

KENYA NATIONAL ACTION PLAN ON MARINE PLASTIC LITTER FROM SEA-BASED SOURCES



2023-2032

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The views and opinions expressed in the document do not reflect the views or positions of the IMO, FAO or Norad.

Executive Summary

Plastic pollution is a growing menace in Kenya with multiple ecological, social and economic impacts. Kenya has committed to multilateral instruments such as the London Convention and its Protocol, the United Nations Convention on the Law of the Sea (UNCLOS), the Nairobi Convention, the Basel Convention and the International Convention for the Prevention of Pollution from Ships (MARPOL). These multilateral instruments complement the Kenya Constitution 2010 in guaranteeing all Kenyans a clean and safe environment. As part of the global community, Kenya shares in the growing international concern of marine litter and is responsive to the calls by the UNEP-Regional Seas Programme, the United Nations Environment Assembly, and regional endeavors to address this scourge.

Sources of sea-based marine plastic litter (SBMPL) are diverse and include fisheries, aquaculture, shipping and offshore installations. Therefore, Kenya has received support from the Glo Litter Partnerships project, a joint project between the International Maritime Organization (IMO) and the Food and Agriculture Organization of the United Nations (FAO), with funding from the Norwegian Agency for Development Cooperation, to reduce and prevent marine plastic litter from the shipping and fisheries sectors.

This action plan aims to improve the management effectiveness of Kenyan marine and coastal environments through the prevention and reduction of marine plastic litter from sea-based sources and will be implemented for a period of 10 years (2023-2032). The actions outlined in the SBMPL national action plan include actions related to 1) legal, policy and enforcement reforms; 2) institutional capacity and reforms; 3) education and outreach; 4) regional and global cooperation and 5) private sector engagement. The national action plan is both a fulfillment and an enabler towards the achievement of the regional and national strategic goals targeting the environment and natural resources. It is anchored on scientific evidence, multi-stakeholder and participatory approaches as catalysts for preventing and reducing SBMPL along the Kenyan Coast and acknowledges the transboundary nature of SBMPL.

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Acronyms

ALDFG	Abandoned, Lost or otherwise Discarded Fishing Gear
BMUs	Beach Management Unit
CBO	Community-Based Organization
EAC	East African Community
EEZ	Exclusive Economic Zone
EMCA	Environmental Management and Co-ordination Act
FAO	Food and Agriculture Organization of the United Nations
GGGI	Global Ghost Gear Initiative
GPA	Global Plan on Action for the Protection of the Marine Environment from Land-based Activities
ICZM	Integrated Coastal Zone Management
IGAD	Intergovernmental Authority on Development
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IORA	Indian Ocean Rim Association
IUCN	International Union for Conservation of Nature
KAWR	Kenya Association of Waste Recyclers
KCGS	Kenya Coast Guard Service
KeFS	Kenya Fisheries Service
KFS	Kenya Forest Service
KIRDI	Kenya Industrial Research and Development Institute
KMA	Kenya Maritime Authority
KMFRI	Kenya Marine and Fisheries Research Institute
KPA	Kenya Ports Authority
KWS	Kenya Wildlife Service
LC	London Convention
LP	London Protocol
MARPOL	International Convention for the Prevention of Pollution from Ships
MoRT	Ministry of Roads and Transport
MoEF	Ministry of Environment and Forestry
MoTWH	Ministry of Tourism Wildlife and Heritage
MoMBEMA	Ministry of Blue Economy and Maritime Affairs
MoU	Memorandum of Understanding
NAP	National Action Plan
NEMA	National Environmental Management Authority
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
PE	Polyethylene
PP	Polypropylene
SADC	Southern African Development Community
SBMPL	Sea-Based Marine Plastic Litter
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea (UNCLOS)
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
VGMFG	Voluntary Guidelines on the Marking of Fishing Gear
WIO	Western Indian Ocean
WIOMSA	Western Indian Ocean Marine Science Association
WIO-RAPMaLi	Western Indian Ocean Regional Action Plan on Marine Litter and Microplastics

1 Introduction

Marine litter is defined as any persistent, manufactured, or processed solid materials which are discarded, disposed of, or abandoned in the marine and coastal environment¹. It comprises plastic, rubber, glass, metal, clothing, paper, wood, construction and building materials, e-waste, and marine and fishing gear. Whereas it is generally estimated that 80% of marine litter originates from land-based sources, a substantial quantity (approximately 20%) is broadly estimated to originate from sea-based sources². Major land-based sources of marine litter include wastewater treatment plants, overflow from sewers, recreational activities, illegal dumping from industrial and household wastes, and poorly managed waste dumps³. Major sea-based sources of marine litter include shipping and boating⁴; fishing activities and operations⁵; aquaculture⁶ and other ocean uses⁷(GESAMP, 2021).

Marine litter negatively impacts many facets of life, such as the economy, health and the environment. Currently, there are increasing concerns about the risks and adverse effects of marine litter on organisms including entanglement, suffocation, bioaccumulation of toxins, dispersal of non-native marine species, modification of benthic communities and changes in physical conditions of the seafloor. Socially, marine litter causes a reduction in aesthetic value and public safety, including safety at sea. These impacts cumulatively result in changes in the integrity and functioning of marine habitats, and compromise human health through food safety issues and huge economic losses (e.g., conferring cost burdens to tourism, damage to vessels, fishing gear and facilities, losses to fishing operations and cleanup costs).

2 Objective and scope of the National Action Plan

This national action plan aims to improve the management effectiveness of Kenyan marine and coastal environments through the prevention and reduction of marine plastic litter from sea-based sources. The action plan targets the plastic portion of marine litter from sea-based sources and specifically plastic litter from shipping, aquaculture and fishing sectors. The plan will be implemented for a period of 10 years (2023-2032).

¹ Buhl-Mortensen, L., & Buhl-Mortensen, P. (2017). Marine litter in the Nordic Seas: Distribution composition and abundance. *Marine Pollution Bulletin*, 125(1-2), 260-270

² Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., ... & Law, K. L. (2015). Plastic waste inputs from land into the ocean. *Science*, 347(6223), 768-771.

³ Okuku, Eric Ochieng, et al. "Marine macro-litter composition and distribution along the Kenyan Coast: The first-ever documented study." *Marine Pollution Bulletin* 159 (2020): 111497.

