African Ocean Governance Strategy: Scoping study and gap analysis

Executive summary

The purpose of this paper is to carry out a scoping study and gap analysis that examines existing ocean governance mechanism; and to provide recommendations that may provide elements of a concise African Strategy on ocean governance within which detailed action can be developed, in order to implement African Ministers' decision "…to develop a governance strategy, in accordance with the United Nations Convention on the Law of the Sea and regional seas conventions, on oceans and seas in Africa for the effective management of the region's shared maritime resources…"

A consideration of the institutions and laws that engage with African regional ocean governance suggests difficulties arise because of -

- **the complexity and diversity of the subject matter;**
- **the large number of institutions;**
- **the way that some laws and institutions become focused on particular subject matter, so that they focus on silos;**
- **overlaps of treaty law, so that several international treaties may apply to a given situation;**
- **overlaps of activities under treaties; and**
- **the danger of many different actors operating in the same fields.**

There is a need for overarching frameworks within which there can be holistic and synergetic decision-making concerning regional ocean governance. For the time being -

- **there are no overarching framework that covers all aspects of oceans governance at the African or regional level[1];**
- **there is a lack of agreed principles on which to base action;**
- **there is no overarching framework within which to discuss regional issues that have an impact on global issues;**
- **there is no mechanism, for assessing and describing in concrete, specific, measurable, achievable and time related terms, what is required to be done to meet policy goals.**

What is more, further refinement of regional ocean governance is necessary to enhance capacity to address issues such as the creation of a network of partnerships to contribute to the implementation of Sustainable Development Goal 14; the need for sustainable financing from both public and private sources and the development of innovative finance, the promotion of awareness, education and research; targeted action on pollution; the use of effective and appropriate area-based management tools; enhancing the capacity of states and ecosystems to adapt to climate change; and the coordination of action to eliminate over-fishing, IUU fishing and destructive fishing practices

[1] It is proposed that the regions should be defined with reference to the geographic areas of the regional seas Conventions.

With that in mind, the final part of this study sets out possible elements for a future ocean governance strategy, including: a vision, applicable principles, the development of frameworks to provide a strategic direction based on consistent messages and agreed principles; the development of quantifiable goals linked to the Sustainable Development Goals; raising additional, innovative and sustainable finance; and the alignment of bodies and laws in the field through consultation on new policy and legal proposals with a view to avoiding fragmentation and the alignment of mandates of the institutions in the region to agreed objectives.

