Marine Plastic Waste Problems and Policies in ASEAN countries

Team 6

Indah- Indonesia
Bondee- Philippines
Liew- Malaysia
Ann- Thailand
Linh- Vietnam

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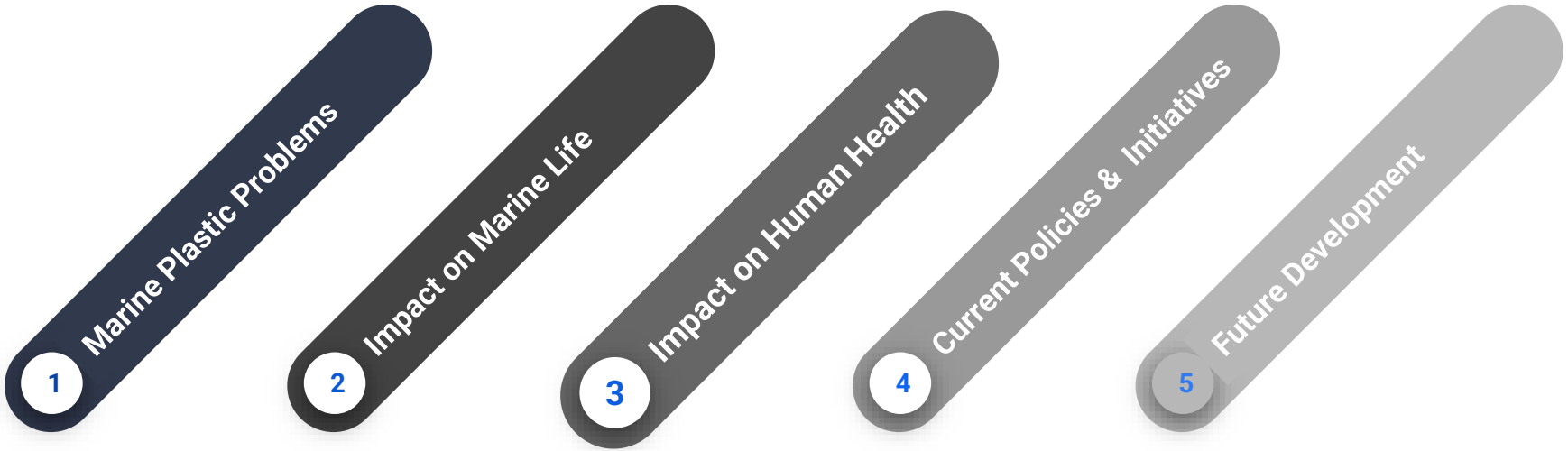
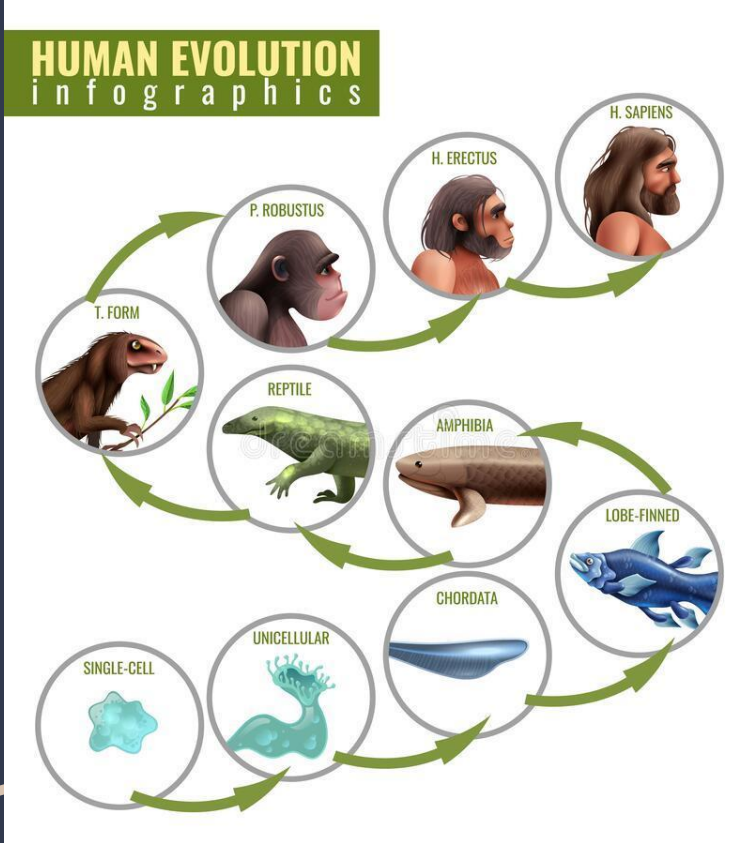
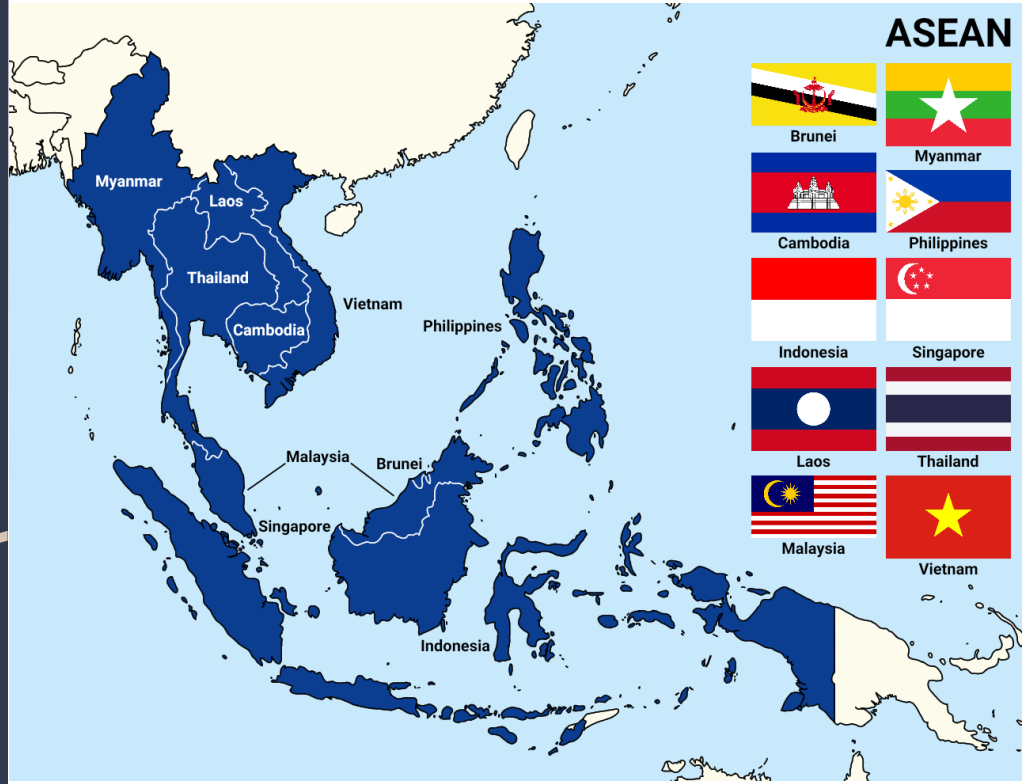




