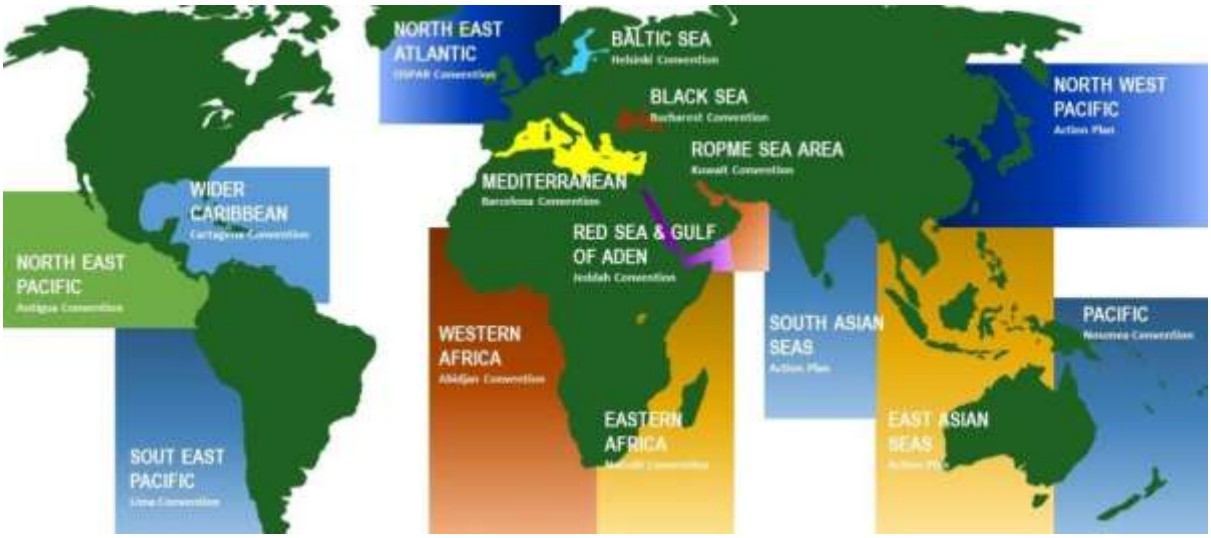
ABIDJAN CONVENTION

REGIONAL POLICY EXERCISE 2018



DONE BY: Abisa Konstantinus, Bernacia Mullins, Charlotte Fonocho, Dr. Mande, Ezekiel Khosa, Laetitia Sonwe Ngoie, Michael Melato, Ntombovuyo Madlokazi, Paul Adjin-Tettey, Sinothando Shibe.

Contents

Preamble

The Contracting Parties of the Cooperation Convention for the protection, management and development of the marine and coastal environment of the Atlantic coast of the West Africa, Central and Southern Region (Abidjan Convention);

Recalling the commitment made by the international community within the framework of the "Aichi Objectives", the decennial strategic plan adopted by the Convention on biological diversity in 2010, and particularly Objective 11, aimed at achieving the conservation of 10% of marine surfaces by 2020, and Objective 6, aimed at reducing direct pressure on biodiversity and promoting its sustainable use;

CBD/CoP/DEC/XIII/7, CBD/CoP/DEC/XIII/9, CBD/CoP/DEC/XIII/10 and CBD/CoP/DEC/XIII/12 relating respectively to the Aichi Objectives, spatial marine planning, the impacts of marine debris and underwater noise pollution on marine and coastal biodiversity, and marine surfaces of ecological and biological importance;

Recalling UNEP/EA.2/Res.11 decision of the 2nd Annual Meeting of the United Nations (May 2016, Nairobi-Kenya) for the Environment relating to plastic and micro plastic waste in the marine environment;

Recalling the 2050 Africa's Integrated Maritime Strategy - Horizon 2050 (Integrated Maritime Strategy 2050) adopted by the African Union on January 31, 2014, for which it was requested that its principles be taken into account in the 2063 Agenda of the African Union, whose adoption is planned for the next session of the Parliament in June 2014;

Noting the importance of the themes developed within the framework of the Action plan for the Mediterranean, namely governance, land-based and marine pollution, biodiversity and ecosystems, land-sea interactions and processes, integrated coastal zone management (ICZM), sustainable consumption and production;

Noting the 2016 United Nations World Water Development Report, whose Chapter 6, devoted to Africa, describes the challenges related to water resources in Africa;