I. Introduction

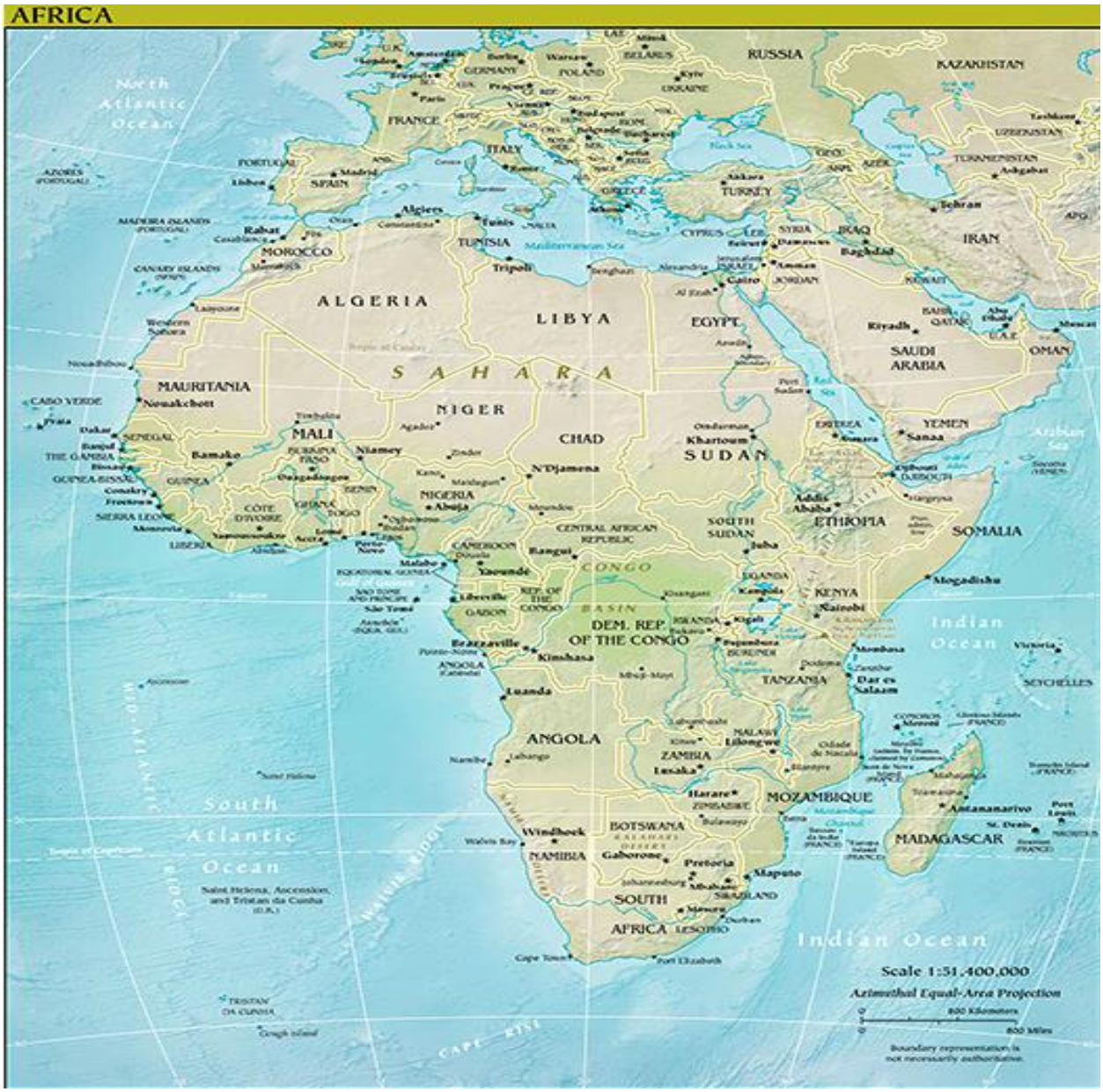
A. Background

Photo by Stuart Holding[2]

[2] http://www.world66.com/africa/gambia/lib/gallery/showimage?pic=africa/gambia/fishing_boats_near

The African continent has rich biodiversity and natural features. It hosts a wide variety of ecosystems – including estuaries, coral reefs, mangrove forests, wetlands and dunes - which provide habitats to a large variety of species, including, of course, fish populations.

Most African States are coastal States: thirty-eight of a total of fifty-four. The sea plays an important part of trade: more than 90% of Africa's imports and exports are conducted by sea and globally important strategic trade routes are in Africa.



Photograph: The World Factbook 2017. Washington, DC: Central Intelligence Agency, 2017[3].

Maritime zones under Africa's jurisdiction total about 13 million square kilometres including territorial seas and approximately 6.5 million square kilometres of the continental shelf. The African aquatic and ocean-based economy contributes significantly to the overall wealth of the continent: the largest sectors are fisheries, aquaculture, tourism, transport, ports, coastal and energy.[4] The recent growth in Africa's wealth has been striking. The projected gross domestic product growth rate in the African continent as a whole from 2008 to 2018 is 4.2%.[5]

Against this background governments face challenges with respect to ocean governance. On the one hand they need to ensure that marine resources continue to contribute to overall growth. Here there may be considerable opportunities –

> "….the International Energy Agency estimates that ocean renewable energy has a power potential sufficient to provide up to 400% of global current energy demand. Other estimates indicate that in 2010 the total annual economic value of maritime related activities reached 1.5 trillion euro. It is forecasted that by 2020, this figure will reach 2.5 trillion euro per year. Surely, Africa needs holistic and coherent strategies to harness this potential.'[6]

But whilst marine, ocean and coastal resources support a growing proportion of economic and livelihood options, Africa's marine and coastal resources are under increasing threat from environmental factors.[7]

Over-fishing and destructive fishing practices continue to cause damage to marine ecosystems, as do other anthropogenic pressures, including pollution. And there are currently not enough marine protected areas to cover at least ten per cent of Africa's marine and coastal areas.[8]

Moreover social considerations need to be taken into account. Coastal communities are particularly vulnerable to climate change - coastal erosion has destroyed an important part of Grand-Lahou, Côte d'Ivoire, which has led people to abandon their homes and move some 20km inland.

Inclusive management of Africa's oceans offers considerable opportunities to promote the interests of all societal groups, especially women, youth, local communities, and marginalized/underrepresented groups. For example, in the case of youth, "Africa faces a huge demographic challenge in the large and

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[3] https://www.cia.gov/library/publications/the-world-factbook/index.html

[4] Africa's Blue Economy: A policy handbook (UN Economic Commission for Africa, 2016)

[5] See African economic outlook at http://www.africaneconomicoutlook.org/en/outlook.

[6] Africa's Blue Economy

[7] Global Environmental Outlook GEO-6 regional assessment for Africa, United Nations Environment Programme (2016)

[8] The State Of Biodiversity In Africa: A Mid-Term Review Of Progress Towards The Aichi Biodiversity Targets (UNEP 2016)

increasing percentage of young people under age 30 in its population. In addition, many youth do not wish to pursue rural livelihoods in their home areas and instead travel to rapidly expanding cities…these youth will need education, training, and job opportunities".[9] The sustainable development of Africa's ocean based economy could improve their economic and social prospects.

