



COORDINATING MINISTRY FOR MARITIME AFFAIRS
REPUBLIC OF INDONESIA

Circular Economy Opportunities in Indonesia

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 - Jakarta, 25 October 2018



INDONESIA



Base 802900AI (C00429) 11-02

1. Largest archipelagic state in the world, with more than 17.000 islands
2. 6 million square km of waters, more than 110.000 km of coastal lines
3. 10 neighboring countries
4. Home of 23 % of global mangroves
5. Home of 30.000 km² Seagrass
6. Home of 75% of all known marine life
7. Critical Choke Points for global navigations
8. Indonesia Through Flow
9. The 2nd producer marine plastics debris



LEAKAGE PLASTIC FROM LAND TO OCEANS ENVIRONMENT IN INDONESIA

150 Millions
population

38 Millions
ton/year increase
of garbage

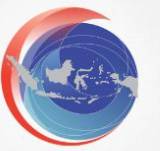
80 %
Leakage of
plastic waste
comes from land

17 Ton Millions/year
waste is not organized.

45% waste is throw away to
drains, park and burned.

1,29 Millions
ton matrix/year leakage of
plastic waste to oceans.

**30% Leakage of
waste is plastic**



Marine Plastic Debris – IMPACTS & GLOBAL PROBLEM

TOURISM:

Marine plastic debris are invading more and more tourism and coastal areas

ENVIRONMENT AND MARINE LIFE:

Millions of marine life are threatened by marine plastic debris

HUMAN HEALTH:

More than one third of sampled commercial fish have been found consuming plastic or micro-/nanoplastic





COMMITMENT OF THE INDONESIAN GOVERNMENT

- President Joko Widodo
- Indonesia will reduce a waste by 3R (*reduce-reuse-recycle*) until 30% to 2025, while target a reduction plastic waste as much as 70% in 2025.

