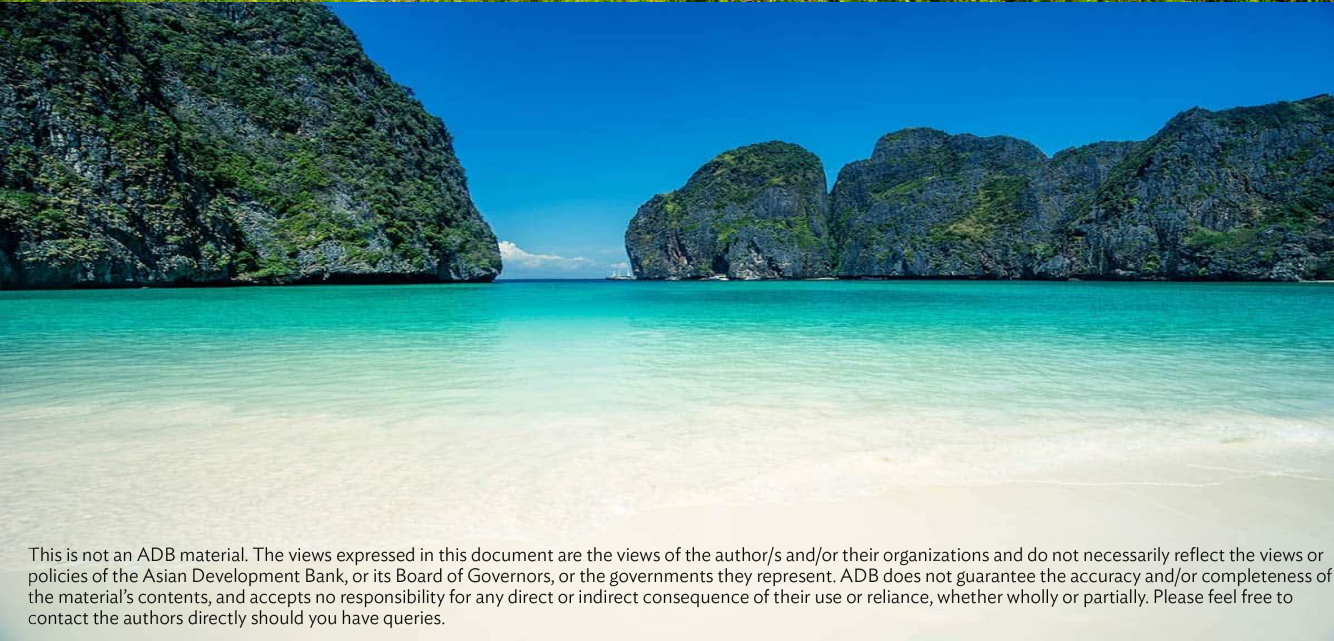




Applying Circular Economy Principles to end Plastic Pollution in Thailand



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Status:

High amount of waste generated in 2023 (26.95 million ton)

- Properly Disposed 10.17 million tons (38%)
- Waste Utilization 9.31 million tons (34%)
- Waste Utilization 9.31 million tons (34%)

Most of plastic waste is single-use-plastic

- 25 % Utilization
- 72 % Disposed of in Landfill
- 3 % left in environment

Plastic waste is diverse and many applications

- Packaging and products



Plastics and the Sustainable Development Goals (SDGs)

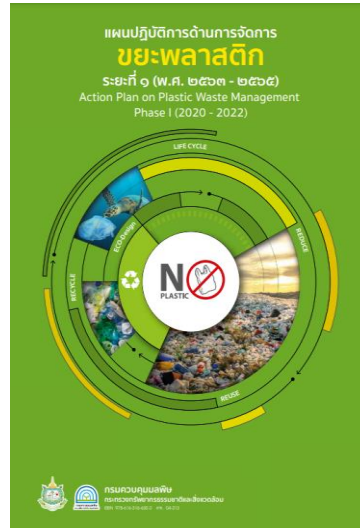


Policies and Plans to Address Plastic Waste



Roadmap on Plastic Waste Management 2018 - 2030

- **In 2019** : stop using cap seal, Oxo-degradable plastics and micro beads
- **In 2022** : stop using foam food containers, plastic straws, plastic bags thicker less than 36 micron and plastic cup thicker less than 100 micron
- **In 2027** : recycling targeted plastic wastes by 100%



Action Plan on Plastic Waste Management Phase 1 (2020 - 2022)

- Stop using targeted single-use plastic
- Circularity targeted plastics
- Voluntary programs

Action plan's measures

- Reduction of plastic waste at sources
- Reduction the use of single-use plastic at consumption process
- Post-consumption plastic waste management



Action Plan on Plastic Waste Management Phase 2 (2023 - 2027)

- Focus on product life cycle management
- Waste hierarchy management
- Instruments/ measures for waste management (EPR, product standards, database, etc.)

