GREENPEACE

TIME TO BAN SINGLE-USE PLASTICS AND PROTECT THE OCEANS:

A Policy Brief for ASEAN Leaders

OVERVIEW

The oceans are already filled with 275 million tons of plastics[1]. Plastic fragments disperse and can now be found from the tropical Pacific to the freezing Arctic[2,3]. Seventy percent of plastics ultimately sink, damaging life on the seabed. The remainder float in open seas, often ending up in gyres -- circular motion of currents -- forming conglomerations of swirling plastic rubbish called garbage patches, or accumulate in closed bays, gulfs, and beaches [4,5,6,7]. The durable and buoyant nature of plastic leads to a truly global distribution of this damaging waste product[6].

The cumulative quantity of plastic waste available to enter the ocean from land is predicted to increase by an order of magnitude by 2025. The Ellen Macarthur Foundation projects that plastics in the ocean will outweigh fish by 2050. Every year, 8 million metric tons of plastic currently arrive in our oceans, which is equivalent to five grocery bags filled with plastic for every foot of coastline in the world[26].

A 2015 study[1] named five member-countries of the Association of Southeast Asian Nations (ASEAN) among the biggest sources of plastics pollution in the world's oceans. These are: Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. ASEAN countries, due to their lengthy coastlines and high plastic usage, are some of the primary sources of marine plastics globally. Plastic production rates have seen a steady growth in recent years, especially in the countries mentioned above.

PLASTICS LITTER THE OCEAN

PLASTICS INJURE MARINE LIFE

Fatal entanglement in, and ingestion of marine debris by, marine animals has increased by 40% in the last decade[11]. For example, 90% of seabirds around the world have ingested plastic[12]. The death of these animals comes from starvation and debilitation, cutting their stomachs or taking up space, making them feel "full" when in fact they are starving[13].

PLASTIC PARTICLES TRANSPORT POTENTIALLY HARMFUL CHEMICALS

Plastic particles have an absorption capacity of persistent organic pollutants (POPs) while traveling through the environment, which can then be transferred into the tissues and organs of animals and organisms through ingestion[14]. This can have an impact on the marine megafauna[15] as well as on lower trophic-level organisms[16,17] and their predators[18].

PLASTICS TRANSPORT INVASIVE SPECIES

The persistence of floating plastics, ranging from resin pellets to large derelict nets, docks, and boats that float across oceans, can transport microbial communities[19], algae, invertebrates, and fish[20] to non-native regions[21] and disrupt the ecological balance.

MICROBEADS MAY CAUSE DAMAGE TO MARINE LIFE AND POSE A RISK TO HUMAN CONSUMPTION

Microbeads are unique in that they are manufactured at a tiny size for use in a range of household products. A Greenpeace study[8] revealed that the potential consequences of microplastics to human health are greatly under-researched. Greenpeace is urging governments to take the first step in tackling ocean plastic pollution by banning microbeads.

PLASTICS DAMAGE TOURISM

Plastic and other manufactured materials tend to strand and concentrate along shorelines and sandy beaches, posing a visual affront[10].

Previously, waste was made up of organic materials that would break down harmlessly. However, due to the growing reliance on plastics and synthetic fibers, the waste now produced is destined to pollute our oceans indefinitely[6] .

Among the many actions to address plastics pollution of the oceans, strengthened corporate responsibility, plastics regulation and wastes management, and behavioral change among consumers can make the most impact.

CORPORATE RESPONSIBILITY

The consumer goods sector is a primary user of plastics. The social and environmental impacts of their use of plastics have been quantified in their 'natural capital cost', which equates to a monetary value of $75bn per year[23]. The natural capital cost to marine ecosystems of plastic waste is $13bn per year[23]. As such, it is important for companies to monitor their production of plastic to cut pollution and improve resource efficiency[23]. In one study, only half of 100 companies assessed reported quantitative data on plastics[23]. There is a multitude of opportunities for the corporate sector to take greater responsibility for the pollutants they create, and identify methods to reduce the quantity of plastics used, and increase the recyclability of their products[23]. Company disclosure, which makes important information available to the public, is the first step to reducing the volume of plastics at source.