Realizing the crucial importance of marine areas beyond national jurisdictions and of negotiations conducted under the auspices of the United Nations to understand the issues and challenges related to them;

Considering the Dakar Declaration, adopted on May 18, 2011, on the establishment of an observatory of the West African coast with the aim of reducing coastal risks and the impacts of coastal erosion;

In accordance to the Bali Strategic Plan for Technological Support and Capacity-building, Contracting Parties to the Abidjan Convention shall take appropriate measures to facilitate scientific and technological research;

Cognizant of financial viability for the implementation of the Convention, the Secretariat to the convention shall develop projects and mobilize resources as well as encourage contributions to support the implementation of the Action Plan and the Convention at the national level; taking into account issues relating to coastal and marine areas in the policies, strategies, plans and national budgets;

Marine Pollution

Introduction

The Global Problem

The anthropogenic activities both inland and coastal environment continue to contribute to the increase of the marine debris along populated beaches, remote islands, oceanic gyres and polar regions. Debris defined as ""any form of manufactured or processed material discarded, disposed of or abandoned in the marine environment", There are two processes that should be taken into consideration that the debris may be deliberately or unintentionally introduced into the environmental and transported to the ocean via rivers, drainage, sewage systems or wind (Galgani et al., 2010). Debris does not find its way into the environment but as the possible results from inadequate solid waste management, inappropriate human behaviour and unsustainable production and consumption. Plastic makes up the largest component (around 70%) of marine debris since from 1950s. Globally there has been tremendous plastic production among other things. As plastic production has increased, so has the amount of plastic entering the ocean. It is estimated that 8 million metric tonnes of plastic enters the ocean every year.

Problem in African Continent in relation to pollution and marine waste) (Abidjan Convention region).

As developing nations, most African countries are currently undergoing high rates of economic and population growth. Growth in the economy may not be paralleled by the necessary growth of infrastructure and public services. Additionally, economic growth often results in a rising class of affluent citizens, resulting in the increased generation of waste. Additionally, advances in technology results in the production of more types of waste and an increase in their complexity.

The implication of this development and growth has increased demand in packaging and for consumer goods. These create Africa as one of the fastest growing markets for plastic. The research revealed that in the last eight years, usage of the plastic in Africa has increased by 150% and imports of plastics have grown 23-41 % (Africa Business, 2015). As a result, the increase in plastic finding its way to the open seas and oceans, rivers are being among the top sources of pollution. Within these complexities failing delivery services to the communities also worsen the situation. Waste management is virtually non- existen in rural areas and waste is either dumped into rivers, or indirectly washed into rivers from the streets, riverbanks or storm water drains (United Nations Economic Commission for Africa, 2012).

Noting the fact that urban growth in Africa is the highest in the world, at 3.5% (United Nations Economic Commission for Africa, 2012). This presents a major challenge for many large African cities, particularly because slum areas, where waste disposal is not effectively managed or controlled, make up large parts of these cities.

In Congo for example, refuse tips for solid waste are often located on the banks of rivers. The landfills are uncontrolled, meaning there are no precautions to prevent waste from entering surrounding aquatic environments, from where it can be transported into the oceans. Even in the case of leading African economies, waste is not effectively managed. In 2010, out of the global top 20 coastal countries mismanaging plastic waste, 5 were African countries and two were from Abidjan Convention (i.e. Nigeria;

South Africa). These were also among the largest economies in Africa in the same year. Apart from South Africa, Nigeria is expected to double their contribution of plastic pollution by 2025 (Jambeck et al., 2015).

Congo Case Study

In Congo there is a problem of plastic waste. There is no proper management of the plastic waste (Plastic bags, plastic bottles). There is not legislation to regulate production, usage and disposal and possible reuse and / or recycling. At the current moment the government is trying to regulate the plastic usage. The majority of the waste from inland ends up in the ocean via the rivers. The extent of the problem is not in details understood. More research still needs to be done. No recycling stations in place. Littering is a normal practice without being cognisant of the impact in both environment and living being especially where there is no waste management services to the community whatsoever. Open spaces are the normal dumping areas.