Action plan's measures

- Production of environmentally friendly products
- Sustainable consumption
- Environmentally sound plastic waste management
- Marine plastic waste management



Initiatives and Successes Program

No Plastic Bottle Cap Seal

The problem of Plastic Bottle Cap Seal

The problem of Plastic Bottle Cap Seal

- In Thailand, drinking water producers produces approximately 4,400 million plastic bottles per year by 60¢/a approximately 2,600 million bottles per year using plastic bottle cap seal.
- Plastic Bottle Cap Seal produces 2,600 million pieces of plastic garbage per year or 520 tons per year.
- This plastic bottle cap seal made from Polyvinyl Chloride (PVC) which is a stick fin that can be wrapping and strapped to the bottle cap. It is printed a sign of arrows for tear off and easy to take plastic bottle cap seal away. The plastic bottle cap seal is lightweight and easy to disassemble into the environment. But, it is very difficult to collect or store and does not economy for recycling. Thus, plastic bottle cap seals normally left to the environment on land and sea which takes very long time for degraded.
- This plastic bottle cap seal which is not collected for proper disposal will be the cause of clogged drainage problem. For some case of sea animal die, we found plastic bottle cap seal and another plastic waste Plastic Bottle Cap Seal is not used in many countries such as Malaysia, Indonesia, Singapore, China, Korea, Taiwan, Germany, France, Italy and England

Plastic cap seal for drinking water
How many cap seals are we (Thailand) using per year?
2,600 million pieces, 520 tons by weight or 260,000 Km by length
6.5 times the circumference of the world

Time frame

- The first step, five major water producers such as Singha, Crystal, Chang, Elephant, Nestle Pure Life and Carabao started the No Plastic Bottle Cap Seal campaign. Then they will stop to produce drinking water with no cap seal in the same timeframe from April 1, 2561. After that we won't probably see Plastic Bottle Cap Seal in next 6 months.
- The next step, we will extend the No Plastic Bottle Cap Seal campaign to the other members of Drinking Producers Association (small drinking water producers). It is expected to cover this campaign in the end of year 2019.

Timeline:

- January 26, 2017: Pollution Control Department (PCD) and plastic industry group had discussion about minimizing plastic waste by ending use of cap seals.
- February 10, 2018: Signing of MOU and press conference.
- April 1, 2018: Start of the phase-out period of cap seal.
- December 31, 2019: Total elimination of cap seal use in Thailand.

PLASTIC MICROBEADS

เม็ดสครับเล็กกว่าทราย แต่สร้างอันตรายที่มหาสมุทร

EST. 1984

- Stop using plastic cap seal for drinking water bottles since 1st April 2018

- prohibit to manufacture or import cosmetics containing plastic microbeads since 1st January 2020



Initiatives and Successes Program



Initiatives and Successes Program

- **MOU** to promote packaging management according to circular economy concept by applied the principle of Extended Producer Responsibility (EPR)
- PCD joint the MOU as part of the policy maker driving the EPR for packaging in Thailand
- EPR Steering Committee for Packaging Waste Management
- There are relevant stakeholders both public and private sector included in the EPR Steering Committee
- **5-Year Implementation Plan on packaging waste management (2023-2027)**





EPR Implementation

- Project on Developing a Policy Framework for EPR for Packaging Waste in Thailand
- Project: Rethinking plastics – circular economy solutions to marine litter funded by EU and GIZ: May 2019 to April 2022
- **Draft Sustainable Packaging Waste Management Act**
- Applied the **CE** and **EPR** principles



MOI's Waste Management Policy

Implementation by municipal waste management action plan “Clean Province” From 2018 - Present

