

## DISCUSSION PAPER

### Proposed Regional Action Plan to Combat Marine Plastic Pollution in the area of the Nairobi Convention

Workshop version, July 2023

This Discussion Paper is one of two papers prepared for the Indian Ocean Commission as a part of the development of Regional Action Plans to Combat Marine Plastic Pollution in the Africa Indian Ocean Island States (AIODIS). The AIODIS are: Cape Verde, Guinea Bissau and São Tomé and Príncipe in the Atlantic/ West Africa region; and Comoros, France (Reunion), Maldives, Madagascar, Mauritius, and Seychelles in the Western Indian Ocean. Because marine plastic pollution is transboundary the scope of the proposed plans extends to both ocean basins and include the mainland Sub-Saharan countries.

The two Discussion Papers focus on the Atlantic Sub-Saharan Africa (the 'Abidjan Convention area') and the Western Indian Ocean (the 'Nairobi Convention area'). In accordance with AIODIS guidance, any follow-up actions are envisaged as linked the processes of the Regional Seas Conventions (Abidjan and Nairobi Conventions) and to related processes such as the UNEA 'plastics treaty', regional ocean governance, blue economy and circular economy initiatives.

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*The views expressed are those of the author and should not be taken to be the positions or opinions of any organization mentioned. The Discussion Paper has not been reviewed by the Indian Ocean Commission and is made available for discussion purposes only.*

prepared by

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## SUMMARY

### Development of the Proposed Action Plan

Two Discussion Papers proposing regional action plans to combat marine plastic pollution have been prepared for the West Africa/ Atlantic Sub-Saharan ocean region and for the Western Indian Ocean region.

The proposed regional action plans result from African Indian Ocean Developing Island States (AIODIS)<sup>1</sup> stakeholder's recommendations arising from the review of eight AIODIS country studies on marine plastic pollution. The stakeholders recognised the transboundary nature of plastic pollution and the need to engage with mainland countries to effectively combat marine plastic pollution (MPP) in their regional seas. For this reason, the scope of the work, which originally focused on the island countries, was extended to the mainland Sub-Saharan coastal countries in the Atlantic and Western Indian Ocean.

The Sub-Saharan coastal states have mandated the Regional Seas Conventions to address marine pollution and both the Abidjan Convention (West Africa) and the Nairobi Convention (Western Indian Ocean) have protocols on marine pollution. These Conventions have been used as the functional units for the preparation of the proposed action plans. The proposed action plans are also intended to inform the ongoing marine litter initiatives of the Conventions and regional dialogues on the emerging 'plastics treaty'.

The two discussion papers provide working drafts of two parallel and closely aligned regional action plans for the Abidjan Convention and the Nairobi Convention regions. The pillars and components of each proposed action plan are similar for several reasons. Some regional stakeholder institutions include countries in both ocean regions. Parallel plans can facilitate any possible future African continent-wide action plan and may potentially advance consensus in the 'Africa group' charged with the plastics treaty negotiations.

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*The work has been prepared as part of the World Bank/ GEF-financed regional SWIOFish2 project which is managed by the Indian Ocean Commission.*

### Rationale

1. Because of the transboundary nature of marine plastic pollution (MPP) and the plastics value chains, effective combat against MPP requires regional and global cooperation. This cooperation requires actions along the entire plastic value chain and plastics economy - from production and trade, through product development to consumer behavior and waste management. The proposed action plan is intended to support national plastics plans, or initiatives, and create opportunities for implementing actions at national and regional levels, including through the Regional Economic Commissions (RECs). The proposed action plan can also inform regional dialogues on the 'plastics treaty' negotiations.

### National strategies

2. National plastics plans or strategies are the basic building blocks of a regional strategy to combat marine plastic pollution. Some plans may have a narrow scope, such as targeting marine litter or single-use plastics. Others outline a more ambitious scheme to develop a sustainable plastics value chain and circular plastics economy. The national strategies generally recognize that:

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<sup>1</sup> The AIODIS countries are: Cape Verde, Comoros, France (Reunion), Guinea Bissau, Maldives, Madagascar, Mauritius, São Tomé, and Seychelles. Although the Maldives is part of the AIODIS group of countries it is not specifically included in this report as its political economy is more aligned to South Asia than Africa in relation to plastics and waste management. A country paper was not prepared for France (Reunion) as its 'plastic economy' is subject to EU regulation. The synthesis and country studies are available at: <https://www.commissionoceanindien.org/en/prevention-reduction-and-control-of-marine-plastic-pollution-in-african-and-indian-ocean-developing-island-states-aiodis/>.

- a) marine plastic pollution is part of a broader plastic pollution and waste management challenge
- b) plastics are essential in a modern economy, so that effective reduction of non-essential use of plastics and management of plastic waste is a growing necessity
- c) that fundamental changes in the behaviour of consumers, in the behaviour of the actors in the plastics value chain and in waste management practices and financing of solid waste management at national and municipal levels is required
- d) that economic factors are key drivers of reforms in plastics production, plastic use, and management of plastic waste across the plastic life cycle and value chains
- e) and that a combination of actions is required to combat plastic pollution along the plastic life cycle both at national level and through international cooperation.

3. National plastics management strategies and plans are tailored to the specific needs and capacity of each country - from large economies, where a circular economy is established, to small islands, where the volumes of plastic waste may be unable to create the economies of scale needed for reuse or recycling of many forms of plastic waste. Most national strategies or plans have the following common elements:

- f) improved knowledge of MPP and the plastics economy through monitoring of plastic trade, plastic pollution and the plastic economy
- g) public and private (or public-private) investment in solid waste management and in the plastic waste value chain
- h) improved institutional arrangements, particularly between national and municipal or local authorities responsible for waste management and enhanced arrangements with waste management service providers or contractors and the municipalities or waste management authorities
- i) engagement with the private sector producers and distributors of plastic products, including with enterprises managing plastic waste and with circular economy innovators
- j) targeted policy, legislative and fiscal measures, including import bans and import levies, or other charges on selected plastics (e.g., on single-use-plastics and 'problem' plastics)
- k) increased financing of waste management infrastructure and support for circular economy initiatives and
- l) raised public awareness.

4. In general, the financial, human and institutional resources available for implementing the national or municipal plans are insufficient to implement the planned actions. This is due to numerous factors, including: weak revenue generation by municipalities; reluctance to use central government revenues to support municipal investment or recurrent costs of waste management; and weaknesses in the contractual arrangements with waste service providers.

### **Regional cooperation**

5. Many of the activities set out in the national action plans can benefit from improved regional cooperation developed through regional strategies or action plans as proposed in the following sections. Because of the different geographies (Atlantic and Western Indian Ocean) and because of the different regional institutional cooperation arrangements on marine pollution, the AIODIS proposed the preparation of two parallel regional action plans: one for the Abidjan Convention region and one for the Nairobi Convention region.

6. In response to a Nairobi Convention COP decision, the Nairobi Convention has already developed a regional action plan on marine litter. Several countries in the region have developed national action plans to address marine litter or plastic pollution and several are leading African voices in monitoring the scale and impacts of MPP and regulating single-use plastics.

7. Although MPP in the two regions differs, both regions share similar challenges. The actions required to combat marine plastic pollution are similar. The key actors in both of the proposed regional action plans to combat MPP are also similar. These key actors include:<sup>2</sup>

- a) national and municipal authorities, waste producers and consumers to be engaged through implementation of national plastics action plans
- b) regional economic communities (RECs) and the Indian Ocean Commission,<sup>3</sup> through: (i) regional alignment of policy frameworks and (ii) harmonised trade measures; (iii) through bringing key infrastructure financing to scale; through facilitating dialogues with industry and financial institutions; and (iv) by implementing any plastic action plans at the level of the RECs
- c) Regional Seas Conventions, through fostering national commitments on actions to combat MPP, including (possibly) through development of norms and guidelines on plastic pollution within the existing protocols on land based sources of marine pollution. In the area of the Nairobi Convention these actions may be supported by other regional bodies, including:
  - the Indian Ocean Rim Association
  - the regional fisheries bodies
  - the regional ports association and the Indian Ocean MOU
  - transboundary river arrangements
  - conservation NGOs and circular economy initiatives
- d) financial institutions, through the development of a regional financing architecture which can bring the major infrastructure investment and the other investment required to scale
- e) the Economic Commission for Africa (ECA), through potentially providing a coordinating and advisory role on the regional action plan and bridging the environmental, economic and social components
- f) the UN Environment Programme (UNEP), through advisory and support services, particularly on the environmental dimensions of MPP, on the proposed ‘plastics treaty’, on links with private sector initiatives and on environmental finance
- g) the African Union, through an oversight and policy review role with particular attention to common positions in relation to the interventions, binding obligations and controls and financing provisions negotiated in the global plastics treaty.

### **Core elements of regional strategic action plans**

8. The following are the core components of the proposed strategic action plan. These core elements do not necessarily address all the elements of all national plans. They focus on those areas where regional cooperation can provide substantial benefits nationally and regionally:

- a) support for the development and implementation of national plastics plans or strategies
- a) shared knowledge, including on monitoring of MPP and capacity building to effectively manage the plastics life cycle
- b) compatible, or equivalent regulatory and fiscal measures to make the measures more effective at regional scale
- c) bringing the financing of national and municipal solid waste management to scale, including replication of success stories for investment and sustainability of solid waste management infrastructure and the related institutional arrangements
- d) alignment of policies and initiatives, particularly on definitions and standards for plastic products, for trade in plastic products (including for plastic waste)

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<sup>2</sup> South Africa spans both the Atlantic and Indian oceans and that some RECs include countries with both Atlantic or Indian Ocean coastlines (e.g. SADC, COMESA). Plastic pollution originating from landlocked REC members may also leak into the Atlantic or Indian Ocean.

<sup>3</sup> The countries party to the Abidjan Convention are members of several different Regional Economic Communities: the Economic Community of Central African States (ECCAS); the [Economic Community of West African States](#) (ECOWAS); the [Southern African Development Community](#) (SADC) and the [Common Market for Eastern and Southern Africa](#) (COMESA). For the purposes of this document, the Indian Ocean Commission is grouped with the RECs under the term ‘REC’.

- e) regional dialogues with key industries on codes of practice, cost sharing of waste management, extended producer responsibility and development of a plastics circular economy
- f) development of common positions on international initiatives, including in the ‘plastics treaty’ negotiations, in the WTO discussions on trade in plastics, on industry initiatives and high level dialogues on links between the plastics economy, the environment and climate change.

### **Implementation arrangements**

9. **Nairobi Convention.** Assuming a broad consensus on the need for a regional action plan, stakeholders can consider several ways forward:

- a) as marine plastic pollution has been identified among the priorities of the WIO Regional Ocean Governance Strategy (ROGS), the ROGS Task Force may use the proposed action plan as a basis for discussion on actions to be included in the draft ROGS
- b) the mandate of the regional working group on marine litter can possibly be extended to cover the plastic pollution life cycle
- c) specific actions may be considered under the LBS protocol, e.g. regional voluntary guidelines or mandatory actions
- d) consideration of both the proposed plastics and the marine litter action plans can be included in the agenda of the Nairobi Convention’s Science to Policy forum
- e) The Nairobi Convention can serve as a ‘clearing house’ and broker of initiatives formulated by the RECs
- f) UNEP may be requested to help align any action plan with the emerging global plastics treaty.

