Discussion Document (updated)

Towards Sustainable Port Development in the Western Indian Ocean: Overview on Port Legislation, Policies and Authorities

1. Background

The WIO region is experiencing unprecedented pace of large-scale developments ranging from ports, mining, roads and railways, agriculture, and oil and gas among others all principally driven by large infrastructure demands and financial inflows from different funding streams. Most of these developments are concentrated around coastal zones with rich natural resources and while the region has an opportunity to define sustainable trajectories for these investments, they have potential to significantly impact on the integrity of critical habitats and the resource base that future developments will depend on. In the WIO Region coastal communities are strongly reliant on coastal resources for their lives and livelihoods. Complimentary to the *Strategic Framework for Coastal and Marine Water Quality Monitoring and Management in the Western Indian Ocean Region* (UNEP et al. 2021 in prep), the activities proposed here seek to facilitate sustainable port development in the WIO by assessing the environmental impacts of operational, planned, and proposed ports in the WIO Region with the aim of developing different scenarios for future development, produce policy briefs and a Toolkit for Green Port Development that will contribute to sustainable port development in the Western Indian Ocean (WIO).

This discussion document presents a draft overview port legislation, policies and authorities relevant in the WIO region for input and refinement by regional experts.

2. International and Regional Conventions & Agreements

Several countries in the WIO region are signatories to international conventions or agreements to combat and prevent environmental impact directly linked to shipping activities and which may also apply in ports (Table 2.1).

Table 2.1: Key International and regional conventions/agreements directly linked to combat and prevent environment impact directly linked to shipping activities, indicating signatory countries

CONVENTION/ AGREEMENT	DECRIPTION	Comoros	Kenya	Madagascar	Mauritius	Mozambique	Reunion (France)	Seychelles	Somalia	South Africa	Tanzania
International Convention on Civil Liability for Oil Pollution Damage (CLC) (1969, enforced 1975), replaced by 1992 Protocol (1992, enforced 1996)	ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ship - https://www.imo.org/en/About/Conventions/Pages/ListOfConventions.aspx	•	•	•	•	•	•	•		•	•
International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION) (1969, enforced 1975)	Affirms right of coastal states to measures on high seas to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil or threat thereof, following upon a maritime casualty				•		•			•	•
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972) and London Protocol (1996)	Prohibiting dumping of certain hazardous materials. In addition, a special permit is required prior to dumping of several other identified materials and a general permit for other wastes or matter 1996 Protocol to Convention prohibits all		•				•	•		•	•
	dumping, except for possibly acceptable wastes on the so-called 'reverse list'		•	•						•	
	Main international convention covering preve accidental causes:	ntion	of po	olluti	on by	/ ship	s fro	m op	erati	onal	or
	Annex I: Regulations for the Prevention of Pollution by Oil	•	•	•	•	•	•	•	•	•	•
International Convention for Prevention of Pollution from Ships (MARPOL) (1973)	Annex II: Control of Pollution by Noxious Liquid Substances	•	•	•	•	•	•	•		•	•
	Annex III: Harmful Substances Carried by Sea in Packaged Form	•	•	•	•	•	•	•		•	•
	Annex IV: Sewage from Ships	•	•	•	•	•	•	•		•	•
	Annex V: Garbage from Ships Annex VI: Air Pollution from Ships	•	•	•	•	•	•	•		•	•
United Nations Convention on the Law of the Sea (UNCLOS) (1982)	This convention is cornerstone of ocean governance at the national, regional, and global levels. Section 5 addresses prevention of pollution of the marine environment - www.iucn.org/theme/marine-and-polar/our-work/international-ocean-governance/unclos	•	•	•	•	•	•	•	•	•	•
Regional Seas Programme: Nairobi Convention (1985, enforced 1996)	Partnership between governments, civil society, and private sector, working towards a prosperous Western Indian Ocean Region. This Convention offers a regional legal framework and coordinates efforts of member states to plan and develop programmes that strengthen their capacity to protect, manage and develop their coastal and marine environment - https://www.nairobiconvention.org/nairobiconvention	•	•	•	•	•	•	•	•	•	•
International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) (1990, enforced 1995)	Require parties to establish measures for dealing with pollution incidents, either nationally or in co-operation with other countries	•	•	•	•	•	•	•		•	•
International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND) 1992 Protocol (1992, enforced 1996)	Under this Convention, victims of oil pollution damage may be compensated beyond level of ship owners' liability	•	•	•	•	•	•	•		•	•
International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER) (2001, enforced 2008)	The Convention ensures adequate, prompt, and effective compensation availability to persons who suffer damage caused by spills of oil, when carried as fuel in ships' bunkers	•	•	•	•		•	•			
Stockholm Convention (2001, enforced 2004)	Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from	•	•	•	•	•	•	•	•	•	•