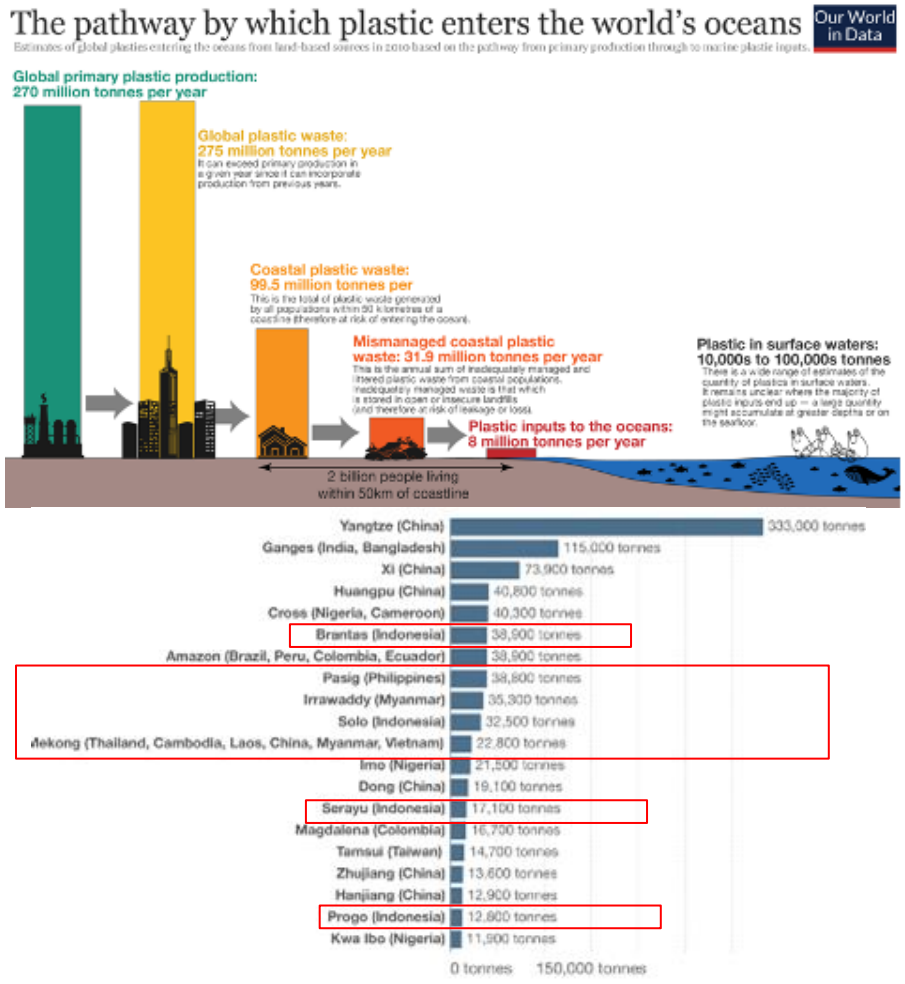
Source: https://www.dreamstime.com

The ASEAN Community



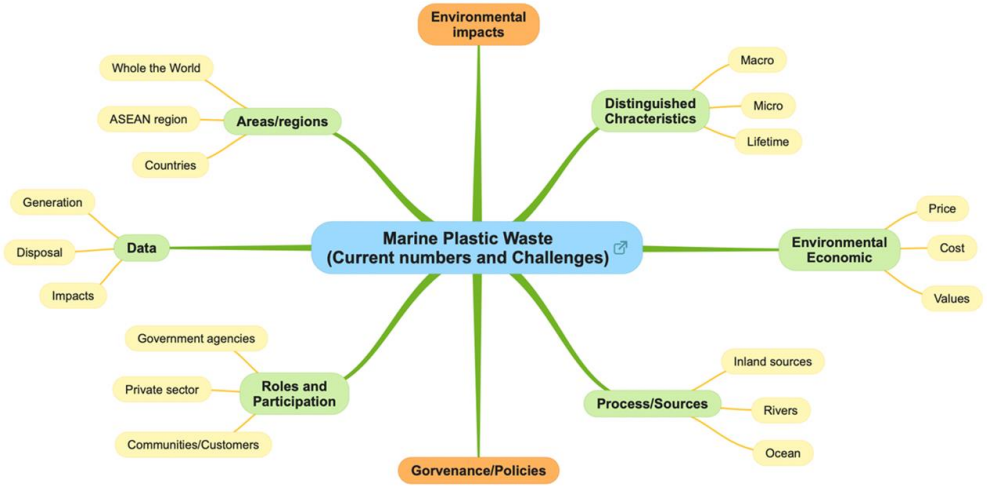
Current problems/Challenges

Source: The ASEAN Secretariat, 2021



Current problems/Challenges

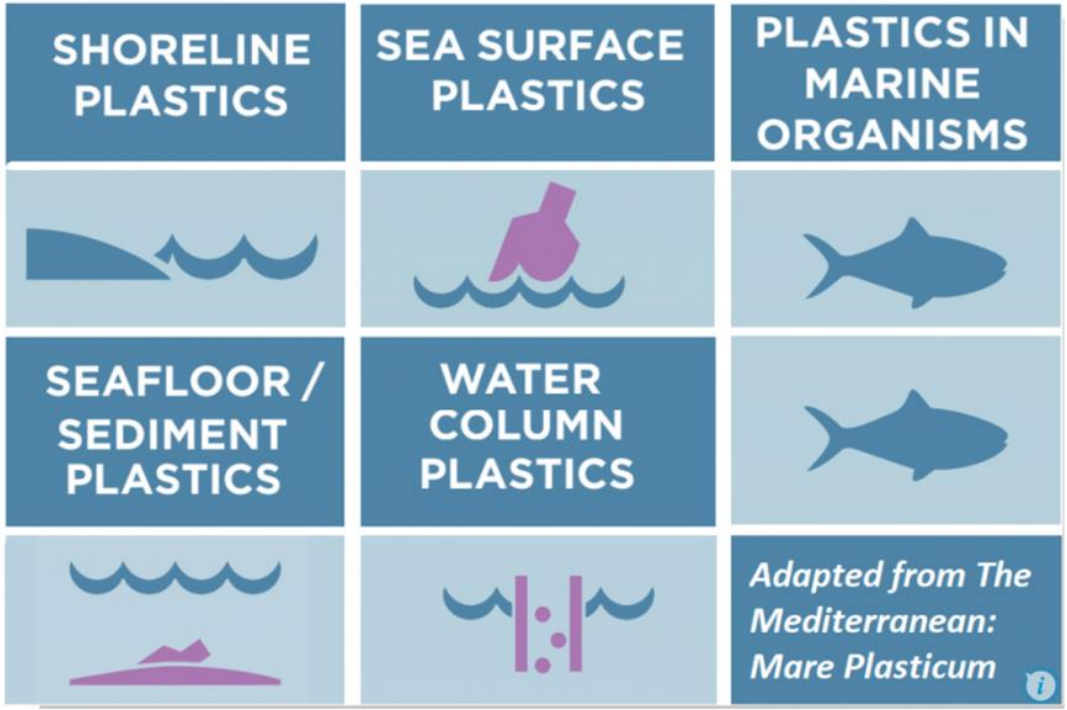
- **Too much** (Produce, Use and Throw away)
- **Too low** (Awareness, Management)
- **Too lack** (Appropriate policies, data)
- **Too cheap** (Price of single-use plastic)
