



Small Island Developing States and plastic pollution

# Challenges and opportunities of a global agreement on plastic pollution for SIDS

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# Acronyms

AOSIS	Alliance of Small Island States
EPR	Extended Producer Responsibility
INC	Intergovernmental Negotiating Committee
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
PET	Polyethylene terephthalate
SIDS	Small Island Developing States
UN	United Nations
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme



# Introduction



On March 2, 2022, member states adopted the resolution to “End Plastic Pollution: Towards an international legally binding instrument” at the fifth session of the United Nations Environment Assembly (UNEA). It establishes an Intergovernmental Negotiating Committee (INC) and specifies its mandate with the overarching goal to develop and agree upon a legally binding global instrument on plastic pollution by the end of 2024. The resolution is seen as the flagship resolution of UNEA-5 and as historical step (UNEP 2022a; McVeigh 2022). In any case, the resolution is the intergovernmental response to the ever louder calls to reduce or even eliminate plastic pollution, especially in the marine, but also increasingly in the terrestrial environment.

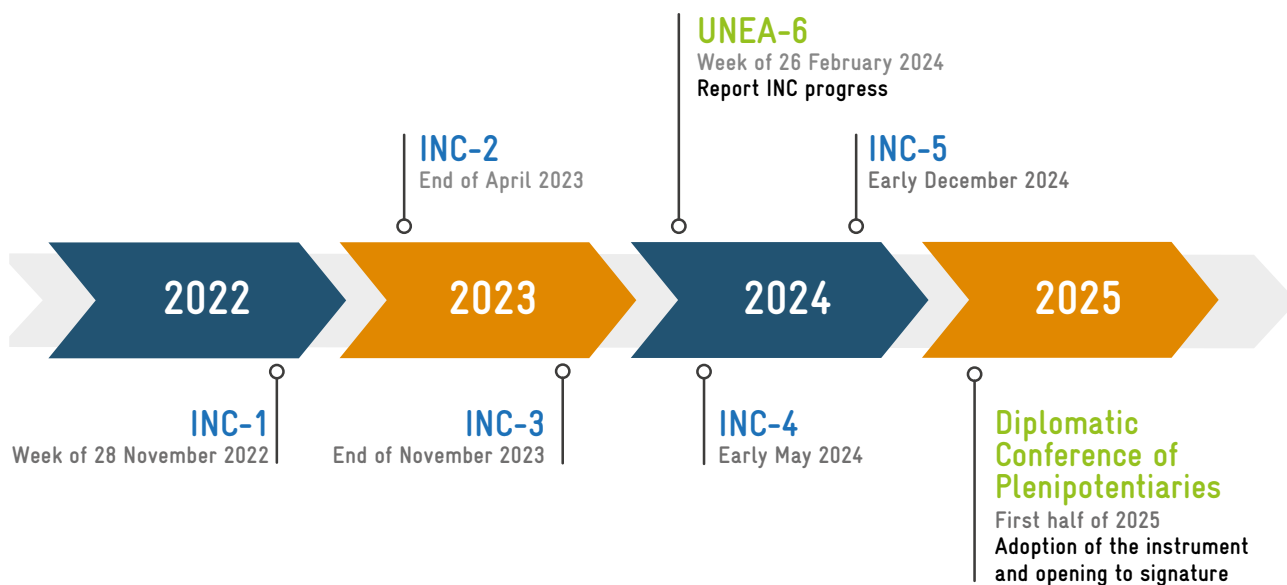
Plastic pollution has been high on the political, social and scientific agenda for many years, driven by increasing scientific evidence of the negative impacts of plastic pollution on the environment and the potential risks to human health, as well as fueled by photos of the Great Pacific Garbage Patch<sup>1</sup> or animals entangled in single-use plastic items. Already in 2016, the United Nations Environment Programme (UNEP) stated that the “accumulation of plastic litter in the ocean is a common concern for humankind owing to its far-reaching environmental, social and economic impacts” (UNEP 2016: xii). In 2021, UNEP reiterated and intensified its concerns about marine plastic pollution by warning that “emissions of plastic waste into aquatic ecosystems are projected to nearly triple by 2040 without meaningful action” (UNEP 2021: 14).

In response to these concerns, the thrive towards the negotiation of a legally binding global agreement on plastic pollution gained increasing momentum among policymakers, scientists, non-governmental organizations, and intergovernmental organizations. This included political declarations from for instance the Nordic countries (Nordic Council of Ministers for the Environment and Climate 2019) and other regional organizations (ACMEN 2019; CARICOM 2019; SPREP 2018) as well as the establishment of Group of Friends to Combat Marine Plastic Pollution (Norwegian Government 2020). Furthermore, a high-level ministerial statement on marine litter and plastic pollution was endorsed by more than 70 governments (BMU 2021). It also included calls for negotiations by the private sector, ranging from financial institutions over consumer goods companies to trade organizations representing the plastics industry ([www.plasticpollutiontreaty.org](http://www.plasticpollutiontreaty.org)). Likewise, various non-governmental actors pushed for negotiations on a global and legally binding agreement (EIA et al. 2020; Simon et al. 2018; EMF 2020; WWF et al. 2020).

By convening an ad hoc open-ended working group from May 30 to June 1, 2022, in Dakar, Senegal, the first step towards negotiations of a global agreement on plastic pollution was taken. The working group was mandated to prepare the INC on plastic pollution, amongst others by drafting its rules of procedure and by proposing documents for its consideration. In addition, states agreed on a tentative timeline for negotiations that is summarized in figure 1 (UNEP 2022c).

<sup>1</sup> The Great Pacific Garbage Patch is the largest of five offshore plastic accumulation patches in the world. It is located half-way between Hawaii and California (The Ocean Cleanup).

Figure 1 Tentative timeline for the meetings of the INC on plastic pollution



While (marine) plastic pollution is a serious and increasing threat to many countries around the world, small island developing states are particularly affected by it and deserve special attention in a global agreement on plastics.

Against this background, the study analyses the challenges, needs and opportunities of SIDS in the context of a global agreement on plastic pollution. To this end, it briefly summarizes the scope, sources and impacts of plastic pollution (chapter 1) and reviews the existing policies and regulations in SIDS that target plastic pollution (chapter 2). Based on this analysis, the challenges

of SIDS in combating plastic pollution are identified (chapter 3). From these challenges essential needs of SIDS are derived that (ideally) would be addressed in a global agreement and would help SIDS to overcome their challenges. Before the key findings are summarized in the conclusions, options for SIDS to effectively voice their interests in the upcoming negotiations are discussed.



# Plastic pollution in SIDS: scope, sources and impacts

1





## 1.1 Scope and sources

SIDS are disproportionately affected by plastic pollution while they hardly contribute to the production and trade of plastics or plastic products

SIDS contribute only very little to global plastic pollution<sup>2</sup>. Their share in the *production and trade of plastics and plastic products* is estimated to be extremely small (Barrowclough and Vivas Eugui 2021; Stöfen-O'Brien et al. 2022).

- › SIDS contribute only 0.53 percent to the global production of fossil fuels (according to data from U.S. Energy Information Administration), on which the production of polymers or virgin plastic still relies to over 99 percent.
- › SIDS account for only 0.13 percent of the global trade volume in polymers (in US\$) (according to data from United Nations Comtrade Database), the base of any plastic products. Only Singapore is an exception and accounts for 4 percent of the global trade value in polymers.
- › SIDS' share of trade in plastic products and articles amounted to only 2.2 percent of the global exports and imports of plastic products in 2019. Excluding Singapore, their share is as low as 0.32 percent (according to data from the United Nations Comtrade Database).

Likewise, and according to the latest available estimates, the contribution of SIDS to *plastic waste generation in general and mismanaged plastic waste in particular* at global level is extremely small.

- › SIDS contributed 1.64 percent to the global plastic waste generation in 2010 (own calculation based on data from Jambeck et al. 2015).
- › SIDS' contribution to mismanaged plastic waste in 2019 was only 1.56 percent of the global volume of mismanaged plastic waste (own calculation based on data from Meijer et al. 2021).
- › The share of SIDS in plastic waste that ultimately ends up in the world's oceans is estimated at less than 1.3 percent on average (EIA 2020b).
- › However, the average waste generation per capita in SIDS is 2.3 kg per day, which is 48 % higher than the world average of 1.55 kg (UNEP 2019b).

Yet, the global plastics economy imposes an enormous burden on SIDS, with significant amounts of plastic litter washing up on their shores, leading to disproportionate amount of plastic pollution given the size of SIDS (EIA 2020b). Existing estimates indicate that most of the plastic pollution in SIDS is sea-bound: the plastic originates offshore and from other countries and is then transported to the SIDS through ocean currents (UNCRD 2019). UNEP estimates that many SIDS generally suffer from higher levels of sea-bound plastic pollution than other countries (UNEP 2019b). Against this background, some observers conclude that – similar to climate change – SIDS are on the “frontline of plastic pollution” (EIA 2020a: 11).

<sup>2</sup> In general, scientific studies that assess and quantify the extent of plastic pollution in SIDS are scarce and often geographically limited on specific hotspots (Lachmann et al. 2017 provides an overview on such studies). By 2017, 31 studies had been published, covering 37 SIDS. Hence, exact data on the extent of plastic pollution in SIDS is largely missing and most quantifications of plastic pollution in SIDS are based on estimates.

**Increasing amounts of domestic plastic waste aggravate sea-bound plastic pollution in SIDS while they are essential to their economies or challenging to mitigate**

In addition to the sea-bound plastic pollution the situation in SIDS is further aggravated by two predominantly domestic sources of plastic waste.