CONVENTION/ AGREEMENT	DECRIPTION	Comoros	Kenya	Madagascar	Mauritius	Mozambique	Reunion (France)	Seychelles	Somalia	South Africa	Tanzania
	chemicals that remain intact in the environment for long periods - http://www.pops.int/										
International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM) (2004, enforced 2017)	This Convention aims to prevent spread of harmful aquatic organisms from one region to another, by establishing standards and procedures for management and control of ships' ballast water and sediments		•	•			•	•		•	
2030 Agenda for Sustainable Development (2015)	Adopted by UN member states as an agenda for people, planet, and prosperity. Seventeen Sustainable Development goals were identified of which some are relevant to marine pollution prevention (www.un.org.za/sdgs/2030-agenda/)	•	•	•	•	•	•	•	•	•	•

Agenda 2030 and its Sustainable Development Goals (SDGs) have a central, overarching aim of ensuring environmentally sustainable and socially equitable development, including ports. Indeed, it has been argued that holistic port sustainability actions, when addressing environmental, social and economic interventions can contribute significantly to achieving the UN SDGs due to some commonality in addressing the Triple bottom line (Alamoush et al. 2021).

Regionally, the Nairobi Convention also aims to address the accelerating degradation of the marine environment in the WIO region through sustainable management and use of resources by those sharing these environments. Regional initiatives that may also pertain to the prevention and combating of impacts from ports, include:

- Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities (WIOSAP)
- Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (LBSA Protocol)
- Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (SAPPHIRE)
- African, Caribbean, and Pacific (ACP) Countries Capacity Building of Multilateral Environmental Agreements project (MEAS).

3. Country-based Arrangements

3.1.1 Comoros

The National Agency for Maritime Affairs (ANAM) is the state body responsible for regulating maritime issues directly under the jurisdiction of the Ministry of Transport, Posts and Telecommunications. It has the mission of public service and the authority to develop and operate the international maritime registry of the Union of Comoros. The Port Authority of the Comoros (APC) is the authority responsible for designing the legal framework (establishment of concessions) and regulating port activities (wharf access, security, etc.) in the country (https://dlca.logcluster.org/).

The port of Moroni's formal regulatory body in the APC is the Société Comorienne des Ports (SCP) created in 2013. However, the establishment of SCP has not yet been implemented, so the APC is still responsible for executing policies on the island of Grand Comoros. Bolloré Africa Logistics oversees the Moroni Terminal, which handles container and general cargo operations inside the port of Moroni (Humphreys et al. 2019).

Environmentally related challenges pertaining to the Port of Moron, as derived from the National Five-Year Plan for Accelerated and Sustainable Growth included (Humphreys et al. 2019; World Bank 2018):

- Little specific attention given to infrastructure in port, one of the four defined axes of sustainable development (World Bank 2018)
- No specific attention given to environmental considerations in rehabilitating or developing port infrastructure
- No adequately distinguish between public and private sector responsibilities in terms of management, operations, or financing.

3.1.2 Kenya

The Kenya Ports Authority (KPA) trace its history back to 1967 when the East African Community (EAC) formed by Kenya, Tanzania and Uganda created the East African Harbours Corporation consisting of East African Harbours, East African Cargo Handling Services and East African Railways to run the principal ports of Dar es Salaam, Mombasa and the oil port of Tanga. The corporation was dissolved 1977 and the individual countries went on to set up its own institutions. In Kenya the Ports Authority (KPA) was established under the Kenya Port Authority Act (Chapter 391 of laws of Kenya) in 1978 (https://www.kpa.co.ke/). The Kenya Cargo handling company, which was separately established in 1978 to provide stevedoring services to the Port of Mombasa later merged with KPA to form a single body responsible for all aspects of national port development and operations.