- **Too expensive** (Environmental cost)



Environmental Impacts - Marine

- the **largest accumulation** of ocean plastic in the world

Environmental Impacts - Marine

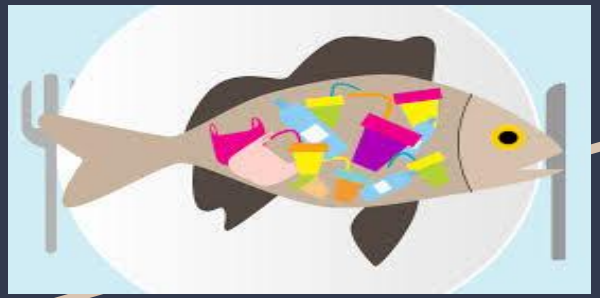


Plastic pollution is found in all areas of the ocean and in marine organisms.

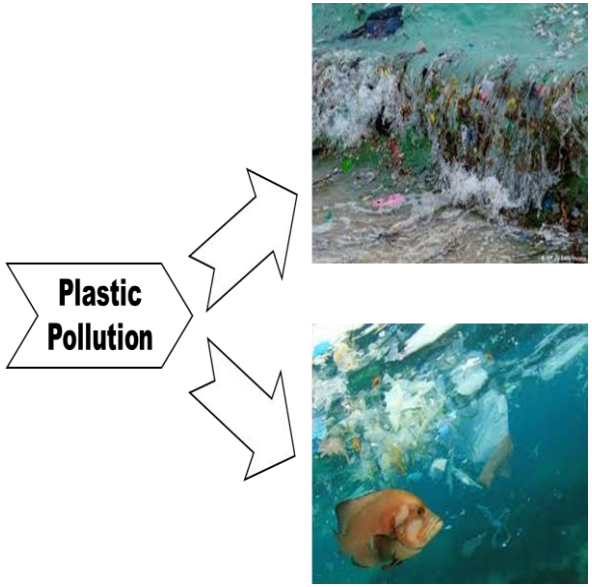
Source: IUCN, 2021

Environmental Impacts - Marine

- 427 fish species
- documented to ingest Microplastics



Azevedo-Santos et al. (2019)