Strategic Aims

In his message to the 5th International Marine Debris Conference United, Achim Steiner, the United Nations Under-Secretary-General and UNE Executive Director said:

"Marine debris – trash in our oceans – is a symptom of our throw-away society and our approach to how we use our natural resources. It affects every country and every ocean, and shows us in highly visible terms the urgency of shifting towards a low carbon, resource efficient Green Economy as nations prepare for Rio+20 in 2012… However, one community or one country acting in isolation will not be the answer. We need to address marine debris collectively across national boundaries and with the private sector, which has a critical role to play both in reducing the kinds of wastes that can end up in the world's oceans, and through research into new materials. It is by bringing all these players together that we can truly make a difference".

IOI –Institute of Ocean Governance- President: Opening of Ocean Governance Course Meeting, 3rd – 28th September 2018, Kirstenbosch, Cape Town, South Africa. "

Kwame Nkuruma independent Day – Ghana- Africa is not free until every country in the continent is free in all spheres. "African Maritime Strategy, Agenda 2063 concept.

Objectives 1

- Understanding the depth of marine waste by improving the current information, communication and sharing
- Effective regional involvement on the continent towards developing marine waste solution

Regional involvement

- There is a need of effective regular regional meetings throughout Abidjan convention where marine waste programmes takes place.

- These marine waste programmes should include all relevant stakeholders in order to understand the extent of marine waste and information needed.
- The programmes may be driven from Forums point of view, which is led by structural plan.
- Regular meetings with action plans and also for monitoring of purposes.

Promote the regional network

- The aim of the network is to promote communication;
- Providing the updates of the current status;
- Sharing of ideas and problem solving skills;
- Networking with the expertise on the subject matter in exchange of information
- Promoting research development of marine waste in both formal and informal institutions**.**
- To request the companies / industries to support the research and marine waste initiatives with funding.

Challenges

- A challenge of stopping marine waste finding its way into the environment.
- Helping to remove the marine waste from the environment.
- Poor collaboration in public-private partnerships aimed at preventing marine waste.
- Inadequate comprehensive science-based policies and enforcement of existing laws to prevent marine waste.
- Inadequate knowledge regarding eco-efficient waste management systems, particularly in communities and countries that border oceans and watersheds.
- Lack of opportunities to recover marine waste for recycling and energy recovery.
- Population growth that continue to contribute to the marine waste.
- Limited regional meetings that are effective in African continent.
- Funding outside of African continent and control (Ownership) over programmes**.**

Recommendations

- The studies to take into consideration the population growth and people's behaviour towards marine waste
- Contribute to solutions by working in public-private partnerships aimed at preventing marine waste.
- Collaboration among the scientific community to better understand the scope, origins and impact of and solutions to marine waste.
- Promote comprehensive science-based policies and enforcement of existing laws to prevent marine waste.
- Help spread the regional meetings, knowledge, regarding eco-efficient waste management systems, particularly in communities and countries that border oceans and watersheds.
- Enhance opportunities to recover waste marine for recycling and energy recovery.
- Africa to start funding their own project rather than relying on other countries fully
- Stop copy and paste mechanism which continues to fail the continent.

Objective 2

Facilitate consumer and industry responsibility and promoting best practice in integrated waste management.

Waste management is an important measure of protecting the environment and to provide for a safe and healthy environment for the population. Proper waste management is a system that involves a variety of stakeholder that is or can be affected by waste in a direct or indirect form.

The generation of waste is a multi-stakeholder concern and is impacted by a number a factors such as population growth, economic growth, increase and demand of services and urban development (Western Cape Integrated Waste Management Plan 2017 – 2022).

Integrated Waste management frameworks may include the following guidelines:

a. Cleansing
- The facilitation and oversight of the overall cleanliness of the public roads and spaces. The cleansing service includes clearing biological and non-biological materials and providing waste management advice to all partners cleaning services

b. Planning
- Coordinating waste management services and activities and providing strategic and technical support.

c. Waste disposal Management activates
- General and hazardous waste disposal and transfer

d. Collections
- Refuse collections

1. Provide public and business with refuse bins
2. Schedules refuse collections
3. Collection of recycles wastes stations

- Drop-off section
  Drop off centres for non-hazardous and biological waste
- Recycling sections
- Conversion of biological waste into compost for use for public park and open space landscaping purposes
- Recycling agents for the purpose of reuse plastics and recycle material.
- Accredited service provides for recycled waste collections

Enforcement and monitoring tools

Good governance on all spheres of government is important for a well management Integrated waste management system. Governance measures will include:

- International policy, agreements and conventions
- Regional legislation

Good governance and regional support in the development and implementation of integrated waste management legislative and management tools. Creating National and international partnerships in the development in new technologist and techniques in improving waste management on a local and global scale.