First, the use of plastics and plastic products has been and is still increasing in many SIDS. Since most plastics and plastic products are imported in SIDS, it is difficult for them to target the pollution at the source (UNEP 2019b).

Second, the tourism sector, including cruise ships, generates considerable amounts of plastic waste (UNEP 2019b). In general, tourists generate significantly more (plastic) waste per capita than residents in SIDS (EIA 2020b). However, too far-reaching and ambitious interventions to reduce plastic pollution from the tourism sector could have a negative impact on economic prospects and employment opportunities in many SIDS. Their economies and labor markets often depend significantly on tourism (see below).

Overall, this results in a per capita generation of plastic waste in many SIDS that is above the global average, although there are significant differences between SIDS (own calculation based on data from Jambeck et al. 2015).

**Waste management systems often cannot keep up with the growing volumes of plastic waste**

Waste management systems in SIDS often remain insufficient on several dimensions, often due to geographical, demographic and economic characteristics of SIDS (see section on SIDS' challenges in reducing plastic pollution for a more detailed discussion). In particular, remote and isolated SIDS have even more problems with waste management (IUCN 2020).

Five deficiencies stand out:

- › Many SIDS lack adequate waste collection services that cover substantial shares of their population (GEF 2019).
- › Separation, sorting and recycling of waste streams is still uncommon or underdeveloped in many SIDS (EIA 2020b; Lachmann et al. 2017).
- › Many SIDS lack adequate and controlled landfills or dumpsites where the leakage (and open burning) of plastic waste can be prevented. As result, the largest share of plastic waste is still often disposed of in unmanaged or uncontrolled (and often illegal) dumps, in the environment or burned in open pits (UNEP 2019b).
- › Appropriate end-of-life management technologies are often unavailable in SIDS (UNEP 2019b), including appropriate recycling technologies (UNEP 2015).
- › Even when waste management policies and regulations exist, they are often poorly implemented and enforced (Lachmann et al. 2017).

Overall, these conditions result in significant amounts of mismanaged plastics (waste) leaking into the environment. According to the latest available estimates, the per capita rate of plastic waste in many SIDS is well above the global average (Meijer et al. 2021). Thus, the marine environment is particularly affected through leakage from open and/or uncontrolled dumpsites, as these are often located near rivers or the sea (UNEP 2019b).

## 1.2 Impacts

Specific research on the impacts of plastic pollution in SIDS is scarce. However, many of the effects observed to date in more general and overarching studies are likely to occur in SIDS, too. Therefore, this section briefly introduces the main findings of existing research on the general impacts of plastic pollution before specifying the particular effects of plastic pollution in SIDS as much as possible.

**Plastic pollution has negative impacts on terrestrial and marine environments, national economies, societies in general and human health**

Nowadays, these effects are largely undisputed, even though related research is still in its infancy (UNEP 2021). As for the impact of marine plastic pollution, a recent meta-study that reviewed more than 2,500 studies on the effects of plastic pollution on the marine environment identified five main impacts (Tekman et al. 2022):

- › In most cases, the encounter of marine species with marine plastic litter has negative impacts.
- › Macroplastics can harm marine species and ecosystems through entanglement, ingestion, smothering and leakage of associated chemicals, in some cases leading to death of marine organisms.
- › Macroplastics can cause severe and irreversible damage to coral reefs and mangrove forests.
- › Microplastics are ingested or inhaled by marine organisms, resulting in digestive tract blockages, an increase in chemical concentrations in marine organisms and toxicological effects.
- › Microplastics have entered the marine food chain, ultimately leading to potential risks to human health.

While research also suggests that plastic pollution poses significant risks to human health there is still the need for more evidence and knowledge about the causal pathways (SAPEA 2019). In particular, open burning of plastic waste, the occurrence of plastics in seafood and the leaching out of chemicals or other harmful substances are thought to affect human health (UNEP 2021).

Moreover, plastic pollution often has significant economic consequences. Above all, it affects the livelihoods of coastal communities, tourism, fisheries and aquaculture. In 2018, the associated costs were estimated to lie between US\$ 6 and 19 billion (UNEP 2021).

**In SIDS, the relatively poor and overwhelmed waste management has significant impact on the environment and health**

Three effects on the environment and human health stand out.

First, plastic waste often leaks into the environment as many dumpsites on SIDS are open, uncontrolled and unsanitary (EIA 2020b). The leakage endangers marine and coastal ecosystems as well as the land areas and water courses in the surroundings of the dumpsites. In particular, mangroves, sea grasses and coral reefs are affected (UNEP 2015). Moreover, leaked plastic waste can hinder or block the flow of water, which can lead to the flooding during heavy rains (UNEP 2019b).

Second, the widespread practice of burning plastic waste in open pits leads to the release of toxic, hazardous and carcinogenic pollutants into the air, which pose risks to human health. Moreover, the residual ash from open burning contaminates water and soil, which again turn into human health risks (EIA 2020b).



Third, SIDS are particularly vulnerable to marine plastics that enter the human food chain, posing a particular threat to the health of people living in SIDS. The uptake of plastics through the consumption of sea food is likely to be considerable, as many coastal and indigenous communities rely heavily on sea food as their main diet (UNEP 2021).

**Plastic pollution threatens essential livelihoods and sources of income in SIDS**

SIDS are particularly vulnerable to the potential economic consequences of plastic pollution, as it affects two economic sectors that are essential pillars of national economies and livelihoods in SIDS.

On the one hand, plastic pollution threatens the tourism sector, which is for many SIDS indispensable in terms of job creation, income, economic growth, and foreign exchange earnings (UNEP 2019b; World Bank 2022). However, the attractiveness of SIDS as a tourist destination depends heavily on the perception of the islands as pristine paradises with extraordinary white beaches and exceptional high biodiversity. Beaches littered with plastics and the loss of biodiversity threaten this perception and might deter tourists from travelling to SIDS (EIA 2020b; Lachmann et al. 2017; Schuhmann 2012). Overall, plastic litter reduces the recreational quality and enjoyment of coasts and beaches, ultimately leading to declines in tourism and revenue losses (UNEP 2019b).

On the other hand, plastic pollution threatens marine organisms and resources which for many SIDS are essential livelihoods and sources of income. The diet of many residents in SIDS relies heavily on seafood. In addition, fishery – like tourism – is another major source of income for the population and an important sector in the national economics of SIDS (IUCN 2020). Increasing plastic pollution thus might diminish the food and economic base for local populations in SIDS (Lachmann et al. 2017). Ghost fishing in particular has negative impacts on fish yields and catches, that is when abandoned, lost or otherwise discarded fishing gear, mostly made of plastic, continues to catch fish (UNEP 2019b).

Overall, these observations suggest that wherever plastic pollution occurs in SIDS, some adverse impacts will occur. In the worst case, increasing levels of plastic pollution significantly reduce revenues in SIDS and deteriorate the livelihoods of many residents.

# Plastic governance in SIDS

2



Over the past years, a steadily increasing number of strategies, plans, policies and regulations that specifically target plastic pollution has been adopted and implemented in SIDS at global, regional and national levels.

**The majority of SIDS have ratified, signed or acceded several global and regional instruments, protocols and conventions related to marine (plastic) pollution**

Even though there is not yet a global agreement on plastic pollution, several global instruments, protocols and conventions exist that partially regulate certain aspects of plastic pollution. Based on a review of the literature, Karasik et al. (2020) identified 24 such instruments, protocols and conventions that are typically described as directly or indirectly addressing plastic pollution. Most SIDS have signed, ratified or acceded to at least some of the instruments, protocols and conventions but far from all.

At regional level, several conventions, strategies or action plans have been developed and adopted that guide actions specifically related to marine (plastic) pollution. They do often aim generally at the prevention and reduction of marine pollution from land-based sources and of waste discharges from economic activities into the marine environment (UNEP 2019a). Likewise, most regional strategies or action plans target marine litter in general (Wienrich et al. 2021). Since the largest share of marine litter is however plastic, these strategies and action plans are highly relevant in the combat of plastic pollution.

Figure 2 provides a global overview of such instruments and shows that there is at least one instrument, strategy or action plan in all regions where SIDS are located. In the case of the Pacific SIDS, for example, there are three conventions, two protocols and six strategies or action plans in place at regional level (EIA 2020b). In case of the Caribbean SIDS, one convention, three protocols and two strategies or action plans are in place at regional level (UNEP 2022d). However, the signing and ratification of conventions and protocols often did not lead to the implementation of their commitments into national policy and regulatory frameworks. When they are implemented, the focus was on waste management in the downstream, while measures to prevent plastic pollution tended to be neglected (EIA 2020b).

