COORDINATING MINISTRY OF MARITIME AFFAIRS AND INVESTMENT
REPUBLIC OF INDONESIA

PUBLIC AND PRIVATE PARTNERSHIP ON REDUCING MARINE PLATICS LITTER IN INDONESIA

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Marine Plastics Litter: Status and Problems

Total Waste Generated	65,8 million tons/year (Jakstranas KLHK, 2017)
Plastic Waste Generation	6,8 million tons/year (NPAP WEF, 2020)
Plastics Waste Leakage	0,27 – 0,59 million tons/year (LIPI, 2019)
Business as Usual Scenario	Population (↑) Economic growth (↑) Plastics Production and Usage (↑) Plastic Waste Collection and Recycle (=)

National Target

reduce marine plastic debris by up to

70% by 2025

Plastics Waste Leakage to the Ocean

- In the year of 2025, predicted = 780.000 tons

(source: NPAP WEF, 2020)

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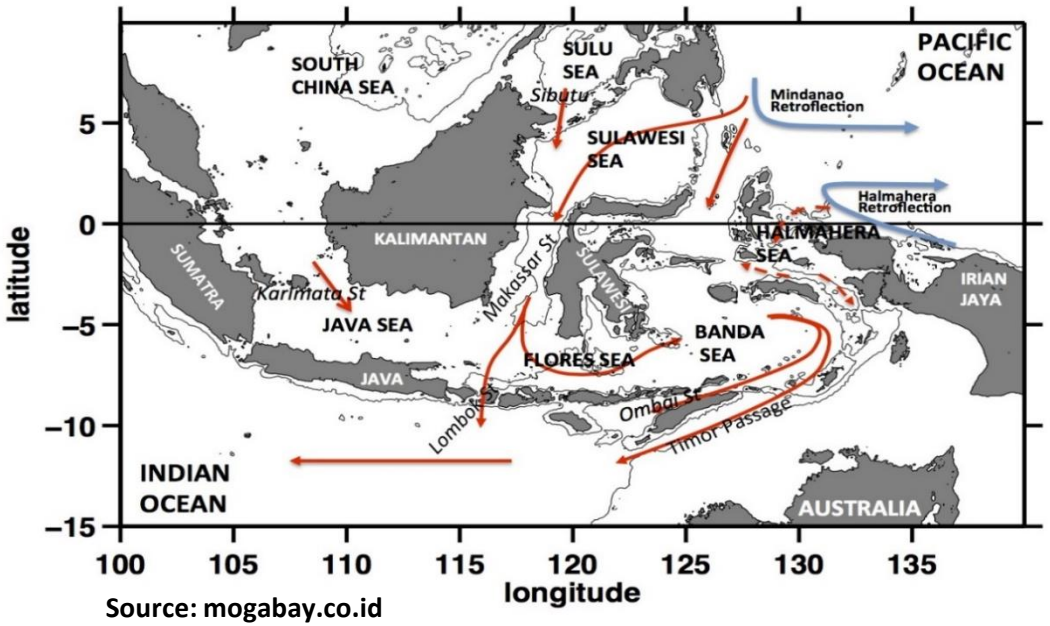
Geographical Factors:

Unmanaged Plastic waste easily enters the sea

- Indonesia is home for 17.491 islands
- World's 2nd longest coastline 108.000 km
- More than 330 big rivers end up to the ocean
- 50 % population live within 50 km from the sea
- Local and global ocean currents transferred marine litter



Source: mogabay.co.id

- Unmanaged garbage from other areas transferred by the ocean currents.