10. **The RECs.** The RECs, ideally working in close collaboration with the Nairobi Convention, can include the action plan (or components of the action plan) in existing agendas on: environmental management, the blue economy, the circular economy, and on trade and on financing requirements, including for solid waste management.

11. **African Union.** The AU, working through the AMCEN, the Economic Commission for Africa (ECA) other high level instruments (notably on trade and finance), can guide actions to harmonise rules on the trade in plastics at the African level and coordinate policies in global fora, such as in the working groups and conferences negotiating the plastics treaty and in related discussions in the WTO Committee on the Environment.

### **The way forward**

12. The following may be considered as ‘next steps’:

- a) the Nairobi Convention Secretariat seek the advice of the Nairobi Convention Bureau and the Science to Policy process to advance the combat on marine plastic pollution within the Nairobi Convention framework and other initiatives managed by the ‘UN family’
- b) the WIO ROGS Task Force, in consultation with national and regional stakeholders, consider the actions on MPP to be included in the draft ROGS which is to be submitted for the consideration of the Nairobi Convention COP in 2024
- c) stakeholders further explore the opportunities for financing and resourcing any consensus actions proposed
- d) the IOC explore opportunities for ongoing support by development partners for the ‘way forward’.

## **1 BACKGROUND**

### **1.1 Introduction**

13. In 2021, a study on marine plastic pollution (MPP) in the eight African Indian Ocean Developing Island States (AIODIS)<sup>4</sup> provided:

- a) estimates of marine plastic pollution in the AIODIS
- b) detailed the policy, legal, and operational dimensions of marine plastic pollution
- c) described the actions taken, or planned, at the national level to combat marine plastic pollution and the related solid waste management schemes and
- d) sets out core national and regional actions required to effectively combat MPP.<sup>5</sup>

14. The 2021 study recognised the transboundary nature of MPP and the interdependence of the island and mainland states in the plastic economy, including in the effective and cost-efficient management of plastic waste within an emerging circular economy.

### **1.2 Marine Plastic Pollution trends and projections**

#### **1.2.1 Global**

15. Between 2000 and 2019, global plastic waste generated rose from 156 million tons to 353 million tons, a 126% growth rate.<sup>6</sup> By 2050 plastic is expected to account for 5%-10% of greenhouse gas emissions. About half of all plastics ever produced have been manufactured since 2000. Less than 10% of the plastic produced globally is reused or recycled annually and an estimated nearly 6 Gt of accumulated plastic waste now pollutes every corner of the planet.<sup>7</sup> About 11% of waste plastic leaks into marine and freshwater ecosystems.<sup>8</sup> Of the estimated 359 million tons of plastics produced in 2018, an estimated 14.5 million metric tons (4%) entered the ocean.<sup>9</sup> Many plastic fragments degrade to microplastics, or to even smaller nanoplastics (particles < 1µm), which were first discovered in 2017.<sup>10</sup> The abundance and distribution of nanoplastics in the marine environment are unknown.

16. Costs associated with the plastic life cycle in 2015 include costs to human health (\$250 billion) and to the climate (GHG \$340 billion).<sup>11</sup> Costs to biodiversity, to ocean health and global ecosystems may not become clear for generations.<sup>12</sup> Macroplastics (large plastic pieces) represent 88% of the anthropogenic debris trapped on coral reefs and fishing activities are the main source of plastics in most of these areas.<sup>13</sup> Research on plastics in the environment is growing exponentially bringing new and, at

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<sup>4</sup> The AIODIS countries are: Cape Verde, Comoros, France (Reunion), Guinea Bissau, Maldives, Madagascar, Mauritius, São Tomé, and Seychelles.

<sup>5</sup> Kelleher, K., 2021. [Prevention, reduction and control of Marine Plastic Pollution in African and Indian Ocean Developing Island States](#). October 2021. Southwest Indian Ocean Fisheries Project No. 2 (World Bank/ Indian Ocean Commission) (available in English and in French).

<sup>6</sup> OECD Global Plastics Outlook Database.

<sup>7</sup> Geyer R, Jambeck JR, Law KL. [Production, use, and fate of all plastics ever made](#). *Sci Adv.* 2017; 3(7): e170078.

<sup>8</sup> Borrelle, S.B., et al. 2020. [Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution](#). *Science* 369, 1515–1518 (2020).

<sup>9</sup> Wayman, C. and H. Niemann, 2021. [The fate of plastic in the ocean environment – a mini review](#). *Environ. Sci.: Processes Impacts*, 2021, 23, 198-212

<sup>10</sup> In 2019, the global production of paints contained almost 20 million tons of microplastics (Paruta et al., 2022. [Plastic Paints the Environment](#). EA-Environmental Action); IUCN, 2017. Primary Microplastics in the Ocean.

<sup>11</sup> Under the current trajectory, by 2050, production of plastics is projected to make up 20% of total oil demand and 15% of the global carbon budget (Zheng, J., and Suh, S. [Strategies to reduce the global carbon footprint of plastics](#). *Nat. Clim. Chang.* **9**, 374–378 (2019). See also: Ocean Conservancy. [How Investor and Company Climate Commitments Ignore Plastics](#).

<sup>12</sup> The [Minderoo-Monaco Commission on Plastics and Human Health](#).

<sup>13</sup> Pinheiro, H.T., et al. 2023. [Plastic pollution on the world's coral reefs](#). *Nature* 619, 311–316 (2023).

times, disquieting knowledge and science-based understanding. This includes, for example, information on: atmospheric transport of microplastics, breakdown of plastics by marine bacteria, the scale of ocean ‘garbage patches’, microplastics in drinking water, and insights into plastic pollution’s complex ecosystem impacts and possible long-term effects on human health.

### **Selected global analyses**

17. Several global analyses and models reach the same general conclusion - that even if more robust measures than are being considered under the proposed global plastics treaty are applied, plastic consumption and plastic waste will continue to increase.

18. Studies and models are unanimous that no single measure or set of action will ‘break the plastic wave’. Multiple actions along the entire plastic life cycle are required: *upstream* in reducing virgin plastic production; *midstream*, through altered product design and substitution of plastics with other products; and *downstream*, through effective management of waste. One study quantifies the impact of eight such measures and estimates that plastic leakage to the environment can be reduced by about 80% without compromising social or economic benefits.<sup>14</sup> In contrast, under a business-as-usual scenario, about three times more plastic is projected to leak into the oceans.

19. Considerable advances have been made in framing the proposed global plastics treaty. However, even assuming that countries implement those components of the proposed global plastics treaty that focus on measures to curb plastic waste generation, models suggest that the rate of growth of plastic waste will fall by less than half.

20. A recent analysis considered the impact of a phased ban on single-use-plastics (SUPs), mandatory extended producer responsibility (EPR), and a tax on virgin plastics. It concluded that even with the combined impact of the three interventions modelled, plastic consumption will continue to increase beyond 2050 and be 1.25 times higher in 2050 for the G20 countries studied.<sup>15</sup> If the treaty negotiations fail, plastic consumption in the studied G20 countries is projected to nearly double by 2050: This analysis “*illustrates the scale of the ‘plastics problem’*” and concludes that: “*achieving a reduction in plastic pollution is going to require all the stakeholders to implement all the known solutions.*”<sup>16</sup>

21. On a more positive note, the analyses also indicate that a transformation of the plastics life cycle and value chain offers opportunities for businesses, investors and innovators to create employment, for growth and wealth generation in a more sustainable world that uses circular business models and new sustainable materials.<sup>17</sup>

### **1.2.2 Sub-Saharan Africa**

22. Estimates of mismanaged plastic waste in Africa range from 4-17 million tons, of which up to 10% may leak into the oceans (0.4-1.7 million tons). Available studies indicate that the catchment basins generate about 2.2 million tons of mismanaged plastic waste annually, or over 0.5 kg/person/year.<sup>18</sup> Coastal cities which are a major source of MPP are included in this estimate. However, any estimates of the resulting MPP need to be treated with caution as plastic can be trapped in dams or flood plains and some rivers may have limited discharge into the ocean due to water extraction for agriculture or urban supplies and because of reduced dry season flows.<sup>19</sup>

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<sup>14</sup> SYSTEMIQ, Pew Charitable Trusts, “Breaking the plastic wave: A comprehensive assessment of pathways towards stopping ocean plastic pollution” (Ellen MacArthur Foundation, 2020).

<sup>15</sup> Economist Impact and the Nippon Foundation. Peak plastics: bending the consumption curve.

<sup>16</sup> Winnie Lau, Project Director, Preventing Ocean Plastics, The Pew Charitable Trusts.

<sup>17</sup> E.g., [South Africa](#); UNEP 2023. [Turning off the Tap](#).

<sup>18</sup> Schmidt, C. et al. 2017. Export of Plastic Debris by Rivers into the Sea. *Environmental Science & Technology* 2017 51 (21), 12246-12253; Ryan PG, et al. Monitoring the abundance of plastic debris in the marine environment. *Philos Trans R Soc Lond B Biol Sci.* 2009 Jul 27;364(1526):1999-2012.

<sup>19</sup> The ‘Jambeck model’ used to determine the relationship between mismanaged plastic waste and MPP is derived from observations in California and would ideally need to be adjusted for the particularities of the main African river basins (over 70 in total on the mainland).

23. The Nile (ranked 5 of the most polluting rivers) and the Niger (ranked 9) basins annually generate 2.3 and 2 million tons of mismanaged plastic waste respectively.<sup>20</sup> The catchments of the Congo and Cross rivers are also considered to generate significant volumes of mismanaged plastic waste. The Indus basin (ranked 2) generates 4.8 million tons of solid waste annually and may contribute some MPP to the WIO. However, available studies do not indicate a significant east-west transport of MPP in the northern hemisphere of the WIO.

24. Land-based sources account for approximately 80% of MPP, largely as a result of mismanaged waste and river transport of waste plastic to the ocean. The proposed action plan focuses mainly on land-based sources, but also directs attention to marine sources, including MPP from fisheries and from shipping. Microplastic plastic pollution is a growing threat. Combatting microplastic pollution is considered to be integral to any action plan although specific actions at regional level would require scientific and policy advice.

### 1.2.3 Marine plastic pollution in the Nairobi Convention region

25. **Region.** Based on country studies, the MPP generated by the nine WIO coastal countries is estimated to be in the order of 290,000 tons per year. The leakage from five landlocked countries is not included in this estimate.<sup>21</sup> Over 70 mainland Sub-Saharan rivers discharge to WIO. The catchment basins of the Zambezi, Limpopo, Save, Shebelle and Tugela are considered to generate most mismanaged waste. As already indicated, estimates of MPP need to be treated with caution as the models used to make the estimates may not be applicable to all basins and the waste data used is often based on limited sampling and entrapment of plastic pollution may occur in lakes and impoundments.<sup>22</sup>

26. **AIODIS and mainland countries** Approximately 6,000 tons of MPP are generated by the island countries (Comoros, Madagascar, Mauritius and Seychelles (see table)).<sup>23</sup> The estimates made in 2021 were only for the AIODIS group and were based on possibly outdated information (e.g., national statistics on waste generation for 2015). Estimated plastic pollution loads and MPP for the mainland countries are compiled in a subsequent table. Estimates for Somalia are not available.