On the Leaders Retreat, G20 Summit, Hamburg-Germany, Friday, 7 July 2017

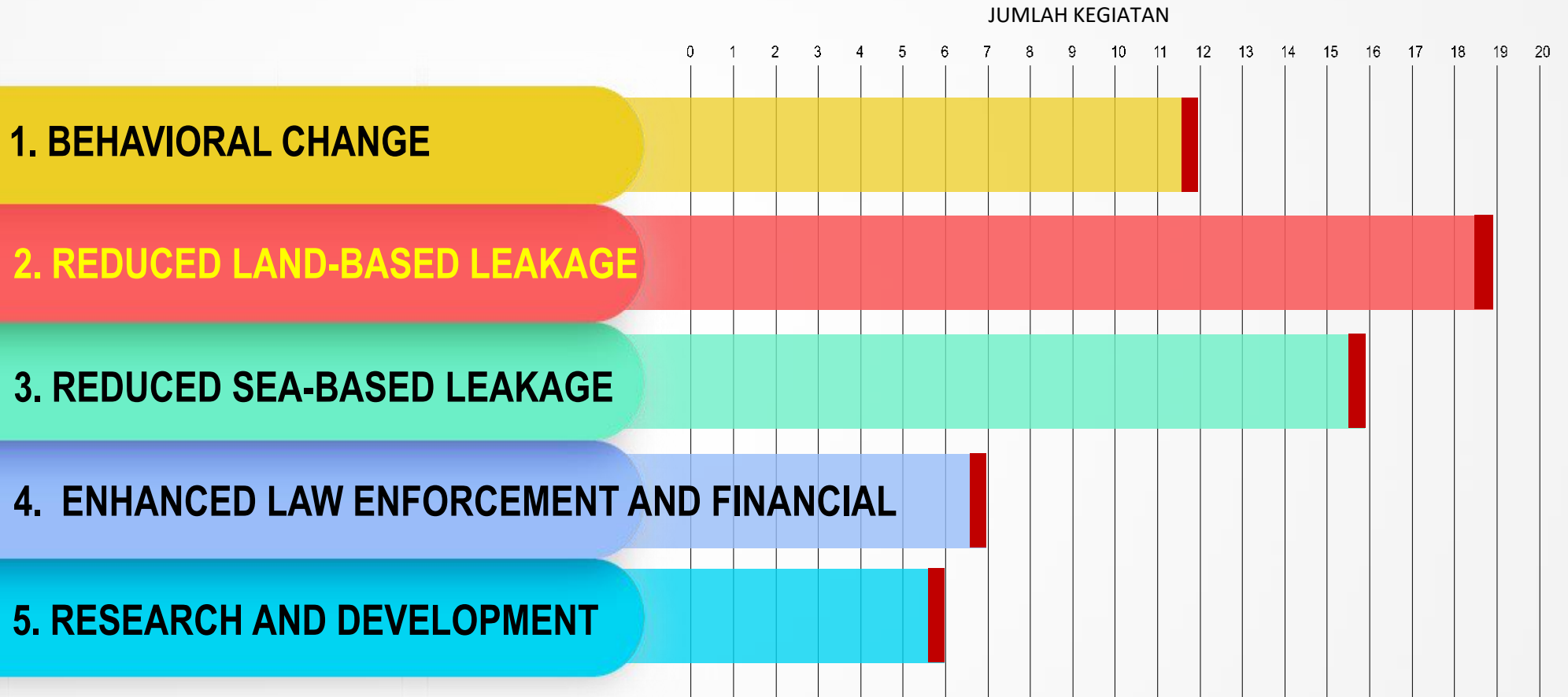


Statement of the National Action Plan for Plastic Waste at Oceans (2017-2025) in June 2017. Follow up:

- R-Perpres by Coordinating Minister Luhut B. Pandjaitan;
- Upstream-downstream waste management by LHK Minister Siti Nurbaya;
- Improvement of solid waste management by Minister of Public Works Basuki Hadimuljono;
- Campaign of Waste Management at oceans by Minister of KKP Susi Pudjiastuti.