Litters stranded on the beaches might also sourced from the adjacent areas or islands

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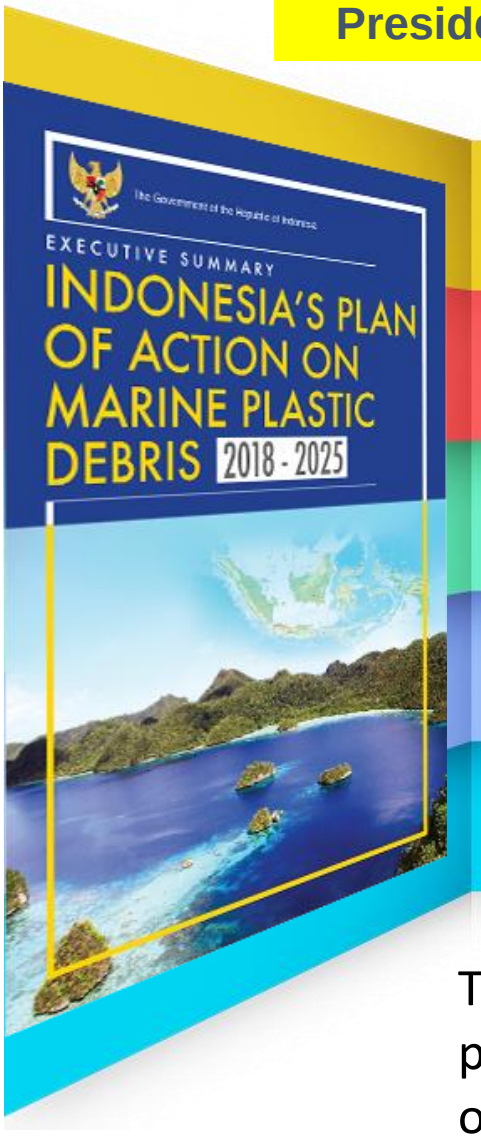
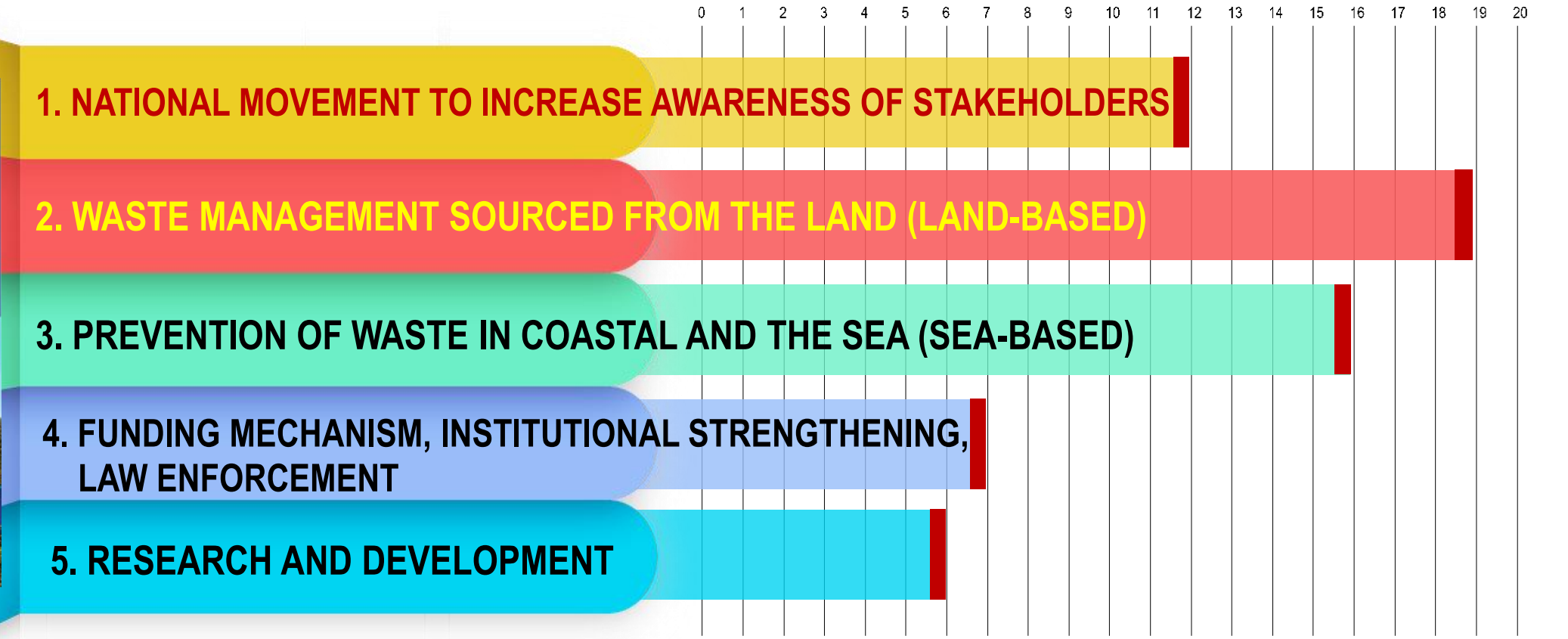
5 Strategies on National Action Plans

