

Policy Practice of Marine Plastic Governance

Department of Environment, Parks & Recreation
Ministry of Development
Brunei Darussalam



17 SEPTEMBER • 2019

WHAT IS MARINE DEBRIS?

Sometimes referred to as **Marine Litter**, is defined as any persistent, manufactured, or processed solid material that is discarded, disposed of or abandoned in the marine and coastal environment.

Includes items originating from land and sea based sources.



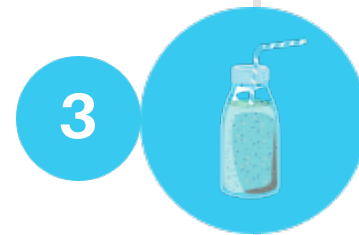
80% of marine litter are land based.

Sources include storm water run-off, landfills near coastal areas, littering, industrial outlets etc.



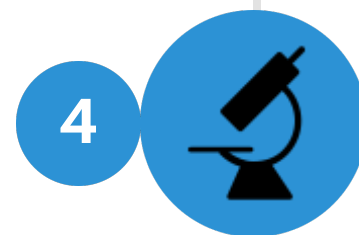
8 million metric tonne of plastics enter oceans each year.

Equivalent to dumping a garbage truck of plastic every minute.



Plastics account more than 80% of marine litter.

Plastic bags from household items, beach recreation, fishing gears etc.



Microplastics- A problem to marine litter management.

Commonly found in personal care or industrial products (primary) or degraded plastics (secondary).



Negatively impacts the environment, economy and public health.

IMPACTS OF MARINE LITTER

Environment, Economy and Public health

Litter on coastal areas

- Impact on health
- Impact on recreation and tourism

Litter in marine environment

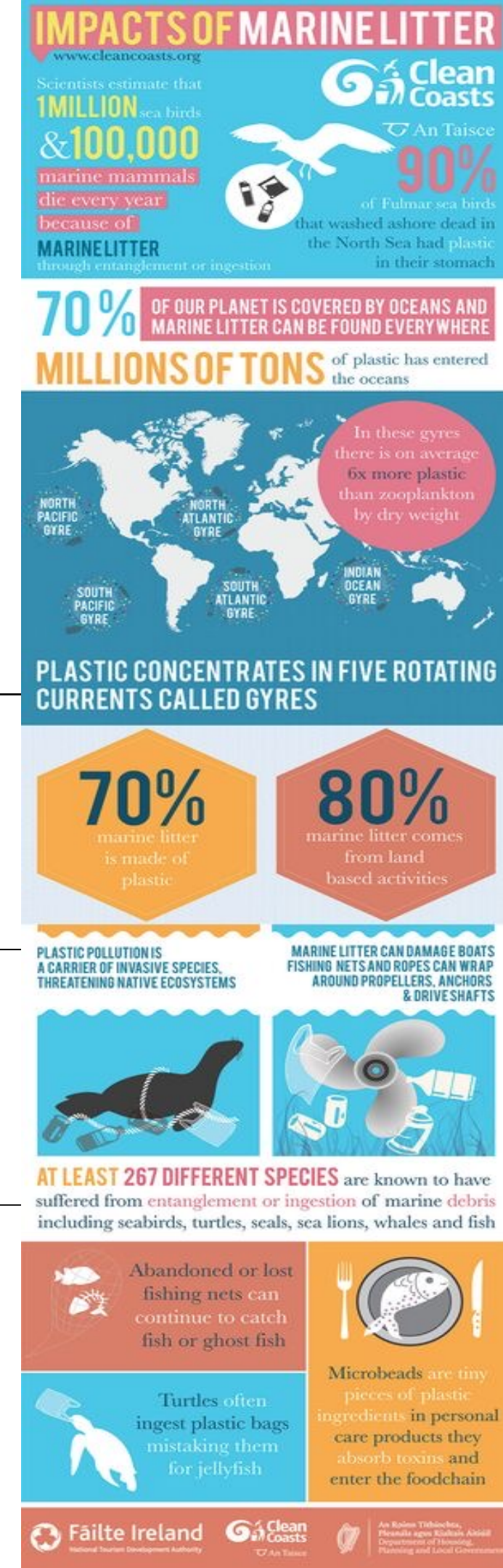
- Impact on fishing
- Navigational hazard
- Impact on maritime security
- Transport of alien species