<b>Estimated MPP generated by AIODIS countries</b>	
<i>Nairobi Convention parties</i>	
Comoros	1,814
France (Reunion)	na/ v.low
Madagascar	3,478
Mauritius	158
Seychelles (assuming 5% leakage)	78
<i>Total (excl. Reunion)</i>	5,528
Maldives	256
Data: AIODIS country reports (Kelleher, 2021)	

27. **Kenya** generates an estimated 37,000 tons of MPP (0.8 kg/ capita leakage). Four cities account for 40% of the leakage and 67% of the leakage comes from urban areas. The average plastic waste generated is estimated at 11 kg/capita/year (2018). Bags, diapers, dairy packaging, lids and caps and other packaging are among the main plastic waste product leaked (by weight).<sup>24</sup> MPP from fishing is estimated to be 14 tons/ year. Waste collection in urban areas varies from 20% to 72%. The average national collection rate is 27%. Microplastic leakage to all water bodies is estimated at 1,800 tons/ year with tyre dust contributing 800 tons/ year. Based on a waste disposal model, an estimated

<sup>20</sup> Schmidt, *op.cit.*

<sup>21</sup> Note that parts of Angola and Namibia are also in the Zambezi basin.

<sup>22</sup> There are over 150 dams in the Limpopo basin and the Shabelle/Juba may not reach the sea in some years or seasons (<https://www.interestjournals.org/articles/water-balance-of-the-juba-and-shabelle-rivers-in-ethiopiasomalia.pdf>). The ‘Jambeck model’ used to determine the relationship between mismanaged plastic waste and MPP is derived from observations in California and would ideally need to be adjusted for the particularities of the main basins (over 70 in total on the mainland).

<sup>23</sup> This estimate is compiled from several sources: Pucino, M., et al. (2020). [Plastic Pollution Hotspotting and Shaping Action: Regional Results from Eastern and Southern Africa, the Mediterranean, and Southeast Asia](#). IUCN. ; EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country reports. South Africa (updated) ; Kelleher, K., 2021. [Prevention, reduction and control of Marine Plastic Pollution in African and Indian Ocean Developing Island States.](#). October 2021. Note that the estimates rely on models (Jambeck, 2015) and waste data sets (What a Waste 2.0 database (Kaza et al., 2018)).

<sup>24</sup> Dias, S., et al. 2017. [Campanha de quantificação e caracterização de resíduos sólidos urbanos da cidade de Pemba](#). Conselho Municipal da Cidade De Pemba.

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56% of waste plastic may be burned and may generate over 230,000 tons of air pollution.<sup>25</sup> Recycling of plastic waste in Kenya is estimated at about 7%.<sup>26</sup>

Country	Kenya	Mozambique	South Africa	Tanzania
MPP (tons/yr)	37,000	17,000	197,000	29,000
MPP per person (kg/yr)	0.8	0.6	1.9	0.5
Plastic waste per person(kg/yr)	11	6.1	41	5.7
Waste collection rate (average %)	27%	32%	70%	
Recycling (%)	7%	1%	14%	0.50%
Burning plastic (%)	~56%		~38%	~42%

28. **Mozambique** generates an estimated 17,000 tons of MPP (0.6 kg/ capita leakage). Seven out of 128 districts account for 50% of the leakage. The average plastic waste generated per capita is estimated at 6.1 kg/capita/year. Bags, bottles and diapers and ‘other packaging’ are among the main plastic waste product leaked (by weight).<sup>27</sup> An estimated 32% of waste is collected. There is no rural waste collection. Microplastic leakage to all water bodies is estimated at 1,000 tons/ year with tyre dust contributing 600 tons/ year. Waste burning is considered to be a major means of disposal and may generate as much as 80,000 tons of air pollution.<sup>28</sup> Recycling of plastic waste is estimated at about 1%. Some waste is imported by recyclers and recycling by informal operators may contribute to other environmental pollution and health problems.

29. **South Africa** generates an estimated 107,000 tons of MPP, equivalent to 5% of the plastic waste generated, or 1.9 kg/ capita leakage.<sup>29</sup> Three out of nine provinces account for 50% of the leakage. The average plastic waste generated is estimated at 41 kg/capita/year, or 2,371 tons per year. Bottles, bags, food containers and diapers are among the main plastic waste product leaked (by weight). Although leakage of cigarette butts is low by weight, an estimated 20% are leaked into the ocean. An estimated 70% of waste is collected and 58% of the plastic waste is mismanaged. Microplastic leakage to all water bodies is estimated at 6,500 tons/ year with tyre dust contributing 5,800 tons/ year. About 38% of mismanaged plastic waste may be burned generating 514,000 tons of air pollution. Recycling of domestic waste is estimated at about 14%.

30. **Tanzania** is estimated to annually generate 29,000 tons of plastic waste that enters waterways (including lakes), or around 9% of the plastic waste generated (0.5 kg/capita leakage). Dar es Salaam accounts for an estimated 71% of this load. Tanzania generates an estimated 315,000 tons of plastic waste annually.<sup>30</sup> The average plastic waste generated is estimated at 5.7 kg/capita/year and 4% is collected for recycling. About 96% of the plastic waste is considered mismanaged. Bottles, bags, lid and caps and diapers are among the main plastic waste product leaked (by weight). The waste collection rate ranges from 15% to 58% in urban areas and there is limited or no collection in rural areas. Microplastic leakage to all water bodies is estimated at over 2,000 tons/ year with tyre dust contributing over 1,300 tons/ year. About 42% of waste plastic may be burned generating 129,000 tons of air pollution. Only 0.5% of plastic waste is recycled.

31. There is some transport of MPP to the WIO from East Asia (mainly Indonesia). but limited evidence of transport from South Asia. Information on the scale and character of this ocean transport is deficient and based largely on collection of floating marine debris stranded on beaches. This debris largely excludes non-floating plastic (such as plastic bags) and debris which has been degraded to small

<sup>25</sup> For details see: EA/ Quantis, 2020. National guidance for plastic pollution hotspotting and shaping action. Final report for Mozambique.

<sup>26</sup> EA/ Quantis, 2020. National guidance for plastic pollution hotspotting and shaping action. Final report for Kenya.

<sup>27</sup> Dias, S., et al. 2017. [Campanha de quantificação e caracterização de resíduos sólidos urbanos da cidade de Pemba](#). Conselho Municipal da Cidade De Pemba.

<sup>28</sup> For details see: EA/ Quantis, 2020. National guidance for plastic pollution hotspotting and shaping action. Final report for Mozambique.

<sup>29</sup> EA-QUANTIS, 2020, [National Guidance for plastic pollution hotspotting and shaping action, Country reports. South Africa](#) (updated).

<sup>30</sup> IUCN-EA-QUANTIS, 2020, [National Guidance for plastic pollution hotspotting and shaping action, Country report Tanzania](#).

particles or microplastics. Recent modelling of Indian Ocean current systems and transport of marine debris provides new insights.<sup>31</sup> Studies suggest that there is limited transport of WIO MPP to the Atlantic or to other areas of the Indian Ocean. If so, the MPP generated in the WIO may be largely ‘trapped’ within the WIO.

### **1.3 Lessons from global, regional and national plans and initiatives**

32. Global, regional and national action plans have broadly similar core components:

- a) policy development and regulation for an enabling environment either through legislation, voluntary codes, fiscal measures or other means
- b) enhanced and shared knowledge of the plastic life cycle and MPP, including monitoring of pollution levels and its impacts, raised public awareness and broad stakeholder engagement in developing effective approaches
- c) a changing relationship and engagement with industry which reflects the costs of plastic waste management and industry responsibilities for plastic waste management and pollution
- d) access to finance for major investments in solid waste management infrastructure and the associated institutional arrangements for operation and maintenance of schemes
- e) support for circular economy initiatives and innovation<sup>32</sup>
- f) cooperative frameworks with key actors, including municipalities, consumers, producers, manufacturers and distributors plastics, the waste management industry and institutions providing public and private/ commercial finance.

33. There is a recognition that the solutions require attention to the entire life cycle and may involve political trade-offs. Many national actions focus on the downstream side (waste management), but also envisage the elimination of single-use plastics (SUP), or elimination of plastics which cannot readily be part of the circular economy, or plastics with harmful components (e.g., additives, such as fire retardants). The focus on the downstream side may reflect the fact that many developing countries have little influence over the upstream side – the production of virgin plastics and trade in raw plastic products. Production of virgin plastic is highly concentrated. Some twenty multinational corporations produce over 50% of the global supply and their mission is to produce more plastic or diversify their fossil fuel production. Society generally pays for the environmental costs.<sup>33</sup>

34. A recent assessment illustrates some of the gaps in formulating and implementing national action plans in Africa:<sup>34</sup>

- a) narrow scope and limited approach of existing national policy and legislation, with no clear targets or actions plans
- b) weak ability to enforce regulation, such as bans or illegal dumping
- c) low public awareness of the impact of plastic pollution
- d) lack of a common, harmonised policy approach, including definitions, standards, labelling and customs tariffs
- e) lack of comprehensive monitoring of plastic waste, pollution and reuse/recycle
- f) transboundary issues including lack of harmonised trade measures
- g) diffused national responsibilities among national ministries and municipalities with regard to waste management infrastructure and finance and
- h) limited human and financial capacity.

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<sup>31</sup> Vogt-Vincent, N.S. et al., 2023. [Sources of marine debris for Seychelles and other remote islands in the western Indian Ocean](#). Marine Pollution Bulletin. Volume 187, February 2023, 114497.

<sup>32</sup> Wang, F., et al. (eds.), 2019. Addressing Marine Plastics: A Roadmap to a Circular Economy. UNEP.

<sup>33</sup> [The Minderoo-Monaco Commission on Plastics and Human Health](#).

<sup>34</sup> WWF/AU WWF and the African Union Commission. 2022. [A Global Treaty on Plastic Pollution: Perspectives from Africa – Workshop Report](#). WWF South Africa, Cape Town, South Africa. [f](#). See also: UNEP-Nairobi Convention/WIOMSA (2022). Marine plastic litter in the WIO region: Status, implications on the environment, human populations and effectiveness of measures and opportunities. A synthesis report.

35. There are a wide range of non-governmental initiatives by foundations, conservation organisations and responsible industry actors.<sup>35</sup> Actions by major investment funds are of particular importance, as funds with a social mandate (such as pension funds) are pressuring institutional investors to disinvest from plastic producers or from enterprises which fail to reduce their plastic footprint. For example, 185 investors with US\$10 trillion in combined assets, recently called for more action to address the plastics crisis.<sup>36</sup>

### **1.3.1 Regional action plans and initiatives**

36. **Nairobi Convention.** The existing Nairobi Convention WIO action plan on marine litter has a somewhat narrow focus on litter, rather than on the plastic life cycle.<sup>37</sup> This is partly because the action plan was developed in response to Nairobi Convention COP decision which preceded the life cycle approach of the UNEA resolution on the development of a plastics treaty. The plan essentially addresses downstream actions - managing litter rather than the plastic life cycle. The plan recommends:

- a) institutional and stakeholder engagement
- b) improved policy and legal frameworks
- c) operations for removal and prevention of marine litter (e.g., beach clean-ups)
- d) education and outreach
- e) monitoring, research and reporting, and
- f) exchange and sharing of experiences, lessons and best practices in managing marine litter.