Presidential Regulation Number 83/ 2018 concerning Combating Marine Debris





Those 5 strategies will be implemented by 16 line ministries/agencies, through sinergizing programmes and policies on each ministry/agency with a view to achieve the national target on marine debris reduction.

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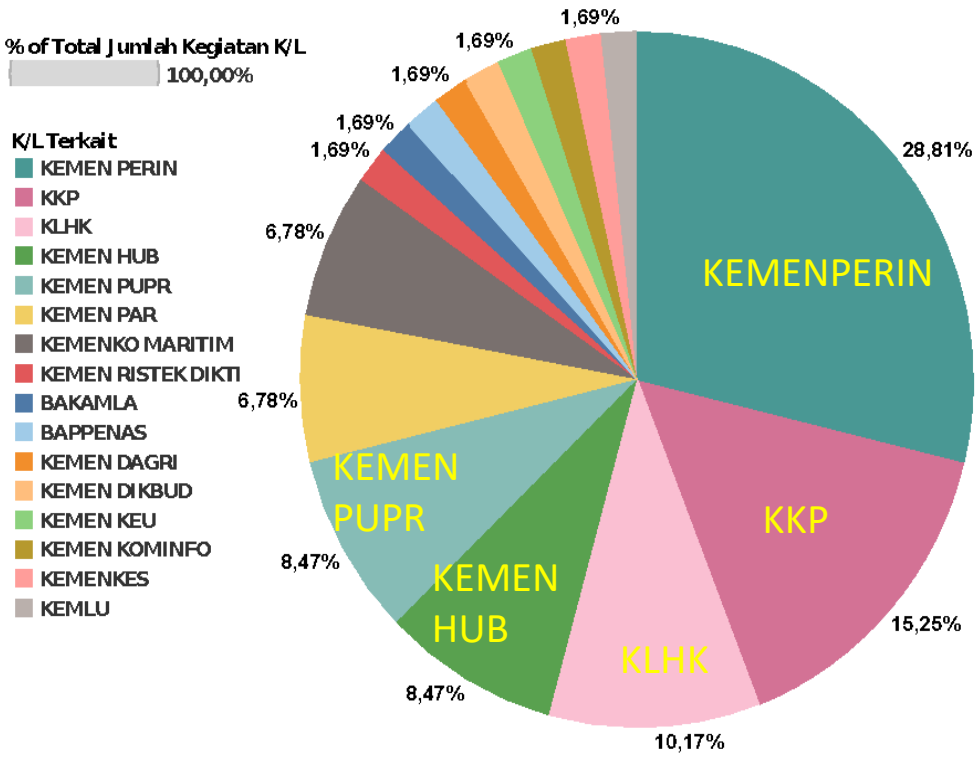
Cross-government Collaborative Approach

5 Strategies and 59 Activities involving 16 line Ministries / Agencies



Several examples of activities carried out by various ministries

1. **Behavioral Change:**
   Youth Education • campaign • increase awareness • awards • school curriculum • training for domestic waste sorting
2. **Waste management sourced from the land (land-based)**: Solid waste management • Recycling industries • producing bio / degradable plastics • Reuse of plastic waste (plastic asphalt roads) • handling plastic waste from housing & rivers
3. **Prevention of waste in coastal and the sea (sea-based):**
   Reception Facilities at ports • Bilateral & regional collaborations • Collecting plastic waste from coastal and marine areas • Plastic waste management in marine tourism area
4. **Funding mechanism, institutional strengthening, law enforcement:** Supervision and monitoring • Financing commitments • public health and ecological risk assessments due to microplastic • application of incentives and disincentives
5. **Research and development:**
   Biodigradable plastic from cassava / seaweed / palm oil • impact on human health • innovation & technology for circular economy • waste to energy solutions