Ingested Litter

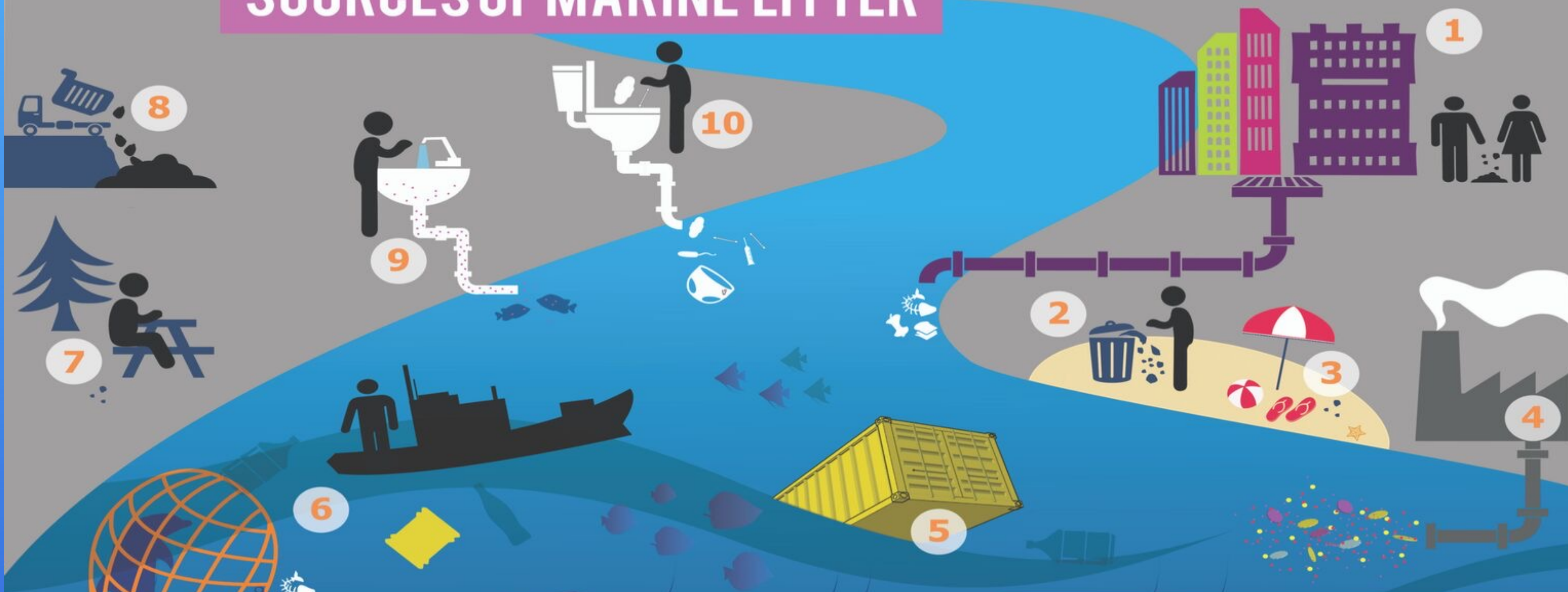
- Wildlife entanglement
- Occlusion
- Release of harmful chemicals

Nano and Micro plastics

- Define as less than 5mm in size
- Easily ingested
- Can potentially disrupt cellular process and degrade tissues
- Release of chemicals



SOURCES OF MARINE LITTER



- 1 LITTER DROPPED IN TOWNS AND CITIES
- 2 OVERFLOWING LITTER BINS
- 3 LITTER DROPPED AT THE BEACH
- 4 POORLY MANAGED INDUSTRIAL WASTE DISCHARGES
- 5 LOST SHIPPING CONTAINERS
- 6 LOST/DISCHARGED FISHING GEAR
- 7 RECREATIONAL LITTER BLOWN BY THE WIND
- 8 POORLY MANAGED LANDFILL SITES
- 9 MICROBEADS FROM PERSONAL CARE PRODUCTS
- 10 SEWAGE RELATED LITTER



An Roinn Tithíochta,
Pleanála agus Rialtais Áitiúil
Department of Housing,
Planning and Local Government

