



Ministry of Environment and Forestry
Republic of Indonesia

CIRCULAR ECONOMY ON SOLID WASTE MANAGEMENT IN INDONESIA

Siem Reap, Cambodia, 9th February 2023

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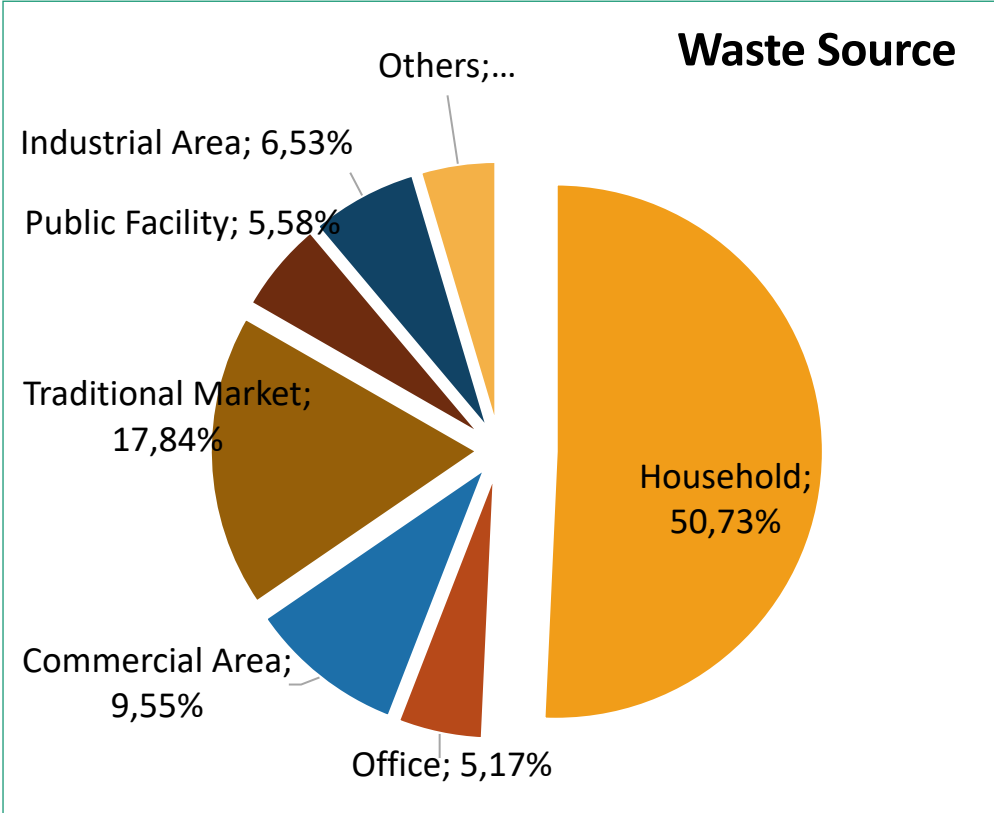
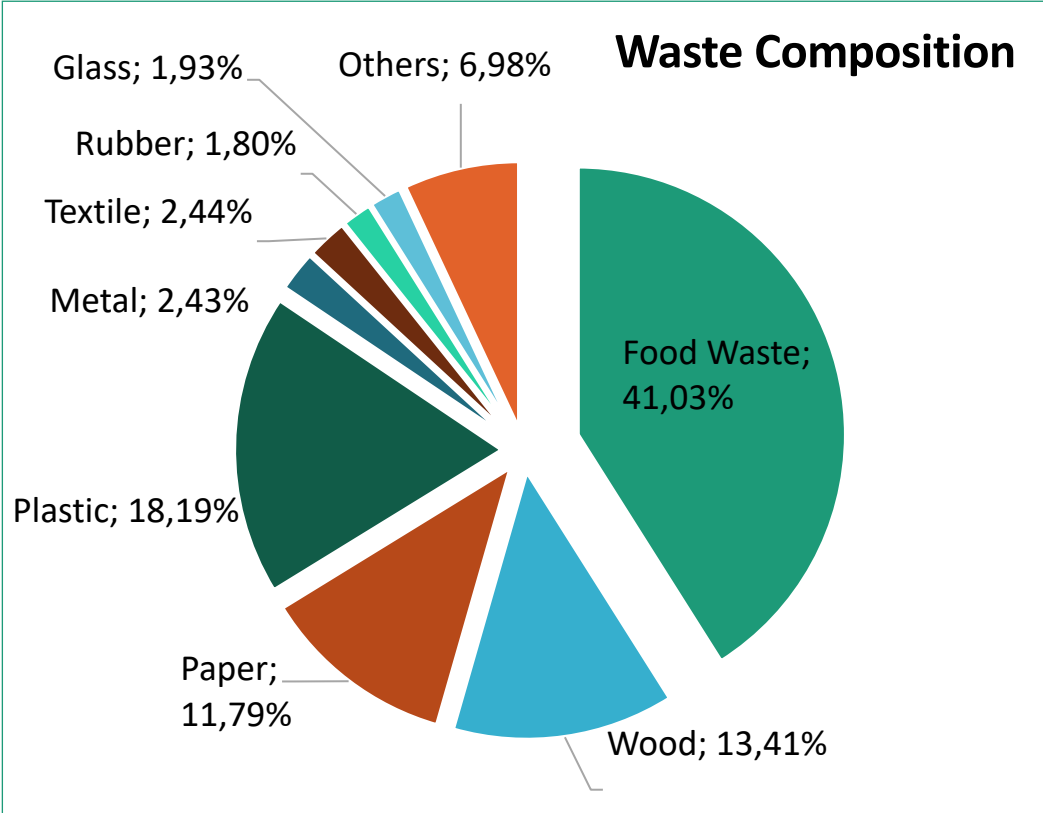