37. **Indian Ocean Commission.** The Indian Ocean Commission has managed numerous preparatory projects on marine litter and debris since 2003, including a marine litter management and reduction plan.<sup>38</sup> The plan focuses on initially generating a better understanding of marine debris, plastic pollution and the circular plastics economy. France has supported complementary work at the regional scale through Exploi, a project that addresses scientific, public awareness and circular economy dimensions of MPP in the WIO island countries.<sup>39</sup>

38. **East African Community.** The EAC enacted landmark legislation which restricted polythene in the EAC.<sup>40</sup> The restrictions met with considerable opposition from manufacturers, importers, vendors and others. The legislation is distinct from similar European Union directives on plastics and waste as it is the EAC text which becomes national law. EU directives must be ‘transposed’ into national law. Further assessment of the effectiveness of this regulatory model will be of value to regional cooperation on plastic pollution.<sup>41</sup>

39. **South Asia.** The Regional Marine Litter Action Plan for South Asian Seas Region provides a comprehensive framework for action through a ‘roadmap’ that sets targets for 2030.<sup>42</sup> It was backed by a range of South Asia Cooperative Environment Programme (SACEP) country reports that reviewed the status of MPP and marine litter in South Asia. The targets are linked to SDGs and specify a phase-out of single-use plastics; all plastic packaging to be either recyclable, reusable or compostable; and a reduction in MPP of all kinds.

40. **European Union.** The EU has formulated (arguably) the most comprehensive suite of regional actions on MPP. While some lessons from the EU are of value in the Nairobi Convention area, it should

<sup>35</sup> See AIODIS report for details.

<sup>36</sup> See: <https://www.vbdo.nl/en/2023/05/investors-with-us10-trillion-aum-call-on-corporates-to-dramatically-ramp-up-action-on-plastics/>.

<sup>37</sup> UN Environment 2018. [Western Indian Ocean Regional Action Plan on Marine Litter](#). UN Environment/Nairobi Convention, Nairobi, vi + 24 pp.

<sup>38</sup> Plan d’action de réduction et de gestion des déchets dans les pays de la COI 2019.

<sup>39</sup> Exploi. <https://en.ird.fr/project-exploi-plastics-expedition-indian-ocean>.

<sup>40</sup> *Polythene Materials Control Bill (2017)*.

<sup>41</sup> Flipflop, ALN, SIBK, 2023. [State of Affairs: Policies, Regulations and Laws that Address the Harmful Effects of Single-Use Plastics in the East African Community](#) (2023). Baker McKenzie. 2017. [Is the East African Community a Model for Plastics Pollution Strategy?](#) Environmental Law Insights.

<sup>42</sup> SACEP, 2019. Regional Marine Litter Action Plan for South Asian Seas Region. South Asia Co-operative Environment Programme, Colombo.

be noted that EU directives makes the actions mandatory for EU countries.<sup>43</sup> The OSPAR and Helsinki Convention activities reflect an extension of the EU actions into the North Atlantic and Baltic respectively. The Mediterranean action plan is also heavily influenced by EU financial support and approach. Planned activities in the Black Sea have been constrained by conflict.

41. **Other regional frameworks.** In general, other regional frameworks (South East Asia, the Caribbean and the Pacific Islands) take the form of declarations, international ‘commitments’ and regional action plans. In most cases, the action plans do not have the force of law or lack a robust mechanism for monitoring and reporting and the adjustment of targets. Nevertheless, the frameworks underpin regional collaboration and secure support for investment. The ASEAN framework identifies four categories of action: (i) policy support and planning; (ii) research, innovation, and capacity building; (iii) public awareness, education, and outreach; and (iv) private sector engagement. Under the framework, ASEAN will consider a regional agreement on MPP.<sup>44</sup>

42. A number of NGOs and international initiatives operate at the regional scale or in several WIO countries. These include Parley, the Sustainable Seas Trust and Africa Waste Management Network, International Alliance of Waste Pickers and numerous other environmental NGOs.

### **1.3.2 National strategies and plans**

43. National plans may have a narrow scope, such as targeting marine litter or single-use plastics. Some outline a more ambitious scheme to develop a sustainable plastics value chain. Others are embedded in broader waste management plans or environmental conservation strategies. The national strategies and plans generally recognize that:

- a) plastics are essential in a modern economy, so that effective reduction of non-essential use of plastics and management of plastic waste is a growing necessity
- b) that fundamental changes are required: in the behaviour of consumers, in the behaviour of the economic actors in the plastics value chain, in waste management practices, and in financing of waste management and in the development of circular economy initiatives at both national and municipal levels and
- c) that economic factors are key drivers of reforms to production of plastic products, plastic use and effective management of plastic waste value chains.

44. National plastics management strategies and plans are tailored to the specific needs and capacity of each country - from large economies where a circular economy is established, to small islands where the volumes of plastic waste may be unable to create the economies of scale needed for reuse or recycling of many forms of plastic waste. The importance of national action plans has been highlighted in the ‘plastics treaty’ INC-2 preparatory documents.<sup>45</sup> Many WIO national strategies or plans share many of the following common elements. These elements may be embedded in different instruments (e.g., policies that address marine litter, waste management, the circular economy, or conservation):

- a) improved knowledge of MPP and the plastics life cycle through monitoring of plastic trade, plastic waste management, plastic pollution and the economics of plastic and plastic waste
- b) public and private (or public-private) investment in solid waste management and the plastic waste value chain
- c) improved institutional arrangements, particularly between national and municipal or local authorities and waste management contractors

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<sup>43</sup> European Commission.: Staff Working Document accompanying ‘[A European Strategy for Plastics in a Circular Economy](#)’. SWD(2018) 16 final. The Packaging & Packaging Waste Directive (PPWD) 2018 sets packaging recycling targets for all materials. The Waste Framework Directive 2018/851 introduced ‘eco-modulated’ EPR fees, e.g., recyclable packaging incurs lower and non-recyclable packaging is heavily penalised.

<sup>44</sup> ASEAN Framework of Action on Marine Debris. <https://asean.org/storage/2019/06/3.-ASEAN-Framework-of-Action-on-Marine-Debris-FINAL.pdf>; <https://live.worldbank.org/marine-plastics-east-asia-pacific>.

<sup>45</sup> Co-facilitators’ summary of Contact Group 2. <https://wedocs.unep.org/bitstream/handle/20.500.11822/42622/CG2.pdf>

- d) engagement with the private sector producers and distributors of plastic products, waste management companies and circular economy innovators
- e) targeted policy, legislative and fiscal measures, including import bans and import levies, or other charges on selected plastics (e.g., on single-use-plastics) and consideration of extended producer responsibility (EPR) schemes<sup>46</sup>
- f) increased financing of waste management infrastructure and circular economy initiatives
- g) raised public awareness with a view to changing the behaviour of consumer and generators of plastic waste (e.g., retailers, packaging companies).

45. **AIODIS.** The AIODIS national policies and plans are presented in detail in the background study.<sup>47</sup> The plans and initiatives for selected mainland countries are outlined below. In general, the policies and plans recognize that the conventional approaches to solid waste management have to be adapted to the national, municipal or rural context. The plans recognise that reliance on technologies and centralized approaches may have limited application; and recognise the potential contributions of the informal sector and of effectively designed public-private partnerships within an adaptable regulatory framework. Several WIO countries have made submissions to the INC-2 which include references to national action plans and there is an increasing wealth of analyses on MPP policies and plans.<sup>48</sup>

46. **South Africa.** The National Environmental Management Act provides the key national framework. In 2020, South Africa converted over 1.7 million tons of polymers into plastic products and South African manufacturers and recyclers can be considered as key actors in any regional circular plastic economy. Current plastic value chains are linear rather than circular and South Africa relies heavily on imported and less costly virgin plastic. Import tariffs on plastic waste are in the order of 3%. EPR regulations became mandatory for selected products in 2021. The EPR schemes are generally managed by a producer organization that oversees multiple types of plastic packaging waste and single-use product streams. The South African Plastics Pact is a stakeholder platform focused on the plastics packaging value chain. It engages several multinational generators of plastic wastes, such as Coca Cola and Unilever and is committed to including 30% of recycled content in manufacture of packaging.<sup>49</sup>

47. **Maldives.** Both the Maldives and Reunion waste management activities offer insights to waste management strategies in island economies. The Maldives has been ‘forced’ to construct a ‘waste landfill artificial island’ and has an ambitious if costly scheme to transport waste from outer islands and atolls to regional collection centers for further disposal.

48. **Reunion** generates about 32,000 tons per year of household plastic waste (15% of household waste) and complies with the EU mandatory directives which progressively set stronger circular economy targets.<sup>50</sup> Reunion ‘exports’ most of its plastic waste and recognizes the problem or economies of scale in recycling many waste plastic products in an island economy. The EU directives and the island ecology is ‘pressuring’ Reunion to invest in more managed landfill sites and incineration (energy ‘recovery’).<sup>51</sup> France has a mandatory EPR scheme for end-of-life ‘plastic’ boats.<sup>52</sup>

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<sup>46</sup> Out of 54 African states, 34 have either passed a law banning plastics and implemented it or have passed a law with the intention of implementation. <https://www.greenpeace.org/africa/en/blogs/11156/34-plastic-bans-in-africa/>.

<sup>47</sup> Kelleher, *op cit*.

<sup>48</sup> E.g., F. Alpizar, F. et al., 2020. [A framework for selecting and designing policies to reduce marine plastic pollution in developing countries](#). Environ. Sci. Policy, 109 (2020), pp. 25-35.

<sup>49</sup> Global Plastic Action Partnership. 2022. Trade and the Circular Economy: Plastics Action in South Africa.

<sup>50</sup> CGEDD, 2019. [Gestion des déchets sur l'Île de La Réunion technical Report](#). Ministre de la transition Ecologique et solidaire. ADEME and ECOGEOS/ESPELIA. 2019. [Caractérisation des déchets sur l'Île de la Réunion. Technical Report](#), Agence de l'environnement et de la maîtrise de l'énergie. The EU directives include the EU Waste Directive 2018/851, Landfill Directive 2018/850 and the Packaging Waste Directive 2018/852.

<sup>51</sup> Bénard, F. et al. 2022. [Assessing potential of plastic waste management policies for territories sustainability: case study of Reunion Island](#). World Development Sustainability. *Volume 1*, 2022, 100030. See also: P.J. Deschenes, M. Chertow. [An island approach to industrial ecology: towards sustainability in the island context](#). J. Environ. Plann. Manage., 47 (2) (2004), pp. 201-217.

<sup>52</sup> ADEME. 2019. [Sport and Recreational Boats: key figures 2019](#).