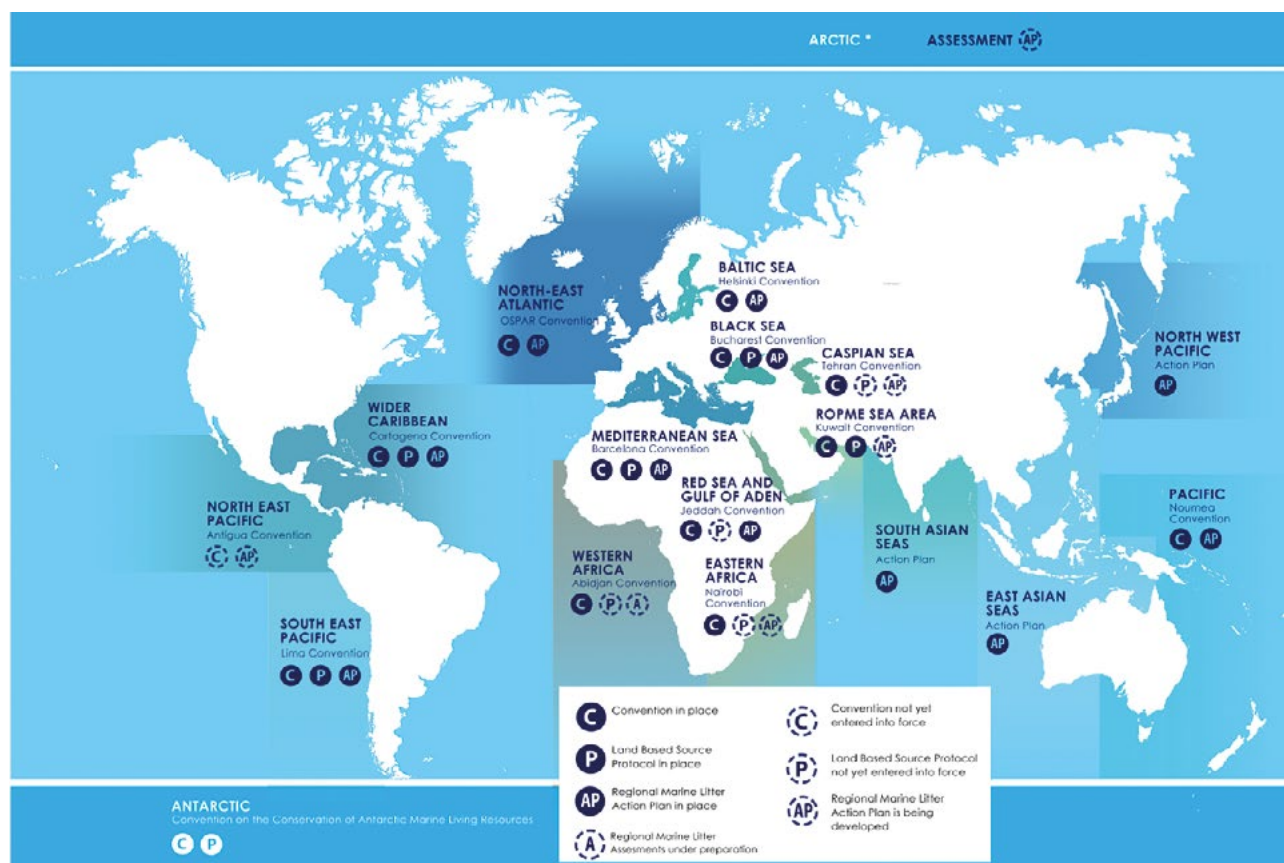
**The majority of SIDS have formulated and adopted an increasing number of national policies and/or regulations that target plastic pollution**

Since 2012 in particular, SIDS have increasingly addressed plastic pollution through the formulation and adoption of national policies and regulations that specifically target the problem. As of 2020, 46 such policies and regulations exist in SIDS (see table in Annex I for details).

Bans, as one regulatory measure, are considered to work quite effective, especially if they have been introduced in close consultation with important stakeholders (UNEP 2019b). In Mauritius, for example, non-biodegradable plastic bags were banned and a levy on disposable bags was imposed in 2015. Both measures led to considerable decreases in single-use plastic bags (UNEP 2019b). Similar observations were made in Samoa. Against this background, some observers assign a leading role to SIDS, in particular in the Pacific, with regard to policies and regulations that ban or levy plastic products (EIA 2020b).



Figure 2 Overview on regional instruments, strategies and action plans related to plastic pollution



Source: UNEP 2019a

Some SIDS use fee- or levy-based approaches to reduce plastic pollution from specific plastic products, for example Fiji, Kiribati, the Marshall Islands, Palau, Saint Lucia and Tonga. These fees or levies typically target the import of plastic products. Palau imposes a general environmental protection departure fee of US\$30 on each tourist, the highest such fee among the SIDS. The revenue is used to finance measures that aim at reducing the environmental impacts of tourism, including improved waste management (EIA 2020b). Likewise, several Caribbean SIDS impose small levies on tourists (up to US\$1.50) in order to improve the financial base of their waste management. According to UNEP, the revenues from these tourist levies account for 12 to 40 percent of the operating costs of waste management in the Caribbean SIDS (UNEP 2019b).

Kiribati and Palau have even introduced deposit-refund schemes for beverage containers, including but not limited to plastic containers. In Palau, this scheme has been very effective since 2013 and is financially self-sustaining. As result, 4,000 tons of beverage containers were recycled and not disposed of on landfills in Palau. Nowadays, beverage containers and household waste bins have almost disappeared from the environment. In addition, the scheme generated income for informal waste pickers and reduced environmental damage and costs of plastic pollution in the fishery and tourism sector (UNEP 2019b; EIA 2020b).

In addition to the adoption of policies and regulations, some SIDS have started to improve their waste management systems, in particular recycling which however is generally still relatively underdeveloped. In Trinidad and Tobago, the waste collection, sorting and recycling capacities were expanded. In addition to waste transfer



stations and recovery facilities, it operates a facility that recycles all kinds of waste, including beverage containers. The heart of this facility is a plant that washes polyethylene terephthalate (PET) bottles and processes them so that the recycled PET can be used for other products (UNEP 2019b). Barbados reduced waste being disposed on landfills, including plastic waste, by 70 percent through the establishment of an integrated transfer and recovery facility where the different waste streams are separated and then recycled (UNEP 2019b). Municipalities in Tonga installed more than 150 collection points for recyclable materials and waste and commissioned a private company to collect and recycle the waste. However, due to the lack of more recycling licenses and accompanying policies, recyclable materials are still disposed of in landfills (EIA 2020b).

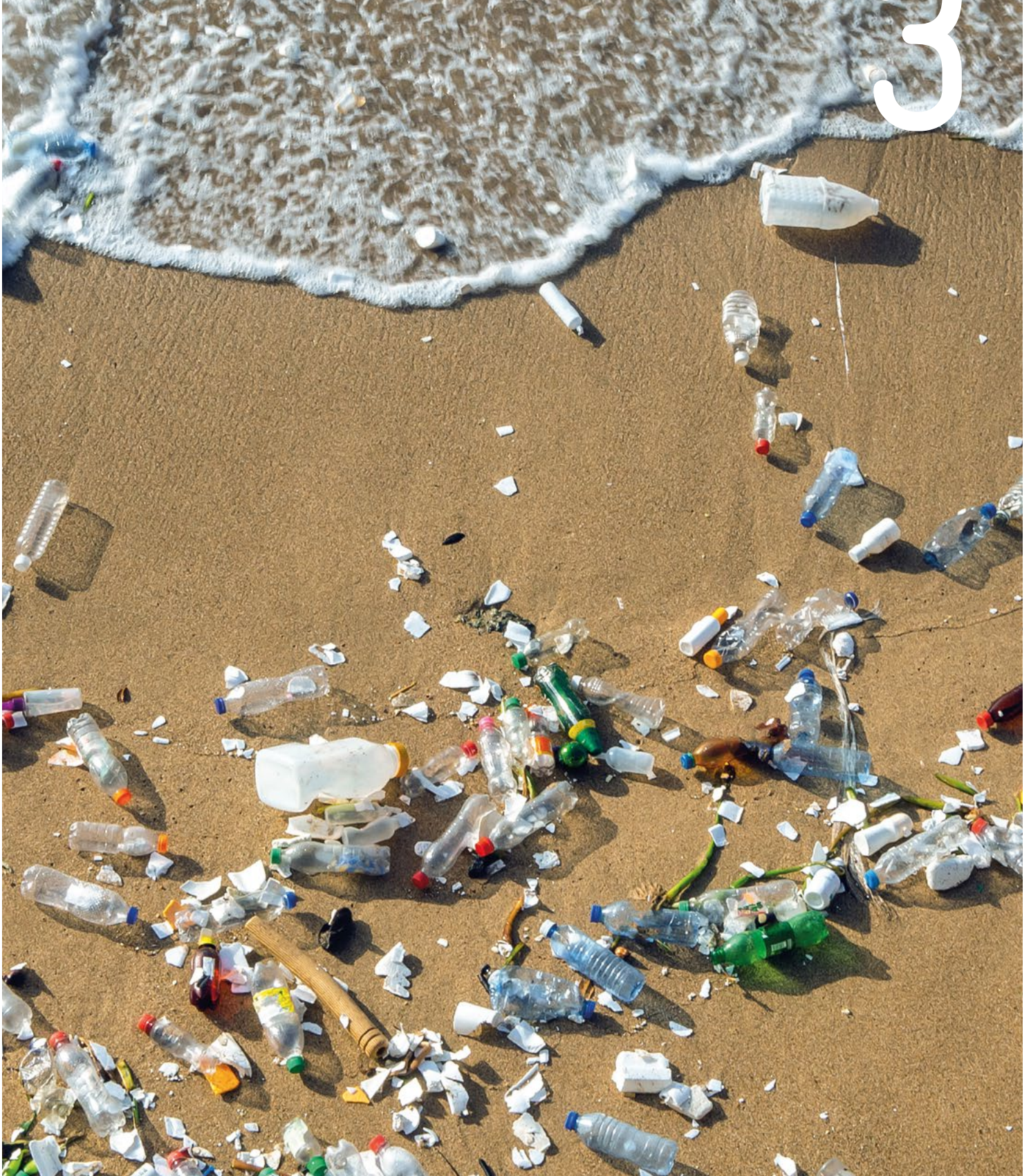
Despite the significant progress made over the last decade, the overall evaluation of these policies and regulations is mixed. First, the policies, regulations and actions just described hardly address the

broader issue of waste management. If they do, they tend to focus on waste collection and treatment issues and lack a comprehensive approach, that includes waste prevention through reuse, recycling, recovery and return schemes (UNEP 2019b; EIA 2020b). Moreover, they often target macroplastics or marine debris (EIA 2020b). Second, more policies and regulations are needed that promote the reuse of plastics and divert plastic waste streams from landfills or dumping (UNEP 2019b). Third, pricing mechanisms that go beyond taxes, levies and fees like Extended Producer Responsibility (EPR) schemes still need to be developed, adopted and implemented in SIDS (UNEP 2019b). Fourth, and finally, major gaps remain, in particular regarding measures that target plastic pellets, including micro- and nano-plastics, that seek to improve the reusability and recyclability of plastic products, and that contribute to the recovery of abandoned, discarded or lost fishing gear (UNEP 2019b; EIA 2020b).