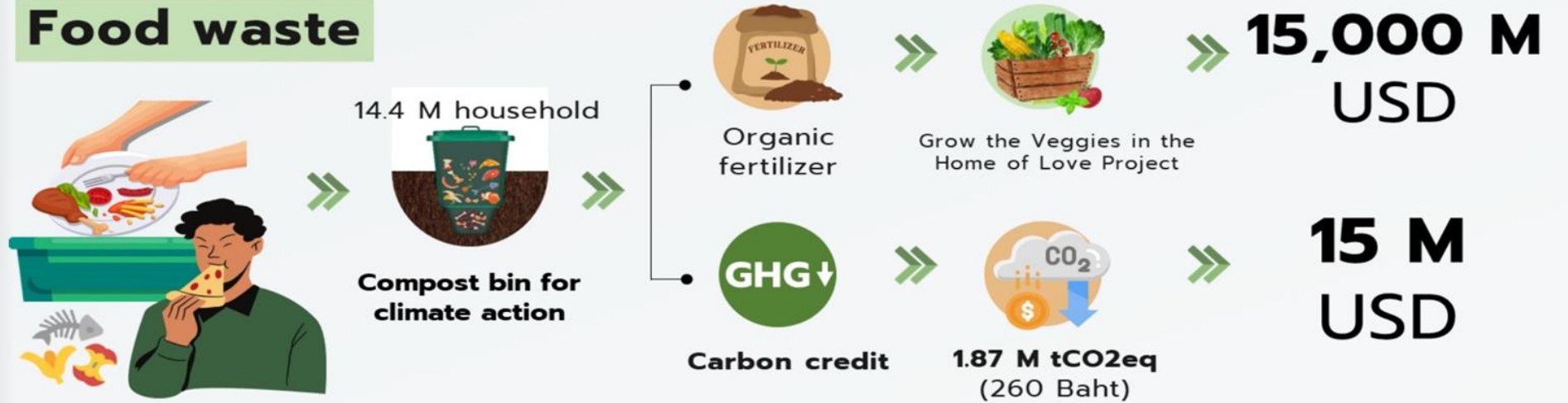
Upstream	Midstream	Downstream
<ol style="list-style-type: none">1. 3Rs: Reduce Reuse Recycle Principle2. Compost bin for climate action (Food waste segregation)3. Recyclable Waste Bank4. Local Environment Volunteers	<ol style="list-style-type: none">1. Waste Transportation2. Waste segregation bin 	<ol style="list-style-type: none">1. Clustering 247 groups2. Sanitary landfills3. Waste to Energy 



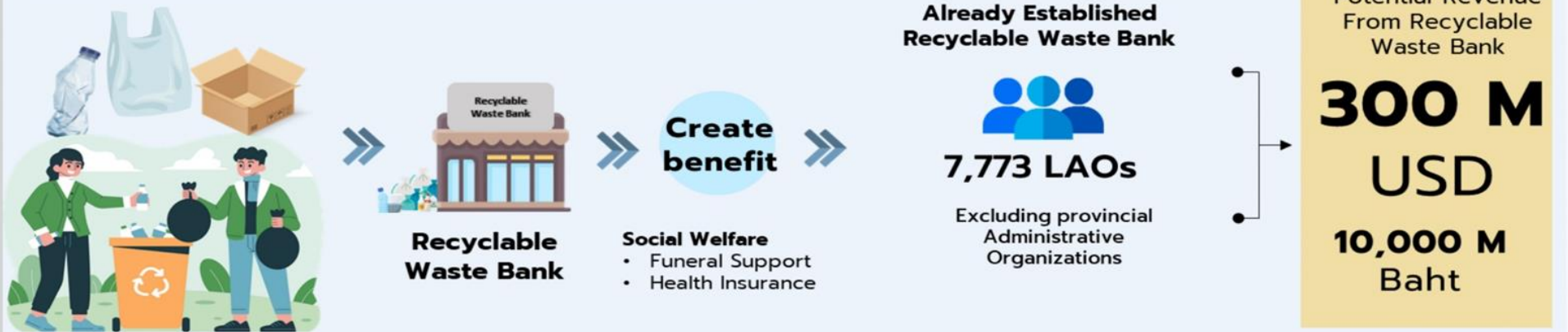
Initiatives and Successes Program

HOUSEHOLD WASTE FLOW OF THAILAND

Food waste



Dry waste (Recyclable)