/ CLEANCOASTS.ORG //



Fáilte Ireland

National Tourism Development Authority



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MAJLIS MESYUARAT NEGARA KE-15

"Cross-sectoral issue..", YB Minister,
Ministry of Development

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ASEAN DECLARATION ON COMBATING MARINE DEBRIS

34th ASEAN Summit, Bangkok, June
2019

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SPECIAL ASEAN MINISTRIAL MEETING ON MARINE DEBRIS

Bangkok, March 2019

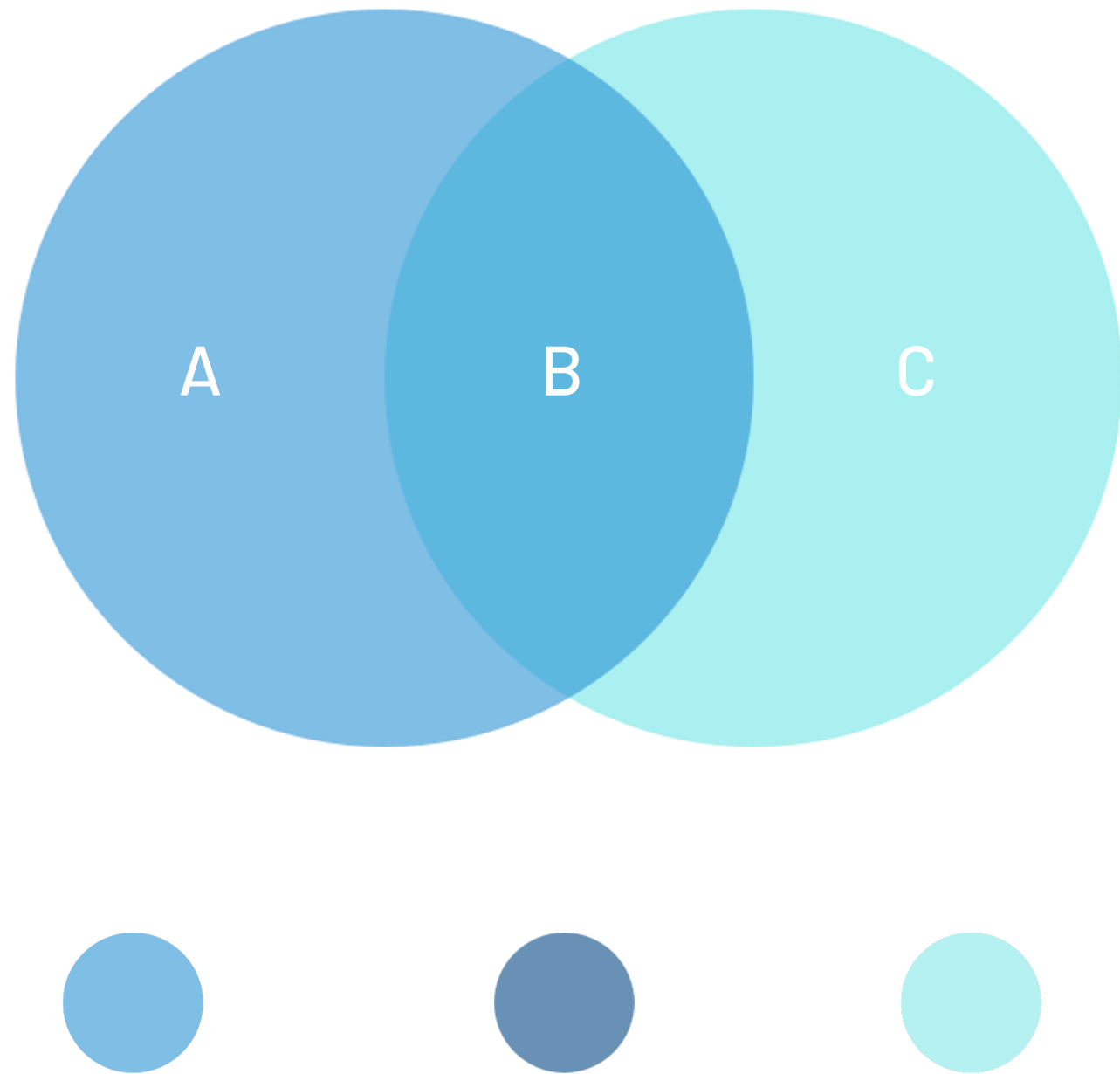
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13TH EAST ASIA SUMMIT