⁴ e.g., plastic debris contained in a ship's operational garbage; microplastics in grey water and ballasts; floating wrecks; quays; navigation marks; debris from harbours, shipwrecks and abandoned vessels; lost containers and cargo; wire straps; packaging materials and plastic sheets

⁵ e.g., netting; ropes and lines; floats and buoys; sinkers, anchors and other metallic materials

⁶ e.g., expanded polystyrene (PS) for buoys and insulated containers; high-density polyethylene (PE) floats, ropes, net webbing, storage tanks, pots, tubs and buckets, and piping for water and air supplies; nylon for twine, ropes and nets; polyethylene and polyester (PES) for rope and bags; polypropylene (PP) rope, bags, tubs, buckets, and trays; polyvinyl chloride (PVC) piping, valves, cage and net pen collars, crates; and ultra-high molecular weight polyethylene ropes, and fibre-reinforced plastic for fish transport tanks, floats and boats); offshore dumping (e.g., dredged materials and sewage sludge

⁷ e.g., offshore oil and gas exploration, weather monitoring, artificial reefs, scientific research equipment and fireworks items

3 Kenyan context

3.1 The Country Kenya

Kenya has a total area of 580,367 km² and a population of about 47.6 million⁸. The Country has a coastline of over 600 km stretching from the Kenya-Somalia border at Ishakani in the north (1.7°S; 41.5°E) to the Kenya-Tanzania border at Vanga in the South (4.7°S; 39.2°E)⁹ shared by Kwale, Mombasa, Kilifi, Tana River, Lamu and Garissa Coastal Counties. The Kenyan Exclusive Economic Zone covers an approximate area of 142,000 km², with a potential extension of its continental shelf beyond 200 nm by approximately 103,302 km², pending approval by the United Nations Convention on the Law of the Sea (UNCLOS).

Kenya is endowed with a variety of coastal ecosystems such as seagrass, wetlands, dunes, estuaries, coral reefs to rocky shores, sandy beaches and mangrove ecosystems. These ecosystems have for centuries provided the local communities with several benefits including an abundance of natural resources that sustain coastal communities and are critical for fisheries, aquaculture, tourism, and water resources. They also provide critical functions such as cycling and transport of nutrients, carbon sequestration, waste recycling, air and water purification, flood mitigation and buffering against coastal storms, coastal stabilization from severe weather, water quality and quantity regulation, biodiversity, and spawning habitat for many aquatic species.

Kenya's coastal fishing communities rely significantly on coastal ecosystems for livelihood support due to limited livelihood alternatives. Therefore, sustainably managed marine resources can be a significant factor in poverty reduction and economic growth. For instance, fish resources provide livelihoods for over 27,000 people¹⁰ and contribute to food security by providing up to 10% of daily animal protein intake¹¹. Tourism is one of the biggest and most diverse industries in Kenya, contributing to about 4.1% of the national Gross Domestic Product in 2014¹². Coastal tourism is dependent on a range of niches including national parks and reserves (both marine and terrestrial), coastal beaches, conferences and events, museums and historical sites, and wildlife safaris and ecotourism. Marine tourism in the Kenya value chain is composed of marine wildlife tourism in popular marine national parks and reserves; water sea sports such as scuba diving, speed boat riding, water skiing windsurfing, cruising and sailing; and beach activities. Recently, Kisite Mpunguti Marine National Park received the global Gold Level Blue Park Award for achieving high standards for marine conservation. The award recognizes joint outstanding efforts by Marine Protected Area (MPAs) managers and the community in managing MPAs.

3.2 Status of marine litter

Studies of marine litter in Kenya have concentrated on the beach, floating and benthic litter. Beaches in Kenya have up to 5 macro-litter items/m² dominated by plastic (58%), foam (58%), and rubber (11%) and up to 95 meso-plastics/m². They also accumulate up to 24 litter items/m of beach daily. The occurrence and accumulation of macro-litter vary with location and the dominant activities in those locations. Beaches

⁸ Kenya population and housing census volume 1: Population by County and sub-County. In *Kenya National Bureau of Statistics: Vol. I* (Issue November). <https://www.knbs.or.ke/?wpdmpo=2019-kenya-population-and-housing-census-volume-i-population-by-county-and-sub-county>

⁹ NEMA. (2017). State of Coast Report for Kenya. *Report, 2*, 1–171.

¹⁰ UNEP-Nairobi Convention and WIOMSA (2015). The Regional State of the Coast Report: Western Indian Ocean. UNEP and WIOMSA, Nairobi, Kenya.

¹¹ Obiero, K. O., et al. "High aquaculture growth needed to improve food security and nutrition." *Food and Agriculture Organization of the United Nations: Rome, Italy* (2019).

¹² KNBS (2016). Kenya National Bureau of Statistics Economic Survey, 2016. ISBN: 9966-767-54-1: 280 pp.

located in urban areas have been observed to have more litter compared to remote beaches. About 88% of marine litter collected on Kenya beaches are of Kenyan origin whereas 12% originated from foreign countries including Tanzania (4.7%), India (1.8%), USA (1.0%), South Africa (0.9%), China (0.7%), Thailand (0.7%), UK (0.4%), Uganda (0.3%) and Egypt (0.2%). These observations indicate that local solutions can substantially reduce litter on the beaches. Up to 347,337 litter items per km² of the coastal waters (mainly comprised of 40% hard plastic fragments, 36% soft plastic and 24% plastic line/fibers) have been observed to be floating in the marine environment. The concentration of microplastics observed in marine litter studies undertaken in Kenya ranged between 110 to 255 items/m³. The IUCN¹³ reported that 14 tons of mismanaged/lost at sea fishing gear annually leaks into Kenya's marine waters. Whereas there are limited studies that have quantified litter from sea-based sources, studies of marine litter on Kenyan beaches have reported the presence of fishing-related litter including buoys, ropes, lures, fishing nets, fishing lines, boat fragments and lead sinkers, indicating the considerable contribution of sea-based marine litter sources to total amounts of national marine litter.

3.3 Potential sources of sea-based marine plastic litter

Currently, the Kenyan government is promoting wealth creation through the Blue Economy initiative with the priority sectors being fisheries, marine biotechnology, marine bioprospecting, maritime transport, aquaculture, offshore mining and tourism. Whereas the Blue Economy sectors will play an important role in supporting the Kenyan economy, they are also likely to have adverse footprints through marine pollution particularly marine plastic pollution.

Fishing in Kenya's marine waters is mainly small-scale and artisanal¹⁴, targeting a variety of species using different fishing gears¹⁵. Synthetic gear (longlines; handlines; gill nets, both stationery and drifting; ring nets; beach seines; cast seine; etc.), as opposed to natural gear (such as basket traps, fence traps), form about 70% of gear used in artisanal fisheries in Kenya (**Table 1**). These synthetic gears thus contribute substantially to the amount of Sea-Based Marine Plastic Litter (SBMPL) when such gears are lost, discarded or abandoned at sea. Abandoned, lost or otherwise discarded fishing gears (ALFDG) are considered the major sources of SBMPL contributing to the global ocean burden of plastic marine litter with 5.7% of all fishing nets, 8.6% of all traps, and 29% of all lines estimated to be lost around the world each year¹⁶. The main plastic types from the Kenyan fishing sector include 1) netting, largely comprising mono or multifilament fibre polymers, i.e., polyethylene (PE), polyamide (PA) and polyethersulfone (PES); 2) ropes and lines, comprising a variety of non-biodegradable polymer materials, i.e., polypropylene (PP), polyethylene (PE), ultra-high molecular weight polyethylene (UHMWPE) and 3) floats and buoys, commonly comprising PE, acrylonitrile butadiene styrene (ABS), expanded polystyrene (EPS), ethylene vinyl acetate (EVA) and polyurethane (PUR).