INDONESIA SOLID WASTE MANAGEMENT DATA



Waste Generation (2021) 68.5 million ton



Source: <https://sipsn.menlhk.go.id/sipsn/>

Potential of Plastic Waste in Indonesia: 18.19 % (2022) or around 12.46 million ton/year (unsorted)
Potential of Paper Waste in Indonesia: 11.79% (2022) or around 8.08 million ton/year (unsorted)



Potential as Recycling Resource → Implementing Circular Economy



INDONESIA'S SOLID WASTE MANAGEMENT REGULATIONS



Law No. 18/2008 on Solid Waste Management

Government Regulation No. 81/2012 on the Management of Household Waste and Waste similar to Household Waste

Government Regulation No. 27/2020 on Specific Waste

Presidential Regulation No. 97/2017 on National Policies and Strategies for Managing Household Waste and Waste similar to Household Waste

Presidential Regulation No. 83/2018 on Marine Waste Management that are oriented towards handling plastic waste

Presidential Regulation No. 35/2018 concerning Waste to Electricity Plant

UPSTREAM

- Ministry of Environment and Forestry (MoEF) Regulation No. P.75/2019 on Waste Reduction by Producer Roadmap
- Local Government Regulation on Waste Reduction
- Ministry of Environment and Forestry Regulation No. 14/2021 on Waste Bank
- Roadmap in the context of accelerating the availability of domestic industrial recycling raw materials as a substitute for imported raw materials, especially for plastic and paper
- Circular Letter from Mayor about waste sorting, less-waste lifestyle, *eco-office*, etc.

PRODUCER

PUBLIC/COMMUNITY

DOWNSTREAM

- Ministry of Public Works Regulation No.3/2013 on Solid Waste Management Infrastructure
- MoEF Regulation No. P.70/2016 on Emission Standard for thermal-based solid waste treatment
- MoEF Regulation No. P.59/2016 on Leachate Quality Standards for Waste Landfill
- MoEF Regulation No. P.10/2018 on Regional Policies and Strategies in Waste Management
- Ministry of Home Affairs Technology No.79/2018 on Regional Public Service Agency (BLUD)
- MoEF Regulation No. P.76/2019 on Adipura
- MoEF No. P.26/2020 on Fly Ash Bottom Ash Handling for thermal-based solid waste treatment
- Ministry of Home Affairs Regulation No. 7/2021 on Solid Waste Management Retribution
- Ministry of Finance Regulation No.26/2021 on State Budget Funding Support for waste management in the regions
- MoEF Regulation No. 6/2022 on National Waste Management Information System (SIPSN)