Singapore, Nov 2018

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ASEAN FRAMEWORK OF ACTION ON MARINE DEBRIS



MARINE DEBRIS IS A CROSS-SECTORAL ISSUE

- Marine litter cannot be traced to a single source!.
- Result of many types of inputs, actions and inactions.
- Cross-sectoral issue which needs cooperation among stakeholders.
- Establish an inter-agency mechanism for coordinating among the diverse sectors with a role in addressing marine litter.
- Identifying the role of each agency.
- Aim of this inter-agency coordination is to **collectively** and **holistically** address the issue of marine debris which includes review and development of legislations and policies, implementation activities and future approaches.
- **Prevention** rather than **remediation**.

AIMS AND OBJECTIVES

- To develop a National Action Plan on Combating Marine Debris.
- To develop a constructive proposal to highlight the current problem, reasons why taking action is good for Brunei (clean and green; health and safety; tourism; cleaning costs), and propose recommendations and solutions to reduce marine trash through four priority areas, as follows:

POLICY SUPPORT & PLANNING

RESEARCH, INNOVATION AND CAPACITY BUILDING

PUBLIC AWARENESS, EDUCATION AND OUTREACH

PRIVATE SECTOR ENGAGEMENT

STRATEGIES AND PLANS



KEY TARGETS by 2035

Waste Generation of 1.0 kg/person/day
Recycling rate of 30%

KEY STRATEGIES

Waste Minimisation

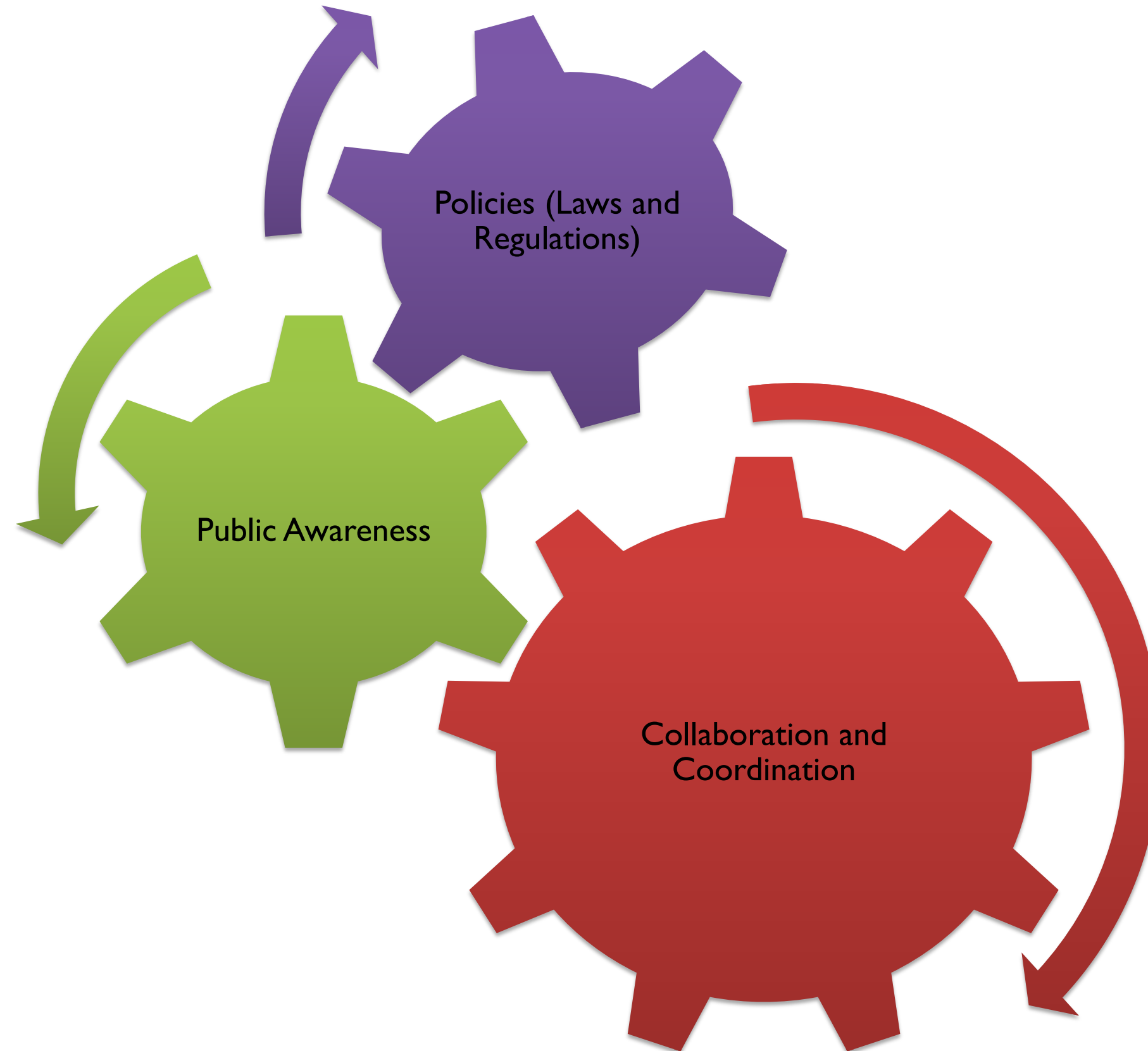
Efficient, Cost-effective and Sustainable Collection