Economic evaluation/assessments for all West African countries that are party to the Abidjan Convention.

In article 197 of the United Nations Convention on the Law of the Sea, States are encouraged to cooperate, as appropriate, on a regional basis, directly or through competent international organizations for the protection and preservation of the marine environment, taking into account characteristic regional features. In this regard, through its Agenda 2063: The Africa We Want, the African Union has recognized the ocean as an important pillar for economic growth for African States. In addition, the 2050 Africa's Integrated Maritime Strategy encourages regional responses to challenges such as insecurity, illegal, unreported and unregulated fishing, natural disasters, marine environmental degradation, and climate change within existing regional economic communities, regional fisheries management organizations and other regional initiatives.

At the fifteenth session of the African Ministerial Conference on the Environment, held in 2015, African ministers agreed to develop an African Ocean governance strategy and recognized the four African regional seas programmes as the regional platforms for implementing the 2050 Africa's Integrated Maritime Strategy and Agenda 2063 to achieve ecosystem-based management approaches for marine resources in the exclusive economic zones and adjacent waters.

Given the importance of regional cooperation and coordination in implementing an ecosystem-based management approach, the Abidjan Convention as one of the regional seas programmes in Africa plays a crucial role in delivering and implementing Agenda 2063 and the 2050 Africa's Integrated Maritime Strategy in concert with other regional seas programmes and relevant regional bodies. Countries are therefore encouraged to support the development and implementation of the Africa Ocean governance strategy.

Key Objectives:

1. To urge the Contracting Parties to work with regional economic communities, regional fisheries management organizations and other appropriate regional initiatives to implement the Cairo Declaration on Managing Africa's Natural Capital for Sustainable Development and Poverty Eradication, adopted by the African Ministerial Conference on the Environment at it fifteenth session in 2015, the 2050 Africa Integrated Maritime Strategy and the provisions of Agenda 2063 on ecosystem-based management approaches for marine resources in the exclusive economic zones and adjacent waters, and to report on progress to the Contracting Parties at their next meeting;

2. There is a need to promote collaboration within the Contracting Parties for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region to contribute to the development of an African strategy on ocean governance in the context of the 2050 Africa's Integrated Maritime Strategy and Agenda 2063;

3. To request all Contracting Parties to undertake valuation and accounting of Natural Capital in Marine Spatial Planning. Also taking into account the importance of an economic approach to ecosystems management, how valuation of natural capital is conducted; the lessons learnt from other programmes, and how to apply economic valuation appropriately while utilising the marine resources.

Marine Spatial Planning is the governance process of collaboratively assessing and managing the spatial and temporal distribution of human activities in the ocean to achieve socio-economic sustainable development in the region. Currently, none of the countries who are party to the convention have developed marine spatial planning. However, South Africa does have a marine spatial planning bill and framework under Operation Phakisa that has not yet been successfully implemented. Successful, ecosystem-based implementation of marine spatial planning in the West Region can ensure the livelihood of present and future generations and allow for economic growth without compromising ecosystems.

Current governance is by sector and this leads to spatial/temporal mismatches which therefore leads to difficulties in implementation. The issues that have been identified are as follows;

- The ocean is subjected to environmental changes and variability and is not homogenous. There is therefore a need to balance economic, ecological and social objectives that regard ocean use.
- Ocean use has grown exponentially within the last few years and so has conflicts between users.
- There is a need to coordinate planning in the West Region's ocean space and optimise sustainable economic growth.
- There is a need to influence key sector decision makers and policy-makers at the regional and national levels towards developing and implementing a strategy and action plan for spatial planning.

Key activities and recommendations:

Draft a position statement on marine spatial planning which will provide the following benefits for the West Region: facilitate the unlocking of the ocean economy and sustainable ocean economic development, enhance the achievement of social benefits and strengthen the level of societies interaction with the ocean, promote a healthy marine environment and the sustainable use of marine resources and contribute to good ocean governance in the region.

- To request contracting parties to support spatial planning protocol in the Western Region, motivated by the fact that the 67% of the ocean space that is shared between countries is under different management and governance.