LOCAL GOVERNMENT



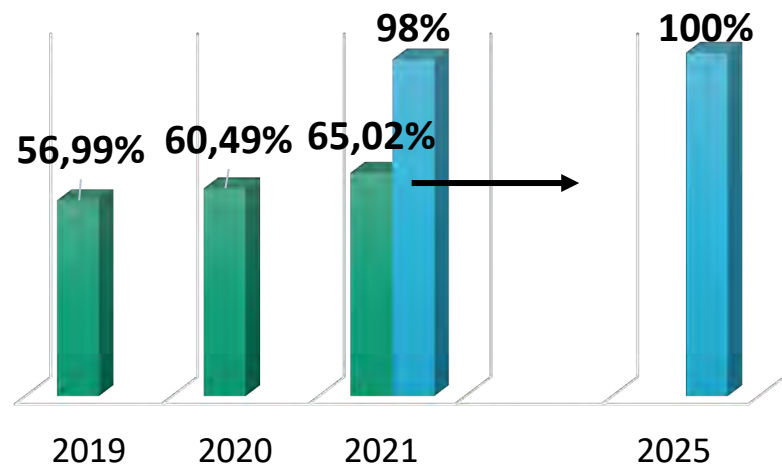
CURRENT SOLID WASTE MANAGEMENT CONDITION IN INDONESIA (1)



PRESIDENTIAL REGULATION NO 97/2017 ON NATIONAL POLICIES AND STRATEGIES FOR MANAGING HOUSEHOLD WASTE AND WASTE SIMILAR TO HOUSEHOLD WASTE

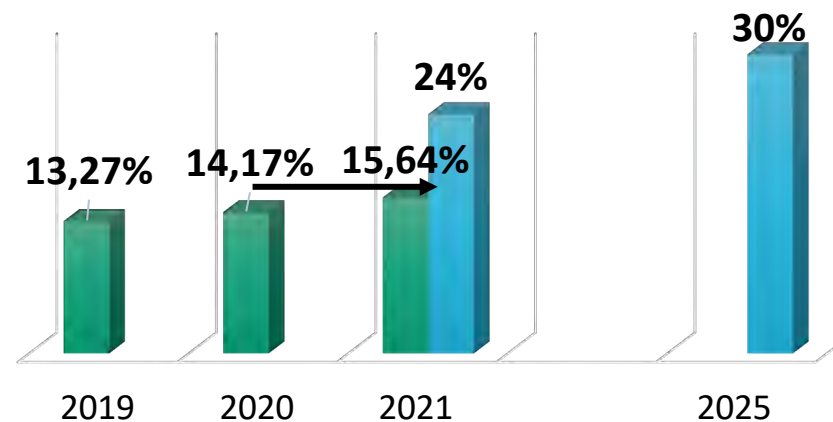
Indicator	2018	2019	2020	2021	2022	2023	2024	2025
Waste generation (mil tons)	66.5	67.1	67.8	68.5	69.2	69.9	70.6	70.8
Waste reduction target (mil tons)	12 (18%)	13.4 (20%)	14 (22%)	16.4 (24%)	17.99 (26%)	18.9 (27%)	19.7 (28%)	20.9 (30%)
Waste handling target (mil tons)	48.5 (73%)	50.3 (75%)	50.8 (75%)	50.7 (74%)	50.5 (73%)	50.3 (72%)	50.1 (71%)	49.9 (70%)

National Achievement on Handling Municipal Solid Waste



- Percentage of Managed Waste
- National Target of Managed Waste

National Achievement on Reducing Municipal Solid Waste



- Percentage of Managed Waste Through 3R (Waste Reduction)
- National Target of Managed Waste Through 3R (Waste Reduction)



CURRENT SOLID WASTE MANAGEMENT CONDITION IN INDONESIA (2)



PRESIDENTIAL REGULATION NO. 83/2018 ON MARINE WASTE MANAGEMENT

STRATEGY

1. National movement to increase stakeholder awareness
2. Land-based waste management
3. Coast and Sea based waste management
4. Funding mechanisms, institutional strengthening of supervision and law enforcement
5. Research and development