Adoption of Waste-to-Resource Technologies

Youth Empowerment (Awareness)

Enforcement Enhancement

KEY THRUSTS



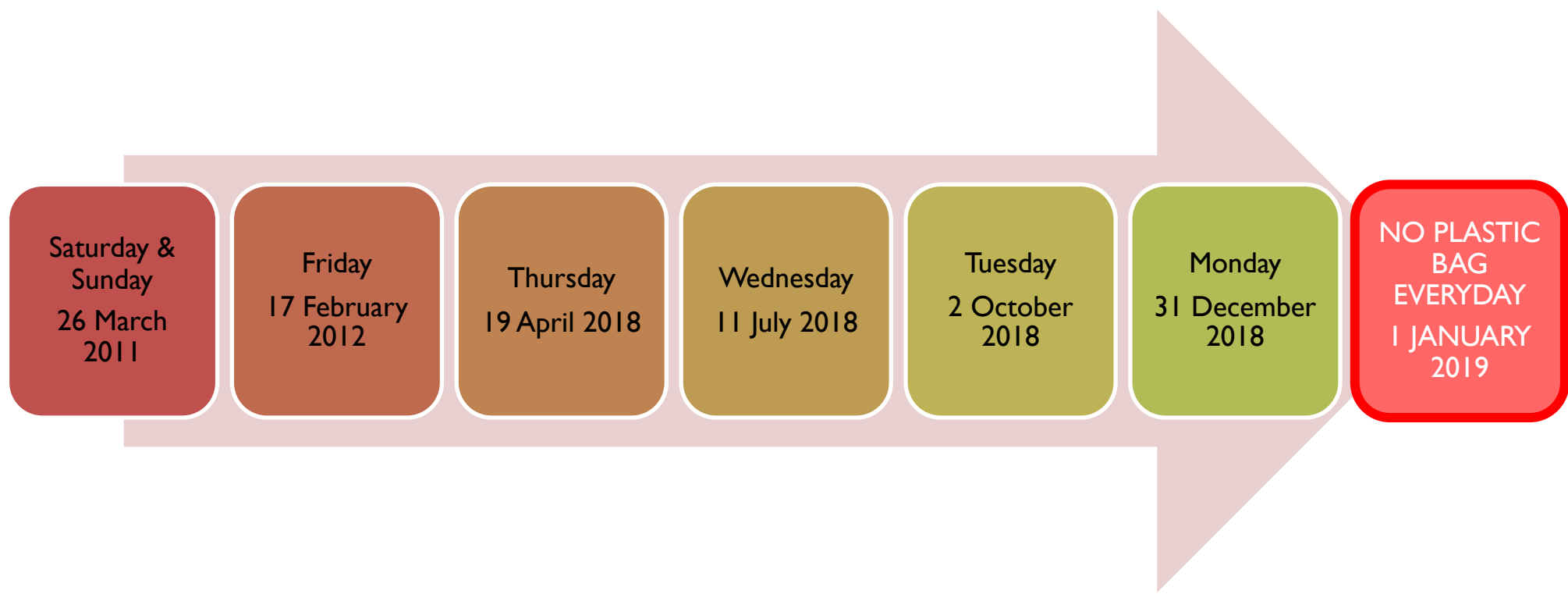
STRATEGIES AND PLANS

- To develop waste management regulations with regards to combat plastic litters
- To review and revise existing guidelines, Standard Operating Procedures and registration system on waste related matters including on recycling
- To strengthen coordination with the relevant government agencies and stakeholders through provision of guidance on good practice and a variety of regulatory measures
- To increase public awareness through various activities and programmes such as the development of National Awareness Programmes and Activities such as conducting a public surveys, promoting best practices on proper disposal of household waste (i.e. brochures, posters and booklet) and enhancing public understanding and awareness through exhibitions, seminars, talks and promotional video on national television.