# Challenges of SIDS in combating plastic pollution

3





SIDS are confronted with several, often interrelated challenges when it comes to reducing plastic pollution. These in turn contribute to or are a consequence of the overall plastic pollution situation in SIDS.

**A disadvantageous combination of demographic, geographical and economic characteristics makes the necessary improvements in waste management in many SIDS relatively or even prohibitively expensive and difficult to achieve**

In many SIDS, improvements of waste management systems are necessary since they often cannot keep up with the growing volumes of plastic waste (see above). Several geographic and demographic characteristics considerably increase these costs for most SIDS to higher levels than in other countries. In many SIDS, the consequences of these high costs are amplified by the relatively poor economic and financial conditions. UNEP describes these costs as a “major hindrance to progress” in the management of plastic waste or of waste in general (UNEP 2019b: 72). Two geographic characteristics contribute to the relatively and in some cases prohibitively high costs for effective waste management that also shy away private actors to invest in and maintain waste management operations (UNEP 2015).

First, the generation of plastic waste in SIDS is geographically spread across many different, often isolated small islands, with considerable and often vast distances between the islands of a single SIDS. The geographical dispersion of islands and their waste generating populations makes the collection and treatment of all kinds of waste often extremely difficult in terms of logistics and transportation (Lachmann et al. 2017; EIA 2020b). As a result, access to and provision of regular waste collection and sorting is often severely limited in many SIDS (EIA 2020b). Equally important, the geographical dispersion also considerably increases the costs for waste collection and, consequently, for waste treatment (UNEP 2019b).

Second, many SIDS are geographically highly isolated and located in far distance from global markets. This isolation makes equipment and technologies for proper waste management systems and operations more expensive as transportation distances to many SIDS are very long and transportation costs are correspondingly higher (UNEP 2019b; Agamuthu and Herat 2014). In addition, recyclable plastic waste often has to be exported outside the SIDS. Due to the currently very low prices for recycled materials on world markets, such exports are however often hardly cost-efficient or cost-covering and often cause prohibitively high costs (UNEP 2019b; Lachmann et al. 2017).

The cost implications of these geographical characteristics are aggravated by two factors.

On the one hand, demographic factors further reduce prospects for establishing effective, cost-efficient and cost-covering waste management systems. The populations of many SIDS are relatively small in size and the population density is relatively low, either overall or on individual islands (Lachmann et al. 2017). The resulting low quantities of waste limit the prospects for sufficient and cost-reducing economies of scale at local and, depending on the SIDS, at national level (GEF 2019; UNEP 2015; Agamuthu and Herat 2014). Under these conditions, the prospects for competitive domestic markets for recyclable materials are severely limited (UNEP 2019b).

On the other hand, the poor overall financial and economic situation in many SIDS further increases the hurdle to set-up and operate effective waste management systems. This is particularly true for the nine SIDS that are classified as least developed economies by the UN and/or as heavily indebted poor countries by the World Bank and the International Monetary Fund. It is also likely to apply to six more SIDS that are classified as lower middle-income countries by the World Bank. In other words, almost half of all SIDS are likely to struggle with the costs and investments required to improve their waste management systems.

Against this background, it is hardly surprising that many SIDS report insufficient funding as one of the key challenges in setting up and operating an effective waste management system (EIA 2020b). UNEP estimates that the expenditures for waste management in SIDS will have to at least double if waste shall be effectively diverted from landfills into other, more sustainable end-of-life treatment options (UNEP 2019b).

Finally, improvements of waste management are complicated by the limited availability of appropriate land areas for the establishment of proper landfills. This is one of the major reasons why plastic waste is still often disposed of in uncontrolled landfills or open dumpsites (Lachmann et al. 2017). In general, landfills pose significant challenges for the land-use planning in SIDS. On the one hand, many SIDS lack appropriate flat land areas close to areas where plastic waste is generated (UNEP 2015). Customary land tenures and local resistance when landfills are planned close to neighborhoods following “Not in My Backyard” positions aggravate this situation (Agamuthu and Herat 2014). On the other hand, the availability is limited by the small size of the islands (UNEP 2015).

**Waste prevention as effective means to reduce plastic pollution is largely beyond the control of SIDS**

Instead of investing in the improvements of waste management systems, SIDS could of course try to reduce plastic pollution by preventing the generation of plastic waste in the first place. This is typically considered the most effective approach to reduce plastic pollution and called for by scientists and activists (Simon et al. 2021; Bergmann et al. 2022; EIA 2020b). Also, UNEP considers waste prevention of “paramount importance” in SIDS (UNEP 2015: 44). In SIDS, however, this approach is difficult, if not impossible for one major reason. The vast majority of actors in the upstream of the plastics life cycle that would need to be targeted by such an approach operate outside their jurisdictions (Stöfen-O’Brien et al. 2022).

Two main approaches exist to prevent the generation of plastic waste at its source. Most importantly, the production of virgin fossil fuel-based plastic (polymers) could be reduced or even capped. To this end, measures would need to target economic actors in the upstream of the plastic value chain, namely oil, gas and petrochemical companies. Although a total of eleven SIDS have oil and gas producing companies within their jurisdictions, their contribution to the world production is hardly worth mentioning (see above). Neither are petrochemical companies operating at larger scales in SIDS, except for Singapore.

In addition, plastic waste prevention might be achieved through improved and more sustainable designs of plastic products, increasing their reusability, recyclability or recoverability. This is another key instrument to prevent plastic pollution at the source and in the first stage of the plastics life cycle (Simon et al. 2021; Raubenheimer and Urho 2020; Rognerud et al. 2021). Product design lies however in the responsibility of plastic manufacturers, which process plastic pellets into plastic products, and/ or consumer companies, typically large multi-national brands. Nevertheless, and comparable to plastic production, no meaningful plastic manufacturing takes place in SIDS, again with the only exception of Singapore (see above). In fact, the value of imported plastic products in most SIDS by far outweighs the value of imported polymers that can be used for the domestic manufacturing of plastic products. According to the UN Comtrade database, imported plastic products in most SIDS account for more than 90 percent of the aggregate value of imported plastic products and imported polymers. Targeting domestic plastic producers and/ or manufacturers on SIDS would therefore have negligible effects at best.

Moreover, most of the plastic waste that SIDS have to struggle with is sea-bound. After entering the oceans somewhere else and floating in ocean currents, it is eventually washed ashore their coastlines (see above). This source of plastic pollution is obviously beyond the direct regulatory control of SIDS.



Against this background, the adoption of specific policies and regulations, such as bans (and tariffs or fees) that restrict or prohibit the imports of certain plastic products into SIDS, is here considered the best option SIDS have to prevent plastic waste (EIA 2020b). Also, targeting the tourism sector is an effective means to cope with largely “imported” plastic pollution (UNEP 2015). Such measures help to prevent and reduce the amount and range of plastics entering SIDS from outside (EIA 2020b). However, their effects are hampered by another challenge that SIDS face: weak implementation and enforcement.

**Implementation and enforcement of national policies and regulations to reduce plastic pollution is often weak**

While many SIDS adopted national policies and regulations to reduce plastic pollution, they often struggle with the effective implementation and enforcement of these policies and regulations (UNEP 2019b). Three major barriers to more effective implementation and enforcement have been identified.

First, SIDS often lack governance capacities and financial resources for the ongoing and continuous implementation and enforcement of their waste-related legislation (UNEP 2019b; Agamuthu and Herat 2014).

Second, coordination among responsible actors is oftentimes weak and competing priorities among government officials impair a more consequential implementation and enforcement. Coordination across and between levels is however important since an effective implementation and enforcement of waste management depends on appropriate actions and decisions by numerous actors from the private and public sector as well as civil society at different levels from national to municipal (UNEP 2019b).

Third, and somewhat related to the first two barriers, the low levels of expertise in waste management among both operators as well as government officials pose a major challenge to implement and enforce the provisions (GEF 2019). This prevents, for example, the effective supply of management services by operators (UNEP 2019b). Moreover, monitoring and control skills are missing (UNEP 2019b).

**In many SIDS, technologies to improve waste management are unavailable or unsuitable**

Technologies are critical to improve the waste management not only in SIDS but in many other countries that seek to manage the increased plastic waste quantities in a (more) sustainable way after their use. In particular recycling technologies are important in this regard. Yet, such technologies are either unavailable in SIDS or unsuitable. This poses a significant challenge to SIDS in their attempts to cope with the increasing amounts of plastic waste (GEF 2019).

There are three reasons why technologies are often unavailable or unsuitable in SIDS. First, the transport and shipping costs of such technologies to remote and isolated islands can be prohibitively high, in particular for those SIDS that in addition struggle with relatively poor economic and financial conditions (see above). Second, even if SIDS can afford and are willing to bear the higher costs, the application of recycling technologies is often not a cost-efficient option for them because they lack economies of scale. This applies in particular to those SIDS that are characterized by small and sparse population (see also above). For example, waste-to-energy or other waste-to-resource technologies are considered unsuitable for many Pacific SIDS, amongst other because they usually operate most efficiently only at larger scales (EIA 2020b; Lachmann et al. 2017). Third, waste management technologies need to be operated and maintained. This often requires a relatively high level of technical knowledge, which is however often missing in SIDS (UNEP 2019b; Agamuthu and Herat 2014), making it difficult to operate and maintain technologies effectively.