KPA is mandated to develop, maintain, operate, improve, and regulate all seaports along the Kenyan Coast and Inland waterways in Kenya. The Authority is also in charge of dry Ports or Internal Container Deports (ICDs) in Nairobi, Naivasha, Kisumu and Eldoret. The Kenya Ports Authority Act providing regulatory powers to KPA to:

- · Maintain, operate, improve and regulate the ports
- Construct, operate and maintain beacons and other navigational aids
- Construct new ports
- Carry out the business of stevedore, wharfinger or lighterman

- Store goods whether such goods have been or are to be handled as cargo or carried by the KPA.
- Consign goods on behalf of other persons to any places whether within Kenya or elsewhere
- Provide such amenities or facilities for persons making use of the services performed or the facilities provided by the Authority as may appear to the Board necessary or desirable.

The Port of Mombasa complies with the provisions of MARPOL Convention with respect the provision of facilities for the reception of sludge, oily bilge waters, oily mixtures and other residues that cannot be discharged to sea. The current arrangement is that shipping lines make private arrangements with the private licensed port contractors. The port plays a crucial role in terms of port access, supervision of waste collection inside the port to prevent marine pollution and ensuring compliance to the licensing requirements of the Environmental regulator.

As part their rules and regulations for the Port of Mombasa the KPA specifies the following on the environment (www.kpa.co.ke/InforCenter/Pages/Health-and-Safety.aspx):

- Cleanliness is observed while in port
- Litter placed in litterbins provided
- No pollution to atmosphere, land, and marine environment
- No interference or destruction of flora and fauna
- No indiscriminate disposal of wastes including human/animal in yards and other open spaces and housing estates.

In 2017, the KPA adopted a Green Port Policy (GPP) at the Port of Mombasa to improve biodiversity protection. As a result, all ships arriving at the port will be required to convert to electric power instead of diesel engines. This initiative will guide future evaluation towards meeting international standards on sustainable ports (https://knowledge-hub.circle-lab.com/wctd/article/8057). The GPP provides a proactive and comprehensive approach to address the negative environmental impact of port activities and operations focusing on green initiatives, emission reduction and guidance on environmentally friendly port development and operations. Several programmes have been undertaken towards implementation of the Green Port Policies, including:

- Development of integrated Environmental Management Systems (EMS) ISO: 14001 2015
 Occupational Health and Safety Management System ISO 45001: 2018
- Biodiversity protection and forestry programmes focusing on degraded coastal areas
- Development of a Strategic Waste Management Plan for the port of Mombasa
- · Acquisition of environmentally friendly and energy efficient cargo handling equipment
- Comprehensive analysis and study on port Energy needs, alternative energy sources with focus on renewable energy. Implementation of recommended energy efficiency measure are ongoing.

In recognition of the potential environmental and social Impacts of major infrastructural project especially port projects, KPA has subjected all the major development and expansion projects to a comprehensive Environmental and Social Impacts Assessment studies with extensive stakeholder engagement as a key element of the studies before has commencements of the projects. Periodic Environmental auditing also been a key tool in evaluating the environmental performance of existing ports facilities, operations and activities. The nature and location of the port expansion projects and the has also necessitated the need to carry out other assessments, including:

- Heritage Impact Assessments,
- Cumulative Impact Assessments

- Livelihood Restoration plans
- Fisheries surveys
- · Resettlement plans for the project affected parties

Some of the main strategic environmental objectives of ports development and operations in Kenya include:

- Integrating environmental, social, safety and health concerns as priority issues in all ports and infrastructural development and operations
- Ensuring that development of port infrastructure causes minimum damage by incorporating integrated environmental and social impact assessments as a key requirement in ports projects and implementing mitigation measures
- Promoting energy conservation and environmental protection
- Encouraging the efficient and cost-effective use of fuel in port operations
- Developing energy conservation policies and programs including importation of high efficiency ports equipment and machinery which will reduce the level of emission.
- Initiating and implementing green energy projects especially investments on renewable energy
- Creating environmental awareness and promoting inter-agency and stakeholder coordination in ensuring environmental conservation and protection