## **2 REGIONAL ACTION PLAN TO COMBAT MARINE PLASTIC POLLUTION IN THE WESTERN INDIAN OCEAN**

### **2.1 Rationale**

49. **High-level commitments.** SDG 14.1 states: “By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution”. Between 80% and 90% of marine litter, or marine debris, is considered to be plastic. In 2022, the UN General Assembly adopted the resolution on the human right to a clean, healthy and sustainable environment and called for enhanced international cooperation to achieve this aim.<sup>53</sup> Under UNCLOS, countries have obligations to cooperate to ‘*prevent, reduce and control*’ marine pollution, an obligation which is transposed into the Nairobi Convention LBSA protocol (see below). Countries party to the Nairobi Convention are also party to the UN ‘fish stocks agreement’ which includes obligations for parties to minimize pollution, waste and abandoned gear (Article 5(f)). WIO countries are party to many other conventions which have a bearing on MPP. These include, for example: IMO-MARPOL, CBD, Basel, the UNFCCC and many others). Details of the international legal framework relevant to MPP are detailed in the background report.<sup>54</sup>

50. **Regional actions.** This discussion paper argues that marine plastic pollution (MPP) must be addressed, not only at country level and through global initiatives, but also through regional cooperative actions. In particular, there are regional benefits if the Regional Economic Communities (RECs) can work in close coordination with or through the Regional Seas Conventions. The reasons are as follows:

- a) MPP has an important regional transboundary dimension, in terms of the sources of pollution, the impacts and the potential solutions
- b) country-level, municipal and private sector investments required to manage plastics and other solid waste are fundamentally similar and successes or sustainable models can be replicated nationally and regionally, including at the level of provinces, counties, municipalities or communities
- c) a regional portfolio of the required investments can generate significant economies of scale to help access affordable and available ‘blue’ and ‘green’ finance
- d) few countries have the economies of scale required to build a viable circular economy for plastics (or other wastes)
- e) without regional cooperation, or coordination, the policy and regulatory frameworks of countries, or those of Africa’s Regional Economic Communities, may diverge and fragment the markets for and trade in plastic products and plastic wastes. This may result in parallel discussions on trade measures, different regimes of extended producer responsibility, or undermine regional economies of scale in the development of and support for a circular plastics economy and
- f) Sub-Saharan countries need to establish mechanisms for effective cooperation on plastic pollution in anticipation of the outcomes of the proposed global ‘plastics treaty’ now under negotiation.

51. **Nairobi Convention.** The Nairobi Convention on land-based sources of pollution (LBSA Protocol) require regional cooperation in addressing marine pollution. Both UNCLOS and the LBSA protocol (Art. 5) require countries to take measures to “*prevent, reduce and mitigate*” marine pollution and to “*cooperate [to] harmonize their programmes, policies, laws and other regulatory frameworks*”. A decision of the Nairobi Convention, COP-10, calls for the development of a regional action plan on marine litter: “*To request the secretariat and partners to finalise the preparation of a regional action plan to address marine litter and plastic pollution for adoption at the eleventh meeting of the*

<sup>53</sup> UNGA 76/300. [The human right to a clean, healthy and sustainable environment](#).

<sup>54</sup> Kelleher, *op. cit.*

*Contracting Parties.*<sup>55</sup> As previously noted the marine litter plan has been prepared but its limited mandate did not capture the rapidly evolving position of WIO countries in relation to management of the entire plastic life cycle and value chain.

52. **AMCEN.** The African Ministerial Conference on the Environment (AMCEN) has supported action on MPP (Durban Declaration), but specific policies, positions, or measures at AU level have not been formally agreed, other than the call for development of the plastics treaty (2021) and development of a common position in the plastic treaty negotiations. In preparation for the ‘plastics treaty’ negotiation, in 2019, the African Union (AU) convened a high level working group on plastics ‘toward a pollution-free Africa’ and in 2021 an AU plastic policy workshop highlighted “*the lack of coordination in regional and international policy frameworks relating to plastic pollution and related areas, including marine litter, waste management, and plastic products and waste trade.*” The AMCEN has called for measures to address the burning of waste and for African countries to actively engage in the plastics treaty negotiations.<sup>56</sup> One of the objectives of the African First Ladies High-Level Side Event was to “*define a strategic action plan on Plastic Pollution Solutions*”.<sup>57</sup>

53. **Two parallel plans.** All the AIODIS are party to either the Abidjan Convention or to the Nairobi Convention. Both Conventions have existing protocols on marine pollution, so that parallel action plans for the Atlantic and Western Indian Ocean can be envisaged as a means of initiating parallel regional dialogues on marine plastic pollution. Such parallel processes may facilitate any future plastics initiative by the AMCEN. Actions to address marine litter have already been initiated in both Convention areas. Maldives is part of the AIODIS group, but is not party to the Nairobi Convention. The Maldives plastics economy is largely orientated towards South Asia rather than to Africa, but the Maldives could associate with the proposed action plan initiative as appropriate.

54. **Plastics treaty.** As evidenced by the UNEA Resolution on plastics, there is broad international agreement that actions are required on the ‘plastics problem’.<sup>58</sup> If and when a plastics treaty comes into force, countries will have a legal or moral obligation to implement the consensus actions. Pending the conclusion of any treaty, Sub-Saharan countries can find common ground and cooperate through a regional strategy or action plan. The proposed action plan takes account of the measures being considered in the global treaty. Even in the absence of an agreed outcome, the dialogues required to achieve regional consensus on actions can inform African plastics treaty negotiators and any post-treaty roll out of obligations, for example, by assessing the costs of any treaty implementation and exploring financing models for effective waste management and circular economy development.

55. **WIO Regional Ocean Governance Strategy.** As directed by the Nairobi Convention COP, and as a result of an AMCEN decision, a participatory process has been initiated to develop a Western Indian Ocean Regional Ocean Governance Strategy (ROGS, in preparation).<sup>59</sup> The ROGS Task Force has identified marine plastic pollution among some twenty regional action priorities. The proposed regional action plan can potentially be used by the Task Force to identify key actions to be included in the draft ROGS, to be tabled at the Nairobi Convention COP (scheduled March 2024).

<sup>55</sup> Decision CP.10/10. Water Quality and Marine litter.

[https://www.nairobiconvention.org/clearinghouse/sites/default/files/Adopted%20Decisions%20for%20COP10\\_25\\_11\\_21\\_12.00pm\\_CLEAN.pdf#overlay-context=node/771](https://www.nairobiconvention.org/clearinghouse/sites/default/files/Adopted%20Decisions%20for%20COP10_25_11_21_12.00pm_CLEAN.pdf#overlay-context=node/771)

<sup>56</sup> AMCEN Decision 18/1(b): [Towards phasing out open burning of waste in Africa](#). Decision 18/2, on Africa’s participation in the development of an international legally binding instrument on plastic pollution.

<sup>57</sup> On “[Plastic Pollution Solutions for Development in Africa](#)”.

<sup>58</sup> UNEA Resolution 5/14 “End plastic pollution: Towards an international legally binding instrument”. [https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG\\_PP\\_1\\_INF\\_1\\_UNEA%20resolution.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG_PP_1_INF_1_UNEA%20resolution.pdf).

The negotiations towards the ‘plastics treaty’ started in 2022 and are expected to conclude in 2024. Five intergovernmental negotiating committee (INC) meetings are scheduled: INC-2, Paris 22-26 May 2023 and INC-3 in Kenya. For a summary of INC-1 see: <https://enb.iisd.org/sites/default/files/2022-12/enb3607e.pdf>

<sup>59</sup> Nairobi Convention (NC) COP Decision 10.5 “*to finalise the development, in a participatory process, with the support of partners, the ocean governance strategy for the Western Indian Ocean region as a contribution to the African ocean governance strategy*”; and AU/ AMCEN Cairo Declaration 1.14 (March 2015) “*develop a governance strategy, in accordance with the United Nations Convention on the Law of the Sea and regional seas conventions*”.

## 2.2 Objective and principles

56. The objective for the proposed plastic action plan is: **“to end marine plastic pollution”**.

57. Different objectives extracted from stakeholder submissions to the second round of the plastic treaty negotiation (INC-2) (see following table) are categorised as ‘higher ambitions’; ‘lower ambitions’; and ‘industry objectives’.<sup>60</sup> They provide useful examples or objectives, even though the functions of the treaty and a regional action plan differ.

58. The Africa Group (excluding Egypt) INC-2 submission proposed the following objective:

*“ .... the objective of the treaty should be to end plastic pollution, including pollution from legacy plastics, in all environments in order to protect the environment and human health, and to create a non-toxic circular economy for plastics, based on a comprehensive approach that addresses the full life cycle of plastics, taking into account, the principles of the Rio Declaration on the Environment and Development (Rio Declaration), as well as national circumstances and capabilities.”<sup>61</sup>*

Selected objectives adapted from submissions by INC-2 stakeholders		
High Ambition	Lower Ambition	Industry/ Major oil/ gas producing countries
<ul style="list-style-type: none"> <li>To end plastic pollution (Africa Group, Island States, GRULAC, others)</li> <li>prevent, reduce and eventually eliminate plastic pollution</li> <li>Near-zero plastic pollution to the environment by 2040</li> <li>Polluter pays levy on virgin plastic production (Ghana)</li> </ul>	<ul style="list-style-type: none"> <li>To protect human wellbeing and the health of the environment against pollution caused by the production, use and discharge of plastics across its life cycle (USA, EU, Kenya, Uganda, Tanzania)</li> <li>Ensure health impacts of plastic are adequately accounted</li> <li>Protect human health, the environment and biodiversity (Guinea, Gabon)</li> </ul>	<ul style="list-style-type: none"> <li>To enable and encourage businesses to fully play their role</li> <li>Focus on downstream and midstream measures</li> <li>Effective management of plastic waste</li> <li>common international standards for the full life cycle of plastic and create a ‘level playing field’</li> </ul>
<ul style="list-style-type: none"> <li>Quantitative, time-bound goals and targets</li> </ul>	<ul style="list-style-type: none"> <li>To require all plastics to contribute to a circular economy for plastics (Sri Lanka, Uganda)</li> </ul>	
<ul style="list-style-type: none"> <li>a human rights -based approach</li> </ul>	<ul style="list-style-type: none"> <li>Minimize leakage of plastic into the environment (marine &amp; land )</li> </ul>	

59. The Africa Group submission proposes upstream measures (virgin plastic production), midstream measures (product design and use) and downstream actions (waste management). This is in contrast the submission of the African Petroleum Producers’ Organization, which focuses primarily on downstream measures.<sup>62</sup> The African Environmental Network’s position is more technical, but largely aspirational and generic: (i) establish mechanisms for environmentally sound management of plastics; (ii) promote the limited consumption of plastics and their reuse (iii) establish legally binding measures for polluters (iv) define a maximum pollution threshold according to the type of plastic and the methods of measuring the thresholds.<sup>63</sup> Notably, the RECs have not made submissions, and their positions are assumed to be reflected by the submission of the Africa Group.

60. The Alliance of Small Island States (AOSIS) suggests that the plastics treaty objective would be *“to prevent, reduce and eventually eliminate plastic pollution”*.<sup>64</sup> AOSIS considers that core components include: (i) a high level of initial ambition across the full-life cycle of plastics; (ii) mandatory process based on best available science; (iii) flexibility in implementation for (developing) countries and (vi) mitigation of adverse impacts on economies

<sup>60</sup> Table sources: Submissions to Intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment Second session Paris, 29 May–2 June 2023.

<sup>61</sup>The [Africa Group submission](#) (excluding Egypt)

<sup>62</sup> African Petroleum Producers’ Organization, 2023. [Submission on the Potential options for Elements Towards an international Legally Binding Instrument to End Plastic Pollution.](#)

<sup>63</sup> [African Environmental Network’s position](#) in INC-2.