- The contracting parties need to review the Western Region ocean sectorial policy and review of sectorial stakeholders e.g. mining and fishing. There is a need for a coordinated interpretation of policy framework for conservation, protection and sustainable use of the oceans. The policy response describes the environmental mandate. It identifies the need to move from general environmental governance to specific ocean governance and provides ocean economic perspective analysis for the Region.

- To request the secretariat, in collaboration with partners, to make a commitment that Marine Spatial Planning is prioritised and the governance process of collaboratively assessing and managing the spatial and temporal distribution of human activities in order to achieve economic, social, and

ecological objectives. The Marine Spatial Planning would provide benefits for the Region by facilitating the unlocking of the ocean economy and sustainable ocean economic development, enhancing the achievement of societal benefits and strengthen the level of society's interaction with the ocean, promoting a healthy marine environment and the sustainable use of marine resources and contribute to good ocean governance.

- All countries that are party to the convention should build and develop area-based management tools to promote blue economy pathways.

- To request the United Nations Environment Programme and other partners to support the Contracting Parties in their efforts to enhance partnerships in developing and harmonizing regional mechanisms for compliance, monitoring, regarding the creation of Marine Spatial Planning, in the Region.

- We request all the contracting parties under the Abidjan convention to support the adoption of the Spatial Planning policy in order to ensure that the EEZ under each contracting party is designed to allow all ocean economic and ecological areas to be demarcated to avoid the overlap between various economic or ecological objectives. Once Spatial Planning policy or protocol has been adopted and ratified then other policies and protocols will be able to be rolled out easily as the area of expansions will be already designed through Spatial Planning Policy or protocol, therefore reducing conflict.

Integrated policy for all contracting parties for IUU and promote proactive compliance approach

ILLEGAL, UNREPORTED AND UNREGULATED FISHING (**IUU**) is an international issue around the world. Industry observers believe IUU occurs mostly in marine capture fisheries, and accounts for up to 30% of total catches in some important fisheries.

ILLEGAL FISHING

Takes place when vessels or harvesters operate in violation of the laws of a fishery. This can apply to fisheries that are under the jurisdiction of a coastal state or to high seas fisheries regulated by Regional Fisheries Management Organizations (RFMO).

According to the Food and Agriculture Organization (FAO), Fisheries and Aquaculture Department, illegal fishing has caused losses estimated at US$23 billion per year with about 30% of illegal fishing in the world occurring in Indonesia alone.

UNREPORTED FISHING

It is the fishing that has been unreported or misreported to the relevant national authority or RFMO, in contravention of applicable laws and regulations.

UNREGULATED FISHING

Generally refers to fishing by vessels without nationality, vessels flying the flag of a country not party to the RFMO governing that fishing area or species on the high seas, or harvesting in unregulated areas.

The drivers behind illegal, unreported and unregulated (IUU) fishing are similar to those behind many other types of international environmental crime: pirate fishers have a strong economic incentive -- many species of fish, particularly those that have been over-exploited and are thus in short supply, are of high financial value.

ECONOMIC AND ENVIRONMENTAL IMPACTS IN THE REGION

Notable economic impact of IUU fishing in the region is losses of government revenues from landing fees, license fees, and taxes payable by legal fishing operators.

Illegal, unreported and unregulated IUU fishing can have a significant impact on the sustainability of both the targeted species and the ecosystem. Fishing generally has the capacity to damage fragile marine ecosystems and vulnerable species such as coral reefs, turtles and seabirds. In fact, all eight sea turtle species are now endangered, and illegal fishing and hunting are two major reasons for their destruction.

Regulating legitimate fisheries is aimed at mitigating such impacts, but IUU fishers rarely comply with regulations. This may reduce future productivity and biodiversity and create imbalances in the ecosystem.

This may lead to reduced food security in fishing communities heavily dependent on fish as a source of animal protein.

Technology Transfer

Technology transfer is the act of exchanging technical knowledge, skills and final products from one body to the other. Chile Foundation, Praeger Aggrawal clarifies technology transfer as the communication, adaptation and use of technology from one place or economic region into a second region. He also adds that this technology has to be adapted to local conditions by the receiver to fit to its social, political, cultural, economic, and educational environment. (Aggrawal, R)

Issues identified and relevance

1. **Technical Know-How**

Know-how can be regarded as the most important methods of technology transfer to the recipients through the acquisition of industrial useful, secret and valuable information which can be associated with technical knowledge and skills that covers the various processes, formula,

and industrial techniques. It is important to note here that the know-how enables the recipients' enterprises to gain potential access to developments in products and processes. This is mainly because know-how agreements usually provide recipients organizations with a package of technical information needed for efficient adaptation and assimilation of imported technologies. (UNIDO , 1976).