Table 1: The distribution of artisanal fishing gears in Kenyan Coastal Counties (Source: KMFRI, 2018)

Gear type	Kilifi	Kwale	Lamu	Mombasa	Tana River	Total	%
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¹³ IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya

¹⁴ Maina, G. W. (2012). A Baseline Report for the Kenyan Small and Medium Marine Pelagics Fishery. SWIOFP Report.

¹⁵ Samoilys, Melita A., et al. "Artisanal fisheries on Kenya's coral reefs: Decadal trends reveal management needs." *Fisheries Research* 186 (2017): 177-191.

¹⁶ Richardson, K., Hardesty, B. D., & Wilcox, C. (2019). Estimates of fishing gear loss rates at a global scale: A literature review and meta-analysis. *Fish and Fisheries*, 20(6), 1218-1231.

Gillnets	1,111	463	1,847	285	129	3,835	11.4
Longlines	2,938	868	4,659	5,457	589	14,511	43.2
Prawn seines	174	100	126	39	12	451	1.3
Cast nets	137	119	-	101	-	357	1.1
Reef seines	13	56	72	16	-	157	0.5
Handlines	1,488	1,457	616	525	278	4,364	13.0
Scoop nets	154	54	582	21	16	827	2.5
Ring nets	3	35	-	-	-	38	0.1
Trolling lines	306	92	50	106	-	554	1.6
Harpoons	8	6	-	1	-	15	0.0
Hooked sticks	179	123	147	21	-	470	1.4
Pointed sticks	80	244	50	32	-	406	1.2
Hand gathering	56	115	146	10	49	376	1.1
Beach seines	11	38	64	18	-	131	0.4
Monofilament gillnets	1,212	104	1,134	131	212	2,793	8.3
Spearguns	436	363	-	10	-	809	2.4
Big basket traps	249	1,052	105	190	-	1,596	4.7
Small basket traps	412	950	31	335	-	1,728	5.1
Fence traps	14	73	20	37	15	159	0.5
Others	17	26	-	2	-	45	0.1
TOTAL	8998	6338	9649	7337	1300	33622	100.0

Aquaculture is rapidly expanding in Kenya as demand for fish is increasing. Increased demand is driven by population and income growth, increased awareness of the health benefits of fish consumption and changes in lifestyle and consumer preferences. Aquaculture plays a critical role in food and nutrition security, economic empowerment and the creation of employment opportunities for millions of people in Kenya¹⁷. Production from aquaculture systems recorded growth from 4,218 metric tonnes (MT) in 2006 to a peak at 24,096 MT in 2014, representing 15% of total national fish production¹⁸. Mariculture in Kenya has had consistent development since early 2000, with current activities mostly involving the culture of milk fish, mullets, mud crabs, prawns, artemia, seaweeds and marine tilapia. Mariculture systems in Kenya

¹⁷ Cecilia, Muthoni Githukia, et al. "Gender roles and constraints in the aquaculture value chain in Western Kenya." *African Journal of Agricultural Research* 16.5 (2020): 732-745.

¹⁸ Laku, J. K. R. (2021). *Physicochemical Characteristics of Tilapia and African Catfish from Lake Victoria and Selected Fish Farms from the Counties of Kirinyaga and Machakos in Kenya* (Doctoral dissertation, JKUAT-CoANRE).

predominantly encompass the use of earthen ponds, cages, longlines and/or rafts, monolines, sea pens and raceways. Aquaculture sector contributions to marine litter in Kenya are mainly from ropes, net pens, rafts, buoys, mesh bags, anti-predator netting, rigid flotation materials from sea cages, and plastic-lined ponds adjacent to coasts. Marine litter as a result of aquaculture operations is primarily from wear and tear of gear, e.g., from the mismanagement of equipment or normal operations, accidents causing equipment damage, and extreme weather conditions¹⁹.

Occasional dumping at sea of dredged materials from Kilindini and Lamu Ports, which have high volumes of plastics, also increases the number of plastics in Kenya's marine ecosystems. Sewage sludge, from the Kipevu treatment facility, that is discharging at Kilindini Harbour berth 14 is another source of plastics contaminants, particularly microplastics. The port of Mombasa is the major port that receives at least 2 cruise ships and 120 cargo ships per year and handles the discharge of goods and loading through its stevedoring services. In addition, the newly built Kipevu Oil Terminal at the Mombasa Port has the capability of handling four berths and handles six different types of hydrocarbons. All of these port activities have the potential for plastic litter leaking into the marine environment.

Despite the growing sources of marine plastics, Kenya recognizes that healthy coastal ecosystems are the lifeblood of Kenyan communities. Healthy and intact coastal ecosystems can provide valuable services to the people of Africa and the globe as a whole. The Country has therefore identified marine litter as one of the priority pollutants that needs to be addressed through cooperation and collaboration and has come up with several national laws prohibiting marine pollution. Kenya recently developed its first-ever National Marine Litter Action Plan (NMLMAP 2022-2030) that identifies gaps in the management of marine litter and proposed actions to address them. The Government also recently banned the use of single-use carrier bags and the use of single-use plastics in protected areas including national parks, beaches and forests. The Country has ratified several conventions to regulate pollution from the shipping sector, e.g., 1) The MARPOL Convention - Annex V and 2) the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter at sea and its 1996 Protocol.

Kenya is also implementing different initiatives to fight plastic pollution including clean-up activities, outreach programs, revision of policies and laws and enforcement of the ban on single-use plastics. Recently, the Country enacted the Sustainable Solid Waste Management Act that, among other things, introduces circular economy and anchors Extended Producer Responsibility (EPR) principles. However, these initiatives are mainly targeting marine litter from land-based sources, thus underpinning the urgency in putting measures in place to control and reduce pollution emanating from SBMPL.

To address the issue of SBMPL, Kenya received support from the GloLitter Partnerships Project as a Lead Partnering Country (LPC) to develop this National Action Plan to support the IMO Action Plan to Address Marine Litter from Ships and promote compliance with MARPOL Annex V, the London Convention and London Protocol, relevant FAO instruments, including the Voluntary Guidelines on the Marking of Fishing Gear (VGMFG), and the Global Ghost Gear Initiative (GGGI)'s Best Practices Framework for the Management of Fishing Gear. The GloLitter project is funded by the Norwegian Agency for Development Cooperation (NORAD) and implemented by the IMO in partnership with the FAO to assist developing countries to prevent, reduce and control marine plastic litter (MPL) from the maritime transport and fisheries sectors.