5 STRATEGIES IN NATIONAL ACTION PLANS

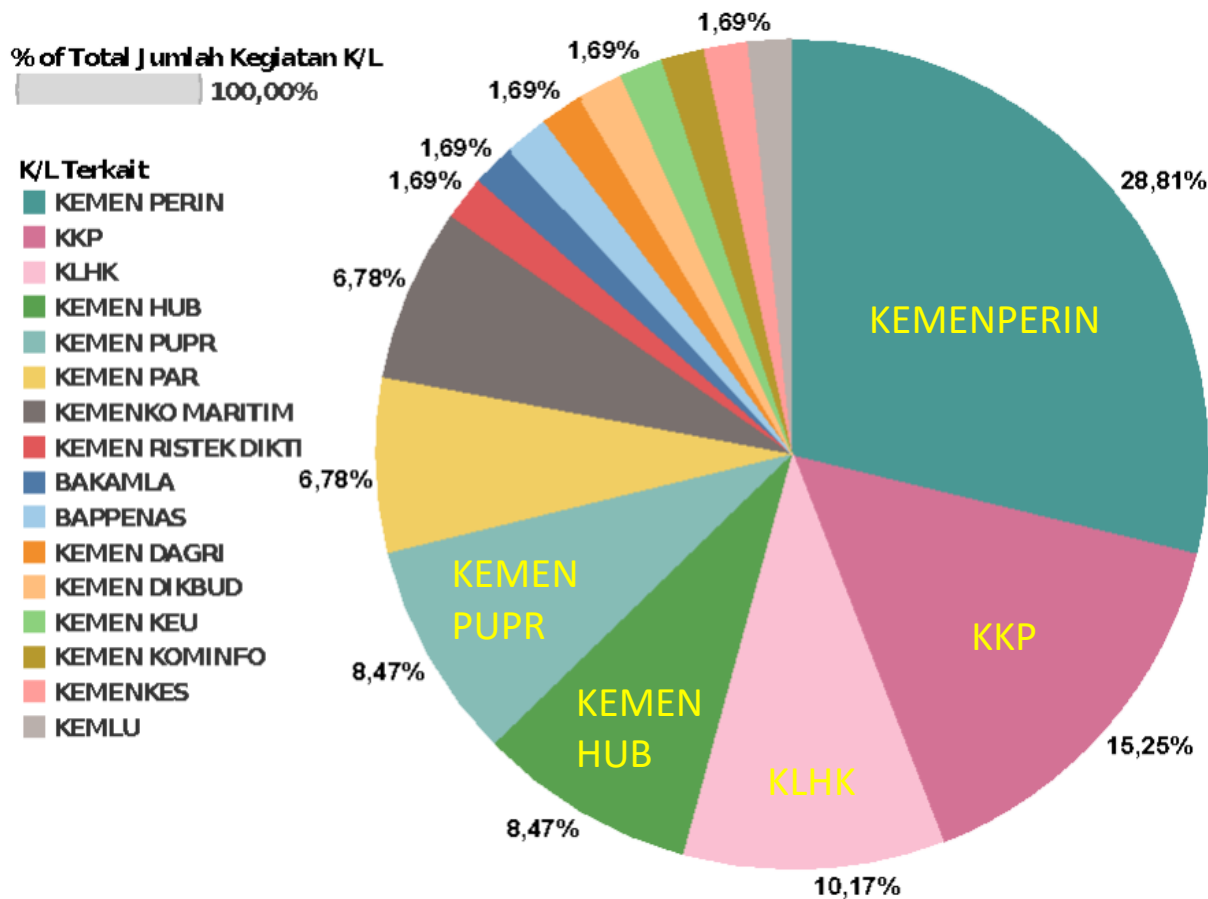


Achieving the target of plastic waste reduction at sea is implemented in an integrated manner through the program in 16 Ministries and Institutions with 59 activities supporting the above 5 Strategies



Cross-Government Collaboration Approach

5 Strategies and 59 Activities involving 16 Ministries / Agencies



1. Behavioral Change:

educate youth • campaign • increase awareness • awards • school curriculum • train waste sorting

2. Reducing Leaks through Land: Solid waste management

Recycling industries producing bio / degradable plastics Reuse of plastic waste (plastic asphalt roads) handling plastic waste from housing & rivers Payable plastic bags

3. Reducing Waste Leakage from Activities at Sea: Reception

facilities at ports • Bilateral & regional collaborations • Collecting plastic waste from coastal and marine areas • Plastic waste management in tourism

4. Law Enforcement and Funding: Supervision and monitoring •

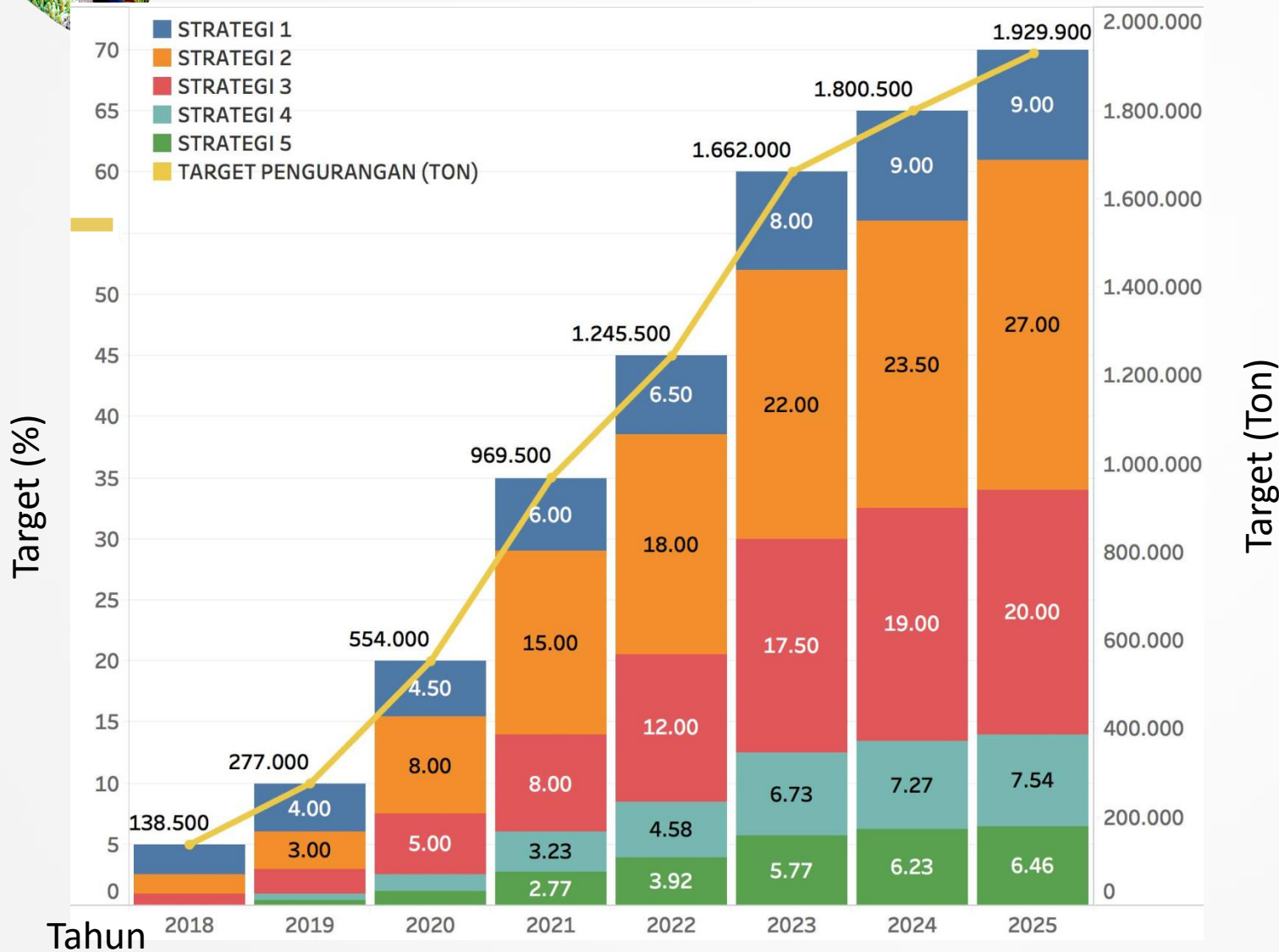
financing commitments • public health and ecological risk assessments due to microplastic • application of incentives and disincentives