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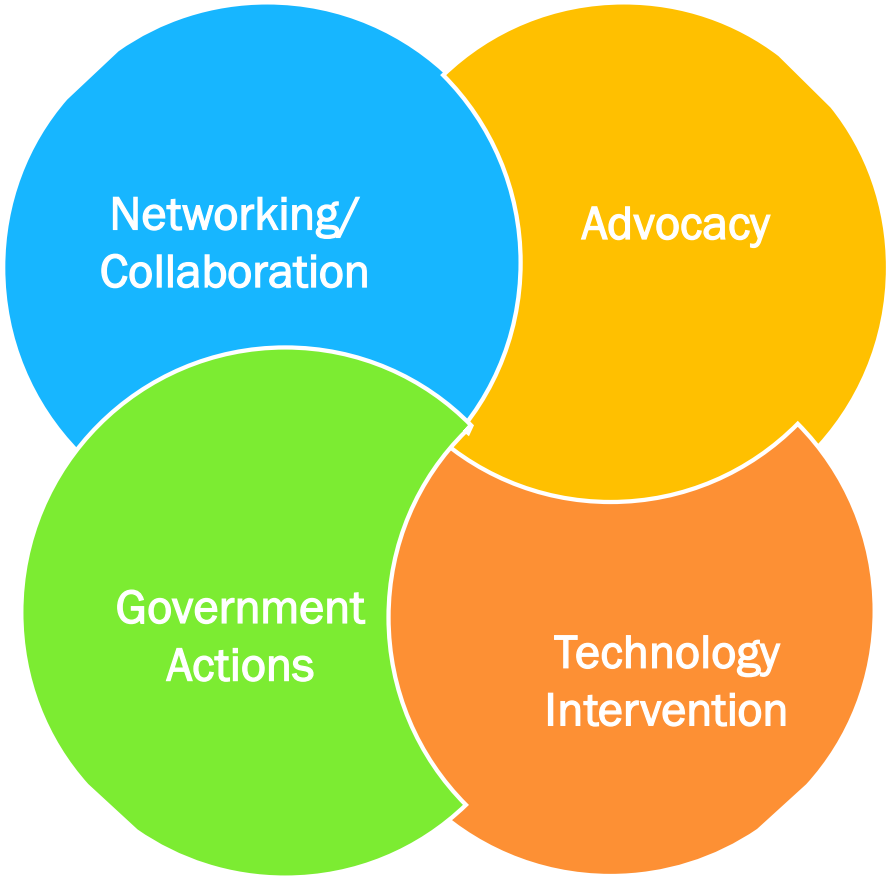
Policy Instruments in combating marine debris



Networking/Collaboration

- Cooperation with Local Government, community, **private sectors** to develeop policy analysis for marine plastic debris and recycling industry
- International cooperation : ISWM, Ocean MDTF, Minderoo, ADB, TOC, Japan, etc

Advocacy / Campaign

- National Movement “Gerakan Indonesia Bersih”
- Publication of Playbook Behaviour Change, Waste Bank book
- Webinar “Sort the waste from home”
- Beach Clean Up

Government Action

- Coordinate the development of Ministerial Regulation, Ministry of Home Affairs concerning Waste Retribution (draft);
- Synergize the policy of excisable goods in the form of plastic products.
- Coordinate the development of Standard Operating Procedures for Waste Management in the Marine Tourism;

Technology Intervention

- Development of Refused Derived Fuel in 10 locations;
- Implementation of plastic as tar road.
- Implementation of Waste to Energy Technology (electricity)