TARGET

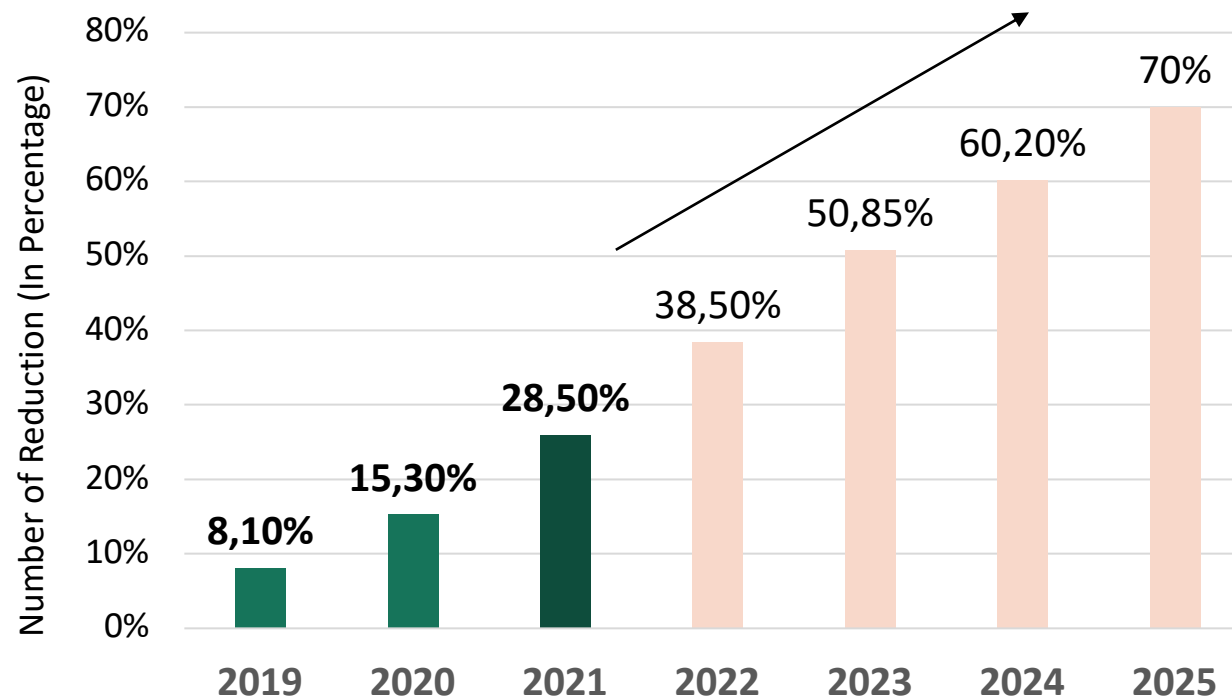
Reduce plastic waste in the ocean by 70% by 2025 by involving 18 Ministries and Agencies, 5 strategies - 59 Activities



Baseline

Year	Land-Based Plastic (Ton)	Sea-Based Plastic (Ton)	Total of Plastic Waste in The Sea (Ton)
2018	538,182.77	77,491.86	615,674.63

Plastic waste entering the ocean has decreased by 28.5% from 2018 to 2021





TARGET, STRATEGY, AND GOAL



2025

Presidential Regulation No.97/2017

- 100% of waste in Indonesia is targeted to be well managed by 2025
- 30% of them through 3R approach

Presidential Regulation No. 83/2018 on Marine Waste Management that are oriented towards handling plastic waste

70% of plastic waste is targeted to be reduced by 2025

2029

Ministry of Environment and Forestry Regulation No. P.75/2019 on Roadmap of Waste Reduction by Producer

- Producers can reduce their container/packaging waste by 30% by 2029
- Phasing out styrofoam for food packaging, disposable plastic cutlery, and plastic straws by 2029

2030

Nationally Determined Contribution of Indonesia (Waste Sector)

Indonesia sets a target to reduce GHG emissions from waste sector by 40 Mton CO_{2e} with its own efforts and up to 43.5 Mton CO_{2e} with the help from other countries by 2030.

Behavioural Change:

- Less-waste lifestyle
- Waste sorting
- Law enforcement

Implementing Extended Producer Responsibility (EPR)

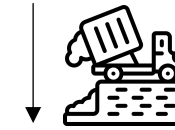
Increasing Recycling Rate by developing a recycling integrated system from upstream to downstream

Solid Waste Management Infrastructures

- Developing and building 3R-based Facilities / Waste Treatment Facility
 - Organic waste treatment facilities
 - Material Recovery Facilities (MRF)
 - Waste-to-electricity plants (12 cities)
 - RDF plants (32 cement factories and 52 coal-fired power plants)
- Optimizing existing facility