Technical Assistance

Technical assistance are another important genuine means of technology transfer to the recipient countries. It includes the manufacturing drawings, machinery maintenance, specifications acquisitions, facility production set up assistance, know-how process advice, engineering services like procurement of materials and equipment, personnel training, manufacturing consultation, quality control procedures, and testing of final products (Stewart, F., 1979).

Channels of Technology Transfer

Technology transfer channel is the link between two or more social entities in which the various technology transfer mechanisms can be activated. Channel of technology transfer mechanism can be either direct or indirect mechanisms. The Direct mechanism involves direct contact between benefactors and the recipient of the technology in which the individual experts and consultant companies are contracted directly. This includes engaging the recipients in engineering design and plant construction enterprises, training nationals for specific production projects, technical information activities, and transfer of the process technology that are embodied in capital goods through the importation of equipment that are purchased directly from machine manufactures. The Indirect mechanism of technology transfer is just the assembling of the products from the benefactors.

The aforementioned is spelled out in the Abidjan convention but non of the procedure or actions are been implemented as all parties involved are facing various challenges on poor, outdated and inadequate technology. The various parties work independently without sharing or transfer of technology.

2. Insufficient Funding and finance

The Abidjan Convention is dependent on donor funds and United Nations support to fully operate. UNEP through the Trust Fund have funded a greater part of the convention activities between 1981 to 1983 to the sum of US$1.4 million. Based on the UN scale contracting parties were supposed to contribute proportionally to fund the Action Plan. For 2008, the total assessed contributions was $18,600 and $112,500 was contributed between 2004-2007. Most of the work is done through partnerships. Within these years huge sums of money was waived for the contracting parties. The total amount contributed does not meet up to the half of the required sum.

The underfunding due to lack of commitment from various parties has resulted to various parties not meeting the targeted agenda and therefore hinder the conduct of activities.

3. Training and Capacity Building

The Secretariat is expected to promote South-South cooperation in order to support capacity building and technological support efforts through the strengthening of systematic partnerships and the exchange of expertise, experiences, good practices and knowledge among experts and institutions of the South, as envisaged in the New Partnership for Africa's Development (NEPAD) ;

How training and capacity building is done is not clear. However, a progress report on the activities of the convention is necessary to facilitate the monitoring and progress of its implementation.

Efforts at training and technical assistance to strengthen skills and competencies of Parties started in earnest at the coming into force of the Convention, but faded earlier than anticipated due to inadequate funding. Parties did not honour their commitment to the trust fund set up to replace UNEP's catalytic funding for capacity-building efforts (UNEP 2005a). Inspite few attend by collaboration with International Maritime Organisation's Technical Co-operation Programme has for instance supported some Parties to consolidate their various marine environment regulations into a comprehensive marine pollution legislation (Accra, 2011). Similar collaboration with other Commission has delivered workshops and trainings on marine pollution including those from oil spills. The International Maritime Organisation and GloBallast partnership under the Guinea Current Large Marine Ecosystem project has also organised a number of ballast water workshops to strengthen regional and national capacity to ensure protection from marine invasive species.

The trainings and workshops have mostly targeted national focal points and other state bureaucrats. However, officials from Douala and Tema ports participated in the 2009 ballast water workshops in Accra and Abidjan (Tema, 2014) has been generally weak and inadequate.

4. Domestic institutions

The domestic politico-administrative institutions of Parties to the Abidjan Convention share a state-centric approach but have core differences among them. Two political systems, presidential and parliamentary, are predominant on a continuum ranging from hierarchical and highly centralised to flexible and decentralised. The presidential system of Cameroon and Ivory Coast combines decentralisation with authoritarian traits into a political hybrid (Ottaway 2003) with hierarchical and highly centralised institutions after a typical French model (King 1976). The presidential system of Nigeria has decentralised and fragmented institutions (Ottaway 2003) and is typical of US's 'separated institutions sharing powers' (Neustadt 1990). Serving as a contrast to the two different presidential systems is Ghana's parliamentary system, which has decentralised and yet fused institutions with flexibility, in political integration (Ottaway 2003). Ghana's system is similar to the British system (Raustiala 1997).