Direct health effects in marine organisms:

- ➔ ingestion or entanglement
- ➔ to hitchhiking of organisms
- ➔ invasive species and pathogens
- ➔ impacts on fisheries
- ➔ loss of ecosystem services

Ingestion of microplastics can cause:

- ➔ blockage of intestinal tracts
- ➔ inflammation
- ➔ oxidative stress
- ➔ hormone disruption
- ➔ reproductive impact
- ➔ metabolic and behavioral changes

Environmental Impacts – Human Health

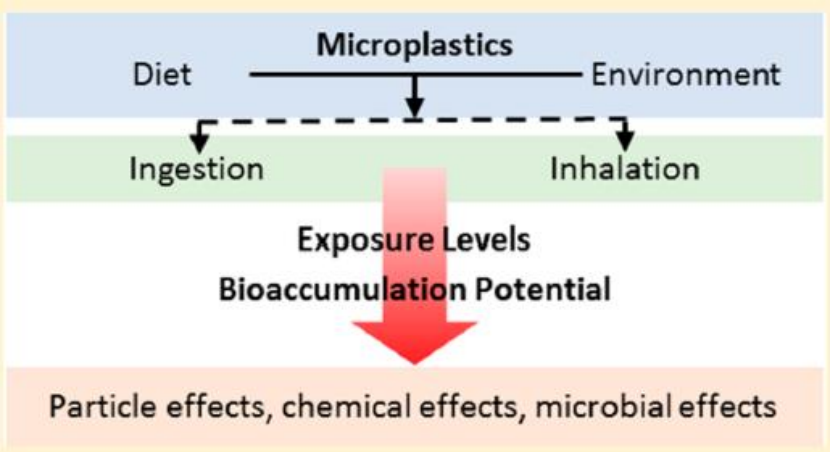
Ingestion

- Avg. European **shellfish consumer** may ingest up to 11 000 microplastics/ year
- Microplastics have recently been identified in **15 brands of shop-bought sea salt**. Up to 681 microplastics/kg sea salt were reported down to 45 µm.

Inhalation

- **Interstitial lung disease**, a work-related condition that induces coughing, dyspnea (breathlessness), and reduced lung capacity, has been identified in 4% of workers from **nylon flock plants in the US and Canada**.

Humans can be exposed to plastic particles via consumption of seafood and terrestrial food products, drinking water and via the air



Wright, S. L., & Kelly, F. J. (2017)

Environmental Impacts – Human Health

Meera...lives in Islamabad, in Pakistan. She is 45 years old and has seven children aged between 2 and 16.

Their home is on the edge of the community and rubbish collects outside the home, providing a breeding ground for mosquitoes.
She has recently **suffered from typhoid and dengue fever**. She was ill for three months and the medication she requires is very expensive, putting a lot of strain on the family income. **She has suffered from attacks of paralysis and is unable to work** so the family is dependent on the income her husband and 16-year old son are able to bring in from their work as cleaners.

Meera's community is part of a new solid waste management project supported by Tearfund – she hopes it will create a cleaner environment and eradicate these preventable diseases.

Photo: Hazel Thompson/Tearfund

Current policies

✓ Existing policy
● Underdeveloped

Country	Plastic specific strategy	Ban of single-use plastic	Levy/charge on single-use plastic	EPR-based recycling policies	Sort collection	Import regulation
Brunei						✓
Cambodia			✓		✓	
Indonesia	✓	●	●	●	●	✓
Laos						
Malaysia	✓	✓	●	●	●	✓
Myanmar	●				●	✓
Philippine	●	●		●	✓	
Singapore				●	✓	
Thailand	✓	✓	✓	●	✓	✓
Vietnam	✓		✓	✓		✓