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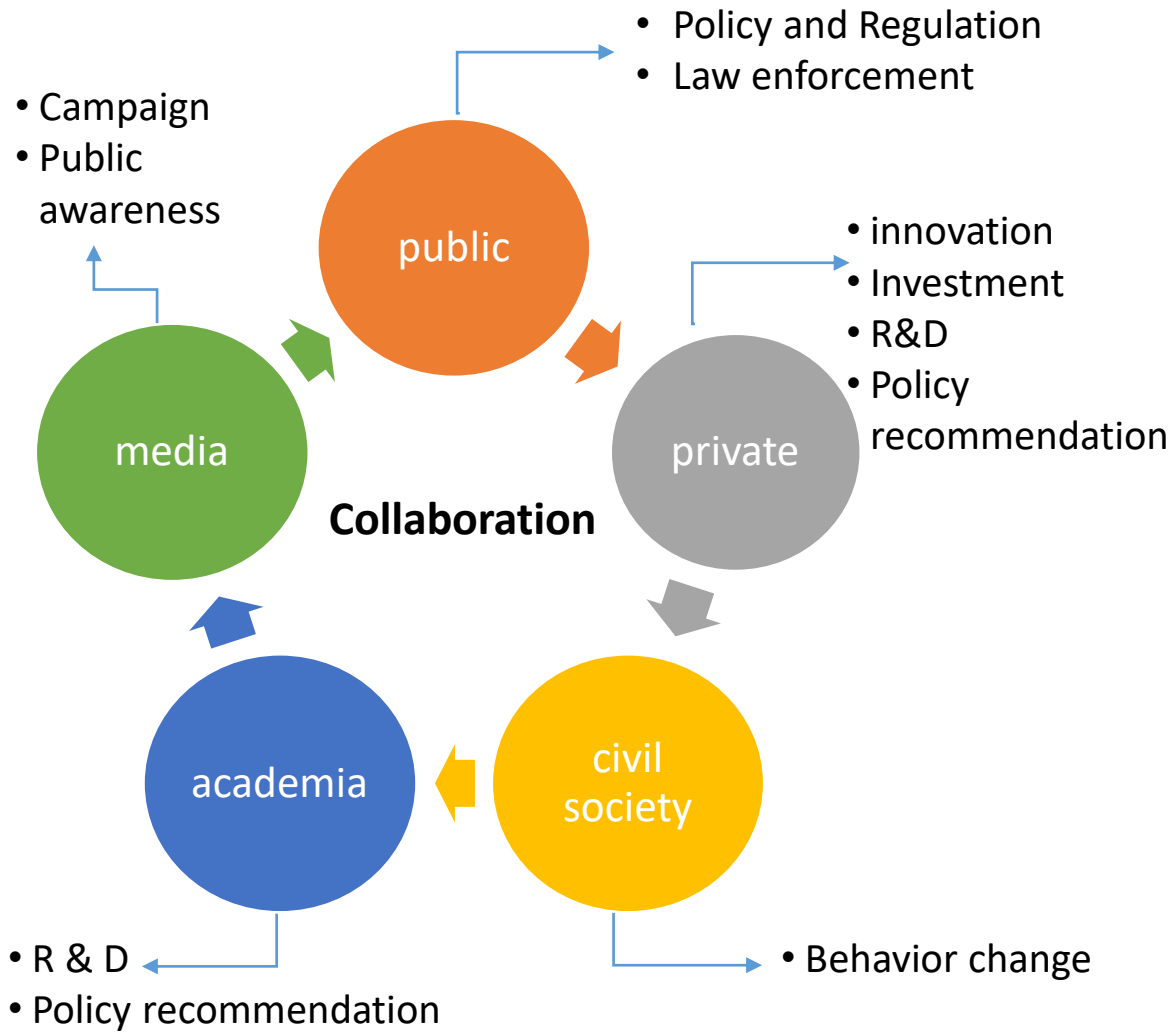
Partnership and Investment Models



Penta-helix approach in Combating marine debris

- To realize the government's ambitious targets in reduce marine plastic waste by up to 70% by 2025, will require **investment** costs a total of $ 5.1 billion and a budget for operating funds $ 1.1 billion/year by 2025, mainly to running a waste management system and effective recycling.
- Type of **potential investors** including:
  - **Government** (central and loval govt budget)
  - **Concessional capital** (exp: grants, TA)
  - **Development Banks** (exp: commercial rate lending)
  - **Philanthropy** (exp: Charitable fund)
  - **Impact Investors** (exp: blending finance)
  - **Corporate Players** (exp: grants, specific support)
  - **Commercial Investors** (exp: bilateral lending)