The different institutional arrangements affect the coordination needed for implementing RCU's measures. Cameroon for instance has the Ministry of Environment and Nature Protection (MinENP) as its national focal point. MinENP's coordinating mechanisms across parallel and hierarchical institutions are ineffective. Formal responsibility for the

national oil spill contingency plan is split between MinENP and the Ministry of Transport via its Merchant Shipping Department and the National Ports Authority. The plan remains in draft form (personal communication, Douala, 2010; Accra, 2011). In practise, however, oil installations have sub-national plans coordinated by the National Hydrocarbons Authority, which falls under the Prime Minister's office. Ballast water is yet to be addressed by national regulation or inspection regime.

Ivory Coast has the Ministry of Environment, Water and Forests (MinEEF) as its national focal point. MinEEF together with its agency, the Ivorian Antipollution Centre have responsibility for oil spill and ballast water. There is no documented national or sub-national oil spill contingency plan, though the Ivorian Antipollution Centre and some private oil operators have some response equipment (personal communication, Accra/Abidjan, 2012/2015, respectively). Furthermore, there is no action yet on ballast water.

Nigeria has the National Environmental Standards Regulations and Enforcement Agency (NESREA) as its national focal point. However, responsibility for oil spill lies with multiple decentralised institutions. The Nigeria Maritime Administration and Safety Agency (NIMASA) has responsibility for spills beyond three nautical miles, while the National Oil Spill Detection and Response Agency (NOSDRA) takes charge for spills on land and inland waters. Despite functional overlaps, there is collaboration between NIMASA and NOSDRA. They hold periodic joint exercises to test response preparedness (personal communication, Lagos 2012). Ballast water is regulated by NIMASA and it was the first domestic institution among Parties to the Abidjan Convention to develop national ballast water regulation in 2011, in line with the regional ballast water plan and International Maritime Organisation's ballast water convention, which had then not come into force.

Ghana's Environmental Protection Agency (EPA) is its national focal point. The Ghana Maritime Authority is the competent authority for shipping pollution but due to lack of capacity, the EPA mostly leads to co-ordination and collaboration. The EPA operates by a co-management approach that involves both state and non-state actors. It has oversight responsibility for national and sub-national contingency plans and organises periodic response preparedness exercises. In addition, a national ballast water regulatory framework implementing the regional ballast water action plan and International Maritime Organisation's ballast water convention was adopted in 2013.

The differing political systems coupled with uncoordinated national institutions leave Parties to the Abidjan Convention with a shared difficulty in the implementation of negotiated measures. The centralised systems leave state actors pursuing their own interests and potentially marginalising the values and interests of sub-national and local actors who can contribute to implementation. The decentralised systems also do not share coordinated implementation mechanisms and leave disparities between approaches and motivations for on-the-ground implementation.

In sum, although Parties to the Abidjan Convention are collectively architects of the Convention, their heterogeneous political systems and varying domestic regulatory processes may constrain the receptivity and uptake of RCU's measures for preventing shipping pollution.

Recommendations

1. The African countries are developing nations and due to other national social, economic and political pressures are likely not able to meet up with their engagements. Moreover, here are parties to several conventions. Therefore, UNEP should facilitate carbon trade among the developed and developing countries. This implies, revenue raised from carbon trading which usually amounts to huge sums may be used to fund the conventions to which the developing countries are parties. Funds could also be raised by UNEP from organizations operating in the convention area. However, that should be a voluntary action.

2. Regional collaboration in research institutions should be encouraged to improve on technology. A proportion of Convention funds should be directed to towards the funding of best technology projects within the region concerned and/or for the provision of scholarships in technology related fields regarding the marine environment.
3. Regular training of members parties should be given priority to keep various regions abreast on developing trend on management and protection of the marine ecosystem
4. Comprehensive reports should be established per identified action indicated in the convention. All documents (convention, protocols, reports of meetings, progress reports as well as balance sheets should be made available to the public). A website is appropriate to host the reports.
5. The contracted parties to our conventions should identify existing clean Development Mechanism technologies that can be shared: design and develop workshops for improving the communication between universities and enterprises, including adopting the cluster models that have gained widespread success in some countries, as well as to develop regional competitions and awards for best collaborations among universities, enterprises and individual inventors; provide a better understanding of the market for technology, such as identifying needs in particular technology areas concerning maritime issues.
6. Establish and reinforce, develop and fund technological project within their respective countries.