B. Ocean governance at the regional level

The United Nations Convention on the Law of the Sea (UNCLOS) provides for regional approaches to oceans governance in its provisions on enclosed and semi-enclosed seas,[10] environmental protection,[11] high seas living resources,[12] and regional marine scientific and technological centres.[13]

Action at the regional scale addressing particular water bodies allow initiatives to be conducted at the appropriate level, taking the particular economic, social and environmental features of a marine ecosystem into account and deploying the most appropriate legal, institutional and management tools for that particular area, addressing specific and local problems and empowering focused solutions.

Regional oceans governance currently takes place principally through the following mechanisms among others-

- regional Seas programmes and their associated Action Plans, Conventions and Protocols;
- regional fisheries bodies; and
- Large Marine Ecosystem mechanisms, including projects supported by the Global Environment Facility.

This study works on the premise that the oceans governance strategy developed in accordance with the Cairo Declaration[14] will be developed with respect to the areas covered by the African regional seas Conventions.[15]

C. Geographical scope

Global and regional policy developments suggest that when considering ocean governance it is appropriate to consider Areas Beyond National Jurisdiction (ABNJ).

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[9] Africa's Blue Economy

[10] Article 123.

[11] Part XII.

[12] Articles 117-119.

[13] Article 276.

[14] See page 11.

[15] See page 14.

At the global level, the United Nations Environment Assembly has encouraged United Nations Environment to engage with the development of international legal work concerning areas beyond national jurisdiction [16], and encouraged Parties to regional seas conventions to extend their coverage.[17]

Moreover activities, in relation to ABNJ, have already commenced under regional seas conventions that relate to the African region.

For example, the Parties to the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean made a commitment in their Decision CP7/7 to work on the recognition of Ecologically or Biologically Significant Marine Areas within their exclusive economic zones and areas beyond national jurisdiction, and further work has been undertaken under the Convention since then.

What is more, the Convention 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 (Abidjan Convention) decided in 2014 at the eleventh meeting of its Conference of the Parties "to set up a working group to study all aspects of the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction within the framework of the Abidjan Convention [...]". That too has been followed by subsequent work.

There is some considerable merit in regional bodies addressing ABNJ, so that cooperation between states with established partnerships may take into account specific local ecological, societal and economic conditions.

In view of that the proposed strategy in this study relates to areas within and beyond national jurisdiction.

[16] The second session of the United Nations Environment Assembly adopted in 2016 a resolution on Oceans and Seas (resolution 2/10). In paragraph 9 the Assembly "[E]encourages the United Nations Environment Programme to continue to participate in the process initiated by the United Nations General Assembly in its resolution 69/292 on the negotiation on the development of an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction" .

[17] Paragraph 13 of resolution 2/10, referred to above in paragraph 5, "[E]encourages the contracting parties to existing regional seas conventions to consider the possibility of increasing the regional coverage of those instruments in accordance with international law.

D. Mandate from AMCEN

At the Fifteenth Ordinary Session of the African Ministerial Conference on Environment (AMCEN) in March 2015, in Cairo, Egypt, the African Ministers adopted the Cairo Declaration on Managing Africa's Natural Capital for Sustainable Development and Poverty Eradication (Cairo Declaration)[18].

Paragraph 14 of the Cairo Declaration says that the Ministers agreed -

> *"…to develop a governance strategy, in accordance with the United Nations Convention on the Law of the Sea and regional seas conventions, on oceans and seas in Africa for the effective management of the region's shared maritime resources…"*

It was decided to organise a regional conference to address the strategy[19].

To initiate the development of the strategy, the first planning meeting was held on 19 October 2015 in Istanbul, Turkey. There the heads of Secretariats of the four Regional Seas Conventions in Africa (the Abidjan, Barcelona, Nairobi and Jeddah Conventions) agreed to conduct this scoping study to map out existing strategies and governance mechanisms and to identify gaps.

Further material on the context of the study appears in the section on policies and goals at the global and regional level below.

E. 2017 follow up in Libreville

Subsequently the African Ministers for the Environment in [Part 1 of the Draft Decision 2: 2017 Omnibus Decision on Environment in Africa[20]], noted that, inter alia, the Africa region is facing serious degradation and unsustainable use of the marine and coastal ecosystems thereby negatively impacting on the functioning of ecosystems and affecting livelihoods of coastal communities, and acknowledged that weak governance infrastructure and sustainable management institutional frameworks has contributed to degradation and depletion of the marine and coastal ecosystems. The Ministers recalled the Cairo Declaration, and the decision of member states to develop a regional ocean governance strategy in Africa.

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[18] UNEP/Ocean Governance/WG.1/INF4 1 October 2015

http://wedocs.unep.org/bitstream/handle/20.500.11822/10923/oceangovernance_wg1_inf4_cairo_declaration.pdf?sequence=1&isAllowed=y

[19] Paragraph 4 of the Cairo Declaration initially envisaged the regional conference would be in 2016

[20] AMCEN/16/L.3/Rev.1.