(source: Indonesia NPAP)

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Current Multi-Stakeholders and Public-Private Partnerships

NATIONAL PLASTIC ACTION PARTNERSIP (NPAP)

- a multi-stakeholder platform for collaboration on sollutions between stakeholders and decision-makers across government, industry, civil society and academia to translate political and corporate commitment into concrete action towards the national target on marine plastic litter reduction
- Officially launched in May 2020
- CMMAI is one of the steering board with 70+ members supporting **5 Task Forces: behavior change, metrics, innovation, policy, and financing**.
- Action Plan: 5 Key Changes
  1. Reduce or substiture plastic usage;
  2. Redesign plastic products and packaging for reuse or high-value;
  3. Double plastic waste collection;
  4. Double current recycling capacity;
  5. Build or expand safe waste disposal facilities.

RIVER CLEAN-UP SYSTEM (Interceptor 001)

- Supported by The Ocean Clean-Up (Netherland)
- Officially launch at 13 May 2019, installed at Cengkareng Drain River in Jakarta
- **Interceptor 001** can reduce 60% waste in the river before entering the sea
- Efective to catch waste around 150 ton/year (37,8% plastic waste and 59.5% organic waste)
- Operational : 8 hour/day with solar panel
- Further collaboration : Replication/Scaling up sytem in 5 river in Java Island

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Current Multi-Stakeholders and Public-Private Partnerships

PRO (Packaging Recovery Organization)

- PRO is an initiative of six companies that are also members of PRAISE - *Packaging and Recycling Association for Indonesia Sustainable Environment*, namely: Coca-Cola, Danone, Indofood, Nestlé, Tetra Pak, and Unilever.
- Launched at 25 August 2020, with pilot site in Bali and Surabaya
- PRO aims to achieve a 60% recycling rate for PET plasctic
- Activity : to build a system to collect and recycle PET, Public Education, Research and Innovation

PRAISE

Sea The Future Indonesia

- Initiated in collaboration with The Minderoo Foundation Trust (Australia) in December 2020
- Aim: Develop and establish a partnership to contribute to significantly reducing maritime plastic leakage and increasing recycling in Indonesia, through establishment of national partnership platform “Sea The Future” to enable the rapid scale-up of plastic recycling and support the Government of Indonesia in achieving its stated targets to reduce plastic pollution.

MINDEROO FOUNDATION

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Current Multi-Stakeholders and Public-Private Partnerships

Marine Litter Skimmer

PELINDO 4

- Pelindo IV Makassar has launched the GA Trash Skimmer to be operated at their harbor area
- During its trial period in January – April 2020, collected 8,958 kgs of marine litter in the Makassar harbor area

Implementation of Refuse-Derived Fuel (RDF)

- The First RDF plant in Indonesia was launched in July 2020 in Cilacap Regency.
- Converting 120 tons of domestic waste into RDF to substitute coal or co-firing at the cement industry owned by PT. Semen Indonesia.
- RDF is potential to be developed in other locations in Indonesia, especially in the area where cement industries or power plants are in operation as RDF off-taker