¹⁹ GESAMP. (2021). Sea-based sources of marine litter (Gilardi, K. ed.). *GESAMP Working Group 43, GESAMP Work (108)*, 1–109. www.gesamp.org

The development of this national action plan is one of the government’s responses to addressing pollution in the form of marine litter and is in fulfillment of the requirement of Western Indian Ocean Action Plan on Marine Litter and Microplastics (WIO-RAPMaLi), Kenya Integrated Coastal Zone Management (ICZM) and United Nations Environment Assembly (UNEA) resolutions on Regional Seas Conventions to develop action plans that incorporate marine litter issues. The action plan supports the IMO Action Plan to Address Marine Plastic Litter from Ships, that aims to contribute to the global solution for preventing marine plastic litter from entering the oceans through ship-based activities. It will also contribute to the efforts to address marine plastic litter by the Global Partnership on Marine Litter (GPML), a global framework for the prevention and management of marine debris; and the Honolulu Strategy, developed at the 5th International Marine Debris Conference. It further contributes to the achievement of SDG Goal 12 (target 12.4) on the management of chemicals and all waste throughout their life cycle and SDG Goal 14 (target 14.1) on the reduction of marine pollution.

The GloLitter National Taskforce (NTF), with the membership of the State Department of Shipping and Maritime, Ministry of Environment and Forestry, State Department of Fisheries Aquaculture and Blue Economy, Kenya Maritime Authority, State Department of Defense, Kenya Ports Authority, Kenya Marine and Fisheries Research Institute, National Environmental Management Authority, Kenya Wildlife Service, Kenya Fisheries Service and Maritime Technology Cooperation Centre Africa - MTCC Africa, during their meetings identified gaps in the policy, legislative and institutional frameworks and agreed on relevant priorities to fill the gaps to control/reduce the amount SBMPL.

3.4 Summary of Country Priorities Identified

The NTF identified gaps and priorities related to national laws that are required for the implementation of the provisions of MARPOL Annex V, the London Convention and London Protocol and FAO VGMFG. The NTF also identified gaps and priorities related to institutional capacity and reforms, education and outreach, regional and global cooperation and private sector engagement, which will also be addressed by various actions proposed in this action plan. The various priorities identified include:

No.	Issues	Priorities
MARPOL Convention		
1.	Partial domestication of MARPOL Convention and inadequate implementation of relevant national laws.	1.1 Mobilize resources and build adequate institutional capacity to enable full implementation of the national legislations 1.2 Fast track the revision of the Merchant Shipping Act (prevention of pollution from ships regulations) to fully operationalize the MARPOL Convention 1.3 Revise the sectoral roles to specifically address SBMPL

2.	Lack of National Maritime Transport Policy and Administration	<p>2.1 Fast track and finalize the formulation of the National Maritime Transport Policy</p> <p>2.2 Ensure that the policy includes specific provisions for control, prevention and management of SBMPL</p>
3.	Inadequate port reception facilities for any kind of garbage and port state control officers according to MARPOL Annex V provisions	<p>3.1 Provide adequate and operational port reception facilities in all primary and secondary ports and fishing ports and beaches</p> <p>3.2 There is a need to recruit more port state control officers and enhance the capacity of the existing officers</p>
4.	Lack of incentives for the use of Port Reception Facilities for fishing gear	<p>4.1 Establish port reception facilities at the strategic positions at fishing ports and landing beaches</p> <p>4.2 There is a need to introduce incentives, including buy-back programmes and take-back schemes, for the use of port reception facilities in fishing ports and landing beaches</p>
5.	Inadequate garbage management onboard the domestic fleet	<p>5.1 Develop national guidelines for the use of onboard garbage management plans</p> <p>5.2 Enhance enforcement and compliance with MARPOL Annex V provisions</p> <p>5.3 Develop national or local on-board 'best waste management practices or guidelines'</p>
London Protocol		
6.	Partial domestication and implementation of LP	<p>6.1 Develop national legislation to fully domesticate London Protocol</p> <p>6.2 Update the existing national policies and regulations to address SBMPL</p> <p>6.3 Develop regulations to operationalize the existing legislation concerning SBMPL</p> <p>6.4 Strengthen institutional capacity and collaboration for management of SBMPL</p> <p>6.5 Revise sectoral legislation to directly address marine litter, particularly SBMPL</p> <p>6.6 Develop an overarching implementation mechanism for LP</p> <p>6.7 Strengthen technical, financial and human capacity for implementation of LP</p> <p>6.8 Develop and disseminate guidelines for the implementation of LP in the relevant sectors</p>

		<p>6.9 Fast track the development of regulations for the implementation of the National Sustainable Waste Management Act, 2022</p> <p>6.10 Revise the Waste Management Regulations 2006 to address SBMPL</p> <p>6.11 Improve enforcement of the Waste Management Regulations 2006</p>
FAO Voluntary Guidelines on the Marking of Fishing Gear		
7.	Adoption of FAO Voluntary Guidelines on the Marking of Fishing Gear to address ALDFG problems	<p>7.1 Adoption and implementation of the FAO Voluntary Guidelines on the Marking of Fishing Gear</p> <p>7.2 Fast track the finalization of the Fisheries Management and Development (Marine and Inland fisheries) Regulations</p> <p>7.3 Develop capacity for the implementation of ALDFG reduction measures</p> <p>7.4 Facilitate research to identify ALDFG hotspot identification and recovery</p> <p>7.5 Adopt and implement guidelines and a platform for reporting lost gear</p> <p>7.6 Identify and promote innovations that aim at reducing ALDFG</p> <p>7.7 Fast track finalization of the draft regulations of Fisheries Management and Development Regulations</p> <p>7.8 Develop capacity for implementation and enforcement of gear marking</p>
8.	Lack of national or local ALDFG best management practices or guidelines	<p>8.1 Encourage and support initiatives for sighting and reporting lost gear</p> <p>8.2 Support innovation on market-based solutions for ALDFG</p> <p>8.3 Strengthen stakeholder engagement in addressing ALDFG</p> <p>8.4 Strengthen the capacity of Beach Management Units (BMUs) to manage ALDFG</p> <p>8.5 Adopt FAO Voluntary Guidelines on the Marking of Fishing Gear</p> <p>8.6 Enforce registration and marking of fishing vessels with unique identification numbers</p>
Other issues of relevance		