3.1.3 Madagascar

Madagascar ports are classified as Ports of Regional Interest (PIR) and Ports of National Interest (PIN) Ports of Regional Interest are managed by the Agence Portuaire Maritime et Fluviale (Maritime and River Port Agency) (APMF) (https://www-apmf-mg). The APMF is the authority responsible for implementing the general policy of the State according to the strategies adopted by the Ministry of Transport concerning the port, maritime and river sub-sector, established under Decree No. 2003-659 (4 June 2003). The APMF ensures:

- Administration of port, maritime and river affairs
- · Maritime and river "security and safety"
- Port licensing authority, supervision, and control of autonomously managed ports
- Regulation and management of public port, maritime and river areas
- Protection of the coastline and the marine environment
- Development and promotion of the sub-sector.

Priority actions in port include:

- Upgrade port infrastructure and establishment of maritime signalling
- · Rehabilitate degraded infrastructure
- Bring Madagascar's international ports to International Ship and Port Security (ISPS) standards
- Carry out the institutional reforms of the ports in accordance with State policy
- Provide Madagascar with a master plan for ports
- Port management and operation

Ports of National Interest (PIN) are subject to two management methods, namely (https://www-apmf-mg):

- Autonomous management mode 'Autonomous Management Ports' (PGA)
- Non-autonomous management mode with global concession, hence the term 'Ports à Concession Globale' (PCG).

Madagascar is currently in the final phase of the development of its National Port Master Plan.

3.1.4 Mauritius

The Mauritius Ports Authority (MPA) set up under the Ports Act of 1998, is the sole governing authority to regulate and control the port sectors in the Republic of Mauritius, including Rodrigues and all outer islands (Humphreys et al. 2019; http://www.mauport.com/). Acting as a landlord port authority, it provides the main port infrastructure and superstructure, together with related facilities, marine services, and navigation aids. It also regulates and controls all port activities and environmental issues within the designated port areas. Currently, Port Louis Harbour is the only maritime gateway of the island.

As per section 5 of the Ports Act of 1998 the MPA shall periodically prepare and update its Port Master Plan that will define the framework and strategies for future port development. In this context the last Port Master Plan was completed in 2016. The Port Master Plan Study focused on new opportunities offered by activities related to the Ocean Economy and provided the land use planning for future port development projects. The Port Master Plan included an environmental scoping study to ensure sustainable development of the port. Furthermore, the plan also covered the risk aspects related to present and future port projects, emergency response planning and environmental protection. In view of the dynamic changes being observed in the maritime and port sector the MPA intends in the near future to embark on a new Port Master Plan that will identify new strategies for a sustainable growth and resilience of the port sector.

The Port Sector in Mauritius is regulated under the Ports Act of 1998 and the Port (Operations & Safety) Regulations 2005. The Act defines the role and powers of the Authority and its functioning. While the legislation defines the regulatory framework under which the port sector shall operate it also includes provisions for the conservancy and environmental protection of the harbour waters.

Port (Operations & Safety) Regulations 2005 on the other hand is a more prescriptive set of regulations that aim at ensuring that the required safety and environmental standards are being complied with regards to cargo handling operations and maritime activities.

3.1.5 Mozambique

Mozambique Ports and Railways (CFM), a legally constituted state-owned company is responsible for the operations of port and railways and was established through Decree Nr 40/94 (13 September 1994). The CFM views environmental management and protection as an important aspect in all its activities (https://www.cfm.co.mz/).

Maputo Port Development Company (MPDC) is a national private company that, in partnership with CFM, was given the concession for the management of the Port of Maputo. MPDC holds the powers of a Port Authority, being responsible for maritime operations, piloting, stevedoring, terminal, and warehouse operations, as well as port's planning development (https://www.portmaputo.com). The company has a Policy on Health, Safety and Environment and considers safety and environmental protection and management essential for sustainable future growth (https://www.portmaputo.com/policies-procedures/health-safety-environment/). To achieve this port authorities address, for example, education (internally and externally), environmental impact reduction, monitoring and management activities, innovation for the environment, CO2 reduction, initiatives to reduce plastic in the oceans (https://www.portmaputo.com/sustainability/environment/).