**In many SIDS, data and knowledge on plastic waste streams is lacking and impairs effective interventions to reduce plastic pollution**

Any effective intervention to reduce plastic pollution depends on knowledge about where to apply the lever. Data and knowledge on waste in general and plastic waste in particular is however largely missing in SIDS.

In particular, most SIDS lack regular data on the type, quantity, characteristics, trends, sources and fate of (plastic) waste (UNEP 2019b). This prevents a proper assessment of the extent of plastic pollution in SIDS (see above) and the determination of where plastic pollution can be best addressed (IUCN 2020). This lack is due to three factors (UNEP 2019b): First, most SIDS do not yet conduct environmental monitoring, let alone waste monitoring. Second, harmonized methods of data collection have not been agreed upon and third, many SIDS lack basic technologies to monitor and assess waste streams.

# Needs and opportunities of SIDS in the context of a global agreement on plastic pollution

# 4



Based on the preceding analysis of plastic pollution, plastic governance and the challenges of SIDS in reducing plastic pollution, several core needs of SIDS in the combat of plastic pollution can be identified.

**SIDS would benefit from a global agreement that facilitates and supports a transition towards a more circular global plastics economy**

1. The amount of plastic waste that is washed ashore the coastlines and beaches and floating in the territorial seas needs to be reduced.
2. Collection and treatment of plastic waste need to be upgraded, broadened and expanded.
3. Economically viable solutions for waste collection and treatment need to be supplied and deployed.
4. Waste prevention needs to be prioritized.
5. Suitable and affordable waste management technologies need to be made available, including related capacities.
6. Implementation and enforcement of existing legislation, strategies, policies and regulations need to be strengthened, including related capacities.
7. Funding of and investments into prevention and management of plastic waste need to be secured and sustained.
8. Monitoring and assessment of plastic pollution needs to be improved.

On top of national efforts and unilateral actions in SIDS, a global agreement on plastic pollution might provide opportunities for SIDS to address these needs. Ultimately, this depends however on the actual provisions of the global agreement, which cannot be predicted. Nevertheless, it is possible to specify which provisions would be helpful for SIDS to address plastic pollution, and to speculate on the prospects of such provisions eventually being integrated into a global plastics agreement. Against the background of the core needs of SIDS in combating plastic pollution, three main (sets of) provisions stand out.

SIDS essentially and generally need a global agreement that, in one way or another, prevents, reduces or limits the amount of plastic waste that is entering and floating the oceans and ultimately ending up and polluting their coastlines and beaches. In fact, any meaningful reduction of plastic pollution in SIDS largely depends on such an agreement given that most of the plastic pollution in SIDS originates outside their territories and is beyond their direct control (see above). In the context of a global agreement, there are two basic options in this regard.

On the one hand, the agreement might contain provisions on improving capacities at the end-of-life stage of plastics, that is the management and disposal of waste in an environmentally sound manner so that less waste leaks into the terrestrial and marine environments. Such measures would also include ocean clean-ups. The UNEA resolution on the mandate for the INC mentions “environmentally sound waste management” as one aspect that should be considered in the negotiations in order to promote the sustainable production and consumption of plastic products (UNEP 2022b). However, it is expected that with plastic production increasing and projected to increase in the coming years, focusing only on waste management and disposal is unlikely to effectively reduce plastic pollution (Borrelle et al. 2020).

Instead, there is broad consensus among scientists, policymakers, stakeholders and activists that to effectively reduce plastic pollution in the oceans, comprehensive approaches are needed that facilitate a transition towards a more circular global plastics economy and that address the entire life cycle of plastics (Simon et al. 2021; Raubenheimer and Urho 2020; PEW 2020; EIA et al. 2020; BMU 2021). In the UNEA resolution governments explicitly refer to “circular economy approaches” and decide that the INC “is to develop an international legally binding instrument on plastic pollution, [...], based on a comprehensive approach that addresses the full lifecycle of plastic” (UNEP 2022b). In other



words, the global agreement may include such approaches as they are not excluded a priori by the formulation of the negotiation mandate.

Circular economy approaches aim at facilitating a plastic economy in which plastic and plastic products are kept and circulate in the system, while their disposal of as waste would rather be the exception than – like nowadays – the rule. While there are many specific measures that might be used to promote a more circular global plastics economy and thus might be included in the global agreement, four key measures currently dominate the public and scientific debate:

1. A cap on and progressive reduction of virgin plastic production, obliging companies to produce less and fewer virgin polymers
2. Targets for reusability and/ or recyclability of plastic products, obliging states or companies to increase the share of reusable and re-used as well as recyclable and recycled plastics and plastic products
3. EPR schemes for plastic products, obliging producers to collect and manage their plastic products after use and/ or to bear the related costs
4. Sustainability standards for plastic products, defining international and environmentally sound criteria for reusability and recyclability of plastic products as well as for additives in plastic products

None of these measures is mentioned in the UNEA resolution (UNEP 2022b). The resolution generally and vaguely speaks of the need to “specify the objectives of the instrument” (UNEP 2022b). Overall, this leaves considerable room for any goal or target to be negotiated and agreed upon by states. This may turn out as advantage but can also provoke substantial debate. Seen from the perspective of SIDS, the cap and targets would yield the greatest benefits since they directly target and impact the quantities of plastic and plastic products that are put on the market and/ or end up as waste, inside or outside their territories. Moreover, the more specific, measurable and ambitious the cap or target, the more SIDS would benefit from the global agreement.

Yet, the cap and targets are also the measures that are likely to meet fierce opposition in the negotiations on the global plastics agreement. Depending on the ambitions of the cap or targets, they might substantially reduce the market size for virgin plastics and new plastic products, thus jeopardizing the economic prospects of companies in the upstream sector, above all plastic producers and manufacturers. In particular, states where the upstream sector is economically important and businesses fear market losses will most likely resist such measures. This includes such powerful states like China and the US that rank first and second in the global production of virgin polymers and plastic products alike (in 2019). With Singapore, it also includes a SIDS that ranks sixth in the global trade with polymers (in 2020). Finally, and since virgin plastic production uses fossil fuels, it includes Russia, Saudi-Arabia, Canada, Iraq, Iran, the United Arab Emirates and Brazil that were among the top-ten oil-producing countries in 2020. Even if states do not resist, the upstream sector gathers large multi-national companies with considerable resources, like Dow, ExxonMobil, SABIC and BASF, to name just a few, with revenues ranging between US\$ 39 and 279 billion.

The resistance from these states and/ or companies is even more likely given that many of these states and companies and their fossil fuel-based economies or business models are already under severe regulatory pressure through international climate policy.

EPR schemes might also face resistance. Yet, in many cases companies simply shift the additional costs of collecting and managing plastic products onto consumers and thus have no immediate economic disadvantage.

**SIDS would benefit from a global agreement that creates valuable and profitable after-use markets for plastic products**

SIDS need a global agreement that helps them in overcoming their challenges in waste management as well as in securing and sustaining funding into prevention and management of plastic waste. Even if the global agreement effectively reduces the amount of plastic waste entering the oceans and ending up on the shores of SIDS, zero plastic pollution will not be achieved. Instead, plastic waste will continue to be generated outside and inside the SIDS. This waste needs to be managed, let alone the legacy plastic waste that is already in the oceans and will be washed ashore the coastlines of SIDS in the coming decades. Again, two options exist.

On the hand, parties could agree to establish and fund a financial mechanism that provides financial support to SIDS (and other countries in need) in setting up and operating effective waste management systems. It is remarkable in this context that the UNEA resolution mentions the most far-reaching option as worthwhile for consideration (UNEP 2022b): an independent financial mechanism (like the Multilateral Fund for the Montreal Protocol that is governed by an independent body and rests on mandatory contributions). Yet, given the general reluctance of states to set up new institutions, the establishment of such an independent financial mechanism is rather unlikely (Busch et al. 2022). Moreover, experiences, for example with states' pledges to fund climate policies, show that the actual provision of resources often remains insufficient and falls behind expectations or promises. Nevertheless, any dedicated financial mechanism of some kind would benefit SIDS in two ways. It could at least provide some direct funding to states in need. In addition, it could facilitate access to existing financial resources from multi- and bilateral donors and assist in applying for these resources (Busch et al. 2022; Busch 2022).

On the other hand, the parties could agree on provisions that create valuable and profitable after-use markets for recovered and recycled plastic products at regional and global level. The cost-benefit ratio in SIDS to collect and recycle plastic waste could then be improved and become economically viable. This in turn could facilitate and stimulate the necessary investments into waste collection and treatment services and could also make waste management technologies affordable. Overall, this could lead to an upgrade and expansion of plastic waste management systems, ultimately leading to a cost-efficient reduction of plastic pollution. In addition, it is expected that the effective creation of such markets through a global agreement de-risk the necessary investments into waste collection and treatment to an extent that it attracts substantial and much needed and demanded investments from private actors (Busch et al. 2022; Busch 2022).

In the context of the global agreement, this can be achieved through measures that increase the prices for virgin plastics and new plastic products so that prices for recovered and recycled plastic and re-usable plastic products become competitive. To this end, several of those instruments that promote a more circular plastics economy can be used, namely a cap on and progressive reduction of virgin plastic production, targets for reusability and/or recyclability of plastic products and sustainability standards for plastic products. If set at the right level, the caps and targets could ultimately make virgin plastics and new plastic products more expensive than recovered and recycled plastic and re-usable plastic products. Sustainability standards for plastic products could ease the re-usability, recyclability and recoverability of plastic and plastic products so that the related costs decrease. Other measures that contribute to such shifts in prices include taxes on virgin plastics or tax differentiation between more and less sustainable plastics and plastic products. The global introduction of such fiscal instruments is also discussed in the current debate (Busch et al. 2022).