F. Purpose of the study

The purpose of this sturdy is to carry out a scoping study and gap analysis that examines existing ocean governance mechanisms, strategies and policies relevant to Africa's oceans and seas and identifies gaps in ocean governance mechanisms in Africa. The recommendations formulated in this study will be the basis for the preparation of a concise African Strategy on ocean governance within which detailed action will be developed.

II. Ocean Governance

A. Governance

The dictionary definition of "governance" is "the action or manner of governing a state, organisation, etc.".[21]

The term has been considered at some length by political scientists who took it up as a term broader than "government" and used it a conceptual tool to engage with developments in international and national politics that involved not only government but also other, non-state, actors, such as civil society organisations, national and transnational corporations and international organisations.

It is challenging to develop a working definition of "governance" for the purposes of this study for two particular reasons. First, the term has evolved to cover non-governmental actors, which means consideration of governance will involve not only the analysis of the role of government and inter-governmental organisations, but of other stakeholders as well, which have informal and sometimes intangible relationships with government bodies. Secondly, the more we consider governance at an international level, the more complex the issues become because a new layer of complication - diverse and overlapping international institutions and norms - is superimposed on already intricate national arrangements.

The definition of global governance used by the Commission on Global Governance[22] shows how difficult it is to pin the term down. The Commission defines governance as:

> "A continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken. It includes formal institutions and regimes to enforce compliance as well as informal arrangements... There is no single model or form of governance, nor is there a single structure or set of structures. It is a broad, dynamic, complex process of interactive decision-making."

[21] Oxford English Dictionary.
[22] Commission on Global Governance, Our Global Neighbourhood. Report Of The Commission On Global Governance (Oxford University Press, 1995).

Attempts by different commentators to define governance have produced varying results that highlight the governmental components[23], how governance provides a structure for policy and action[24] and how governance influences behaviour [25].

But when we consider the *components* of governance, we can begin to identify concrete factors that may be separated out and studied separately. For example, the Sourcebook for Evaluating Global and regional Partnerships and Programmes (2007; IEG-World Bank) says this:

> "Governance concerns the structures, functions, processes, and organizational traditions that have been put in place within the context of a program's authorizing environment 'to ensure that the [program] is run in such a way that it achieves its objectives in an effective and transparent manner.' It is the 'framework of accountability to users, stakeholders and the wider community, within which organizations take decisions, and lead and control their functions, to achieve their objectives'.'

Building on that analysis, it seems useful to consider the following components of governance:

- institutions;
- laws;
- processes for decision-making;
- financial mechanisms; and
- stakeholder engagement;

and to assess the adequacy of those components in delivering policy objectives.

A. Regional oceans governance

There is no agreed definition of International Oceans Governance, notwithstanding the level of interest in the issue. That may be in part due to the complexity: as Koch explains–

[23] "The exercise of economic, political and administrative authority to manage a country's affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences" (UNDO (1997))

[24] "Governance [means] the formal and informal arrangements, institutions, and mores that structure: how resources or an environment are utilized; how problems and opportunities are evaluated and analysed; what behaviour is deemed acceptable or forbidden; what rules and sanctions are applied to affect the pattern of use" (Juda and Hennessey, 2001)

[25] "For the sake of simplicity, we think of governance as formal or informal rules, understandings or norms that influence behaviour" (Sissenwine and Mace 2001)

> *[International Oceans Governance] is a vast, complex and highly technical sub-discipline of international law. Its framework covers issues such as: jurisdictional zones, navigation, dispute resolution, regional seas, and…. environmental standards and duties. The main marine environmental issues are traditionally delineated to include: conservation of marine living resources (fisheries management); pollution control (oil, shipping, nuclear, hazardous substances etc.); offshore mining; and land-based marine pollution... The [International Oceans Governance] environmental regime consists of overarching or framework measures, issue-specific measures, regional measures; and various institutions, mechanisms and procedures; all aimed at regulating deleterious effects of human activities on the marine environment*[26].

Oceans governance will engage a wide range of bodies with different functions relating to diverse subject matter, with their own internal processes and particular ways of operating.

Whilst global conventions and institutions have often enjoyed success in establishing universal norms and principles, it is not necessary to deal with all international issues at the global level, and it is sometimes appropriate to provide more local legal and institutional solutions to regional problems. Regional regimes may take an ecosystem-based approach to management integrating the knowledge of biological and physical systems of the ecosystem with the needs of humans. This should encourage science, conservation, and location based measures to be taken within transboundary areas for the protection of the ecosystem. Moreover the success of maritime policy depends on the support and sense of ownership of stakeholders who are active with respect to specific geographic areas and sectors.

Whilst some global problems, such as mitigation of climate change, clearly require a common global solution that engages all the countries that contribute to those problems, other problems clearly need to be addressed at a regional level, including some aspects of biodiversity.

A regional approach empowers tailor-made management, supports the ownership of shared solutions, and reflects the political, legal and ecological characteristics of a given region.