In May 2022 the future sustainable vision for the future of the Port of Maputo presented as part of the new Master Plan that draws a roadmap for the Port of Maputo beyond 2043. Volumes ath this port is expected to grow to 42 million tonnes per year in 2033 and 54 million tonnes per year in 2043. Under the principles of Green Ports, Mozambique approved a Regulation for the Prevention of Pollution and Protection of the Marine and Coastal Environment. This Regulation establishes that all Ports in Mozambique must have appropriate reception facilities for collection and treatment of various types of waste and prevent pollution.

The Port of Beira, the second largest port in Mozambique, is managed by Cornelder de Moçambique (CdM) is a private consortium, formed through a partnership between CFM and the Cornelder Group (https://www.cornelder.co.mz/). Based on available literature, a port master plan for the Port of Beira in 2013, in partnership with Royal HaskoningDHV (Van der Meer 2013). Specifically, the master plan highlights potential environmental impacts of port operations and future expansions, mostly related to dredging activities (https://repository.tudelft.nl/islandora/object/uuid%3Aa2b85b0b-57eb-4eb5-b130-014c0be5b12f).

3.1.6 Réunion (France)

The port of Reunion is managed by Grand Port Maritime de La Réunion (reunion.port.fr/en/homepage/#). A key priority of their 2019-2023 Strategic Plan, which was drawn up in accordance with article L.122-9 of the Environmental Code, is sustainability, and aims to position the port as a strategic player and driving force for sustainable development in the Indian Ocean (reunion.port.fr/en/our-commitments/). Since 2014, the port has adopted an environmental management system and structured monitoring through the Sustainable Development and Management Plan - reunion.port.fr/en/pa2d/), a Natural Heritage Master Plan (reunion.port.fr/en/nhmp/), as well as environmental monitoring of terrestrial and marine environments during development projects. This enables the authorities to manage natural and technological risk, industrial ecology, and environmental protection in the context global warming and conservation of biodiversity.

3.1.7 Seychelles

Since October 2020, the Ministry for Transport (MoT) holds the port portfolio. The Ministry is responsible for providing policy related decisions and strategy to the Seychelles Ports Authority (SPA). SPA is governed by a Board of Directors appointed every three years. SPA was established in 2004 by the SPA Act (2004) and as Public Enterprise (PE), SPA has the following responsibilities:

- Regulate, control and administer all matters relating to the safety and security of the port and its facilities
- · Promote the development of the infrastructure relating to the port
- Maintain port installations and to promote the use, improvement and development of the port
- Encourage the use of reliable and sufficient equipment in the provision of port services
- Participate in matters pertaining to search and rescue
- Collect all harbour dues, rental fees and other moneys payable to the Authority under this Act or any other law
- Plan, execute, monitor and evaluate training programmes of employees designed to ensure conformity with the standards of the services provided by them
- Act in collaboration with other public authorities and entities for the prevention of marine source pollution, protection of marine environment and to respond to marine environment incidents

- Advise the government or any public authority on any matter relating to merchant shipping and the prevention and control of marine pollution
- Represent Seychelles on maritime matters at both the national and international level
- Do all such other things as will contribute to the attainment of the objectives of the Authority.

Currently the SPA Act (2004) is under review to ensure that is at par with international and regional conventions.

The initial Environment Impact Assessment for the Port Victoria Extension and Rehabilitation Project (PVREP) was conducted in 2015 and looked at all the possible impacts of the new proposed development on the environment. A supplementary environment and social impact assessment (ESIA) is currently being carried out specifically for the dredging works. The ESIA will also include an Environmental Management Plan and a dredging management plan. As a country that is highly regarded internationally for environment conservation, all the necessary precautions to prevent environmental damages are taken for all national projects, including all port development projects.

The SPA Strategic Plan 2018-2023 (http://www.seyport.sc/index.php/about/our-strategic-plan) establishes the overall direction for development of the ports sector as well as broader economic transformations considered crucial for efficient port functioning. As one of its strategic objectives (Objective 8), the SPA wants to gradually integrate Green Port Initiatives in their development plans that will contribute to better port environmental management and cost savings.

3.1.8 Somalia

The Ministry of Ports and Marine Transport (MPMT) is responsible for the promoting on sustainable development of maritime transportation sector in Somalia, modernisation of ports, improving associated socio-economic conditions, ensuring maritime safety, and protecting the marine environment (mpmt.gov.so/en/about-us/). They are set out to create and build an environment for blue ocean economic development through the establishment of policies and regulations to ensure and respond in terms of safety and security in maritime transport system, protecting marine environment. The ministry has ten departments and two agencies:

- Somali Port Authority
- Somali Shipping Line Agency.