Optimizing national waste data management

- Developing national data platform
- Improving data quantity and quality



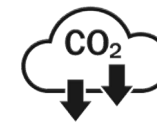
Reduce Waste to Landfill



Circular Economy



Sustainable Development



Net Zero Emission

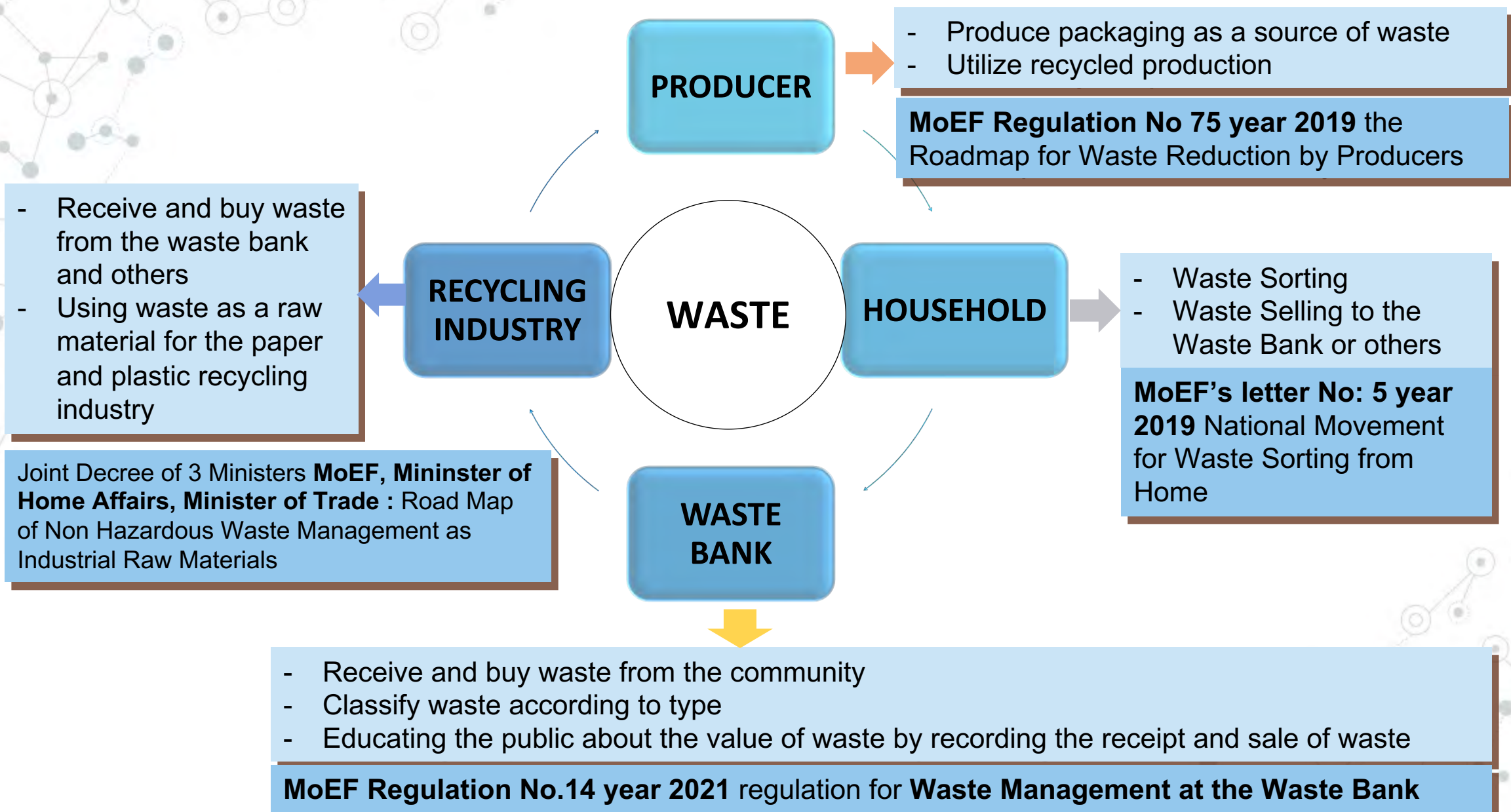
NATIONAL TARGET

STRATEGY

GOAL



THE CONCEPT OF CIRCULAR ECONOMY IN WASTE MANAGEMENT





BUSINESS ENTITY

1



Implementation of EPR:
15 Business Entities



Total Waste Reduction:
1.145,5 ton

Roadmap technical assistance **353 Business Entities**

COMMUNITY (WASTE BANK)