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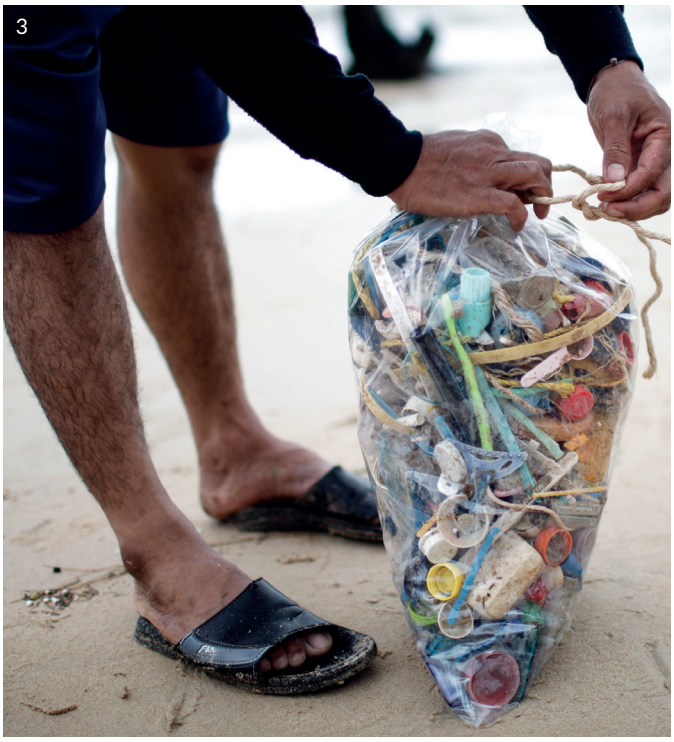
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WASTE MANAGEMENT in ASEAN

Waste management laws and systems in the ASEAN region do not have a specific regulation and management of plastics, which are usually disaggregated with different kinds of wastes. The Philippines and Indonesia are recently looking at this problem and developing policies and solutions that may inspire a regional commitment and action. Senator Cynthia Villar introduced Senate Resolution No. 329, "Directing the Senate Committee on Environment and Natural Resources to Conduct an Inquiry, in Aid of Legislation on the Measures being Undertaken, if any, to Arrest the Philippines' Prevalent Plastic Wastes Leakage into the Seas." On the other hand, Indonesia has committed a 70% reduction in marine waste within eight years[9].

Presently, Municipal Solid Waste (MSW) management is primarily done either through door-to-door collection or communal bins. The collection and transportation of this waste can be both labor- and capital-intensive, with the public sector primarily bearing the cost. Yet at present, countries such as Singapore, Malaysia, Thailand, Indonesia, and the Philippines are increasingly privatizing their waste management operations. All medium and large cities are expected to have administrative structures for providing collection services[24.] However, in many of the ASEAN countries, collection of MSW is still insufficient, especially in rural areas, while in coastal areas waste is regularly thrown directly into waterways and oceans[24].

PHOTO CREDITS:

1 : Beach Clean-up Activity in Phuket (first page)
©Chanklang Kanthong / Greenpeace

2 : Picking Waste in Manila Bay
©John Javellana / Greenpeace

3 : Beach Clean-up Activity in Phuket
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The failure of these waste management systems is one of the primary causes of plastic waste entering the oceans. Additional factors include a lack of infrastructure, several human activities, an inadequate public understanding of the potential consequences of their actions, the lack of adequate legal and enforcement systems nationally and internationally, and a lack of financial resources[22].

RECYCLING OF PLASTIC WASTE

The global production of plastics, mainly from fossil raw materials, has skyrocketed: from 1.5 million tonnes in 1950 to 288 million tonnes in 2012. Asia is taking up an increased share of this global production, now 40% by weight of world production, with China as the largest individual country at 24%. The drivers of a shift from west to east are increasing local demand and lowering costs - primarily labor, but also lower environmental and health and safety costs, due to the original absence of regulations and/or their enforcement in both manufacturing and reprocessing[25]. ASEAN countries need to respond to this increasing plastic production and put in place mechanisms to reduce the impact upon marine habitats. One of the key strategies to reduce plastic pollution is to capture the waste and recycle it into new products.

ASEAN middle- to low-income cities have an established practice of informal source separation and recycling of materials. Cities such as Bangkok and Jakarta have enterprises to gather, trade, and recycle materials. In Vietnam, these enterprises, often family businesses, are supported by national ministries. In most ASEAN countries, these waste separation activities play a significant role in recycling non-organic wastes, although this practice of informal recycling is purely market-driven, with industries only purchasing the recycled materials when they cost less than the virgin alternative. This leads to selective recycling, with the disposal of non-profitable waste products continuing to be a severe problem[24].

