

**Draft Summary Report – Port and Marine Environment Workshop Component of PMAWCA  
Regional Seminar on the Concept of Quality, Safety and Environment (QSE) Management,  
21-24 May 2018, Abidjan**

## **1. Introduction**

The workshop ran for two days (23-24 May) as a second component of the Regional Seminar and was preceded by the first component, which focused on Quality and Safety (21-22 May). It was themed '*Working Together Toward Environmentally Sustainable West and Central African Ports*'. It aimed at drawing attention to and gaining a better understanding of the implications of port and environment interaction for sustainable port development and growth. West and Central African ports, like most in Africa, are progressively developing with increasing operational activities. The development is a boost to West and Central African economies, but associated with negative environmental implications, particularly, from ship-generated and hazardous wastes, ballast water discharge, biofouling, and emission of greenhouse gases with potential for global warming and consequent climate change. These are common to the ports and have potential to erode economic gains made if not curbed with proactive environmental actions. Attention to common policy effort in this direction has therefore been identified as needful. In this regard, the workshop emphasised the essence of West and Central African ports enhancing their environmental capacity to work together in identifying common environmental issues and solutions.

Overall, presentations and discussions during the workshop focused on the following thematic issues:

- MARPOL
- Ballast Water Management
- Biofouling from Ships
- Climate Change
- Environmental Networking

Presentations on each thematic issue ended with a working session that enabled participants to actively engage in sharing practices, experiences, challenges and opportunities in the handling and management of the given thematic issue in their individual ports.

## **2. Participants and Facilitation**

The workshop was attended by thirty-five (35) participants from the Ports of Abidjan, Conakry, Cotonou, Dakar, Gambia, Kribi, Lagos, Lome, Monrovia, Takoradi and Tema.

It was facilitated by Ports Environmental Network-Africa (PENAf) with presentations from:

- Mr. Adnan Award, Director, International Oceanographic Institute, South Africa
- Dr. Austin Becker, Asst. Professor of Marine Affairs, University of Rhode Island, USA
- Dr. Harry Barnes-Dabban, Executive Co-ordinator, PENAf

## **3. Presentations**

### **3.1 MARPOL**

Presentations on MARPOL explained the Convention and various approaches to its domestication and implementation. Inadequate port reception facilities, weak capacity for operation and management, and weak communication among the ports were highlighted. A regional approach

aimed at harmonising regulatory measures and sanctions came up as being significant to ensure calling vessels to the region do not explore weaknesses in implementation that for example led to the Probo Koala toxic dumping incident in Abidjan in the year 2006. In this regard, compliance, monitoring and enforcement was emphasised as being of essence. The need for building a common database, training and exchange programmes, and learning from best practices were put forward. The need to empower other relevant institutions to comment the role and efforts of port authorities was emphasised.

Port authorities were admonished to not explore the option of public-private partnership (PPP) in the provision of port reception facilities and to understand that port reception facilities do not necessarily have to be on port premises. They could as well be off-site with good accessibility to the port to avoid unduly delay ships.

The presentation also touched on issues of approaches to charges for the use of port reception facilities. Current practices showed direct and indirect charge systems but there was the need to harmonise them in the spirit of MARPOL, to not give incentives to ships to dump waste at sea instead of following the obligation to discharge into port reception facilities.

### ***3.2 Ballast Water Management***

Ballast water was explained as a biological problem but the solution is maritime. The significance of taking it as a serious issue was explained to be due to the fact that the establishment of invasive aquatic organisms through ballast water discharge is nearly impossible to eradicate. The trend however showed that invasion was increasing.

The presentation gave different cases of infrastructure fouling from aquatic invasive organisms from across the globe and their associated ecological impacts and economic losses.

The best bet is therefore to prevent their transfer in the first place by implementing IMO's Ballast Water Management Convention, which entered into force on September 8, 2017. The reasoning behind IMO's D-1 Standard as a ballast water management option through mid-ocean exchange was explained to be due to the fact that water from high seas has minimal organisms than coastal water. This was an interim measure and is being phased out to be replaced by the D-2 Standard, which requires treatment as management option.

Participating port authorities were entreated to know and understand the international ports state control guidelines in place for ballast water management: initial inspection; more detailed inspection; sampling and indicative analysis; detailed analysis. They were encouraged to follow IMO's compliance, monitoring, enforcement and verification course for ballast water management.

Apart from national ballast water regulation, the presentation indicated that it was pertinent for participating ports to have their own regulatory guidelines. The ports were entreated to begin to initiate port biological baseline surveys (PBBS) to enable them identify and monitor the biota of their basin waters.