Source: Akenji et al. 2019 + team update

Initiative

PLASTIC CREDIT EXCHANGE

Philippine

Thailand

Initiative

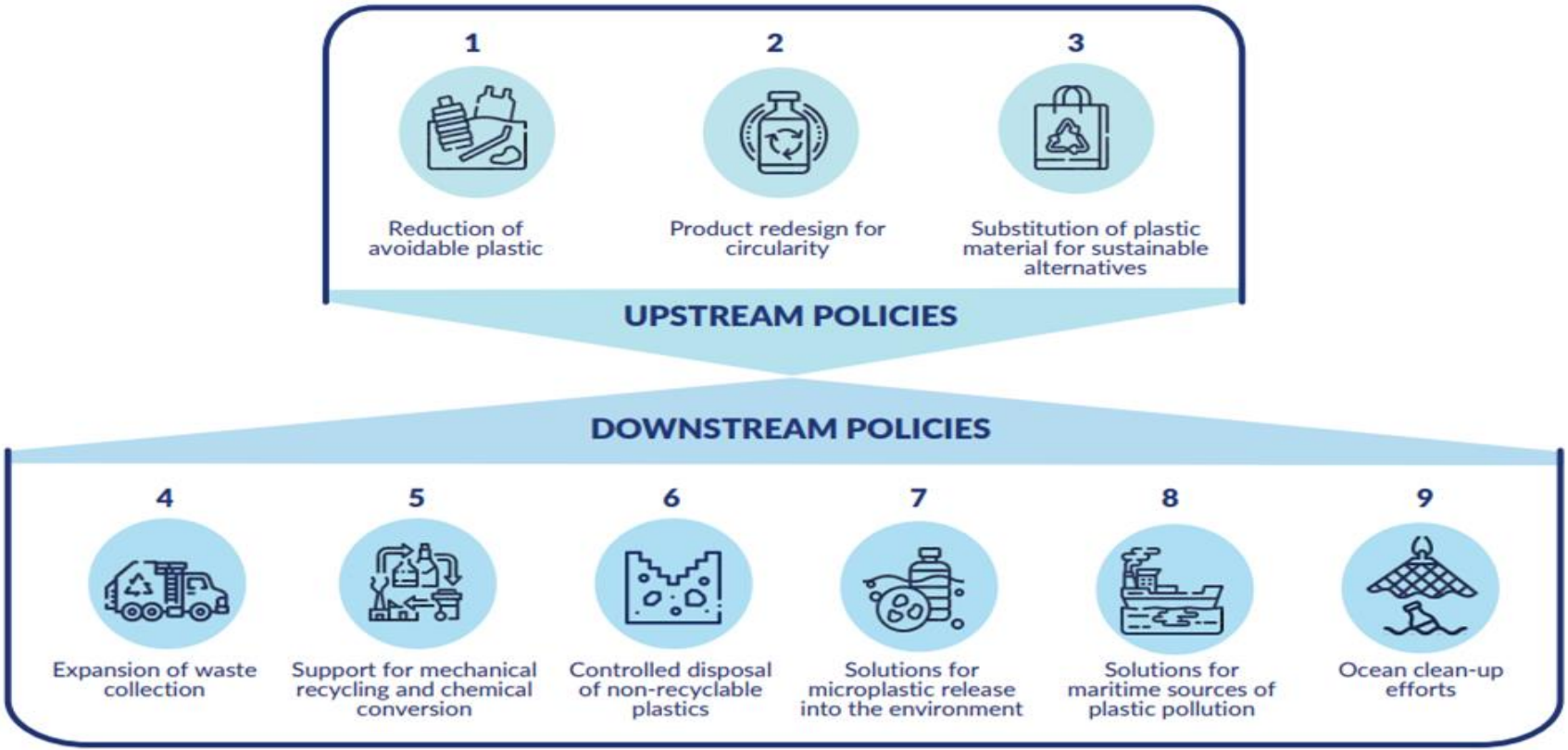
Indonesia

Malaysia

Initiative

Vietnam

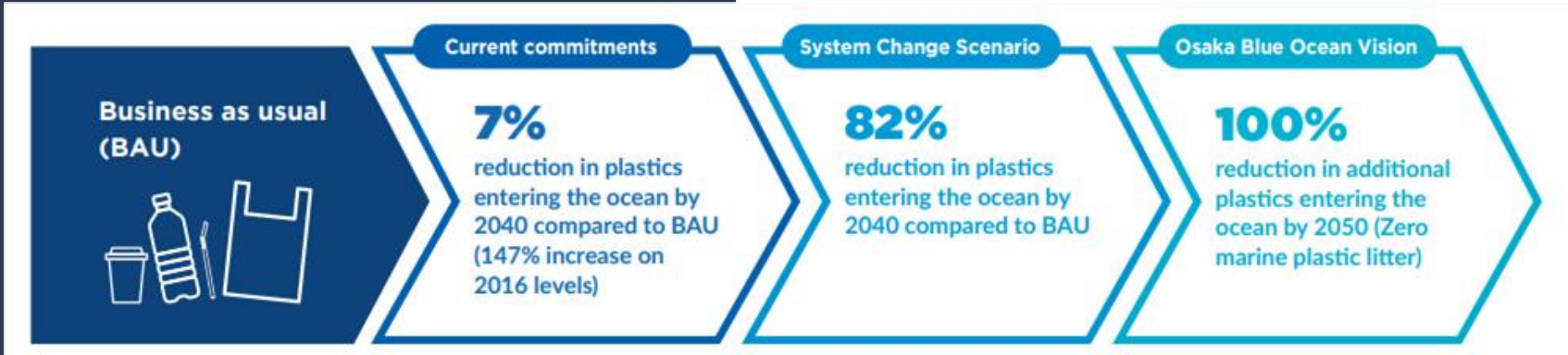
POLICIES INTERVENTIONS



(UNEP, 2021)