<sup>64</sup> [AIODIS position in INC-2.](#)

### **2.2.1 Principles, obligations and policies**

61. As stated by the Africa Group, the principles set out in the Rio Convention provide an adequate foundation for action. Existing national action plans and strategies refer to many of these principles or approaches, including (for example): the polluter pays principle, precautionary approach, equity, gender, human rights and other high-level considerations. A detailed discussion of relevant principles, international legal obligations and regional policies is provided in the background report prepared for AIODIS.<sup>65</sup>

62. As previously indicated, states already have international obligations to address pollution under UNCLOS and other conventions (e.g., Basel, Bamako conventions and IMO/MARPOL). In particular, states have obligations under UNCLOS, Part XII to “*prevent, reduce and control*” MPP (i.e., all forms of marine pollution). Specifically, states are obliged to: adopt and enforce national laws that take into account international efforts to “*establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources*”. States are also **obliged to cooperate to establish competent international regimes**.<sup>66</sup> Plastic production accounts for an increasing proportion of global GHG emissions and states have made commitments to emissions reduction. Many states have also incurred international obligations related to plastic pollution through adhesion to conventions on biodiversity, international rivers and chemical pollution.<sup>67</sup>

### **2.3 Core components of the proposed action plan**

63. The following are the core components of the proposed regional action plan. They do not necessarily address all the element of the numerous national plans, but focus on those areas where regional cooperation can provide substantial national and regional benefits. The following sections detail the proposed core components:

1. Support for **national action plans**, strategies, or roadmaps to manage the plastic life cycle.
2. Shared and enhanced **knowledge** and understanding of the plastic economy and life cycle, including at regional scale, and enhanced human and institutional **capacity** to manage the life cycle.
3. **Regional alignment** on policy approaches, including: (i) on **trade** in plastics and plastic waste; (ii) on key fiscal and **regulatory measures**; (iii) on relationships with **industry**, in particular with major regional producers or distributors of plastic or plastic products and with the key circular economy actors; and (vi) development of common positions for engagement with **global initiatives**, including the proposed ‘plastics treaty’, either directly, through the RECs, or through the AU.
4. Joint efforts to access to **affordable finance** to support priority national and regional activities.

64. The Africa Group proposed that the following elements to be included in the ‘plastics treaty’. This strategy attempts to create the space to further advance these actions:<sup>68</sup>

- a) reducing overall plastic production and use
- b) specific and measurable actions to tackle plastic pollution including cooperation to control plastic pollution and virgin plastics
- c) ensuring a just and inclusive transition for informal waste workers and affected communities, especially in developing countries

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<sup>65</sup> Kelleher, *op. cit.*

<sup>66</sup> See e.g., UNCLOS, Art 207.1 and 4, Art. 213, Art 214.

<sup>67</sup> BRS MEAs & Minamata Convention, 2021. [Interlinkages between the Chemicals and Waste Multilateral Environmental Agreements and Biodiversity – Key insights](#). There are more than 800

marine and coastal species affected by marine debris through ingestion, entanglement, ghost fishing and dispersal by rafting, as well as habitat effects. 100% of marine turtle species, up to 66% of marine mammal species, and 50% of seabird species are affected by entanglement or ingestion of plastics from the ocean

<sup>68</sup> The [Africa Group submission](#).

- d) promoting sustainable production and consumption and circular economy approaches to address plastic pollution, including resource efficiency, product design and reuse, that retain plastics in the economy
- e) avoiding adverse consequences of the implementation of the legally binding instrument on the climate, on biodiversity, and on food security.

### **2.3.1 Supporting national strategies and plans**

65. National plans are the fundamental building blocks of a strategy to combat MPP. The proposed regional plan would support the implementation of national plans with a focus on common challenges. Actions at the regional level can provide synergies, source financial and technical support, foster policy alignment, enhance effectiveness and address transboundary challenges (e.g., garbage disposal by international shipping). The target areas would reflect the demand from countries as reflected in their national policies and approaches (e.g. see par. 1.3.2 above) and the challenges common to many countries. These could include (examples only):

- a) review of effectiveness of plastic bag regulations<sup>69</sup>
- e) assessment of microplastic pollution sources and flows
- f) best practices in municipal contracting of waste service providers<sup>70</sup>
- g) guidelines on design/ implementation/ contracting of EIAs for landfill sites
- h) review of technologies, such as incineration, including scalable technologies for use in rural areas and adoption of appropriate technologies developed by African entrepreneurs
- i) design of institutional support for informal waste collectors / waste pickers<sup>71</sup>
- j) design of awareness programmes and sharing of awareness materials
- k) financing of national action plans (see below).

66. In the rapidly changing world of plastics, support for updating or revision of national strategies plans as may be required.<sup>72</sup> Particular attention may be directed to marine sources of MPP, such as the design of extended producer responsibility for waste or lost fishing gear and schemes to dispose of end-of-life GRP (fiberglass) fishing vessels and recreational boats.<sup>73</sup>

67. A range of country analyses (including several noted above) highlight many challenges common to Sub-Saharan countries: weak baseline information; weak capacity and finance for solid waste management; coordination among national institutions and with the private sector; circular economy technologies and investment climate; and support for the informal waste sector. A regional approach may leverage resources to address many of these shared challenges.

68. A number of countries in the region produce raw or virgin plastic or industrial scale recycled plastic raw material. Defining a niche or role for African production of recycled plastic raw materials faces both opportunities and challenges. For example, regional schemes could require certified recycled content in selected plastic products or set tariff preferences for such product when sourcing African recycled plastic feedstuff.

### **2.3.2 Shared knowledge and capacity building and public awareness**

69. Shared knowledge and capacity building are common theme in the submissions on the proposed global treaty and also feature in most national approaches to waste management and plastic pollution. The measures take various forms, including:

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<sup>69</sup> Hasson, R., et al. 2007. [The Economics of Plastic Bag Legislation in South Africa](#). South African Journal of Economics 75(1): 66-83.

<sup>70</sup> Medina, M. 2010. [Solid Wastes, Poverty and the Environment in Developing Country Cities – Challenges and Opportunities](#). Working Paper - UNU-WIDER, 2010 - Helsinki, Finland. Waste management usually accounts for 30–50 per cent of municipal operational budgets.

<sup>71</sup> Waste pickers Around the World (WAW) – [Africa](#).

<sup>72</sup> See: Sustainable Seas Trust & Ecogeos. [Draft guidelines for the development of legislation and policies on marine litter in Africa](#).

<sup>73</sup> <https://www.recyclermonbateau.fr/>

- a) a transparent reporting framework on plastics
- b) scientific advice, possibly in a similar arrangement to that provided by the IPCC on climate change
- c) technology development, with measures to enable rapid and cost-effective sharing or transfer of technologies
- d) capacity building along the entire plastics value chain.

70. Effective monitoring of plastic trade, consumption, plastic waste and marine plastic pollution provides the information base for analysis and science-based advice on measures to combat plastic pollution, helps assess the impact on health, the national economy and the marine environment. Shared monitoring and reporting methodologies lay the foundation for contributions to African or global assessments of the state of the oceans and progress in tackling MPP.

71. Public awareness drives changes in consumer behavior and in public investment. It drives policy change, decision-making and participation in sustainability initiatives and schemes to combat MPP. In particular, public awareness drives political processes. Changed public opinion on plastics is a key to the social acceptance of measures which may increase consumer prices. Allocation of national and municipal public resources to improved waste management requires political choices. The high capital and recurrent costs associated with waste management; with measures to reduce plastic consumption (e.g., bans on plastic bags); or increases municipal charges for waste collection can generate social dissent in the absence of enhanced public awareness.<sup>75</sup>

### **2.3.3 Alignment of policies and approaches**

72. At the regional level, it is proposed that policies, measures, standards and information flows will be aligned through initiatives facilitated by the Regional Economic Communities (RECs), by the AU or other competent regional agency. For example, at a technical level regional fisheries bodies may address MPP arising from waste fishing nets and end-of-life GRP (plastic) vessels. Port authorities may share information on ships garbage logs. Environment ministries may coordinate efforts to track the transboundary movement of microplastics in water bodies.

73. Regional alignment can deliver multiple shared benefits, in particular in relation to the following priorities areas which are further detailed below:

- a) policy and regulatory frameworks
- b) trade in plastics and in plastic waste
- c) financing national and regional action plans
- d) global fora
- e) collaboration with industry
- f) circular economy innovation and initiatives including recognition and development of informal waste management activities and<sup>76</sup>
- g) knowledge and capacity building.

#### **Policy alignment between countries.**

74. Recent consultations undertaken in preparation of the plastics treaty underscored the diversity of approaches and the need for further alignment of Africa's policies that address plastic pollution.<sup>77</sup> There is already some alignment in some RECs (e.g., an EAC ban on some plastics). However, there are benefits in enhanced policy alignment between the RECs to create a regional enabling environment for investors in the circular economy, for design and implementation of regulatory measures, to generate scientific advice on trade-offs, to negotiate regional EPR schemes, and to assess the effectiveness of approaches to combat MPP in different countries.

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<sup>75</sup> Japan and UNIDO. 2022. [Partnering for Africa's challenge on plastic pollution](#).

<sup>76</sup> See: Waste pickers Around the World (WAW) <https://globalrec.org/waw/list/?continent=africa>

<sup>77</sup> WWF and the African Union Commission. 2022. A Global Treaty on Plastic Pollution: Perspectives from Africa – Workshop Report. WWF South Africa, Cape Town, South Africa.

[https://au.int/sites/default/files/documents/41658-doc-WWF\\_AUC\\_Africa\\_Regional\\_Plastic\\_Policy\\_Report.pdf](https://au.int/sites/default/files/documents/41658-doc-WWF_AUC_Africa_Regional_Plastic_Policy_Report.pdf)

75. Harmonised positions can draw attention to the information gaps, capacity and resource deficits, special considerations for trade measures, the issue of MPP generated by non-African sources and carried into African seas by ocean currents. Cooperation among port authorities can help monitor compliance with MARPOL requirements by international shipping and fishing vessels.

### **Policy alignment in global fora**

76. It is proposed that the action plan support the formulation of common policy platforms either through the RECs, the AU or by other means. The targeted fora may include the plastics treaty negotiations, UNGA reports and resolutions, WTO discussions on plastic trade, discussions on IMO and Basel measures. The exercises of formulating consolidated regional positions drives analysis and refines policy interpretation and application. There are substantial regional benefits in ‘speaking with one voice’ in global fora and acting to support a common position. A common regional voice or position may allow more effective coverage and influence in many of the technical advisory bodies, or committees, which manage the international agendas and prepare proposals for resolutions, measures, or guidelines and shape international initiatives, including on access to finance and resources to combat MPP. The Africa Group has already been formed to present a common position in the ‘plastics treaty’ negotiations. Participation by smaller countries in the numerous technical or expert committees supporting the international conventions is costly, particularly in terms of the time and focus of senior officials and establishment a common voice can articulate the concerns of these countries.

77. The proposed action plan will direct particular attention to the ‘plastics discussions’ in the WTO Committee on Trade and the Environment and to any recommendations to be considered by the WTO ministerial conferences (see below).<sup>78</sup>

Given the difficulty of small and island economies to manage certain types of plastic waste, specific attention is required to numerous emerging issues, including on extended producer responsibility extending to trade in wastes generated by imported products.