9.	Inadequate awareness on SBMPL	<p>9.1 Enhance awareness creation among stakeholders</p> <p>9.2 Encourage implementation of better waste management strategies and practices</p> <p>9.3 Promote behaviour and attitude changes towards dumping of waste at sea</p> <p>9.4 Encourage underwater and surface water clean-up campaigns to raise public awareness</p> <p>9.5 Enhance community-based education programmes for local fishers and specialized educational programmes for commercial fishers to help address derelict fishing gear</p>
10	Inadequate integration of SBMPL issues in formal education and curriculum	<p>10.1 Development of curriculum and training courses with a focus on marine pollution</p> <p>10.2 Dedicated training to seafarers, BMUs and enforcement officers on SBMPL</p> <p>10.3 Integrate issues of marine litter into the formal education curriculum</p> <p>10.4 Fast track the operationalization of Kenya Fishing Schools</p>
11	Inadequate research on SBMPL	<p>11.1 Carry out more research to estimate quantities of SBMPL</p> <p>11.2 Promote collaborative research to estimate quantities of SBMPL from ships and fishing vessels and the identification of hotspot areas</p>
12	Inadequate engagement of the private sector in initiatives to reduce marine litter pollution	<p>12.1 Forge partnerships with the private sector, NGOs and the scientific community to effectively execute SBMPL mitigative approaches</p> <p>12.2 Enhance collaboration between port waste transporters and government institutions tracking garbage movement from ships</p> <p>12.3 Encourage voluntary agreements and involvement of the private sector to finance and promote SBMPL management</p> <p>12.4 Encourage data and information sharing from the private sectors</p>
13	Inadequate regional instruments for the management of SBMPL issues	<p>13.1 Revise the Western Indian Ocean Regional Action Plan (2018-2023) to incorporate SBMPL</p> <p>13.2 Incorporate issues of SBMPL from shipping and fishing sectors in the regional action plan</p>

4 Action Plan Guiding principles

The development of this action plan has been guided by the following principles:

1. **The precautionary principle** as defined in Section 2 of the Environmental Management and Coordination Act (EMCA) and widely used in Kenya, especially where threats of serious or irreversible damage exist. The principle provides that lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
2. **The polluter pays principle** which requires the polluter to bear the cost of clean-up. In Kenya, the principle Environmental Management and Coordination Act (EMCA) in section 108 employs the polluter pays principle through provision for restoration orders to polluters. The polluter pays principle also guides Kenyan courts in enforcing the right to a clean and healthy environment in section 3 (5) (e) of the EMCA. Its adoption in Kenya can be clearly articulated in the adoption of the Extended Producer Responsibility (EPR) regulations of 2021.
3. **Environmental integration** seeks to ensure environmental considerations are incorporated in the development process through harmonized policy and legal frameworks where marine litter management shall be an integral part to ensure environmentally sound management of human activities and rational use of resources.
4. **The prevention principle** averts damage before it occurs assuming that preventive measures are less costly than mitigation measures. SBMPL management should aim at addressing the prevention of marine litter generation at the source and input into the ocean, before addressing the removal of existing litter along the beaches and improvement of solid waste management.
5. **The ecosystem approach** is an interdisciplinary approach based on the best available scientific knowledge on the ecosystem and its dynamics, human actions influence critical to the health of the marine ecosystems, to achieving sustainable health and use of ecosystem goods and services.
6. **Public participation and stakeholder involvement:** enhancement of public participation and stakeholder involvement, by creating awareness about the problem of marine litter and ensuring a sense of public ownership to build support for relevant measures. Mandatory public participation is enshrined in the Kenyan Constitution 2010.
7. **Best available knowledge and socioeconomic effectiveness:** actions and operational targets should be based on available knowledge of the predominant amounts, materials, items and sources of marine litter found on the Kenyan coastline and take into account the social and economic costs of degradation compared to the costs and benefits of proposed measures.

5 Specific Actions, Responsible Authorities/Agencies/ Institutions, and Timelines

5.1 Structure of the National Action Plan (NAP)

The National Action Plan is organized in five thematic areas

1. Actions related to the legal, policy and enforcement reforms
2. Actions related to institutional capacity and reforms
3. Actions related to education and outreach
4. Actions related to regional and global cooperation
5. Actions related to private sector engagement

5.2 National Action Plan (specific actions)

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
1. Actions related to the legal, policy and enforcement reforms								
Action 1.1	Fast track the revision of the Merchant Shipping Act (prevention of pollution from ships regulations) to fully operationalize the MARPOL Convention, with a focus on Annex V under this project/plan.	High	MoMBEMA	2023	2024	Technical staff, funds	Approval of the Merchant Shipping Act (prevention of pollution from ships regulations) by the cabinet and the Transport Public Works and Housing Parliamentary and Senate Committees	Reports of Senate and Parliamentary Committees on Transport Public Works and Housing Gazette notices
Action 1.2	Develop / Revise the policies, legislation and regulations concerned with aspects of the marine environment to specifically address SBMPL including Fisheries Management and Development Act, 2016; Wildlife Conservation and Management Act, 2013; Kenya Maritime Authority Act, 2006 (Rev Ed. 2012); Kenya Coast Guard Service Act, 2018; Environmental Management and Coordination Act 1999 (Rev Ed. 2016)	High	MoMBEMA; MoEF; MoTW; KeFS, KCGS	2023	2024	Technical staff, funds	Approval of the various bills by the National Assembly and Senate Committees responsible for Fisheries, Environment, Tourism, Transport and National Security for adoption by the parliament	Committee Reports by the National Assembly and Senate Committees responsible for Fisheries, Environment, Tourism, Transport and National Security
Action 1.3	Fast-track the finalization of the National Maritime Transport Policy, incorporating specific provisions on	High	MoMBEMA	2023	2024	Technical staff, funds	Policy drafting workshops and stakeholder meetings	Workshop reports and Meeting minutes

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
	control, prevention and management of SBMPL							
Action 1.4	Ensure compliance to implementing documents for MARPOL Annex V provisions (Regulation of On-board Placards, Garbage Record Book, Garbage management plan, Port State Control, Cargo residues, Verification of Compliance and Domestic accession and implementation)	High	MoMBEMA; KMA	2023	2032	Technical staff, funds	Inspections conducted on 100% of ships docking at Kenyan ports At least 50% of commercial fishing vessels in Kenyan EEZ boarded for inspection	Ship inspection reports Compliance and surveillance patrol reports 100% of non-compliance cases prosecuted
Action 1.5	Develop national guidelines for the use of on-board garbage management plans for ships under 400 GT	Medium	KMA, KeFS, NEMA	2024	2026	Technical staff; funds	Draft guidelines; Approved guidelines	Progress reports
Action 1.6	Adopt and implement/domesticate the provisions of FAO Voluntary Guidelines on the Marking of Fishing Gear and the Global Ghost Gear Initiative's Best Practice Framework for the Management of Fishing Gear, including into national on-board best waste management guidelines	Medium	KMA; KeFS; NEMA	2024	2025	Technical staff; funds	Draft/Approved guidelines	Quarterly progress reports