### ***3.3 Biofouling from Ships***

Biofouling was explained as referring to the accumulation of aquatic organisms on surfaces and structures, including the hull of ships, immersed in or exposed to the aquatic environment. Fouling on ships' hull slows down ships. It is therefore in the interest of ships to not have their hull fouled.

Preventing ships' biofouling is by applying anti-fouling coating system on the hull. The presentation however indicated that many biofouling organisms have evolved resistance to some biocides contained in anti-fouling coatings. Such organisms are known to thrive in ports and harbours where there are high levels of residual copper and tributyltin. The danger is that, such organisms can facilitate the settlement of other invasive organisms.

In confirmation of this danger, the presentation further pointed out that ports across the globe are reporting new species identified in their basins similar to that from ballast water discharge. This called for concern and strengthened the need for ports to carry out biota surveys. It goes to also brings to the fore the need for capacity for adopting and implementing IMO's Guidelines for minimizing the transfer of invasive aquatic species as bio-fouling (hull fouling).

The aims of the guidelines: providing globally consistent approach to managing bio-fouling; providing practical guidance to countries, ports and dry-docks, ship masters, ship operators, ship builders etc.; and minimizing the transfer of invasive aquatic species, were explained and discussed.

### **3.4 Climate Change**

The presentation gave an overview of climate change within the context of ports; climate change impacts on ports; mitigation approaches for ports; and adaptation strategies.

The presentation showed global temperature trends projection from greenhouse gas concentration pathways to the year 2100 in two scenarios: low-end and high-end. From these scenarios, the Intergovernmental Panel on Climate Change's (IPCC) projection for sea level rise, which is significant for ports, was discussed. The impacts/consequences of sea-level rise for ports are: direct, indirect, and intangible.

Direct impacts relate to damages to port land, structures, equipment and freight.

Indirect impacts relate to loss of wages, cost of business interruptions, and clean-up costs.

Intangible impacts relate to loss in quality of life, environmental/ecological damages, and loss of essential services.

For ports, the presentation showed CO<sub>2</sub> emission as the major greenhouse gas. The sources as diesel-powered vehicles, equipment and ships at berth. To reduce greenhouse gas concentration by way of ports taking actions directed at mitigating climate change, the presentation discussed the importance of pursuing alternative and cleaner sources of energy including solar. Particularly for African ports, solar systems came across as most feasible and needs to be pursued rigorously as the sun is almost always available throughout the year. African ports could install solar panels on roofs of all port buildings. Secondly, the ports must switch from diesel to electric/hybrid energy. Third, they must adopt cold ironing in providing onshore power so that ships can switch of engines when at berth. Fourth, they must participate in International Association of Ports and Harbours' (IAPH) Environmental Ship Index (ESI) under its World Ports Climate Initiative (WPCI).

Regarding climate change adaptation by ports by way of taking actions directed at coping with impacts of climate change, some of the issues that came across as worthy for consideration were: rail links/roads/bridges etc. These could be submerged through flooding; relocation of communities; market shifts for cash crops/agricultural produce due to changes in seasons, and associated port congestion.

In the ports and maritime sector however, much climate change policy actions have focused on mitigation rather than adaptation.

The presentation concluded that climate change is a looming threat. Ports cannot sit aloof because they will be impacted. They can and should therefore help to reduce emissions to slow global warming.

### **3.5 Environmental Networking**

This presentation took participants through the importance of collaborative action in addressing common environmental challenges faced by West and Central African ports. This was done by discussing and transferring notes from all the workshop's presentations into an appreciation of the need for developing applicable common port environmental policy and management approaches. The presentation highlighted the significance of efficient and sustainable ports to support West and Central Africa's economic growth. It showed that though the ports shared common environmental challenges, different ports approached their solutions differently. It further identified incoherent approaches for regional environmental policies as regional contingency plan for oil spill response and strategic regional action plan for ballast water management. Yet West and Central African ports shared a common sea with common problems, therefore common solutions were needed.