5. Research and development:

biodegradable plastic from cassava / seaweed / palm oil • impact on human health • innovation & technology for circular economy • waste to energy solutions



TARGET REDUCTION OF OCEANS WASTE 2018 - 2025



**Total Estimate of Plastic Waste =
1,692 Millions Ton/Year**
(Managed and Unmanaged)
Source: BPS & Inaplas (Kemenperin)

**Total of National Waste =
65,8 Millions Ton (2017)**
Source: Jakstranas KLHK



Cilincing Canal Clean-Up, May 6th, 2017



Minister Luhut Pandjaitan leads the Canal Clean Ups



Supported by foreign embassies (USA, Danish, Belgium, S. Korea)





Before and After in Canal Cilincing



Before Clean Up action



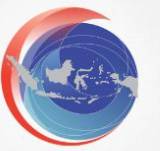
After Clean Up action



New Pier for Fisherman



Using Plastic Waste for Plastic-Tar Road



CITARUM River Clean Up Actions

- 70 km east of Jakarta, Indonesia, the river Citarum runs over 270 km from the Wayang Mountain (west Java) to the Java Sea.
- Generate 1.880 MW
- Supply 80% raw water for Jakarta
- The dirtiest river in the world (Washington Post, March 2017)
- The island's largest river supports more than 26 million residents who rely on the water source for agricultural, domestic and personal use.
- Plastic, packaging, and other detritus floats in the scummy water, rendering the river's surface invisible beneath its carpet of junk.
- The river, now known as one of the most polluted in the world, (**Need an integrated and comprehensive rapid actions**)