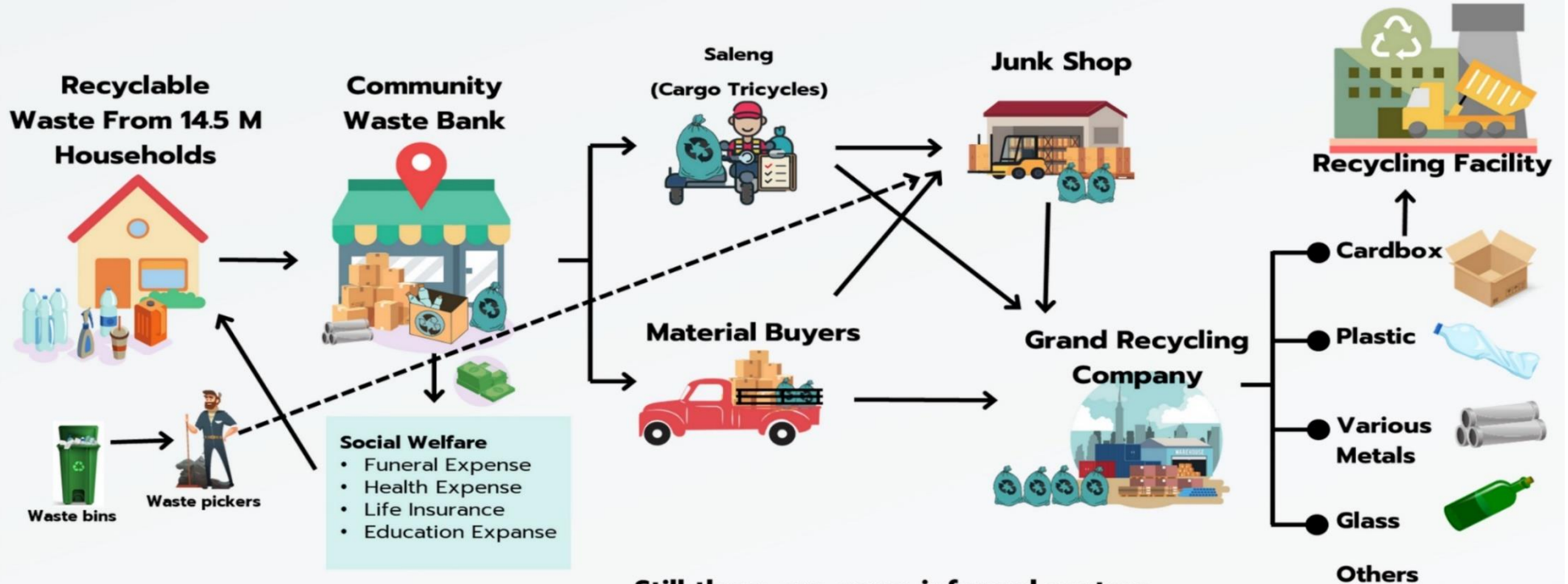
LAOs : Local Administrative Organizations



Initiatives and Successes Program

Pictogram of Recyclable Waste in Municipality

Value Chain Mapping



Still there are some informal sectors

Stake holder mapping





What are the current challenges?

- Current law and regulation
- Budgetary waste in infrastructure investment
- Public awareness
- Global Plastic Treaty



What are the current challenges?

Current law and regulation

- Linear Economy
- No provision on waste segregation at sources and recycling
- Ineffective waste management fee collection

Sustainable Packaging waste Management Act

Budgetary Waste from infrastructure investment

- Guidelines
- standards

Public awareness

- awareness raising campaign
- education program

Global Plastic Treaty

- law & regulation
- education & outreach
- capacity building
- technical & technology transfer

??



Regional Cooperation:

Mandatory EPR (Packaging)

- Knowledge sharing (success and non-success tasks)
- Data management
- Harmonize guidelines





ADB Support:

Global Plastic Treaty

- Study on levy from Single-Use Plastics and Financial Mechanisms, Financial Structures, and Operations
- Strategic /Action plan align with global plastic treaty (such as problematic plastic, product design of plastic product, etc.)
- Mean of implementation (financial support /capacity building for developing country to comply with the treaty)





ADB Support:

EPR scheme

- Implementation Action Plan on EPR (Packaging, E-waste)
- Capacity building/ awareness raising to all stakeholders

SDG implementation and data resources

Monitoring on waste and plastic waste management





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