### **Alignment of trade in plastics**

78. Alignment of trade measures will create larger markets for plastic waste and facilitate the economies of scale required for developing a plastics circular economy. Alignment of trade means common regional plastic product definitions, harmonized tariffs regimes, harmonized customs codes and import and export standards.<sup>79</sup> It means similar classification of single-use plastics, equivalent standards for waste plastic, similar approaches to EPR schemes, and potentially, common codes of best practice for industry.<sup>80</sup>

79. Smaller countries may not have the volume of some plastic waste products to economically sort, reuse or recycle. Crafting EPR measures, harmonised approaches and common regional targets and custom codes can reduce the costs to consumers and producers, streamline their development and facilitate effective monitoring of compliance.<sup>81</sup> Trade alignment can also facilitate monitoring of recycled plastic content in products, facilitate market access for regional products which are sustainable

<b>Sub-Saharan Regional Economic Communities, Trade arrangements and issues in harmonising trade</b>
<b>Regional Economic Communities (RECs)</b> Common Market for Eastern and Southern Africa (COMESA)(customs union) East African Community (EAC) Economic Community of Central African States (ECCAS) Economic Community of West African States (ECOWAS) Southern African Development Community (SADC) Southern African Customs Union (SACU)
<b>Non-REC cooperation or trade arrangements</b> African Continental Free Trade Area (AfCFTA) Agreement IGAD Intergovernmental Authority on Development (IGAD) (cooperation) Indian Ocean Commission (IOC) (not a REC) Indian Ocean Rim Association (not a REC) Bilateral. West Africa and the European Union EPA (not in force)

<sup>78</sup> Committee on Trade and the Environment

[https://www.wto.org/english/tratop\\_e/envir\\_e/wrk\\_committee\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/wrk_committee_e.htm).

<sup>79</sup> [Communication to the World Customs Organization \(WCO\) on the work of the IDP in support of efforts to address plastics pollution.](#)

<sup>80</sup> See the African Continental Free Trade Area discussions. <https://au-afcfcta.org/>

<sup>81</sup> See case study: GPAP, 2022. Trade and the Circular Economy: Plastics Action in South Africa 2022.

substitutes for plastic, and create business opportunities at scale for intermediaries that assess and certify compliance with the rules of the new plastic economy.

80. Common standards underpin any regional or online market in plastic waste.<sup>82</sup> The global market for plastic waste management is estimated at \$33 billion in 2021 and is projected to increase to \$39 billion by 2028, partly as a result of pending rules on recycled content for some plastic products. African countries have an opportunity to access this market. However, economies of scale are important in production of recycled plastic raw material which requires rigorous standards and product quality assurance.

81. The RECs generally benefit from a common customs union and several of the REC and trade cooperation agreements make provision for alignment of customs and tariff codes and a common external tariff.<sup>83</sup> Most of the RECs have provisions on entering trade agreements with third parties (e.g., other RECs).<sup>84</sup> The African Continental Free Trade Area agreement (AfCFTA (Art 3(h)) provides for solutions to the challenges of multiple and overlapping REC, or trade cooperation memberships to expedite the continental trade integration processes.<sup>85</sup> A further challenge is that the Economic Partnership Agreements (EPAs) with the European Union are not aligned with the RECs.<sup>86</sup> Alignment of trade measures on plastics may require a dedicated high-level process.

82. Common trade standards can facilitate a regional online market for plastic waste and the supply of raw material to replace virgin plastic.<sup>87</sup> Substitution of the 'lower cost' virgin plastic with recycled 'higher cost' raw material is likely to involve market interventions which ideally would be harmonized at the regional level.<sup>88</sup> The region can potentially draw on norms developed through the Stockholm, Basel and Bamako Conventions and lessons from international experiences (e.g. Maldives single use plastics laws, WTO Committee on the Environment discussions, EU plastics and REACH directives).<sup>89</sup>

83. A common position in relation to 'environmental aspects of trade in plastics' is likely to emerge as a challenging area for interpretation of WTO rules.<sup>90</sup> A common regional stance may help prevent WTO disputes with individual countries with respect to their trade measures.

### **Alignment in relations with industry**

84. Business is the primary producer, consumer, distributor and reuser/ recycler of plastics. Both business and consumers benefit from plastics but rarely pay directly for the environmental costs incurred. Society bears these costs. Responsible business can bear an equitable proportion of the environmental cost of plastic waste through fiscal and other measures. Alignment on relations with industry, in particular with the upstream manufacturers and distributors of plastic products (e.g., producers of packaging) at regional scale can also create economies of scale, help industry plan investment and create larger regional markets for more 'sustainable' plastics, or their substitutes. The initial targets could include the bottled drinks manufacturers and distributors, fishing net suppliers, elimination of undesirable plastics (e.g., toxic additives, un-recyclable) and dialogues on the introduction of EPR schemes at the regional scale.<sup>91</sup>

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<sup>82</sup> [The Global Waste Marketplace](#).

<sup>83</sup> E.g., UEMOA. [Harmonised tariff codes](#) Tarif Extérieur Commun 2017 Section VII (plastics) Ch 39. (39.01-39.26).

<sup>84</sup> For examples of challenges to harmonised trade standards on plastics and plastic waste see: Article XXXI.3 of the SACU agreement; SADC Protocol on Trade (Article XXVIII, paragraph 2); Article 56 of the COMESA Treaty; Article 37 (4a) of the EAC Protocol on the Establishment on the East African Customs Union.

<sup>85</sup> See also: [AEC Protocol on Relations with RECs](#). Article 3(b).

<sup>86</sup> <https://saiia.org.za/research/a-pending-crisis-of-overlap/>.

<sup>87</sup> E.g., <https://www.wastetrade.com/about/>; <https://www.reboundplasticexchange.com/> and others.

<sup>88</sup> By this is meant that when the environmental costs are ignored, virgin plastic generally has a lower price than recycled plastic raw material, so that to increase demand for recycled plastic market interventions may be required which may possibly be contested under WTO rules.

<sup>89</sup> EU plastics. [https://environment.ec.europa.eu/topics/plastics\\_en](https://environment.ec.europa.eu/topics/plastics_en).

<sup>90</sup> See: [WTO Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade](#).

<sup>91</sup> Examples of approaches are provided by: waste-picker associations, ACEN, Parley, Ocean Innovation Africa. See also: [Hidden Hazards: The Chemical Footprint of a Plastic Bottle](#).

### **Innovation and the circular economy**

85. Alignment can create synergies, facilitate transfer of technologies, benefit from experiences and potentially avoid duplication of effort. Financing of innovation and emerging circular economy enterprises becomes more attractive at scale where transaction costs can be reduced and risks can be offset by bundling and diversifying investments using ‘accelerators’ or impact investment schemes.

### **Alignment of knowledge management**

86. The need for standardized approaches to knowledge management has been noted above. For example, standardized means of assessing and monitoring plastic waste and MPP can facilitate compilation and interpretation of regional trends, identify hotspots or transboundary transport of MPP function.<sup>92</sup> Capacity building cuts across all activities from the wellbeing of waste-pickers, through training of customs officials to backstopping circular economy innovators. In the WIO region, the Our Blue Future initiative and the proposed WIO Regional Information Management Strategy (IMS) may support these activities.<sup>93</sup>

## **2.3.4 Financing**

87. Financing is arguably the main constraint to implementation of national and regional action plans to combat plastic pollution and solid waste management in general. In the WIO region, as part of the preparation of the Regional Ocean Governance Strategy (ROGS), an extensive stakeholder dialogue on financing is planned. This dialogue will address blue financing in general and financing to combat all forms of marine pollution is expected to be a significant part of these discussions given the high capital costs of solid and liquid waste management.

88. The action plan proposes that the financing required to combat MPP be part of a broader blue financing architecture to be developed as part of the ROGS. The rationale and key elements of this architecture are set out below.

### **Demand for investment**

89. There is a strong regional demand for finance to combat MPP and solid waste management more generally. The financing needs are broadly similar throughout the region and fall into several broad categories:

- a) capital investment in infrastructure for solid waste collection, for reuse, for recycling, or for final disposal
- b) investment a circular economy for plastics and other wastes (e.g., innovation accelerators)
- c) investment in institutional arrangements to underpin sustainable waste management. Institutional investments include, for example: design of waste management systems at municipal level (such as, financing recurrent costs, cost recovery, the private sector contracting arrangements, a reduced carbon footprint); raising consumer awareness; establishing the enabling environment for changed business and consumer behaviours.

### **Supply of capital**

90. There is a large pool of ‘blue’ and ‘green’ capital seeking viable investment opportunities in sustainable practices. This capital is managed by global funds, philanthropic foundations, impact investors, international financial institutions, pension funds, insurance companies and many others.<sup>94</sup> Investors typically need a large stream of similar investments in order to generate economies of scale, to modulate risks, to track comparative performance and impacts, to negotiate co-finance and to generate implementing capacity at regional scale in both the public and private sectors.

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<sup>92</sup> See, e.g. the [Pacific Islands marine waste dashboard](#).

<sup>93</sup> See, e.g. the Pacific Islands marine waste dashboard. <https://pacific-data.sprep.org/data-dashboard/marine-waste-pacific>.

<sup>94</sup> Examples include the Climate Funds, World Bank, International Finance Corporation, the GEF and FFEM and many others.

### **Business as usual**

91. In a business as usual approach, many solid waste management investment projects are individually financed and assessed (baselines, risks, returns, economic viability, social and environmental benefits and management modalities). This implies high transaction costs and many projects get ‘dropped’ because of these high transaction costs, because of preparation delays or financing issues, or because of the challenges in linking investments to global goods and commitments, such as clean oceans, clean water, poverty reduction, or human health. It also means that regional or global co-benefits (reduced carbon emissions, health benefits) may not be fully reflected in the impact assessment and financing. Typically, these investments are complex, requiring long-term social, economic and environmental returns on investments. Each project may require extensive negotiations on the contributions by national and municipal authorities. Projects need to establish long-term contractual arrangements with private sector service suppliers to enable these enterprises to finance infrastructure investments. The projects are contingent on environmental assessments and local planning permits for any landfills and numerous other arrangements (e.g. approval of plastic taxes, increased waste collection charges, functional EPR schemes). The business as usual scenario has many of the following characteristics:

- a) few investment-ready projects and planning for future investments often constrained by political factors and financing horizons
- b) limited collective dialogue between impact investors, development partners, international financial institutions, municipal implementing agencies and the private sector
- c) inadequate baseline data on waste streams and the potential social and environmental benefits of investments making impacts difficult to baseline or track
- d) success stories not shared or replicated and limited appreciation of how the waste streams can be organised to generate economic returns
- e) uncertainty, political risk and weak municipal authorities makes projections of financial performance and expected returns challenging.

### **Recurrent costs of waste management**

92. Solid waste management typically costs \$35/ton and absorbs up to 20% of municipal budgets in low-income countries.<sup>95</sup> Globally about half of investments in waste services are made by local governments, with an estimated 20% ‘subsidy’ from national governments, and 10–25% invested by the private sector (depending on the services provided by the private sector). National governments typically finance up to 50% of the recurrent costs of municipal waste management. The capacity to impose user charges (such as collection fees) for waste services varies widely with the regulatory regime, the effectiveness of the municipal authorities and the income level of the community.<sup>96</sup>

### **Scaling up at regional level – regional portfolio**

93. The demand for SWM investments can be ‘bundled’, or aggregated across the region and the individual projects (or proposals) structured as a ‘portfolio’ of potential investments in sustainability, in environmental resilience and in adaptation to human pressures on the environment. Each ‘municipal’ project can draw on a ‘menu’ of common components. These may include (for example): waste reduction and collection, circular waste economy, landfill, incineration, managing cost recovery and municipal finance, regulatory reform, extended producer liability schemes, or awareness raising campaigns. Each municipality or project may tailor and combine these modules to meet its particular requirements. Such a ‘menu’ would need to be sufficiently generic to accommodate the diversity of municipalities, risk guarantees, cost recovery schemes and other elements, but collectively it establishes a range of solutions, experiences and approaches.