RECYCLING HAS ITS LIMITS

Currently, 95% of plastic packaging material value, or $80–$120 billion annually, is lost to the economy after a short initial use[26]. Approximately 50% of plastics are for single-use disposable applications, such as packaging, agricultural films, and disposable consumer items, between 20% and 25% for long-term infrastructure, such as structural materials and pipes, and the remainder for durable consumer applications with intermediate life span, such as in electronic goods, furniture, and vehicles[27]. The recycling of plastics lags far behind the global recycling rates for paper (58%) and iron and steel (70–90 %), with the recycling rate of general plastics even lower than that of plastic packaging[26].

Over 90% of plastics produced are derived from petro-chemicals produced from fossil oil and gas[26]. This equates to around 4% of world oil and gas production, a non-renewable resource used to develop plastics, and a further 3–4 % is consumed to provide energy for their manufacture[28]. If the rapid growth of plastic use follows its projected course, the plastics industry will utilize 20% of total oil consumption and 15 % of the global annual carbon budget by 2050[26].

PHOTO CREDIT:

4 : Toxic Garbage Cleaning in Indonesia
©Afriadi Hikmal / Greenpeace

GREENPEACE's RECOMMENDATIONS

Plastics are a versatile and cheap material that has become a key component in our everyday lives. We now recognize that there is a price to pay for this convenience and these plastics are damaging marine ecosystems. It is therefore imperative that we take urgent collaborative steps to reduce plastic waste. There are many potential solutions and technological developments that can contribute to solving this problem, but changing attitudes towards plastic usage will be key. The ASEAN needs to work together to set appropriate regulations and encourage businesses and consumers to take action. Corporations need to take responsibility for their environmental impact and seek to transform their practices to bring about a cleaner supply chain. The public needs to be educated and understand that every plastic material thoughtlessly thrown away is damaging the world that sustains us. The amount of plastic debris in our oceans has already reached critical levels. As such, the mantra for people to live by requires more urgency.

We should not only

REDUCE, REUSE & RECYCLE

but be bolder to

REFUSE, RETURN & REDUCE.

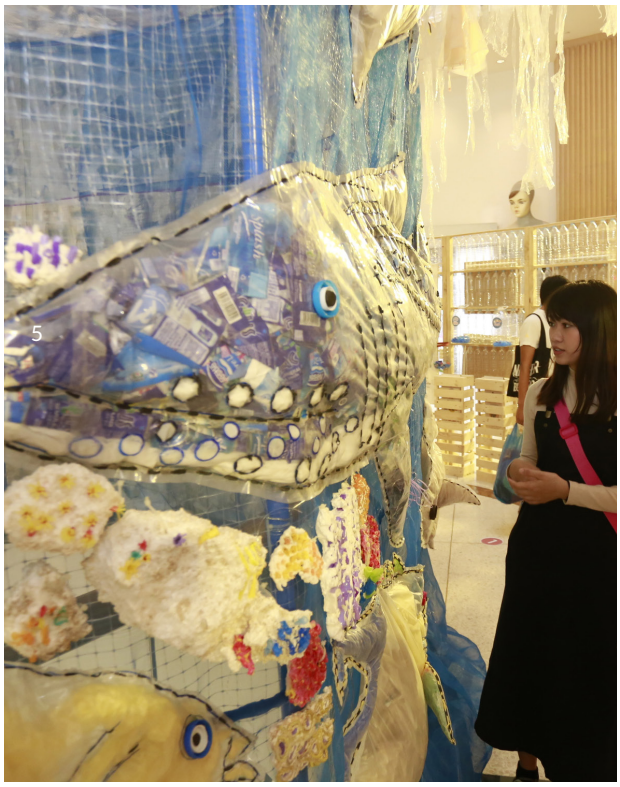

PHOTO CREDIT:

5 : Heart for the Ocean Exhibition in Bangkok
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GREENPEACE CALLS TO:

1. Ban Single-Use Plastics[9].
2. Strengthen Policy on Waste Management.
3. Enforce International Regulations on Marine Debris.
4. Regulate Plastic Use and Production at Source.

ASEAN, unite and act to protect the Oceans from plastics and marine debris.

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9. https://www.theguardian.com/environment/the-coral-triangle/2017/mar/02/indonesia-pledges-us1-billion-a-year-to-curb-ocean-waste Indonesia has pledged up to $1bn a year to dramatically reduce the amount of plastic and other waste products polluting its waters. The announcement was made during the by Luhut Binsar Pandjaitan, Indonesia's coordinating minister for maritime affairs at the 2017 World Oceans Summit in Nusa Dua, Bali. Pandjaitan told delegates at the conference that Indonesia would achieve a 70% reduction in marine waste within eight years.

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