The Marine Environmental and coastal Protection Department is responsible for the following duties (mpmt.gov.so/en/marine-environmental-and-coastal-protection-department/):

- Prevention of marine environmental pollution
- Promote and raise awareness on coastal environmental protection
- Implementing environmental policies and practice
- To ensure safeguard the natural marine environment
- Prepare for contingency plan for oil spill and other pollutants
- Mitigation and termination and for Oil spill and acute pollution of offshore and onshore
- Performs any other related duties assigned by Director General
- Ensuring compliance of international treaties and protocols in respect of protection of the marine environment.

The port of Berbera is owned by the Somaliland Port Authority and Dubai Ports World (DP World) has a concession to operate the port (www.dpworld.com/news/releases/dp-world-and-somaliland-open-

<u>new-terminal-at-berbera-port-announce-second-phase-expansion-and-break-ground-for-economic-zone/</u>).

According to Humphreys et al. (2019) coordinated strategic port plans (or master plans) still need to be prepared for Somalia (and Somaliland).

3.1.9 South Africa

Transnet National Ports Authority is responsible for the safe, efficient, effective and economic functioning of the national ports system of the Republic of South Africa, which it manages, controls and administers on behalf of the Government. Transnet National Ports Authority is the provider of port infrastructure and marine services at all eight fully operational commercial ports in the Republic of South Africa: Saldanha, Cape Town, Mossel Bay, East London, Port Elizabeth, Durban, Richards Bay and the Port of Ngqura.

Transnet National Ports Authority's business is divided into two key operational areas: port infrastructure and maritime operations. Port infrastructure and maritime operations (which includes dredging, navigation aids, ship repair and marine operations) are provided in five market segments: containers, dry bulk, liquid bulk, break-bulk and automotive. The major commodities handled at the ports are coal, iron ore, containers, automotives, steel, fruit, ferrochrome, petroleum products and manganese.

Transnet National Ports Authority (TNPA)), as prescribed in the National Ports Act (No.12 of 2005) (www.gov.za/documents/national-ports-act),

In South Africa, commercial ports are managed by the Transnet National Ports Authority (TNPA) (www.transnetnationalportsauthority.net/Pages/default.aspx). As prescribed in the National Ports Act (No.12 of 2005) (www.gov.za/documents/national-ports-act), it was created as a landlord port authority responsible for the safe, efficient, effective and economic functioning of the national ports system, which it manages, controls and administers on behalf of the Government. TNPA's business is divided into two key operational areas: port infrastructure and maritime operations. Port infrastructure and maritime operations (which includes dredging, navigation aids, ship repair and marine operations) are provided in five market segments: containers, dry bulk, liquid bulk, break-bulk and automotive.

Section 11 of the National Ports Act states that the main function of the TNPA is "...to own, manage, control and administer ports to ensure their efficient and economic functioning, and in doing so the NPA must, amongst other aspects, regulate and control pollution and the protection of the environment within the port limits". Section 69 of the Act elaborates on responsibilities related to environmental protection. Thus, legislation on commercial ports explicitly acknowledge the importance of pro-active integration of biophysical environmental aspects at all stages of port planning and operations, from the early stages of port planning and throughout the port development cycle including the planning, design, construction, operation and decommissioning. In March 2009, Port Rules were promulgated in terms of the National Ports Act. Chapter 4 for is devoted to measures pertaining to environmental protection (archive.opengazettes.org.za/archive/ZA/2009/government-gazette-ZA-vol-525-no-31986-dated-2009-03-06.pdf). A National Ports Plan has been developed for the commercial ports of South Africa by TNPA, as updated in 2019 (https://www.transnet.net/Divisions/Documents/NPP%202019.pdf).