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 1.7	Develop national legislation to fully domesticate London Protocol (LP)	High	MoEF	2023	2025	Technical staff	Approval of the new Bill by the Environment and Natural Resources Committee of the National Assembly and the Lands, Environment and Natural Resources Committees of the Senate for adoption by the parliament	Reports of the Environment and Natural Resources Committee of the National Assembly, and the Lands, Environment and Natural Resources Committee of the Senate
Action 1.8	Fastrack the gazettelement of the National Sustainable Waste Management (Extended Producer Responsibility) Regulations, 2022)	High	MoEF	2023	2024	Technical staff	Approval of the Regulations by the Environment and Natural Resources Committee of the National Assembly and the Lands, Environment and Natural Resources Committees of the Senate for a doption by the parliament	Reports of the Environment and Natural Resources Committee of the National Assembly and the Lands, Environment and Natural Resources Committee of the Senate
Action 1.9	Enhance enforcement of the Waste Management Regulations 2006	High	NEMA	2023	2032	Technical staff, funds	Monthly enforcement patrols and inspections conducted 100% of non-compliance cases prosecuted by NEMA	Enforcement and inspection reports generated by NEMA Monthly prosecution reports

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 1.10	Develop and disseminate guidelines for the implementation of LP in the relevant sectors	Medium	NEMA	2024	2026	Technical staff, funds	Draft/ approved guidelines	Annual progress reports
Action 1.11	Fast track the finalization of the Fisheries Management and Development (Marine and inland fisheries) Regulations	High	MoMBEMA	2023	2024	Funds	Approval recommendation for the draft regulations by the Agriculture, Livestock and Fisheries committee of the Senate and the Agriculture & Livestock Committee of the National Assembly	Committee reports by the Agriculture, Livestock and Fisheries committee of the Senate and the Agriculture & Livestock Committee of the National Assembly Gazetted Fisheries Management and Development (Marine and inland fisheries) Regulations
Action 1.12	Develop regulations on the use of private marks for distinguishing ownership of fishing gear as provided for under Section 208 (2) (i) of the Fisheries Development and Management Act (2016)	High	MoMBEMA; KeFS	2023	2025	Technical staff	Approval recommendation for the draft regulations by the Agriculture, Livestock and Fisheries committee of the Senate and the Agriculture & Livestock Committee of the National Assembly	Committee reports by the Agriculture, Livestock and Fisheries committee of the Senate and the Agriculture & Livestock Committee of the National Assembly

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
							Adoption by the parliament	Gazetted Fisheries Management and Development (Marine and inland fisheries) Regulations
2. Actions related to institutional capacity and reforms								
Action 2.1	Mobilize financial and technical resources and strengthen institutional capacity and collaboration for the management of SBMPL	Medium	MoMBEMA; MoEF; KMA NEMA	2023	2026	Technical staff; funds	At least 2 SBMPL initiatives collaboratively implemented by MoMBEMA, MoEF NEMA, KMA, other lead agencies non-state actors, e.g., training, technology transfer etc. At least 4 active Memoranda of Understanding (MoU)	Programme implementation reports Stakeholder workshop reports Valid MoUs Project financing documents/contracts
							At least 4 stakeholder engagement workshops annually for addressing ALDFG	

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 2.2	Operational port reception facilities in all primary and secondary ports, fishing ports and landing beaches	High	MoMBEMA, MoRT; KMA; KPA; KeFS NEMA	2023	2032	Technical staff; funds	At least one operational port reception facility established in all fishing and shipping ports	Reception facility operation reports submitted by KPA and KeFS to KMA and NEMA annually
Action 2.3	Recruit more port state control officers	High	KMA KeFS	2023	2024	Funds	At least 10 port state control officers recruited for fishing ports and 10 for shipping ports	Letters of job offer and proof of job confirmation
Action 2.4	Develop technical and financial capacity for the sighting, reporting, recovery and management of ALDFG	High	MoMBEMA; KeFS, KMA, KMFR I	2023	2025	Technical staff; funds	At least 1 technology developed for sighting ALDFG All BMUs trained on sighting, reporting, recovery and management of ALDFG	Catalogue of technologies implemented towards sighting, reporting, recovery and management of ALDFG Lost gear sighting and reporting logs BMUs training reports on sighting, reporting, recovery and management of ALDFG

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 2.5	Facilitate/ promote collaborative research to estimate quantities of SBMPL from ships and fishing vessels and identification of hotspot areas	Medium	MoMBEMA; MoEF; KMFRI; Non-state research organizations, Pwani University, Technical University of Mombasa, WIOMSA, FAO, GGGI, IMO	2023	2032	Technical staff; funds	SBMPL hotspots identified, mapped and surveyed in Kenyan marine waters with at least 40% of SBMPL removed At least 2 collaborative research projects funded and implemented in Kenya	Maps created with SBMPL hotspots identified in Kenyan marine waters; quarterly reports of SBMPL hotspot mapping, survey and recovery campaigns Grant contracts, MoUs, publications, technical reports, policy briefs
Action 2.6	Identify and promote gear tracking and modification technologies to reduce ALDFG and ghost fishing	High	MoMBEMA; KMFRI; KeFS	2023	2024	Technical staff; funds	At least one innovation developed for gear tracking and one for gear modification adopted	Catalogue of innovations developed for lost gear tracking and reduction of ghost fishing
Action 2.7	Develop capacity for implementation and enforcement of gear marking	Medium	MoMBEMA; KeFS	2023	2024	Technical staff; funds; equipment	At least 2 officers trained on gear marking, implementation and enforcement in every coastal sub-county	Project implementation reports; Training reports
3. Actions related to education and outreach								
Action 3.1	Develop short training courses focused on the reduction of SBMPL including the sources, movement,	High	NEMA, Universities (Technical University of	2023	2024	Funds, technical staff	At least one industry-specific training course developed for the marine-based industries	Industry-specific training course outlines

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
	fate, industry best practices for avoidance and recovery of SBMPL		Mombasa, Pwani University), KMFRI; Bandari Maritime Academy				e.g., Commercial fisheries, offshore exploration, undersea cable laying, tourism industries	
Action 3.2	Integrate issues of SBMPL (sources, type, fate, sighting, reporting retrieval, management, etc.) into the formal university education curriculum	High	MoEF Commission for University Education	2023	2028	Funds, technical staff	Number of university courses integrating SBMPL issues (Industry sources, type, fate, sighting, reporting retrieval, management, SBMPL policy and governance) Number of universities implementing SBMPL training as part of marine environment-related courses	Approved university catalogues including SBMPL as part of marine environment-related courses
Action 3.3	Enhance awareness creation among stakeholders on issues of ALDFG	High	MoMBEMA; KeFS; NEMA	2023	2032	Funds, technical staff	At least 1 stakeholder group (e.g., individual BMUs, fishing gear recyclers and up-cyclers, lobby groups, Community-based organizations and NGOs) engaged monthly	Monthly outreach/awareness reports report
Action 3.4	Dedicated training to sea farers, Beach Management Units (BMUs), port	High	MoMBEMA; KMA	2023	2028	Technical staff, funds	At least 100 sea farers, BMU trainers of trainees, port state control officers	Annual training reports explicit on the training