2

Number of Waste Banks
14.457 units



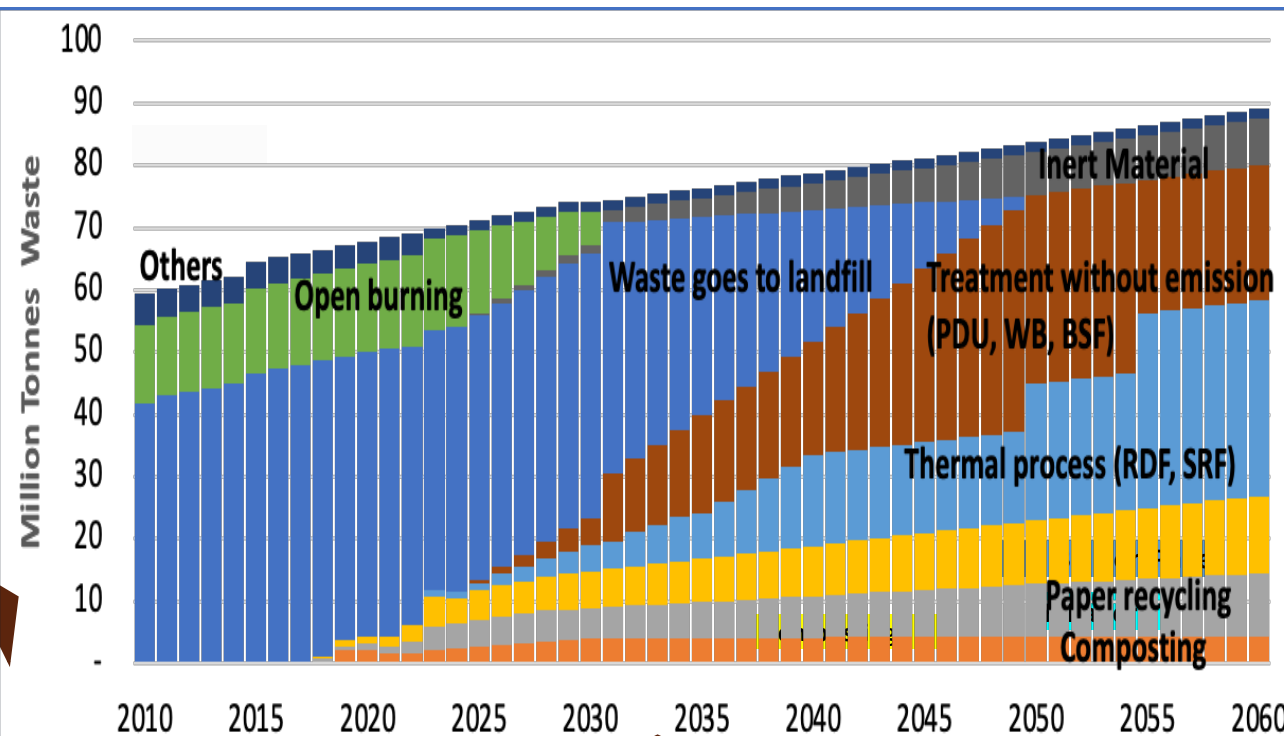
Number of Customers:
403.197 customer



Total Waste Managed:
460.554,46 tons/year



Economic Value:
Rp. 5,1 billions



INDUSTRIALIZATION

5

Total waste managed from 36 TPST: **27.886 tons/year**

Waste managed from 75 composting facilities : **16.105 tons/year**

Waste managed from 22 recycling facilities (PDU) : **18.689 tons/ year**

Total waste managed from 282 TPS3R : **87.574 tons/year**

Total waste managed from 1 RDF: **50.804 ton**

Total waste managed from 2 ITF **6.036 ton**

Sumber: SIPSN, 2022

SCAVENGER

3

INFORMAL SECTOR



Number of scavengers :
15.325 persons (44 regencies/ cities)



Average amount of managed waste: **10 – 20 kg / day / person**



Average income per person :
Rp. 2-5 million/month

COLLECTOR



Average amount of managed waste per collector: **200–700 kg/day**



Average income per collector :
Rp. 30-60 million / month

SOCIAL ENTREPRENEUR

4



Total : **176 Partners**



Average amount of managed waste per partner :
50 tons/month



One of the partner has a turnover: **Rp. 2 Billion/Month**



Let's Walk The Talk,
Leads by Example!
Reduce, Reuse, Recycle,
Start from yourself, Start from now!

THANK YOU

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