Yet, these measures are again likely to meet substantial resistance from states where the upstream sector is economically important and businesses fear market losses, for the same reasons that were outlined above.

**SIDS would benefit from a global agreement that promotes and builds institutional, political and technical capacities and improves expertise and knowledge on plastic pollution**

SIDS need a global agreement that helps them in improving their plastic governance. The effectiveness of any global agreement obviously depends on the capacity and ability of its parties to implement related activities that many SIDS are however lacking. Several options are typically included in any global agreement to strengthen the institutional, political and technical capacities of states and improve expertise and knowledge on plastic pollution. These might also benefit SIDS in the context of the global agreement on plastic pollution.

1. National inventories and assessments of sources, pathways and impacts of plastic pollution
2. National strategies and action plans on plastic pollution and/or more generally on waste
3. Capacity building mechanisms
4. Financial mechanisms

The UNEA resolution refers to all these options as worthwhile for consideration in the negotiations.

As regards national inventories and assessments, UNEA made two important decisions. The resolution on the INC mandated states to “negotiate provisions on scientific and socio-economic assessments related to plastic pollution” and recommends considering the “possibility of a mechanism to provide policy relevant scientific and socio-economic information and assessment related to plastic pollution” dedicated to a sci-

ence-policy interface (UNEP 2022b). This interface could support SIDS in preparing and conducting national inventories and assessments, like the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) does and gather and provide the necessary data and knowledge on sources, pathways and impacts of plastic pollution in their specific context, thereby identifying promising targets of policy interventions. Such an interface can also conduct more general and much needed regional and global assessments on plastic pollution (Busch et al. 2021). In addition, states adopted at the UNEA 2022 another resolution of potential relevance on “Science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution”. This resolution paves the way for an intergovernmental and independent global science-policy interface, similar to Intergovernmental Panel on Climate Change (IPCC) and IPBES, with the goal to “contribute further to the sound management of chemicals and waste and prevent pollution”. Such a panel could also operate as science-policy interface in the context of the global agreement on plastic pollution.

As regards national strategies and action plans, the resolution encourages negotiating parties to include provisions that “promote national action plans to work towards the prevention, reduction and elimination of plastic pollution” and to “develop, implement and update national action plans reflecting country-driven approaches to contribute to the objectives of the instrument”. In the context of SIDS, such strategies and national action plans are considered important and necessary, but often missing pillars for improvements in the combat of plastic pollution (UNEP 2019b). The inclusion of “elimination” in the formulation renders possible negotiations about relative ambitious strategies and plans.



As regards capacity-building mechanisms, which are the cornerstone of almost every multilateral environmental agreement, the UNEA resolution describes them extensively and in detail. SIDS could benefit from such a mechanism in several ways. To name the most important ones, they could receive support in;

- › the formulation, implementation and enforcement of effective domestic policies to reduce plastic pollution, including policies to raise the much-needed financial resources from domestic (and private) sources (Busch et al. 2022);
- › the establishment of appropriate institutions, such as dedicated authorities for plastic waste management (Simon et al. 2021) or coordination bodies (EIA 2020b) at national or regional levels;
- › the supply, operation and maintenance of suitable waste management technologies; or
- › the development and improvement of relevant technical, administrative and political expertise.

As regards the financial mechanism, the resolution on the INC mandate opens the possibility to establish a dedicated and independent financial mechanism (see above). SIDS could benefit from the basic function of financial mechanisms under a global agreement. This is typically and primarily financial support for measures that assist states in meeting their obligations, as actions and activities that support the compliance with commitments agreed under the agreement. If sufficient financial resources are made available, the financial mechanism can also help SIDS in setting up and operate effective waste management systems (see above).



Options for SIDS to voice  
their interests and needs in negotiations  
of a global plastics agreement

5





In principle, SIDS have two options to effectively voice their interests and needs in the upcoming negotiations of a global plastics agreement: building coalitions with like-minded actors and developing and implementing a common strategy of influence.

**SIDS can leverage their influence in the negotiations by building coalitions and alliances with like-minded states and stakeholders**

In the negotiation of any multilateral environmental agreement, individual SIDS have often to struggle with their relative minor economic and political weight as well as their limited negotiation capacity when compared to other states. The best option for SIDS to overcome the lacking political and economic leverage and to meet the capacity challenges of multilateral negotiations is the formation of coalitions and alliances. This has already proven successful for SIDS during international climate negotiations (Betzold et al. 2012) where SIDS are generally considered to have had a disproportionate large influence on the process and outcomes when considering their actual political and economic clout (Ourbak and Magnan 2018). A coalition only among SIDS, for example, enables them to bring in their combined political and economic weight and to pool their resources during the negotiations. Moreover, it increases the probability that talented negotiators with suitable diplomatic and political skills represent the SIDS in the negotiations of the global plastics agreement.

In addition to other SIDS, potential partners for such coalitions and alliances are on the one hand states that face similar challenges in the combat of plastic pollution and that pursue similar interests and goals in the negotiations of the global plastics agreement, including but not limited to other developing and least developed countries, for example in the G77. That such coalitions and alliances are possible is shown, for example, by the broad support of the Ocean Day Plastic Pollution

Declaration made by the chair of Alliance of Small Island States (AOSIS) during the UN General Assembly Debate in June 2021. It was signed by more than 70 states (AOSIS 2021a, 2021b). In general, AOSIS appears to be the most promising institutional location for such a collation, as it was established and continues to address and represent the concerns of SIDS on environmental and climate change matters within the UN system (Ourbak and Magnan 2018). It also significantly contributed to the influence of SIDS in the international climate negotiations. Moreover, that such coalitions and alliances are possible is also shown by the reference to the special needs of SIDS in the ministerial statement that was adopted at the Ministerial Conference on Marine Litter and Plastic Pollution in Geneva (and hybrid) in September 2021. It was endorsed by more than 70 states and the European Union, including many important developed countries with more political and economic weight in multilateral negotiations. These already existing signs of multi-stakeholder support also opens the possibility for individual SIDS or groups of SIDS to partner with other important negotiation blocs in the context of the global plastic agreement.

Other potential partners for such coalitions and alliances are on the other hand civil society actors and scientific communities that share and support the causes of SIDS. Such coalitions may operate as advocacy groups for the interests and positions of SIDS outside the actual negotiations, for example by influencing the discourses on plastic pollution and the needs of SIDS in the context of a global plastics agreement. They may also provide support to SIDS in the actual negotiations through political, technical and legal advice. Such alliances and their different functions are seen as one important reason for the influential role of SIDS in the international climate negotiations (Betzold 2010). Such an alliance already exists among Pacific SIDS. It brings together ten states<sup>3</sup> and five organizations from civil society and science<sup>4</sup> (EIA 2020b).

<sup>3</sup> Fiji, Papua New Guinea, Solomon Islands, Vanuatu, Samoa Tonga, Tuvalu, Kiribati, Marshall Islands and Palau.

<sup>4</sup> Centre for International Environmental Law, World Wildlife Fund Pacific, International POPs Elimination Network



SIDS can leverage their influence in the negotiations by developing and implementing a common strategy to influence the discourse and negotiations of the global plastics agreement

However, the mere formation of a coalition or alliance will not be sufficient. In order to effectively voice their interests, it would be beneficial for SIDS to develop and implement a joint and promising strategy, either individually and/or as part of a coalition and alliance, in the negotiations on the global plastics agreement and related discourses. In case of the international climate negotiations, the development and implementation of a compelling strategy is seen as a major factor that contributed to the disproportionate influence of SIDS. Most importantly, it enabled SIDS to speak with one solid, distinguished, and noticeable voice.

According to analyses of the SIDS' role in these negotiations, several factors contribute to the success of such a strategy (Betzold et al. 2012; Rasheed 2019; Águeda Corneloup and Mol 2014). They can serve as orientation for a comparable strategy in the negotiations of a global plastics agreement. SIDS would benefit from

- › arriving at a common problem definition;
- › defining common interests and positions in the combat of plastic pollution;
- › agreeing on basic norms and principles to which they refer;
- › agreeing on goals and targets that they want to achieve;
- › developing a joint narrative or storyline that furthers their goals and interests inside and outside the actual negotiations;
- › developing and submitting concrete proposals and initiatives in the negotiations; and
- › leading by example and showing commitment through the unilateral adoption and implementation of domestic measures that target plastic pollution.

While the first five elements enable SIDS to speak with one voice in the negotiations and related discourses, the last two elements (Betzold et al. 2012) serve to gain and increase credibility and legitimacy.

The actual starting point and basis for such a strategy might be to highlight the disproportionate effects of plastic pollution on SIDS and the specific vulnerability of SIDS to the effects of plastic pollution. In the preceding analysis of scope, sources and impacts of plastic pollution in SIDS, both aspects were identified as urgent matters in most SIDS. The strategy might also include strong references to the principle of common but differentiated responsibilities and the polluter-pays principle, as SIDS suffer significantly from plastic pollution while contributing only little to it. The use of such a narrative has been shown to significantly increase the influence of SIDS in the international climate negotiations.