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<sup>95</sup> Kaza, S. et al. 2018. *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*. Urban Development. World Bank. See Chapter 5 on financing. See also: Kaza, S. et al. 2021. *More Growth, Less Garbage*. World Bank. Washington, DC. for updated waste projections for Sub-Saharan Africa.

<sup>96</sup> For more details see: World Bank. 2021. *Bridging the Gap in Solid Waste Management: Governance Requirements for Results*. Washington, DC. (Chapter 4).

<https://openknowledge.worldbank.org/server/api/core/bitstreams/a942fa2b-f011-5341-88d0-4e149aaaa4c1/content>.

94. A regional (virtual) portfolio creates a scale of investment which is more attractive to major institutional investors. It opens the opportunities to These investors can then plan a medium/long-term series of investments within a common framework, offset risks with the diversity of investments, and use common metrics to assess the investment opportunities and performance.<sup>97</sup>

95. The intention is not to create a fund, but a platform to access affordable finance for common types of investment and a means to blend various forms of financing, such as grants, loans, debt, private equity or municipal bonds in order to meet the specific requirements of different investments. For its preparation, the platform could draw global and regional experiences, including African climate finance and blue economy initiatives.<sup>98</sup>

### **Blue taxonomy**

96. A blue taxonomy can provide a classification of economic activities and investments according to their contributions to blue (or green) sustainability objectives (e.g., SDG 14 objectives and indicators, net zero targets). The taxonomy establishes verifiable scientific criteria and metrics to rate and track the environmental, social and economic benefits of investments. By structuring the investment portfolio within a blue (or green) taxonomy, the proposed platform can provide a framework to access concessional or affordable sources of finance at the scale required. It presents individual investment projects as a constituent part of regional and global investment in sustainability through advancing ‘net zero’, or reducing the ocean’s microplastic load. The taxonomy helps capture intangible benefits, such as marine ecosystem function (e.g. reduced seabird mortality), or the health of unborn generations (reduced microplastic load in seafood).<sup>99</sup>

97. Experiences in the use of a green taxonomy in the EU and ASEAN can to inform development of an initial blue taxonomy in order to structure linkages between major sources of investment finance and the demand for investment in healthy oceans. The EU and ASEAN experiences focus largely on climate (net zero), biodiversity, or nature-based solutions rather than sustainable oceans, but the framework can readily be applied to a blue taxonomy. The EU taxonomy includes a specific activity to facilitate transition of polluting activities.<sup>100</sup> The ASEAN green taxonomy allows for transition pathways to address hotspots, e.g., eliminate landfill burning of plastic waste, or closure of coastal landfill sites as a first step while aiming to move to plastic reuse/ recycling in subsequent phases. AMCEN has called for greater engagement with finance ministers to address the funding gap in investment in the environment.<sup>101</sup>

## **2.4 Implementation arrangements**

98. This section outlines the possible institutional arrangements for implementation of the action plan. Given the critical importance of financing, it is orientated around the arrangements required to secure finance at a regional scale to support the range of action plan undertakings. The main actors fall into four groups:

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<sup>97</sup> Thornton Matheson. 2019. [Disposal is Not Free: Fiscal Instruments to Internalize the Environmental Costs of Solid Waste](#). IMF Working Paper.

<sup>98</sup> African Union, 2022. [African Union Climate Change and Resilient Development Strategy and Action Plan \(2022-2032\)](#) - see section 4.3; Africa Blue Economy Strategy (2019).

<sup>99</sup> See, e.g. Solid Waste Tariff Setting Guidelines for Local Authorities, Department of Environmental Affairs, South Africa, May 2012; Pacific Islands factsheet on human rights and plastics.

(<https://wedocs.unep.org/handle/20.500.11822/37406> and <https://digitalcommons.schulichlaw.dal.ca/bhreplastics/>). Links between microplastics and human health are still the subject of intense study.

<sup>100</sup> EU Taxonomy Regulation (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852>) ‘Substantial contribution to pollution prevention and control’ (Art. 14) and ‘Transition to a circular economy’ (Art 13). See also Ch.2. Art 3 (criteria) and Art 20 ‘Platform on Sustainable Finance’.

<sup>101</sup> AMCEN, Decision 18/1(d): Strengthening collaboration with the African Ministers of Finance and Economic Planning. “*To encourage Member States to mobilize and allocate the financial resources needed to develop the required institutional frameworks and physical infrastructures for efficient and integrated waste management systems*”

- a) The **executors**. These are the national and municipal authorities responsible for solid waste management at national level. These are notionally represented at regional level by the RECs for the purposes of this scenario
- b) The **financial partners**. These include local commercial banks, international financial institutions, environmental funds (e.g., the GEF, FFEM, climate funds), development partners, impact investors (e.g., Ocean 14 Capita Fund), philanthropic foundations and others
- c) **Private sector** – generators of plastic waste (e.g., manufacturer associations, users of plastic packaging) and the enterprises and organisations engaged in waste management (e.g., landfill operators, waste picker associations, recyclers)<sup>102</sup>
- d) The **facilitators**. These are institutions that can support or manage the design and coordination of the regional-scale financing arrangements. At the regional level they include: the Economic Commission for Africa, the AU/AMCEN secretariat, the AfCFTA Secretariat, UNEP/ Nairobi Convention, the AfDB and others. At a global level they include: the World Bank (PROBLUE/ BE4RAP),<sup>103</sup> the World Economic Forum,<sup>104</sup> The Economist,<sup>105</sup> the Ellen MacArthur Foundation<sup>106</sup> and many the others.

99. The Nairobi Convention already has a mandate to advance a marine litter action plan and with the support of some of the above ‘facilitators’ can convene a series of dialogues engaging the four groups listed in the previous paragraph to build the financing architecture to address MPP and land-based sources of marine pollution more generally. If appropriate, the outcomes can be streamed into the ROGS, or managed as a separate process, linked to the work of the AMCEN, or inform the discussions of the Africa Group in ‘plastics treaty’.

100. The goal of the dialogues would be to facilitate access to the required finance at scale by building a financing architecture that reduces the transition costs; facilitates investment project preparation processes through a menu of flexible templates for the most common investments; standardises assessment and performance tracking criteria and metrics; links these criteria and indicators to SDG indicators; and tailors best available practices to the specific requirements of the municipality or project. As part of the ‘plastics treaty’ some negotiators have proposed the establishment of the multilateral fund to address plastic pollution which in the longer-term could potentially be an important source of financing.<sup>107</sup>

101. The potential roles of the key actors in the action plan to combat MPP and develop a circular plastics economy in the region are as follows:

- a) countries and municipalities, through implementation of national plastics action plans<sup>108</sup>
- b) the Regional Economic Communities (RECs) and the Indian Ocean Commission,<sup>109</sup> through:
  - (i) regional alignment of policy frameworks and (ii) alignment of trade measures; (iii) through bringing financing to scale; (iv) through engaging in dialogues with industry and financial institutions; and through (v) considering preparation of REC plastic action plans<sup>110</sup>

<sup>102</sup> E.g., the African Marine Waste Network. <https://sst.org.za/projects/african-marine-waste-network/>; International Alliance of Waste Pickers. <https://globalrec.org/>.

<sup>103</sup> <https://www.worldbank.org/en/topic/environment/brief/blue-economy-for-resilient-africa-program>

<sup>104</sup> <https://www.weforum.org/topics/ocean> and <https://www.globalplasticaction.org/home>.

<sup>105</sup> <https://impact.economist.com/ocean>.

<sup>106</sup> <https://emf.thirdlight.com/file/24/Om5sTEKOn0YUK.Om7xpOm-gdwc/Financing%20the%20circular%20economy%20-%20Capturing%20the%20opportunity.pdf>.

<sup>107</sup> [Proposal from Chile, the Cook Islands, Ecuador, the Federated States of Micronesia, Rwanda, Senegal and Uganda on Means of Implementation.](#)

<sup>108</sup> Lehua Gao, L. 2022. [An evolutionary game study of environmental regulation strategies for marine ecological governance in China.](#) Front. Mar. Sci., 01 December 2022. Volume 9 – 2022.

<sup>109</sup> For the purposes of this document, the Indian Ocean Commission is grouped with the RECs under the term ‘REC’ and has a prominent role in advocacy for all the island countries.

<sup>110</sup> E.g., SADC is considering a strategy to combat marine pollution; the EAF has enacted legislation restricting some plastic products.

- c) the Nairobi Convention through fostering national commitments on actions to combat MPP, including through considering establishing norms of behaviour and performance on MPP within the existing LBS protocol and backstopping the creation of the required scientific advice
- d) financial institutions, through contributing to the development of a regional financing architecture which can bring major investment requirements to scale
- e) the Economic Commission for Africa (ECA), through providing a coordinating and advisory role on the action plan and bridging the environmental, economic and social components.<sup>111</sup>
- f) the UN Environment Programme (UNEP), through advisory and support services, particularly on the environmental dimensions of MPP, on the proposed ‘plastics treaty’ and on other international initiatives.
- g) the African Union, through an oversight and policy review role with particular attention to common positions in relation to the interventions, binding obligations and measures negotiated in the global plastics treaty and alignment of trade arrangement on plastics
- h) private sector and financial sources through articulating requirements for a stable investment climate, policy coherence and effective cooperation with and between public actors
- i) NGOs have a key role to play in fostering awareness, acting as a ‘watchdog’ on performance, providing independent assessments, articulating the needs of informal waste collectors and ensuring that actions take due account of broader environmental and social dimensions.

## 2.5 Next steps

102. It is suggested that the ROGS Task Force and other key stakeholders review the discussion paper/ draft action plan in close consultation with the Indian Ocean Commission, the Nairobi Convention group of experts on marine litter and, if appropriate, with WIO representatives on Africa Group (‘plastics treaty’ negotiators).

103. It is suggested that The Nairobi Convention, on the advice of the Task Force and the IOC and taking account of other stakeholder inputs:

- a) schedule a broader technical dialogue on a MPP action plan within the context of the ROGS and engaging the Indian Ocean Commission, the Nairobi Convention group of experts on marine litter and other key stakeholders
- b) report on the stakeholder feedback on the discussion paper, indicating: if there is broad support; if there are major issues or disagreements; the nature of any major changes proposed and other relevant comments
- c) in terms of process, consider if a regional plastics action plan (if considered necessary) might best be integrated within the ongoing ROGS dialogues, or treated as a separate response to the NC COP decision on marine litter

104. It is suggested that the Indian Ocean Commission request the Nairobi Convention to consider use of the proposed action plan to inform its actions on MPP and the IOC opportunities for supporting follow-up activities with its development partners.

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<sup>111</sup> [https://www.uneca.org/sites/default/files/public/eca-terms-of-reference-and-rules-of-procedure-1994\\_en\\_print.pdf](https://www.uneca.org/sites/default/files/public/eca-terms-of-reference-and-rules-of-procedure-1994_en_print.pdf)