This is particularly important given the great diversity among the African Seas and Oceans, in terms of ecosystems. The African continent is one of the most ecologically diverse and complex of all continents. Environmental variability is one of main factors contributing to diversity, abundance, and distribution of coastal populations. This diversity, together with variations in the physical features of coastlines and densities of populations has caused the adoption of different national approaches towards the utilisation, management and protection of marine and coastal resources. The diversity of national approaches makes it difficult to coordinate across the continent, militating in favour of coordination at a regional level.

In particular, a regional approach to ocean governance is well-suited for implementing the ecosystem approach. On the one hand the ecosystem approach must be implemented by international cooperation, because no single state or competent body has full authority over all sectors impacting coastal and ocean resources or marine ecosystems and no single national unit can succeed in protecting

[26] Koch (2008).

and conserving marine ecosystems by itself. But on the other hand, there is little added value in engaging states outside a region that have no ability directly to affect and/or control the health of a particular ecosystem.

The geographic scope of the different African Regional Seas Conventions, their Protocols and their associated Action Plans are defined taking into account a variety of criteria based, for example, on biophysical factors, jurisdictional structures and/or political priorities. Those Conventions and Protocols that underlie the Action Plans provide an established legally binding regional framework and for this reason it is appropriate that any new regional governance arrangements should be organised with reference to their geographic areas, in accordance with the mandate to develop a governance strategy, in accordance with the regional seas conventions.

B. Conclusion

For the purposes of this paper, in considering governance there will be a focus on institutions, laws, and processes for decision-making; financial mechanisms; and stakeholder engagement. And there will be a presumption that governance arrangements will be organised with respect to the geographic scope of the Conventions, Protocols and Action Programmes that apply to the area.

III. Existing studies

A number of existing studies are relevant to this one, including the *Blueprint under the Abidjan Convention*, a 2016 UN Environment paper entitled *Regional Oceans Governance: Making Regional Seas Programmes, Regional Fishery Bodies and Large Marine Ecosystems Work Better Together* and a 2014 UN Environment publication called *Measuring Success: Indicators for the Regional Seas Conventions and Action Plans*[27].

The authors of the studies made a number of key points, some of which are listed below.

A. Governance

- The mandates of the four Regional Seas Programmes around the coast of Africa overlap with other regulatory bodies – such as the regional fisheries organisations – but there is no structured approach to co-operation amongst them; there is an absence of a general obligation or a framework for cooperation.

- There is a lack of political will and support for Integrated coastal zone management, and difficulties in achieving coordination amongst stakeholders.

- The mandates of various regional oceans governance mechanisms should be revised so as, inter alia, to fill gaps and facilitate implementation of the ecosystem approach to fisheries by the

[27] The latter study only focused on regional seas programmes, regional fisheries bodies and large marine ecosystems.

various bodies involved.

- Individual mechanisms should be strengthened to improve their efforts to better coordinate with other mechanisms.

- Informal cooperation and coordination should be promoted.

B. Maritime security

- Maritime Security off the African continent is under threat as a result of lawlessness at sea.

C. Fisheries

- There is the potential for fisheries and aquaculture to make a greater contribution to the continent's economy by working on the regulatory framework, compliance and enforcement, particularly to combat illegal, unreported and unregulated fishing, and increased co-operation amongst African countries in the promotion of sustainable aquaculture.

D. Pollution

- There has been rapid growth of the number of cities and other settlements, which has been, to a large extent, unplanned and there is insufficient infrastructure to deal with all of the requirements for sustainable urban living.

- There are challenges in the management of pollution from land-based sources due, amongst other things, to the inadequacy of legal frameworks.

E. Climate change

- There are challenges related to climate change, including a limited capacity to respond to climate change, the emergence of new legal issues including those generated by displaced persons, the difficulty in representation at international negotiations and the cost of adaptation measures.

F. Indicators

- There should be a coordinated set of indicators capable of comparing common regional marine ecosystem issues.

A more detailed account of the existing studies is in Annex 1 to this paper.

IV. Policies and goals at the global, regional and national level

There has been recognition of the necessity for collective action on oceans at both the global and regional level.

A. Policy at the global level

At the global level, on 6 July 2017 the General Assembly adopted Resolution 71/312: Our ocean, our future: call for action[28], which endorsed the declaration of the Heads of State and Government and

[28] A/RES/71/312

high-level representatives, meeting in New York from 5 to 9 June 2017 at the United Nations Conference to Support the Implementation of Sustainable Development Goal 14 of the 2030 Agenda for Sustainable Development.

In paragraph 2 of the resolution the leaders and representatives of the Governments state that they "are determined to act decisively and urgently, convinced that our collective action will make a meaningful difference to our people, to our planet and to our prosperity".

After acknowledging the importance of the ocean, key environmental threats and the integrated and indivisible character of all the Sustainable Development Goals and the synergies between them, paragraph 13 of the resolution called upon all stakeholders to take a number of actions, building on existing institutions and partnerships, including approaching the implementation of Goal 14 in an integrated and coordinated way, strengthening cooperation, policy coherence and coordination, strengthening and promoting effective multi-stakeholder partnerships[29].