NO PLASTIC BAG EVERYDAY

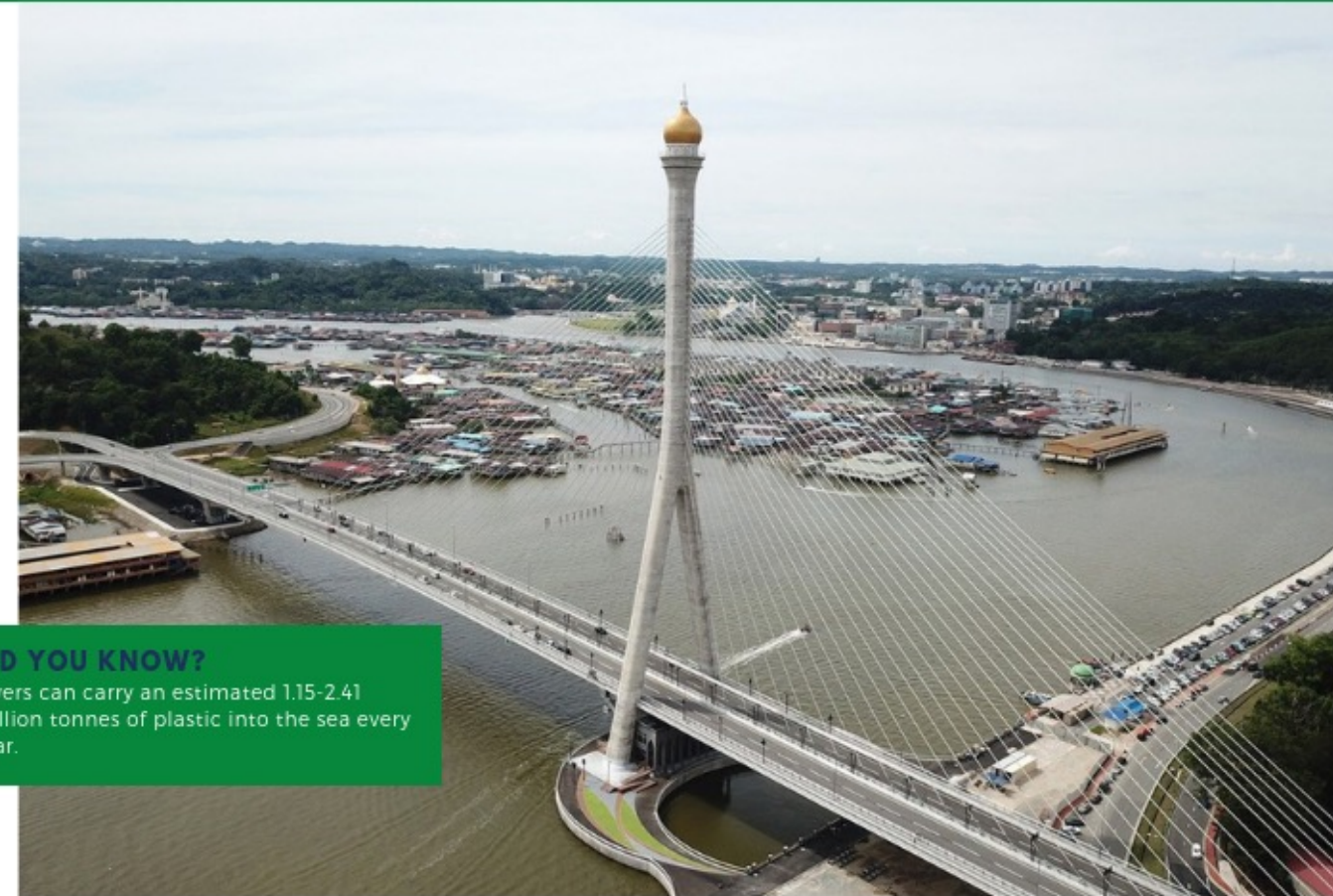


- Introduced as No Plastic Bag Weekend in March 2011
- Since 1 January 2019, participating stores have phased out single-use plastic completely
- To minimize plastic waste; to combat plastic pollution





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DID YOU KNOW?

Rivers can carry an estimated 1.15-2.41 million tonnes of plastic into the sea every year.



SG BRUNEI CLEAN UP

An initiative carried out by the Department of Environment, Parks & Recreation. It consists of three projects namely House to House Collection Services, Collection of Floating Waste and Collection of waste underneath houses (Bakut), all with the same aim which is to holistically manage waste found along the Brunei River.



HOUSE TO HOUSE COLLECTION

Daily house to house collection of domestic or household waste including household junks from all Mukims and Kampongs in Kg Ayer.

Collect, clear and empty daily all forms of waste deposited and accumulated in waste disposal bags and waste bins from houses and its immediate vicinity.

FLOATING WASTE & BOOMS

Daily and continuous (at all times) clearing, cleaning and collection of all forms of floating wastes found along Sg Brunei and its tributaries, trapped in floating booms and accumulated around jetties and pontoons.

Collection sites are divided into four (4) Zones within Brunei River. Stretching from the Jong Batu Island up to the Kiulap shopping area and around the vicinity of the Mukims in Kg Ayer.



UNDERNEATH HOUSES (BAKUT)

Comprise of daily clearing, cleaning and collection of all forms of waste deposited and accumulated underneath the houses and its immediate vicinity, buildings such as schools, mosques, suraus and community hall, structures such as walkways and at bakut areas.



COLLECTION

Waste from all three projects are collected according to their work plan and agreed schedules.



TRANSPORTATION

Each project then transports all collected waste to the designated collection center at Ayer Berkuchi, Kg Kasat prior to its final disposal. This can either be done by boats or trucks.