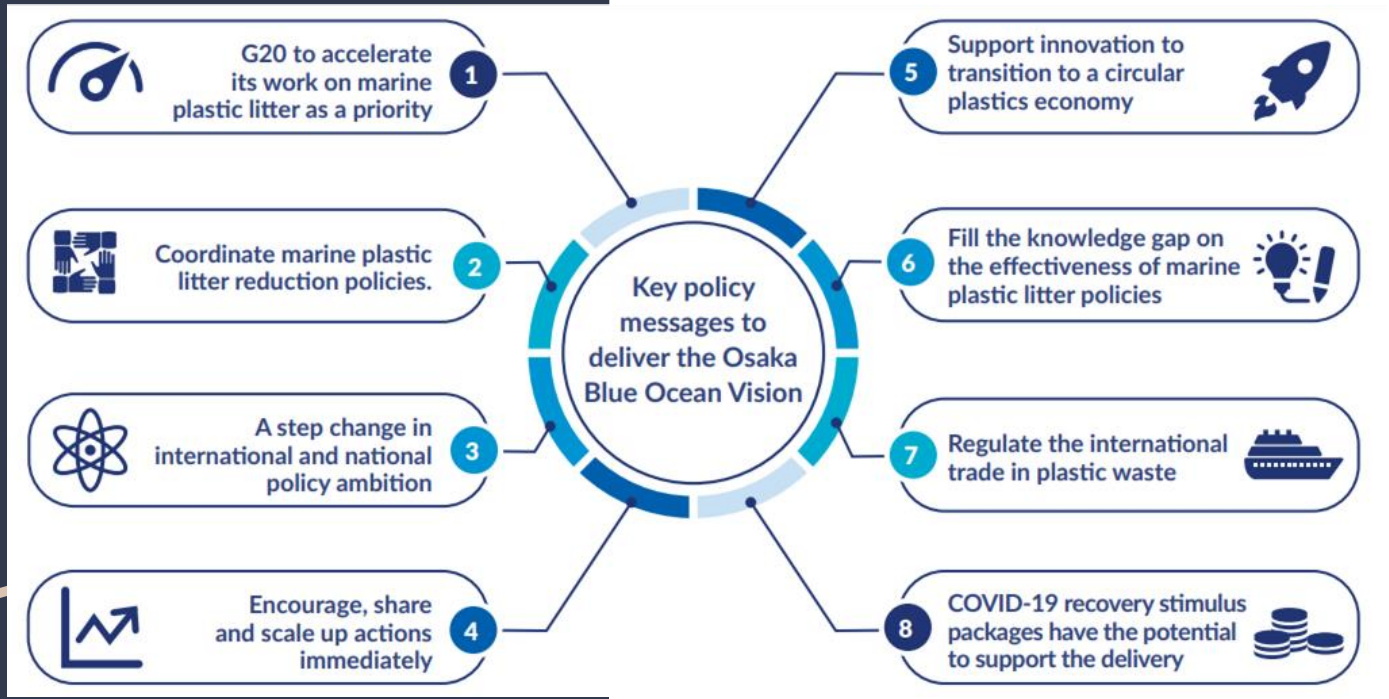
Osaka Blue OceanVision

The Osaka Blue Ocean Vision's objective of achieving net-zero marine plastic litter entering the ocean by 2050 is ambitious and the level of system-wide change necessary to achieve this objective should not be underestimated.