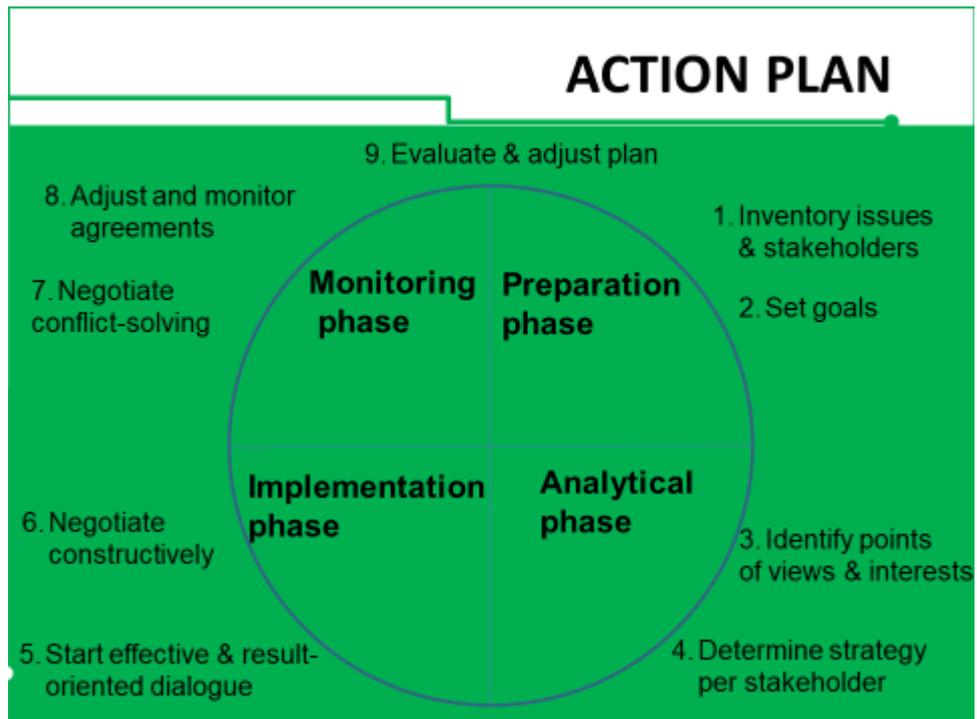
The presentation further explained that port operations in West and Central Africa was shifting from state dominance to public-private partnership. There was therefore the need for formal role and collaboration with private port operators in defining and solving environmental impacts from port activities. More so, environmental impact from port and marine activities are public and societal problems and so there is the need for civil society organisations to be also involved in defining and solving port environmental problems.

From the foregoing, the presentation stated that addressing West and Central Africa's port environmental problems should necessarily be geared towards a regional approach among the ports to include port authorities, relevant state institutions, private port operators, and civil society organisations in an environmental co-operation and networking.

Participants were taken through PENAF's African Ports Environment Initiative (APEI) aimed at initiating and building a co-ordinated environmental network among African ports to serve as a platform for environmental information and best practice exchange. The initiative has as part of its approach been organising Environmental Study Visits, particularly on MARPOL and Hazardous Wastes Management, to ports with advanced environmental policies and practices especially in Europe. This has been to promote the improvement and harmonisation of environmental policy and performance in African ports through a bottom-up approach.

## **4. Workshop Outcome**

Contents of presentations, working sessions and interactive discussions were synthesised into an action plan for initiating environmental collaboration among various stakeholders on common port environmental issues. Participants interactively discussed highlights from the overall workshop and named what they found most surprising. They subsequently made an inventory of issues they considered important and requiring attention and discussed how the issues were similar or different for their individual ports. Opportunities and constraints for addressing them were identified. The participants then went through the cycle of environmental collaboration via four phases: preparation; analytical; implementation; and monitoring.



## 5. Follow-Up Action and Recommendations

Following the action plan, participants discussed the next steps for moving lessons learned forward and taking concrete action. Modalities for doing this were agreed to include the following:

- Setting up Lead Partnering Ports (LPPs) for initiating the African ports environmental information and best practice exchange.
- Follow up on the nomination and formalisation of Port Focal Points (PFPs) into an environmental network as proposed at the 2015 Strategic Assessment of Port Environmental Issues, Programmes and Policies (SAPEIPP) Meeting in Abidjan organised by the Abidjan Convention, PMAWCA and PENAF
- Pushing for biological baseline surveys in the ports to establish biota for monitoring the water quality of port basins
- Formalise the running of frequent environmental training and workshops to brainstorm and look for ideas on how West and Central African ports can work together on a regional level
- Encouraging the participation of Maritime Administrations, National Focal Points of Abidjan Convention, Environmental Ministries and Agencies, relevant civil society organisations in subsequent workshops
- Encouraging the participation of more ports in the Environmental Study Visits to advanced ports

## 6. Some Impressions from Participants

Full of ideas and knowledge

Learnt a lot and lots to share back home

Hoping to be able to implement recommendations

Impressive and interactive with good learning

PMAWCA to create more of such opportunity to share

Nobody lives in an island. So good to meet others to learn from and to share

Topics reflect concerns

More of such fora bringing together experts to help

Sure way to learn, reflect and change inefficient practices

Offered opportunity to have one-on-one exchange

Pleasure and educative

Kribi, last born of the ports hoping to be part of the partnering ports

Good input for workshop theme