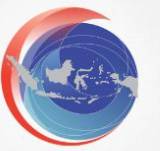


Indonesia Open to Collaborations



80% Marine Debris is land-based leakage

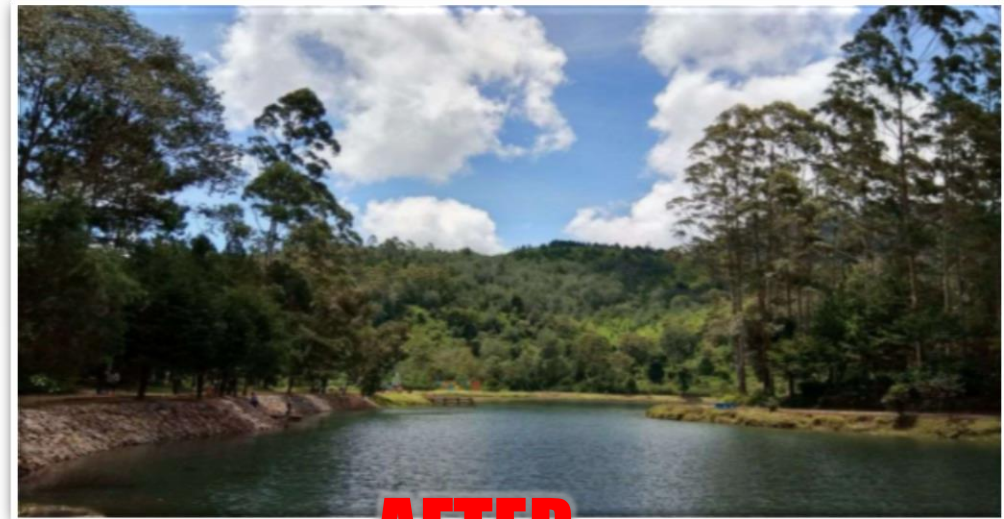
ON GOING



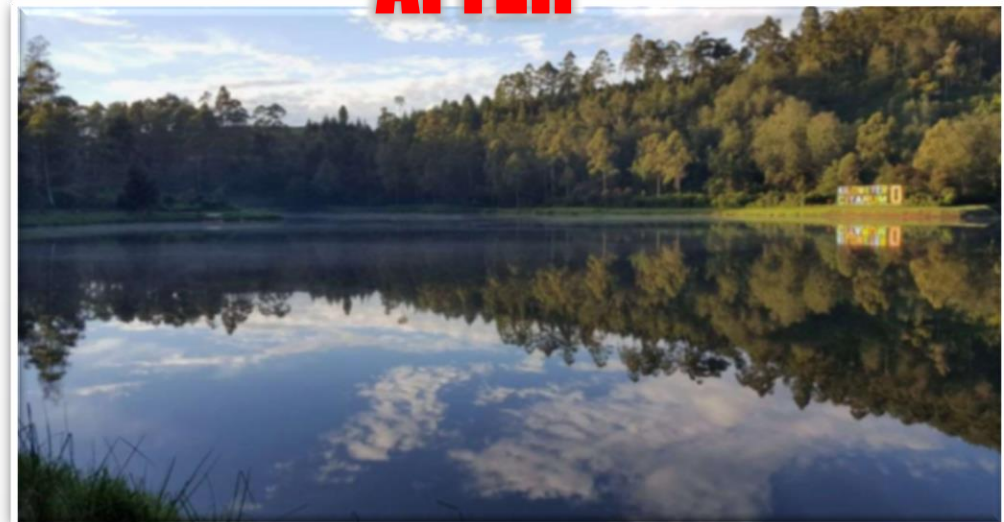
CITARUM River Clean Up Actions Upstream

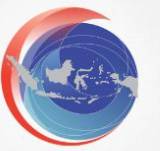


BEFORE



AFTER





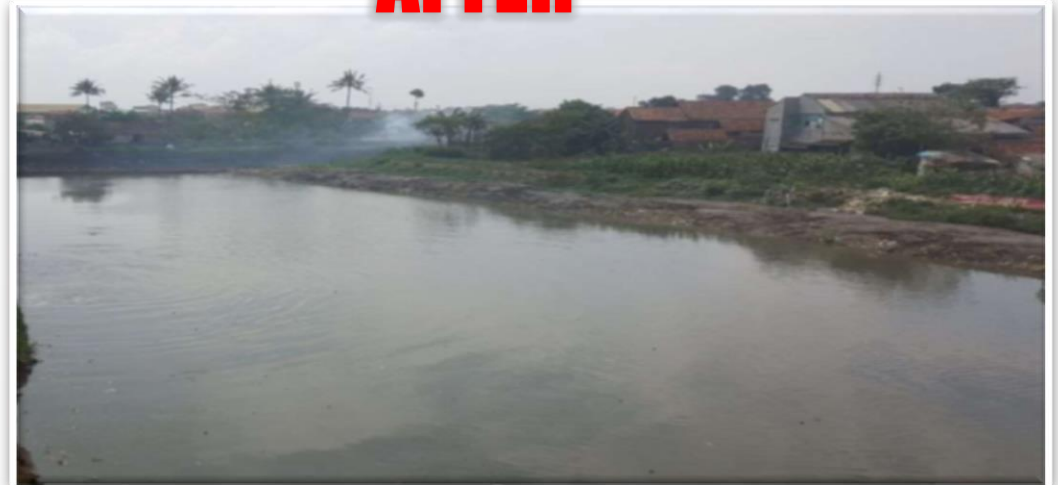
CITARUM River Clean Up Actions

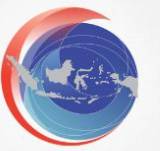


BEFORE



AFTER





CITARUM River Clean Up Actions



BEFORE



AFTER





CITARUM River Clean Up Actions



BEFORE



AFTER

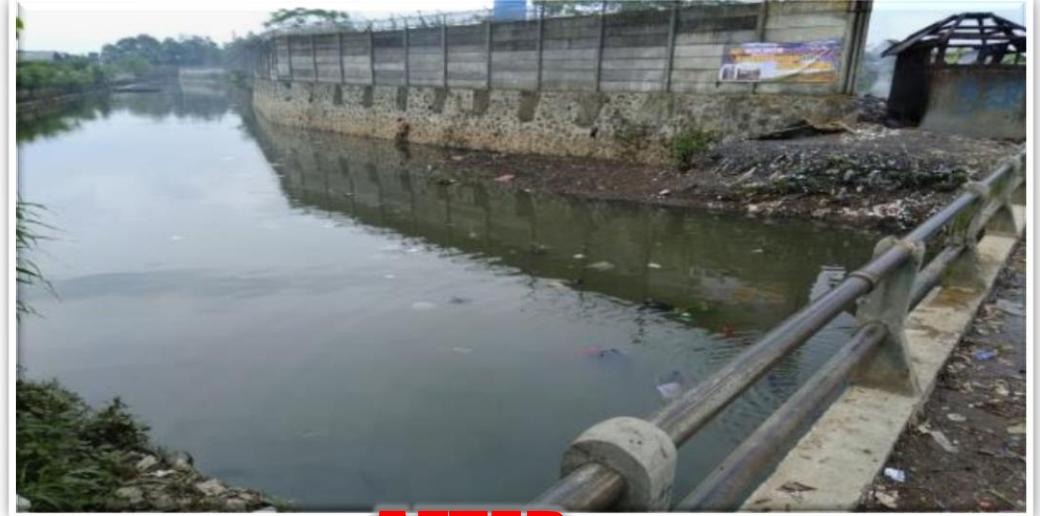




CITARUM River Clean Up Actions

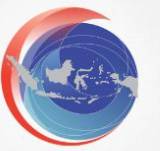