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
	state control officers and enforcement officers on SBMPL		NEMA				and enforcement officers trained by 2028	outcome of each target group
Action 3.5	Fast track the operationalization of Kenya Fishing Schools	High	MoMBEMA, KeFS;	2023	2027	Funds, technical staff	At least one fisheries training center established and operational	The national launching accreditation report

4. Actions related to regional and global cooperation

Action 4.1	Enhance data and information sharing and dissemination for quantity, composition, location and movement of SBMPL	Medium	MoMBEMA; MoEF; KMFRI; NEMA; KMA; WIOMSA; FAO; IMO, WIOMSA	2023	2032	Technical staff; Data and information sharing repository	At least 80% of data sets, meta data and information shared on SBMPL hotspots, quantities, composition, etc.	Download logs, Data sharing correspondences, SBMPL databases
Action 4.2	Lobby the international organizations (African Union, East African Community (EAC); Intergovernmental Authority on Development (IGAD); Southern African Development Community (SADC), FAO, Nairobi Convention and IMO) to encourage the countries in the Western Indian Ocean (WIO) region to ratify and domesticate /implement the provisions of the MARPOL (Annex V), London Protocol and implement regional action plans on the prevention of marine pollution	Medium	MoMBEMA; EAC; IGAD; SADC WIOMSA	2023	2026	Technical assistance from IMO and FAO	Acceptance by the African Union, EAC; IGAD; SADC FAO, Nairobi Convention and IMO to encourage the countries in the WIO region to domesticate the provisions of the London Protocol and marine litter Regional Action Plans	Letter of commitment by African Union, EAC; IGAD; SADC FAO, Nairobi Convention and IMO to engage with identified countries

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 4.3	Revise the Western Indian Ocean Regional Action Plan (2018-2023) to incorporate SBMPL	High	Nairobi Convention, WIOMSA, UNEP, FAO, IMO	2023	2024	Technical assistance through engagement of consultant	Formal engagement of a consultant and evidence of consultative meetings	Updated Action Plan
5. Actions related to private sector engagement								
Action 5.1	Enhance the involvement of the private sector (including fishing, aquaculture, offshore exploration and mining, undersea cable laying, tourism, shipping, etc.) in a awareness creation on SBMPL	High	MoMBEMA; MoEF; KeFS; KMA; KMFRI; NEMA; NGOs, CBOs;	2023	2032	Technical staff, funds	At least 3 awareness campaigns organized quarterly	Public Awareness campaign reports
Action 5.2	Encourage and support initiatives for sighting, reporting and retrieval of ALDFG	High	MoMBEMA; KeFS; BMUs; KMA; KMFRI, FAO, UNEP,	2023	2032	Technical staff, funds	At least 2 lost gear sighting, reporting and recovery programmes initiated At least 50% of reported gear retrieved annually	ALDFG sighting, reporting and retrieval programme annual reports
Action 5.3	Support innovation and market-based solutions to reduce SBMPL	High	KIRDI; KAWR; KMFRI, NGOs	2023	2024	Funds and technical staff, equipment	At least 2 market-based innovations to reduce SBMPL adopted annually	Approved innovation proposals and implementation plans SBMPL innovations incubator programme

Action	Description	Priority Level	Responsible authority	Start Date	End Date	Resources required	Progress indicators	Means of verification
Action 5.4	Encourage data and information sharing by the private sector on SBMPL including discarded and sighted litter	High	KeFS, KMA, NEMA	2023	2024	Technical staff, data and information sharing repository	<p>At least 1 SBMPL innovations incubator programme initiated</p> <p>At least 80% of vessels docking at Kenyan fishing and shipping ports submitting data to the repository</p> <p>At least 30% of vessels docking at Kenyan fishing and shipping ports participating in opportunistic sighting and geo-referencing of SBMPL</p> <p>Data logs on onboard and discarded garbage by ships</p>	<p>incorporation documents</p> <p>Download logs, Data sharing correspondences, SBMPL databases</p>

5.3 Actions requiring external support

Action	Action Description	Country status Assessment priorities	Nature of support
Action 1.2	Develop/Revise the policies, legislation and regulations concerned with aspects of the marine environment to specifically address SBMPL including the Fisheries Management and Development Act, 2016; Wildlife Conservation and Management Act, 2013; Kenya Maritime Authority Act, 2006 (Rev Ed. 2012); Kenya Coast Guard Service Act, 2018; Environmental Management and Coordination Act 1999 (Rev Ed. 2016)	2.2	Support the engagement of consultants to review the various policies, legislation and regulations, and guide their revision
Action 1.5	Develop national guidelines for the use of onboard garbage management plans for ships under 400 GT	5.3	Support engagement of consultants to develop national guidelines for the use of onboard garbage management plans for ships under 400 GT
Action 1.6	Adopt and implement/domesticate the provisions of FAO Voluntary Guidelines on the Marking of Fishing Gear and the Global Ghost Gear Initiative's Best Practice Framework for the Management of Fishing Gear, including into national on-board best waste management guidelines	7.1, 7.2, 7.5, 8.5	Support capacity building on the implementation of FAO's Voluntary Guidelines on the Marking of Fishing Gear and the Global Ghost Gear Initiative's Best Practice Framework for the Management of Fishing Gear
Action 1.10	Develop and disseminate guidelines for the implementation of LP in the relevant sectors	6.3, 6.6, 6.8	Provide technical support through the engagement of a consultant
Action 2.1	Mobilize financial and technical resources and strengthen institutional capacity and collaboration for the management of SBMPL	1.1	Facilitate resource mobilization and institutional capacity building
Action 2.2	Operationalize port reception facilities in all primary and secondary ports, fishing ports and landing beaches	3.1, 4.1	Support a feasibility study for the development of port reception facilities in a selected port as a pilot project in one of the following locations: Mombasa, Liwatoni, or Lamu.