In addition, such a strategy might include several actions that contribute to building momentum and raising awareness, thereby indirectly influencing the course of negotiations and related discourses. In this regard, SIDS might benefit from

- › organizing dedicated meetings prior to the INC meetings, for example high-level meetings such as the Ministerial Conference or side-events at related multilateral processes;
- › formulating, adopting and communicating common declarations/statements on the negotiations as such or specific aspects, also involving like-minded stakeholders where possible; and
- › using media and other campaigns, for example to raise awareness about the peculiarities of SIDS and plastic pollution.



# Summary of main findings



Overall, the analysis resulted in 18 key findings that are summarized below.

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### ❖ Scope and sources of plastic pollution in SIDS

1. SIDS are disproportionately affected by plastic pollution while they hardly contribute to the production and trade of plastics or plastic products.
2. Increasing amounts of domestic plastic waste aggravate sea-bound plastic pollution in SIDS while they are essential to their economies or challenging to mitigate.
3. Waste management systems often cannot keep up with the growing volumes of plastic waste.

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### ❖ Impacts of plastic pollution in SIDS

4. Overall, plastic pollution has negative impacts on terrestrial and marine environments, national economies, societies in general and human health, in SIDS and elsewhere.
5. The relatively poor and overwhelmed waste management in SIDS has significant impact on the environmental and health.
6. Plastic pollution threatens essential livelihoods and sources of income in SIDS, in particular the tourism and fishery sector.

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### ❖ Plastic governance in SIDS

7. The majority of SIDS have ratified, signed or acceded several global and regional instruments, protocols and conventions related to marine (plastic) pollution.
8. The majority of SIDS have formulated and adopted an increasing number of national policies and/or regulations that target plastic pollution.



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### ❖ Challenges of SIDS in combating plastic pollution

9. A disadvantageous combination of demographic, geographical and economic characteristics makes the necessary improvements in waste management in many SIDS relatively or even prohibitively expensive and difficult to achieve.
10. Waste prevention as effective means to reduce plastic pollution is largely beyond the control of SIDS.
11. Implementation and enforcement of national policies and regulations to reduce plastic pollution is often weak.
12. In many SIDS, technologies to improve waste management are unavailable or unsuitable.
13. In many SIDS, data and knowledge on plastic waste streams is lacking and impairs effective interventions to reduce plastic pollution.

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### ❖ Needs and opportunities of SIDS in the context of a global plastic agreement

14. SIDS would benefit from a global agreement that facilitates and supports a transition towards a more circular global plastics economy.
15. SIDS would benefit from a global agreement that creates valuable and profitable after-use markets for plastic products.
16. SIDS would benefit from a global agreement that promotes and builds institutional, political and technical capacities and improves expertise and knowledge on plastic pollution.

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### ❖ Options for SIDS to voice their interests and needs in the negotiations

17. SIDS can leverage their influence in the negotiations by building coalitions and alliances with like-minded states and stakeholders.
18. SIDS can leverage their influence in the negotiations by developing and implementing a common strategy to influence the discourse and negotiations of the global plastics agreement.

# Annex I:

## Policies and regulations specifically related to plastic pollution in SIDS



Country	Policy	Product type		Year
Antigua and Barbuda	Ban	Several single-use plastic products	Prohibition of import, distribution, sale and use of shopping plastic bags	2016
	Ban	Styrofoam food service products	Prohibition of import and use	2017
Bahamas	Ban	Single use plastic food ware Non-biodegradable, etc. single use plastic bags	Prohibition of import, distribution, manufacture, sale and use	2020
Bahrain	Ban	Plastic waste	Prohibition of imports of plastic waste of all kinds	2019
Barbados	Ban	Plastic bags, single-use plastic containers, cutlery, straws	Prohibition of manufacture, distribution, import and use	2019
Belize	Ban	Single-use plastics	Prohibition of import, manufacture and sale	2020
Cabo Verde	Ban	Plastic bags for packaging	Prohibition of production, import, marketing and use	2015
Fiji	Ban	Plastics	Prohibition of discharge from ships within Fiji waters	2013
	Fee	Plastic bags	Environment and Climate Adaptation Levy on plastic bags	2017
	Ban	Polystyrene products	Prohibition of manufacture, sale, supply and distribution	2020
	Tariff	Single-use or non-recyclable plastics	Tariff on import	2006
Grenada	Ban	Non-biodegradable products, including single-use plastic bags	Prohibition of manufacture, import, sale and use	2018
Guinea-Bissau	Ban	Plastic bags	No further information available	n.a.
Guyana	Ban	Expanded polystyrene products	Prohibition of import, manufacture and sale	2015
Haiti	Ban	Food packaging and disposable polystyrene products	Prohibition of import, manufacture and sale	2012
Jamaica	Ban	Single-use plastic	Prohibition of import and distribution	2018
Kiribati	Fee	Plastic bags	No further information available	
	Deposit-refund	Beverage container	Fee on imports, passed onto consumer and then partially refunded upon return	2005
	Ban	Multiple plastic products	Prohibition of import	2019
Maldives	Phase-out plan	Single-use plastics	Phase-out until by 2023	2020
Marshall Islands	Ban	Multiple products	Prohibition of import, manufacture, sale or distribution of Styrofoam cups and plates, disposable plastic cups and plates, and plastic shopping bags	2016
	Fee	Beverage container	Fee on import and manufacture	2018
Mauritius	Ban	Plastic bags	Prohibition of import, manufacture, sale and supply	2015
Micronesia	Ban	Plastic bags	No further information available	
Nauru	Ban	Plastic products	Prohibition of disposal by burning	2020
Palau	Requirement	Multiple plastic products	Tour operators shall offer reusable alternatives to plastic water container, food containers and straws	2018
	Ban	Plastic products	Prohibition of import	2017
	Deposit-refund	Beverage containers	Fees finance recycling fund	2006
	Ban	Disposal plastic and polystyrene beverage containers	Prohibition of provision by government offices and agencies	2018



Country	Policy	Product type		Year
Papua New Guinea	Ban	Single-use plastic bags	Prohibition of issuing of permits and the import	2020
Samoa	Ban	Plastics	Prohibition of discharge of any plastics from all vessels in all locations	2008
	Partial ban	Plastic products	Prohibition of import of plastic products without license	2006
	Ban	Single-use plastic shopping bags, packing bags and straws	Prohibition of import, manufacture, export, sale and distribution	2018
São Tomé and Príncipe	Ban	Plastic bags	Prohibition of import, manufacture and distribution	2020
Seychelles	Import regulations	Bottles made of polyethylene terephthalate (PET)	If plastic bottles only PET bottles can be imported	2013
	Ban	Plastic bags and certain products with polyvinyl chloride	Prohibition of import	2014
	Ban	Styrofoam and polystyrene boxes and some plastic utensils	Prohibition of sale, manufacturing and import	2017
	Ban	Single-use plastic straws	Prohibition of sale, manufacturing and import	2019
Singapore	Ban	Plastic waste	Prohibition of discharge into the sea	2001
	Ban	Plastic bags	No further information available	
Saint Lucia	Fee	Plastic containers	No further information available	2008
	Ban	Styrofoam and plastic food service containers	Prohibition of import, manufacture, use, sale and distribution	2019
	Ban	Polyethylene bags	No further information available	2020
Saint Vincent and the Grenadines	Ban	Polystyrene food service products	Prohibition of import, manufacture and sale	2017
	Ban	Single-use plastic bags and certain plastic food containers	Prohibition of import, distribution, sale and use	2019
Timor-Leste	Ban and restrictions	Plastic bags, packaging and other plastic products	Prohibition or restriction of import, manufacture, distribution, sale and use	2020
Tonga	Levy	Plastic bags and containers	Levy on import	2013
Trinidad and Tobago	Ban	Polystyrene foam products	No further information available	2019
Tuvalu	Ban	Single-use plastic products	Prohibition of import	2019
	Fee	Plastic bottles and selected other plastic products	Levy on import	2019
Vanuatu	Ban	Single-use plastic bags, straws and polystyrene takeaway boxes	Prohibition of manufacture, use and import	2018

Source: <https://plasticpollutioncoalitionresources.org/resources/maps/>, Karasik et al. 2020, Egui 2021, UNEP 2021, EIA 2020a

# Bibliography

- ACMEN (African Ministerial Conference on the Environment) 2019: Report of the ministerial segment. AMCEN/17/9: African Ministerial Conference on the Environment (ACMEN).
- Agamuthu, Pariatamby and Sunil Herat 2014: Sustainable waste management in Small Island Developing States (SIDS). In: Waste management & research : the journal of the International Solid Wastes and Public Cleansing Association, ISWA 32:8, pp 681–682.
- Águeda Corneloup, Inés de and Arthur P. Mol 2014: Small island developing states and international climate change negotiations: the power of moral “leadership”. In: International Environmental Agreements: Politics, Law and Economics 14:3, pp 281–297.
- AOSIS (Alliance of Small Island States) 2021a: Launch of Ocean Day Plastic Pollution Declaration.
- AOSIS (Alliance of Small Island States) 2021b: 76 Nations sign Oceans Day Plastic Pollution Declaration Championed by Island.
- Barrowclough, Diana and David Vivas Eugui 2021: Plastic Production and Trade in Small States and SIDS. The Shift Towards a Circular Economy (International Trade Working Paper, 2021/01). London:
- Bergmann, Melanie; Bethanie Carney Almroth; Susanne M. Brander; Tridibesh Dey; Dannielle S. Green; Sedat Gundogdu; Anja Krieger; Martin Wagner and Tony R. Walker 2022: A global plastic treaty must cap production. In: Science 376:6592, pp 469–470.
- Betzold, Carola 2010: ‘Borrowing’ Power to Influence International Negotiations: AOSIS in the Climate Change Regime, 1990–1997. In: Politics 30:3, pp 131–148.
- Betzold, Carola; Paula Castro and Florian Weiler 2012: AOSIS in the UNFCCC negotiations: from unity to fragmentation? In: Climate Policy 12:5, pp 591–613.
- BMU (Federal Ministry for the Environment, Nature Protection and Nuclear Safety) 2021: Ministerial Statement. Adopted at Ministerial Conference on Marine Litter and Plastic Pollution.
- Borrelle, Stephanie B.; Jeremy Ringma; Kara Lavender Law; Cole C. Monnahan; Laurent Lebreton; Alexis McGivern; Erin Murphy; Jenna Jambeck; George H. Leonard; Michelle A. Hilleary; Marcus Eriksen; Hugh P. Possingham; Hannah de Frond; Leah R. Gerber; Beth Polidoro; Akbar Tahir; Miranda Bernard; Nicholas Mallos; Megan Barnes and Chelsea M. Rochman 2020: Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution. In: Science (New York, N.Y.) 369:6510, pp 1515–1518.
- Busch, Per-Olof 2022: Analysis of upstream economic opportunities from change in the plastics life-cycle. Unpublished manuscript: European Commission.
- Busch, Per-Olof; Maro Luisa Schulte and Nils Simon 2021: Strengthening the Global Science and Knowledge Base to Reduce (Marine) Plastic Pollution (TemaNord, 2021:519). Copenhagen, Denmark:

- Busch, Per-Olof; Maro Luisa Schulte and Florian Wintermeyer 2022: Global agreement to prevent plastic pollution. Exploring financing needs and opportunities (TemaNord, 2022:514).
- CARICOM (Caribbean Community) 2019: CARICOM Heads adopt St. Johns Declaration to address plastic pollution in Caribbean Sea: Caribbean Community (CARICOM).
- EIA (Environmental Investigation Agency) 2020a: Islands of Opportunity. Toward a Global Agreement on Plastic Pollution for Pacific Island Countries and Territories.
- EIA (Environmental Investigation Agency) 2020b: Plastic Pollution Prevention in Pacific Island Countries. Gap analysis of current legislation, policies and plans.
- EIA (Environmental Investigation Agency); CIEL (Center for International Environmental Law) and GAIA (Global Anti-Incinerator Alliance) 2020: Convention on Plastic Pollution. Toward a new global agreement to address plastic pollution: Center for International Environmental Law (CIEL).
- GEF (Global Environment Facility) 2019: Implementing Sustainable Low and Non-Chemical Development in SIDS.
- IUCN (International Union for Conservation of Nature) 2020: Plastic waste free islands. Retrieved 11 Jul 2022, from [https://www.greengrowthknowledge.org/sites/default/files/downloads/best-practices/pwfi\\_fact\\_sheet\\_2020-01-16.pdf](https://www.greengrowthknowledge.org/sites/default/files/downloads/best-practices/pwfi_fact_sheet_2020-01-16.pdf).
- Jambeck, Jenna R.; Roland Geyer; Chris Wilcox; Theodore R. Siegler; Miriam Perryman; Anthony Andrady; Ramani Narayan and Kara Lavender Law 2015: Marine pollution. Plastic waste inputs from land into the ocean. In: *Science* 347:6223, pp 768–771.
- Karasik, Rachel; Tibor Vegh; Zoie Diana; Janet Bering; Juan Caldas and Amy Pickle 2020: 20 Years of Government Responses to the Global Plastic Pollution Problem. The Plastics Policy Inventory.
- Lachmann, Florina; Bethane C. Almroth; Baumann; Henrikke; Göran Broström; Hervé Corvellec; Lena Gipperth; Martin Hassellöf; Therese Karlsson and Per Nilsson 2017: Marine plastic litter on Small Island Developing States (SIDS). Impacts and measures (Reports, 2017:3: Swedish Environmental Institute.
- McVeigh, Karen 2022: World leaders agree to draw up ‘historic’ treaty on plastic waste. In: *The Guardian*, 02 Mar 2022.
- Meijer, Lourens J.; Tim van Emmerik; Ruud van der Ent; Christian Schmidt and Laurent Lebreton 2021: More than 1000 rivers account for 80% of global riverine plastic emissions into the ocean. In: *Science Advances* 7:18.
- Nordic Council of Ministers for the Environment and Climate 2019: Nordic ministerial declaration on the call for a global agreement to combat marine plastic litter and microplastics. Retrieved 02 Jun 2020, from <https://www.norden.org/en/declaration/nordic-ministerial-declaration-call-global-agreement-combat-marine-plastic-litter-and>.
- Norwegian Government 2020: Group of Friends to Combat Marine Plastic Pollution. Concept Note: Norwegian Government.



- Ourbak, Timothée and Alexandre K. Magnan 2018: The Paris Agreement and climate change negotiations: Small Islands, big players. In: *Regional Environmental Change* 18:8, pp 2201–2207.
- PEW (The PEW Charitable Trust) 2020: Breaking the plastic wave. A comprehensive assessment of pathways towards stopping ocean plastic pollution: The PEW Charitable Trust.
- Rasheed, Athaulla A. 2019: Role of Small Islands in UN Climate Negotiations: A Constructivist Viewpoint. In: *International Studies* 56:4, pp 215–235.
- Raubenheimer, Karen and Niko Urho 2020: Possible elements of a new global agreement to prevent plastic pollution (TemaNord, 2020, 535). Copenhagen, Denmark: Nordic Council of Ministers.
- Rognerud, Idun; Eirik Hovland Steindal; Nandini Kumar and Valentina Elena Tartiu 2021: International Sustainability Criteria for Plastic Products in a Global Agreement on Plastic Pollution. Copenhagen, Denmark:
- SAPEA (Science Advice for Policy by European Academies) 2019: A scientific perspective on microplastics in nature and society (Evidence Report, No. 4). Berlin: Science Advice for Policy by European Academies (SAPEA).
- Schuhmann, Peter W. 2012: Tourist Perceptions of Beach Cleanliness in Barbados: Implications for Return Visitation. In: *Études caribéennes*.
- Simon, Nils; Doris Knoblauch; Linda Mederake; Katriona McGlade; Maro Luisa Schulte and Supriya Masali 2018: No more Plastics in the Ocean. Gaps in Global Plastic Governance and Options for a Legally Binding Agreement to Eliminate Marine Plastic Pollution (Discussion Paper,
- Simon, Nils; Karen Raubenheimer; Niko Urho; Sebastian Unger; David Azoulay; Trisia Farrelly; Joao Sousa; Harro van Asselt; Giulia Carlini; Christian Sekomo; Maro Luisa Schulte; Per-Olof Busch; Nicole Wienrich and Laura Weiand 2021: A binding global agreement to address the life cycle of plastics. In: *Science* 373:6550, pp 43–47.
- SPREP (Secretariat of the Pacific Regional Environment Programme) 2018: Pacific Regional Action Plan. Marine litter 2018-2025: Secretariat of the Pacific Regional Environment Programme (SPREP).
- Stöfen-O'Brien, Aleke; Kristal Kristene Ambrose; Kristie S. Alleyne; Tricia Allison Lovell and Roxanne E. Graham 2022: Parachute science through a regional lens: Marine litter research in the Caribbean Small Island Developing States and the challenge of extra-regional research. In: *Marine Pollution Bulletin* 174, p 113291.
- Tekman, Mine B.; Bruno Andreas Walther; Corina Peter; Lars Gutow and Melanie Bermann 2022: Impact of plastic pollution in the oceans on marine species, biodiversity and ecosystems.
- The Ellen MacArthur Foundation (EMF) 2020: UN Treaty. Retrieved 14 Oct 2020, from <https://www.ellenmacarthurfoundation.org/our-work/activities/new-plastics-economy/un-treaty>.
- UNCRD (United Nations Centre for Regional Development) 2019: State of Plastics Waste in Asia and the Pacific - Issues, Challenges and Circular Economic Opportunities.

- UNEP (United Nations Environment Programme) 2015: Global Waste Management Outlook.
- UNEP (United Nations Environment Programme) 2016: Marine plastic debris and microplastics. Global lessons and research to inspire action and guide policy change. Nairobi, Kenya: United Nations Environment Programme (UNEP).
- UNEP (United Nations Environment Programme) 2019a: Marine Litter: Guidelines for designing action plans.
- UNEP (United Nations Environment Programme) 2019b: Small Island Developing States. Waste Management Outlook.
- UNEP (United Nations Environment Programme) 2021: From Pollution to Solution: a global assessment of marine litter and plastic pollution.
- UNEP (United Nations Environment Programme) 2022a: Historic day in the campaign to beat plastic pollution: Nations commit to develop a legally binding agreement.
- UNEP (United Nations Environment Programme) 2022b: End plastic pollution: Towards an international legally binding instrument. UNEP/EA.5/Res.14.
- UNEP (United Nations Environment Programme) 2022c: Proposed approach to the work of the intergovernmental negotiating committee (INC) developing an international instrument on plastic pollution, including in the marine environment.
- UNEP (United Nations Environment Programme) 2022d: Wider Caribbean. Retrieved from [https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/wider?\\_ga=2.174754148.736113062.1652945222-575418893.1652551170](https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/wider?_ga=2.174754148.736113062.1652945222-575418893.1652551170).
- Wienrich, Nicole; Laura Weiland and Sebastian Unger 2021: Stronger together. The role of regional instruments in strengthening global governance of marine plastic pollution: Institute for Advanced Sustainability Studies (IASS).
- World Bank 2022: TCdata360. Travel and Tourism direct contribution to GDP.
- WWF (World Wildlife Fund for Nature); EMF (The Ellen MacArthur Foundation) and BCG (Boston Consulting Group) 2020: The business case for a UN treaty on plastic pollution.



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