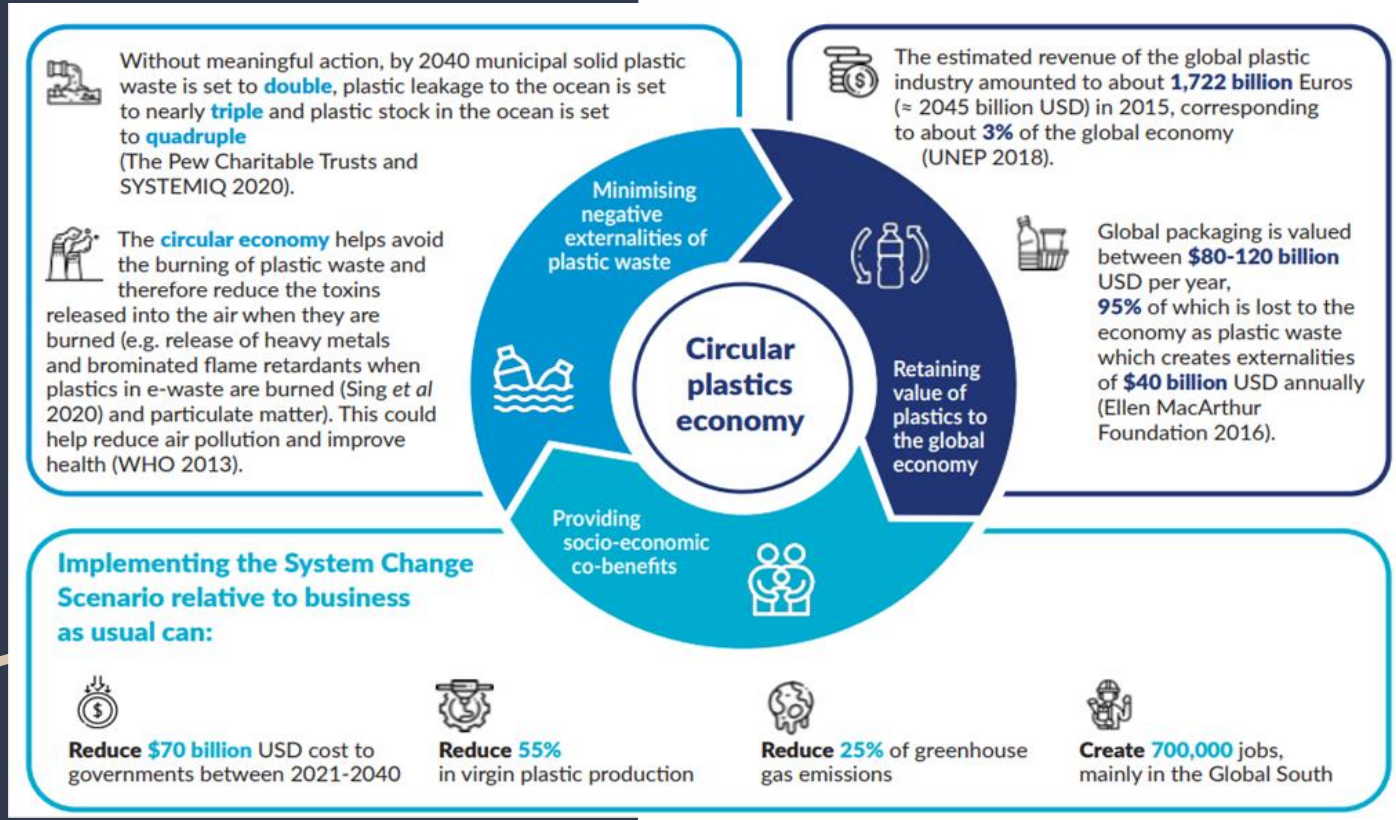
(UNEP, 2021)

Osaka Blue OceanVision



(UNEP, 2021)

Circular Economy on Plastics Waste



(UNEP, 2021)

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Thank you for your attention

Question

&

Answer