As paragraph 13 sets out globally agreed policy on implementation of Goal 14, it will be used as a framework for some of the gap analysis below: the present governance arrangements in Africa will be assessed with regard to key issues raised by the call for action.

B. Policy at the regional level

The call for action at a global level resonates with policy development at the regional level. Indeed, the Cairo Declaration of AMCEN clearly relates to the Sustainable Development Goals[30].

1. The Cairo Declaration

The Cairo Declaration sets the context of the mandate it provides for the development of an oceans governance strategy.

In paragraph 8 of the Declaration, the African Ministers of the environment resolved -

> "To reiterate our support for the regional seas programmes in Africa as regional platforms for the implementation of the Africa Integrated Marine Strategy 2050 and Agenda 2063 on Ecosystem-Based Management Approaches for marine resources in the exclusive economic zones and adjacent waters"

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[29] *Ibid*: paragraph 13.

[30] Not only SDG 14, but also SDG 1 (end poverty in all its forms everywhere), SDG 2 (end hunger, achieve food security and improved nutrition and promote sustainable agriculture); SDG 3 (ensure healthy lives and promote well-being for all at all ages); SDG 8 (promote inclusive and sustainable economic growth, employment and decent work for all), SDG 12 (ensure sustainable consumption and production patterns) and SDG 13 (take urgent action to combat climate change and its impacts).

What is more, paragraph 9 emphasised the importance of the green economy, the role of international organisations and stakeholders and the necessity of financial and technical support, cooperation and knowledge sharing[31].

2. The AIM Strategy

The Conference of African Ministers in Charge of Maritime Related Affairs Assembly of Heads of State and Governments in Addis Ababa adopted the 2050 Africa Integrated Maritime Strategy[32] (2050 AIM).

a) Vision

The vision of the strategy is to foster increased wealth creation from Africa's oceans and seas by developing a sustainable thriving blue economy in a secure and environmentally sustainable manner, as well as increased national, regional and continental stability, through collaborative, concerted, cooperative, coordinated, coherent and trust-building multi-layered efforts to build blocks of maritime sector activities in concert with improving elements of maritime governance[33].

b) Guiding philosophy

The guiding philosophy is founded on information sharing, communication, collaboration, cooperation, capacity-building and coordination[34]. It recognizes[35] a large diversity of stakeholders, including AU Member States, local communities, specialized regional institutions and associations, the African maritime private sector, strategic development partners and the international community as a whole.

c) Relationship with other instruments

The Strategy is to be interpreted and implemented along with all relevant AU, national and international regulatory frameworks and on-going maritime initiatives in Africa[36]. The strategic objectives are a set of ambitious goals to be achieved and include inter alia the establishment of a Combined Exclusive Maritime Zone of Africa, engagement of civil society and all other stakeholders to improve awareness on maritime issue, protection of populations or promotion of the ratification, transposition and implementation of international legal instruments.

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[31] In paragraph 9 of the Declaration, the Ministers resolved -

"To urge member States to integrate green economy into development planning, use green economy to mobilize additional resources, create jobs, targeting in particular small and medium-sized enterprises and the informal sector, promote entrepreneurship and skills development and to call upon United Nations agencies, international financial institutions and development partners, regional organizations, stakeholders and civil society to promote social and environmental entrepreneurship and to provide financial and technical support by fostering cooperation and knowledge-sharing on good practices; "

[32] See http://cicyaounde.org/wp-content/uploads/2015/04/2050-AIM-Strategy-Eng.pdf.
[33] *Ibid,* paragraphs 18-19.
[34] *Ibid,* paragraph 22.
[35] *Ibid,* paragraph 24.
[36] *Ibid,* paragraph 27.

d) Operationalization of AIM 2050

Governments adopted a Plan of Action to operationalize AIM 2050. The Plan of Action is a roadmap and timeline with the major activities and actions identified, the measures of output, the lead and other institutions responsible for the implementation of the activities. The objectives cover projections for new institutions and structures, wealth creation and human resource development, as well as capacity building for maritime governance.

3. The relationship between 2015 AIM and the mandate from AMCEN

As we have seen, this study implements part of a mandate from AMCEN in the Cairo Declaration; that Declaration, like 2050 AIM, arises from the need to address fragmented governance in coastal and marine ecosystems of Africa, to promote inter-sectoral and inter-governmental cooperation and to address poverty and development concerns. Representatives of African Governments endorsed 2050 AIM and the Cairo Declaration: the ministers responsible for maritime affairs endorsed 2050 AIM and the ministers responsible for environment affairs endorsed the Cairo Declaration.

The environment ministers, in the Cairo Declaration, reiterated their support for 2050 AIM thus recognising the synergies between the two instruments: in particular, this study and the strategy that will follow it will contribute to the implementation of the 2050 AIM Strategy.