Currently, in terms of the Government Immovable Asset Management Act (No. 19 of 2007) (GIAMA), the National Department of Public Works and Infrastructure is the custodian of the 12 proclaimed fishing

harbours (Lamberts Bay, St Helena Bay, Saldanha Bay, Laaiplek, Hout Bay, Kalk Bay, Gordon's Bay, Hermanus, Gansbaai, Arniston, Struisbaai, and Stilbaai) and responsible for the infrastructure maintenance and repairs. The Department assigned certain responsibilities to Department of Forestry, Fisheries, and the Environment (DFFE) in terms of an MoU which mainly relate to operational regulation and management, including:

- Regulate licenses related to fishing
- Regulate permits and licenses related to operating marine craft
- Manage access into the harbour, basic landscaping, cleaning and security within the harbour and maintenance of up to R30 000
- Co-ordinate, advise and manage the implementation of harbour management directives, plans and policies and all harbour requirements and
- Manage implementation of compliance and law enforcement in the harbour.

In 2017, the South African government adopted its Comprehensive Maritime Transport Policy (CMTP) (www.transport.gov.za/documents/11623/44313/MaritimeTransportPolicyMay2017FINAL.pdf/4fc1b8b8-37d3-4ad0-8862-313a6637104c). This policy acknowledges existing the policies and legislation pertaining to commercial ports and aims to strengthen and review these going forward. In terms of small harbours, the policy identified several challenges to be dealt with in future, including:

- Cohesive legislative and regulatory framework on small harbours responsible for ensuring oversight, custodianship, management, operations, and regulations of the country's small harbours
- Small harbours public agency or authority suggested 'Small Harbours Development Authority' serves as a single point of accountability on the country's approximately fifty (50) small harbours (including public proclaimed, non-proclaimed and potential harbours, private harbours as well as landing sites).

Operation Phakisa (<u>www.operationphakisa.gov.za/</u>) is a government initiative established to unlock the ocean economic potential of South Africa, is seen to benefit from the implementation of this policy.

3.1.10 Tanzania

The Tanzania Ports Authority (TPA) was established by the Ports Act (No. 17 of 2004) as landlord port authority. TPA currently performs the role of both a landlord and port operator promoting the use, development and management of ports and their hinterlands (www.ports.go.tz/index.php/en/).

In 2017 an overarching Green Port Policy for Tanzania was prepared, in partnership with Deltares and HaskoningDHV (https://publications.deltares.nl/EP4006.pdf). This policy stipulates ways in which TPA can minimize/mitigate negative impact of climate change, reduce the environment risks in its operations and enhance climate change and environmental opportunities The policy includes an implementation enabling TPA to (global.royalhaskoningdhv.com/projects/green-port-policy-and-implementation-action-plan-for-tanzania-ports-authority):

- Move towards the attainment of ISO14001 accreditation in a pro-active, comprehensive and coordinated approach, addressing the impacts of port operations
- Make informed decisions on follow-up actions in strategic areas such as environmental management, energy efficiency, waste management, oil spill response, social impact and responsibility, stakeholder involvement and efficient port logistics and connectivity
- Base decision making on well-coordinated framework and vision on climate change and environmentally friendly port operations.

• Create awareness among public and private stakeholders of the importance of being a Green Port.

The Zanzibar Ports Corporation (ZPC) is responsible for the management, operations, and development of ports on the Islands of Zanzibar (zpc.go.tz/about_us.html), The ZPC is a parastatal established under the Zanzibar Ports Corporation Act of 1997 (http://trade.tanzania.go.tz/media/act_1.pdf), operating under the Zanzibar Ministry responsible for Transport. The main objectives of the ZPC include:

- Promoting the development of the port sector for enhance socio-economic well-being of Zanzibar
- Insuring efficient operations in terms of economics, and safety and security.
- Promoting reasonable facilities for the handling and warehousing of cargo and goods
- Insuring efficient and effective financial administration in accordance with existing national laws and regulation.

The Zanzibar Maritime Authority (ZMA), established under the Zanzibar Maritime Authority Act (No. 3 of 2009), is another institution acting under the direct authority of the Zanzibar Ministry responsible for Transport (www.zma.go.tz/overview.php; Humphreys et al. 2019). Its main responsibility pertains to the regulation activities of shipping activities in sea waterways to ensure safety of navigation that are in line with the International Maritime Organisation's conventions, instruments, and codes. As part of their environmental responsibilities, they ensure the prevention of marine source pollution and protection of the marine environment, investigate maritime casualties such as loss of lives resulting from overloading on boats, in partnership with other public agencies and institutions.

4. References

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