Action	Action Description	Country status Assessment priorities	Nature of support
Action 2.4	Develop technical and financial capacity for the sighting, reporting, recovery and management of ALDFG	8.1	Support training and provide linkage with institutions/industries that recycle/manage ALDFG
Action 2.5	Facilitate/ promote collaborative research to estimate quantities of SBMPL from ships and fishing vessels and identification of hotspot areas	7.4, 11.1, 12.5	Provide technical support for research on hotspots through various FAO initiatives including global ALDFG survey etc. Strengthen collaboration with other global and regional research initiatives including EAF Nansen Programme
Action 2.6	Identify and promote gear tracking and modification technologies to reduce ALDFG and ghost fishing	7.1, 8.1	Support and finance research and development on gear tracking and modification technologies
Action 2.7	Develop capacity for implementation and enforcement of gear marking	7.8	Support training of enforcement officers to enhance compliance with gear marking
Action 3.3	Enhance awareness creation among stakeholders on issues of ALDFG	9.1, 9.4	Support model projects on awareness that can be upscaled by the state and non-state actors
Action 4.1	Enhance data and information sharing and dissemination for quantity, composition, location and movement of SBMPL	12.4	Develop and support the maintenance of data portals on SBMPL
Action 4.2	Revise the Western Indian Ocean Regional Action Plan (2018-2023) to incorporate SBMPL	13.1	Engage a consultant to spearhead the revision of the Action Plan which is due in 2023 Support consultative forums for the review
Action 5.2	Encourage and support initiatives for sighting, reporting and retrieval of ALDFG	12.2, 12.3	Develop/ strengthen collaboration with industries/ initiatives that are engaging in sighting, reporting and retrieval of ALDFG

Action	Action Description	Country status Assessment priorities	Nature of support
Action 5.3	Support innovation and market-based solutions to reduce SBMPL	12.5	Identify and support startups for market-based solutions for SBMPL Support innovation through the launching of competitive innovation grants

6 Implementation and monitoring progress of the Action Plan

The implementation of this action plan will be coordinated by the State Department of Shipping and the State Department of Fisheries, Aquaculture, and Blue Economy. The financing of the implementation of the various actions will be provided by the relevant government ministries, agencies and departments, regional and multinational partners and NGOs, CBOs and the private sector. The various actions' implementation leads will submit annual implementation progress reports to the National Task Force (NTF), which shall be consolidated and submitted to the State Department of Shipping and the State Department of Fisheries, Aquaculture and Blue Economy. Annual reporting against targets and assessment of the effectiveness of the Action Plan shall inform the basis for monitoring and evaluation. The Action Plan shall be implemented during the period 2023-2032, after which it shall be reviewed and updated.

Annexes

Annex 1: Relationship between the National Action Plan actions to Country Status Priorities

Description	CSP	
1 Actions related to the legal, policy and enforcement reforms		
Action 1.1	Fast-track the revision of the Merchant Shipping Act (prevention of pollution from ships regulations) to fully operationalize the MARPOL Convention, with a focus on Annex V under this project/plan.	1.1, 1.2, 1.3
Action 1.2	Develop / Revise the policies, legislation and regulations concerned with aspects of the marine environment to specifically address SBMPL including the Fisheries Management and Development Act, 2016; Wildlife Conservation and Management Act, 2013; Kenya Maritime Authority Act, 2006 (Rev Ed. 2012); Kenya Coast Guard Service Act, 2018; Environmental Management and Coordination Act 1999 (Rev Ed. 2016)	2.2
Action 1.3	Fast-track the finalization of the National Maritime Transport Policy, incorporating specific provisions on control, prevention and management of SBMPL	2.2
Action 1.4	Ensure compliance to implementing documents for MARPOL Annex V provisions (Regulation of On-board Placards, Garbage Record Book, Garbage management plan, Port State Control, Cargo residues, Verification of compliance and Domestic accession and implementation)	5.1, 5.2, 5.3
Action 1.5	Develop national guidelines for the use of onboard garbage management plans for ships under 400 GT	5.3
Action 1.6	Adopt and implement/domesticate the provisions of FAO Voluntary Guidelines on the Marking of Fishing Gear and the Global Ghost Gear Initiative's Best Practice Framework for the Management of Fishing Gear, including into national on-board best waste management guidelines	7.1, 7.2, 7.5, 8.5
Action 1.7	Develop national legislation to fully domesticate London Protocol (LP)	6.1, 6.2
Action 1.8	Fastrack the gazettelement of the National Sustainable Waste Management (Extended Producer Responsibility) Regulations, 2022	6.9
Action 1.9	Enhance enforcement of the Waste Management Regulations 2006	6.10, 6.11
Action 1.10	Develop and disseminate guidelines for the implementation of LP in the relevant sectors	6.3, 6.6, 6.8

Action 1.11	Fast track the finalization of the Fisheries Management and Development (Marine and inland fisheries) Regulations	7.2, 7.7
Action 1.12	Develop regulations on the use of private marks for distinguishing ownership of fishing gear as provided for under Section 208 (2) (i) of the Fisheries Development and Management Act (2016)	7.1
2 Actions related to institutional capacity and reforms		
Action 2.1	Mobilize financial and technical resources and strengthen institutional capacity and collaboration for the management of SBMPL	1.1
Action 2.2	Operational port reception facilities in all primary and secondary ports, fishing ports and landing beaches	3.1, 4.1
Action 2.3	Recruit more port state control officers	3.2
Action 2.4	Develop technical and financial capacity for the sighting, reporting, recovery and management of ALDFG	8.1
Action 2.5	Facilitate/ promote collaborative research to estimate quantities of SBMPL from ships and fishing vessels and identification of hotspot areas	7.4, 11.1, 12.5
Action 2.6	Identify and promote gear tracking and modification technologies to reduce ALDFG and ghost fishing	7.1, 8.1
Action 2.7	Develop capacity for implementation and enforcement of gear marking	7.8
3 Actions related to education and outreach		
Action 3.1	Develop short training courses focused on the reduction of SBMPL including the sources, movement, fate, industry best practices for avoidance and recovery of SBMPL, etc.	10.1
Action 3.2	Integrate issues of SBMPL (sources, type, fate, sighting, reporting retrieval, management, etc.) into the formal university education curriculum	10.1, 10.3
Action 3.3	Enhance awareness creation among stakeholders on issues of ALDFG	9.1, 9.4
Action 3.4	Dedicated training to seafarers, Beach Management Units (BMUs), port state control officers and enforcement officers on SBMPL	10.2
Action 3.5	Fast-track the operationalization of Kenya Fishing Schools	10.4
4 Actions related to regional and global cooperation		
Action 4.1	Enhance data and information sharing and dissemination for quantity, composition, location and movement of SBMPL	12.4

Action 4.2	Lobby the international organizations (African Union, EAC, IGAD, SADC, FAO, Nairobi Convention and IMO) to encourage the countries in the Western Indian Ocean (WIO) region to ratify and domesticate /implement the provisions of the MARPOL (Annex V), London Protocol, and implementation of regional action plans on the prevention of marine pollution	12.1
Action 4.3	Revise the Western Indian Ocean Regional Action Plan (2018-2023) to incorporate SBMPL	13.1
5 Actions related to private sector engagement		
Action 5.1	Enhance the involvement of the private sector (including fishing, aquaculture, offshore exploration and mining, undersea cable laying, tourism, shipping, etc.) in awareness creation on SBMPL	12.1, 12.3
Action 5.2	Encourage and support initiatives for sighting, reporting and retrieval of ALDFG	12.2, 12.3
Action 5.3	Support innovation and market-based solutions to reduce SBMPL	12.5
Action 5.4	Encourage data and information sharing by the private sector on SBMPL including discarded and sighted litter	12.4