4. Agenda 2063: the Africa we want

Agenda 2063 sets out a pan-African vision and a 50-year strategy on how to use the continent's overall resources for the benefits of Africans. The vision is "an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the global arena." Seven aspirations under the vision are the following:

- A prosperous Africa based on inclusive growth and sustainable development
- An integrated continent, politically united and based on the ideals of Pan Africanism and the vision of Africa's Renaissance
- An Africa of good governance, democracy, respect for human rights, justice and the rule of law
- A peaceful and secure Africa
- An Africa with a strong cultural identity, common heritage, values and ethics
- An Africa where development is people-driven, unleashing the potential of its women and youth
- Africa as a strong, united and influential global player and partner

There is a special place for the oceans in this vision: paragraph 14 states that "Africa's Blue economy, which is three times the size of its landmass, shall be a major contributor to continental transformation and growth, advancing knowledge on marine and aquatic biotechnology, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport and fishing; and exploitation and beneficiation of deep sea mineral and other resources."

5. 2016 Lomé Charter and maritime security

The Heads of State and Government of the African Union, meeting in Lomé in October 2016 adopted the African Charter on Maritime Security and Safety and Development in Africa (the Lomé Charter). If and when it enters into force, the charter will be legally binding, and as such would be a change from

previously soft law approach to the African maritime security agenda, for example in the 2009 Djibouti Code of Conduct, the 2013 Yaoundé Code of Conduct and AIM.

The Lomé Charter sets a legal framework for the maritime security agenda. It identifies the linkages between maritime security and safety, and the huge prospects of utilising the marine spaces and resources as a key driver of Africa's economic and social development. It also defines the Blue/Ocean Economy as "sustainable economic development of oceans using such techniques as regional development to integrate the use of seas and oceans, coasts, lakes, rivers, and underground water for economic purposes, including, but without being limited to fisheries, mining, energy, aquaculture and maritime transport, while protecting the sea to improve social wellbeing".

The Charter has an ambitious collection of objectives relating to maritime security and includes the prevention and suppression of national and transnational crime, including terrorism, piracy and armed robbery against ships, drug trafficking, smuggling of migrants, trafficking in persons and all other kinds of trafficking transiting through the sea and IUU fishing (Article 3(a)), promoting and enhancing cooperation in the fields of maritime domain awareness (Article 3(d)), establishing appropriate national, regional and continental institutions and ensure the implementation of appropriate policies likely to promote safety and security at sea (Article 3(e)) and the promotion of interagency and track transnational coordination and cooperation among member states (Article 3(f)).

Chapters to the charter contain general provisions relating to measures to prevent and combat crimes at sea, maritime governance, and the development of the blue/ocean economy.

The Charter provides a framework for action, and many articles are general and short on detail. See, for example, Article 11, which provides –

> "State Parties undertake to establish a Maritime Security and Safety Fund".

There is no provision as to how this fund would be established, or by when. Nor does it say who would manage the fund, how contributions would be assessed. There is no provision on precisely how the funds would be deployed. Much technical detail has been left to annexes, which will be developed subsequently by technical committees.

The Charter also relates to the environment - for example the objective set out in Article 3(b) is to protect the environment in general and the marine environment in particular - and to more general governance issues, such as the implementation of the AIM Strategy in conformity with International Maritime Law (Article 3(g)).

C. The national level

Despite a large number of regional policy initiatives, few countries in the region have developed comprehensive coastal or ocean policy processes and fewer still have integrated programmes into broader regional ocean governance frameworks[37] although some states are approaching marine

[37] Routledge Handbook of National and Regional Ocean Policies (2015) ed. Cinin-Sain, VanderZwaag and Balgos, p.560.

management in a way that endeavours to take into account the multiple issues affecting oceans and the coasts[38].

Most coastal states in Africa have ratified the key international agreements that impinge on ocean governance; and many are engaging in regional policy processes. Moreover the political will fully to participate in regional ocean governance seems to be there – witness the willingness to adopt high-level political statements.

Nevertheless many African states find it challenging fully to engage in ocean governance, for a number of reasons, which include the following:

- lack of financial and technical capacity to formulate and implement regional policies;
- lack of human resources;
- the inter-sectoral nature of policies relating to ocean governance makes them complex and difficult to develop and implement;
- ocean governance issues may not get the same priority as other more urgent and pressing issues, such as poverty, income disparity, a lack of access to water and arable land, and so forth; and
- there are different approaches to governance, which are driven by different ecological or political conditions in different countries.

V. Applicable governance principles and approaches

A. Introduction

Principles of international environmental and development law are general: they are potentially applicable to all members of the international community with respect to all their activities and all the activities they authorise relating to environment and development.

Some principles reflect customary law; others may reflect emerging legal obligations; and others may have an uncertain legal status.

It may be difficult to establish the exact force of a principle in any given circumstances. So the application of each principle with respect to a particular activity or incident and/or its consequences must be considered in the circumstances of the case. According to Dworkin -

> "[A principle] states a reason that argues in one direction, but does not necessitate a particular decision... All that is meant, when we say that a particular principle is a principle of our law, is

[38] For example, see South Africa's National Environment Management Act of 2008, Tanzania's Marine and Coastal Environmental Management Project, and the Namibian Coast Conservation and Management Project.