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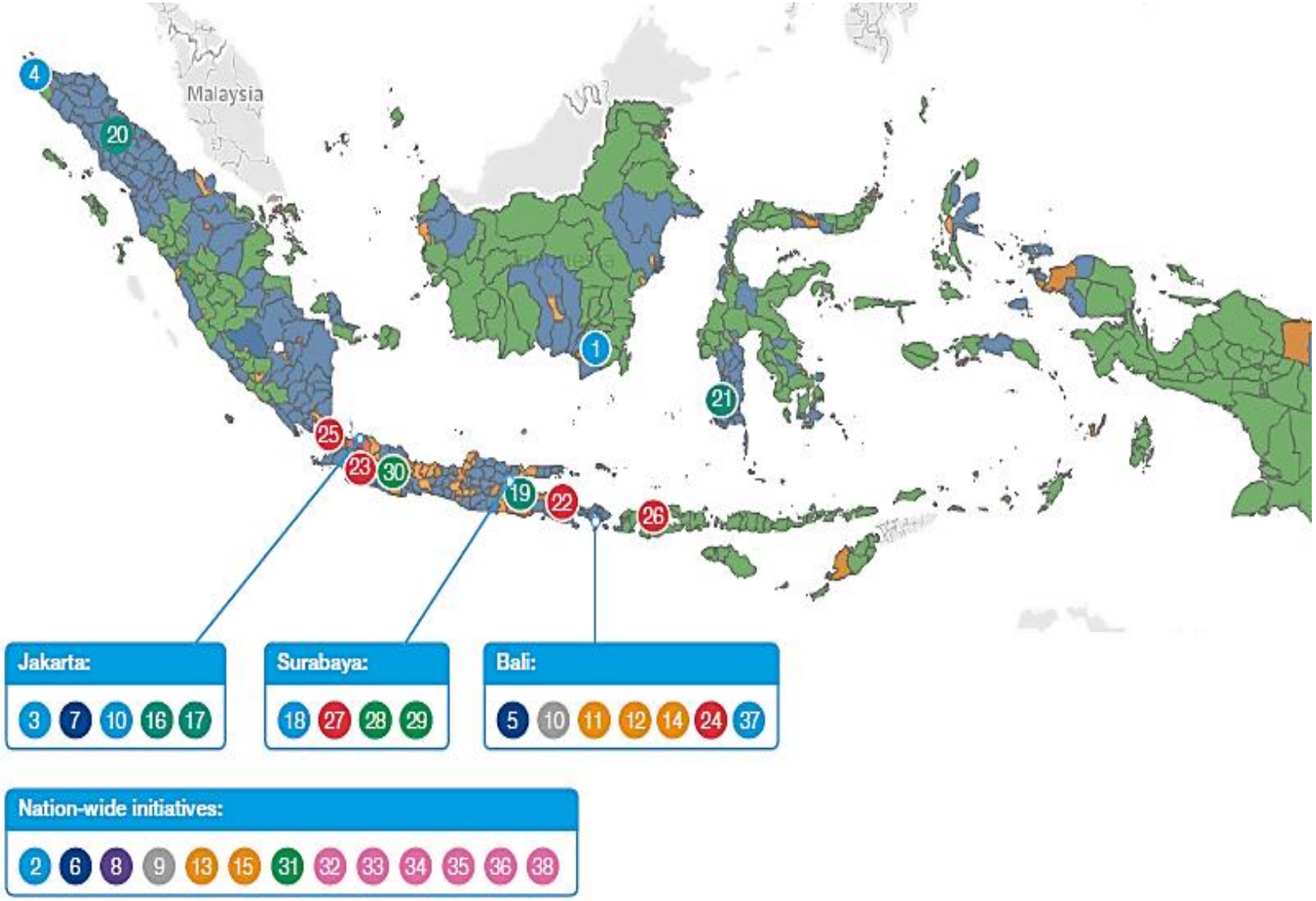
Current Multi-Stakeholders and Public-Private Partnerships

Case studies and examples of emergent action in Indonesia



NPAP has identified various multi-stakeholders collaboration initiatives in handling plastic waste in Indonesia, where innovations are very diverse, including:

- Single-use plastic reduction
- New business model
- Material innovation
- Community and city-level partnership
- Redesign for recycling
- Innovation and informal-sector integration
- Waste management and recycling
- Enabling activity and research
- Recycling technology

(source: Indonesia NPAP)

Conclusion

1. Marine Plastic Debris is a global and trans-boundary issue. We need to work together amongst neighboring countries, International Institutions, industries/private sectors, academia, civil society, NGOs to find comprehensive and innovative solutions.

2. Indonesia has taken bold actions to address the problem of waste, highlighting the use of circular economy, especially through innovative technological solutions, and financial mechanism.

3. The government is open for partnerships with privates sector, partner countries, and other stakeholders through various mutually beneficial cooperation schemes

Thank You

Terima Kasih

Arigatōgozaimashita

ありがとうございました