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AFTER





CITARUM River Clean Up Actions

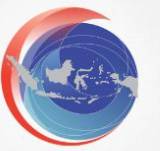


BEFORE



AFTER





CITARUM River Clean Up Actions

Rehabilitation of River Bank



Making The riverbank of Citarum as a New Play Ground





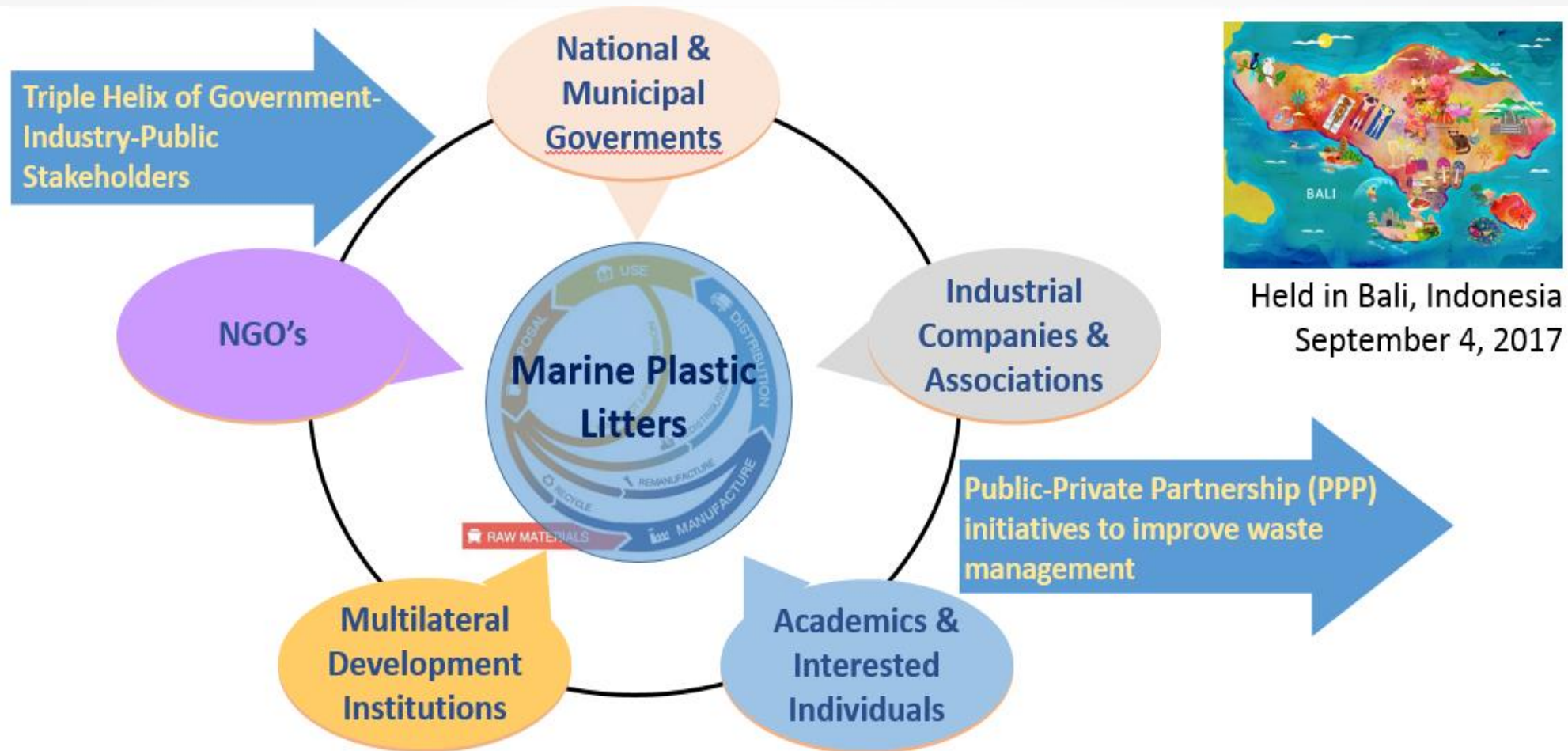
Funding, Opportunity and Stakeholder

1. National budget (APBN and APBD) – \$ 1B / 5 years
2. Public Private Partnership (PPP) and CSR (BUMN)
3. Bilateral & Regional Cooperation
4. International Organization Supports (WB, GEF, UNEP)
5. NGO, Volunteer, and Communities Support
6. Blended Finance, etc..





Alliance for Marine Plastic Solutions (AMPS) Forum & Stakeholders – Circular Economy





Manufacturers Using Recyclable as Inputs Materials

FROM BOTTLE2FASHION



PLASTIC WASTE
KEPULAUAN SERIBU



WASTE COLLECTION



RBU DANONE
AQUA



KAHATEX



FASHION





Manufacturers Using Recyclable as Inputs Materials

OUR VISION : CREATING A CIRCULAR ECONOMY OF PACKAGING

By 2030, Recover more plastics than we use (in volume equivalent for bottles)



PIONEER IN PLASTIC WASTE COLLECTION 1993



- 6 Collection Centers in Jakarta, Bali, Lombok
- Since 2014, **34500** Tons PET plastic waste collected Jobs for > **9000** waste-pickers
- Open access of **health insurance for waste-pickers**
- Support **waste bank development**