DISPOSAL

The collected waste disposed at Ayer Berkunchi is then cleared and transferred daily to Sg. Akar transfer station for its final disposal at Sg. Paku Engineered Landfill in Tutong.

BEFORE & AFTER



BEFORE & AFTER



FLOATING DEBRI BOOMS



FUTURE AWARENESS ACTIVITIES AND PROGRAMME

- Collaboration with other relevant agencies with regards to environmental awareness in schools and academic institutions:
 - Ministry of Education via Science, Technology and Environment Partnership (STEP) Centre
 - National Council on Cleanliness Issues
- Expansion of the current initiatives:
 - No Plastic Bag Everyday Initiative: To include other stakeholders or users of plastic bags such as convenient stores / tuck shops, restaurants and food stalls/markets; policy development consideration to make it mandatory
 - Plastic Bottle Free Initiative: To socialise to other government Ministries, for e.g. as a start to work with MPRT on the vertical farming initiative that they implemented
 - Sg Brunei Clean Up-
 - To introduce more innovative, efficient and cost effective technology i.e. automated water skimmer boats
 - Expansion of areas under Sg Brunei Clean Up
 - To develop and install a blockage sieving or netting at storm drain outlets.

FUTURE AWARENESS ACTIVITIES AND PROGRAMME

- Observation and celebration of annual environment-related events:
 - Earth Day – every 22nd April
 - World Environment Day – every 5th June
- Continuous implementation of cleaning campaigns, including collaborating and supporting campaigns led by other stakeholders (government agencies, NGOs, private sector, etc)
- Organising the JASTRe Recycling Day regularly
- Development of environmental awareness materials / activities
 - (Animation) videos e.g. on recycling
 - Merchandise e.g. notebooks
 - Quizzes via social media and radio



DEPARTMENT OF ENVIRONMENT, PARKS AND RECREATION
MINISTRY OF DEVELOPMENT

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THANK YOU