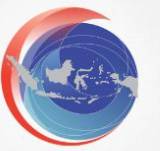
OUR STRATEGY

Sustainable
Plastics

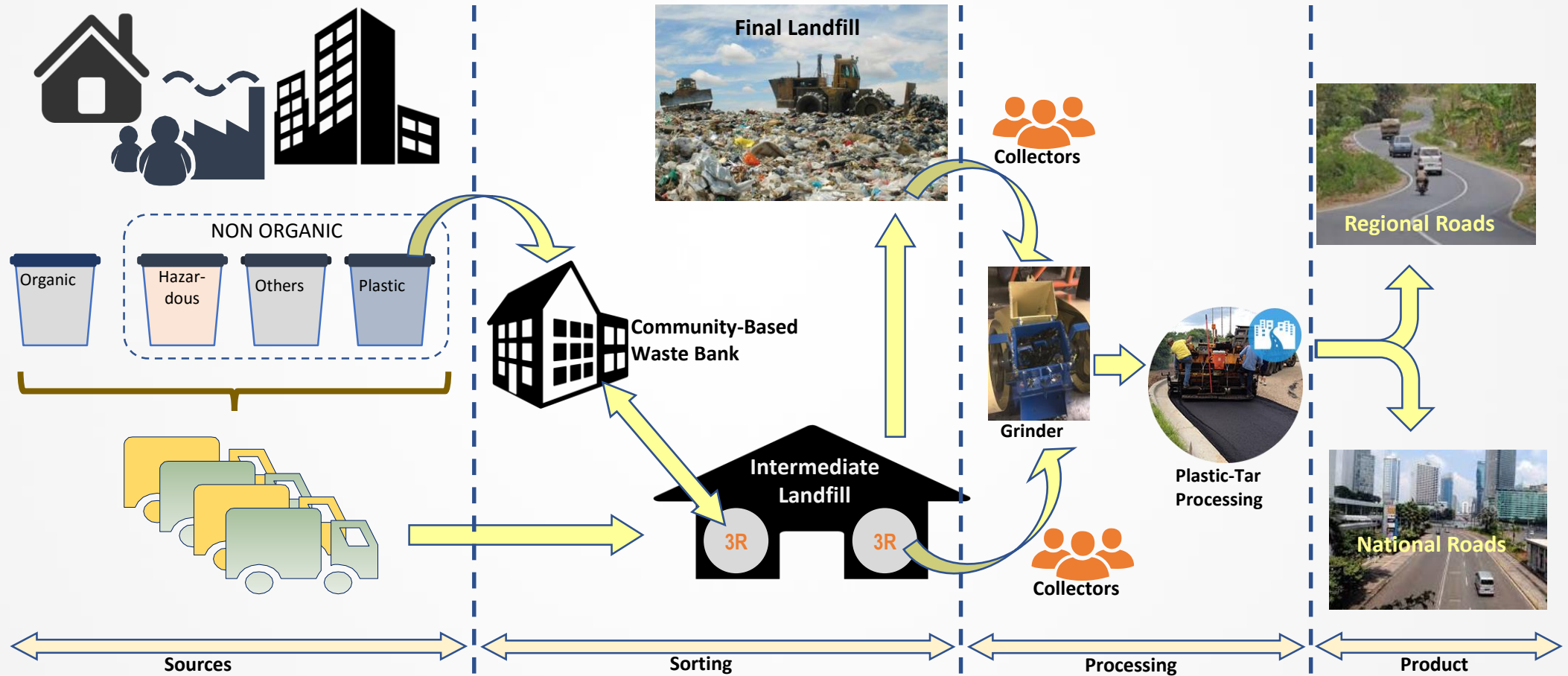
Second Life
Solution

Behavior Changes





PLASTIC-TAR ROADS - (Plastic Bags to Asphalt Mix)





PLASTIC TO FUEL



INDONESIA SOLUTIONS:

- PUBLIC PRIVATE PARTNERSHIP
- IGES to build 27 plants across Indonesia
- IGES to invest US\$ 1.2 billion in capital
- IGES to create over 5,000 jobs
- Corporate Social Responsibility



Plastic Waste to Fuel Technologies



CONCLUSIONS



National Plan of Actions (NPoA) for Marine Plastic Debris Management

- Presidential Decree on MPD (no.83/2018)
- Coordination among the stakeholders



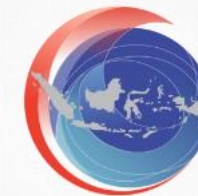
Increasing Research and Innovation to support the NPoA

- Monitoring system
- Marine nanoplastics debris impact
- Technology utilization



Indonesia Open to Collaborations

B2B, G2G, PPP, R&D, NGOs, Community based, etc.



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Thank You