> that the principle is one which officials must take into account, if it is relevant, as a consideration in inclining one way or another."[39]

Sometimes there is controversy about whether particular concepts that inform the development of environmental law and decision-making may be accurately described as "principles". For example some states do not subscribe to the "precautionary principle", preferring to use the "precautionary approach" instead. And there is some doubt as to whether sustainable development is a recognised principle of international law. With that in mind this part of the study bundles together principles and approaches; the latter could be described as strategies that underpin legal and policy development.

It would be difficult concisely to account for all applicable governance principles and approaches, so this study simply seeks to identify the main principles and approaches, in international environmental and developmental law and policy, which should be applicable to African Ocean Governance.

B. Sovereignty over natural resources and the responsibility not to cause damage to the environment of other states or to areas beyond national jurisdiction

Principle 2 of the Rio declaration provides -

> "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."

The International Court of Justice's 1996 advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*[40] confirmed that principle 2 reflects customary international law.

This includes two elements: one relating to sovereignty and the other relating to the international rule of law.

The principle of state sovereignty entitles states, within limits established by international law, to conduct or authorise such activities as they choose within their territories[41].

The second element of principle 2 reflects the agreement of states that they are subject to environmental and developmental limits in the exercise of their rights under the principle of permanent sovereignty over natural resources.

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[39] R Dworkin, *Taking Rights Seriously* (1977)

[40] (1996) ICJ reports 226.

[41] Subject to international law, that may include activities that may have an adverse effects on their own environment

Principle 2 of the Rio Declaration, and its predecessor, Principle 21 of the Stockholm Declaration, is reflected in much treaty law. For example, Article 194(2) of UNCLOS builds in particular on the second component of the principles and provides that states –

> "…shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other states and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with [the] Convention."

C. Prevention

The principle of preventive action requires the prevention of damage to the environment, but otherwise the reduction limitation or control of activities that may cause or risk such damage.

The arbitral tribunal in the Iron Rhine held that –

> '... Today in international environmental law, a growing emphasis is being put on the duty of prevention… Much of international environmental law has been formulated by reference to the impact that activities in one territory may have on the territory of another"

The tribunal added that the "duty of prevention" is now "a principle of general international law" that "applies not only in autonomous activities but also in activities undertaken in implementation of specific treaties between the Parties".[42]

The principle of prevention concerns the minimisation of environmental damage as an objective in itself and is not linked to sovereignty. Unlike principle 2 of the Rio declaration the principle of prevention may put a state under an obligation to prevent not only transboundary harm, but also damage to the environment within its own jurisdiction.

The principle requires action to be taken at an early stage and if possible, before damage has actually occurred. So for example in the *Gabcikovo-Nagymaros* case, the ICJ said that it was "mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage".[43]

D. Cooperation

The principle of "good neighbourliness" as provided for in Article 74 of the United Nations Charter has evolved during the development and application of rules related to the environment and development into a principle promoting cooperation.

Principle 27 of the Rio Declaration, for example, provides that -

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[42] Iron Rhine case (2005), paragraphs 59 and 222

[43] (1997) ICJ Reports 7 at 78, paragraph 140.

"States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development".

The obligation to cooperate is enshrined in most environmental agreements of bilateral and regional application, and in global instruments.

State practice supporting international cooperation is reflected in decisions and awards of international Courts and Tribunals. For example, in the MOX (Provisional Measures) case, ITLOS in its provisional measures order, held that–

"…. the duty to cooperate is a fundamental principle in the prevention of pollution of the marine environment under Part XII of [UNCLOS] and general international law and… rights arise therefrom which the Tribunal may consider appropriate to preserve under Article 290 of the Convention."

E. Sustainability

The term "sustainable development" frequently appears in international legal instruments of an economic and/or environmental nature and has been invoked by international courts and tribunals.

The term first appeared in the Brundtland Report, which defined it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition merges two concepts: "needs", in particular the needs of developing countries; and limitations on the environment's ability to meet present and future needs.

Four recurring themes appear as the concept is developed in international policy and law:

- the need to preserve natural resources for the benefit of future generations (the principle of intergenerational equity);
- the aim of exploiting natural resources in a manner which is sustainable, prudent, rational, wise or appropriate (the principle of sustainable use);
- the equitable use of natural resources (the principle of equitable use); and
- the need to ensure that environmental considerations are integrated into other policies (the principle of integration)[44].

Article 33 of the 1989 Lomé Convention[45] provides an example of how the concept of sustainable development can be expressed in a single text –

[44] See, for example, principle 4 of the Rio Declaration provides–

"In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it".

> "In the framework of this Convention, the protection and the enhancement of the environment and natural resources, the halting of deterioration of land and forests, the restoration of ecological balances, the preservation of natural resources and their rational exploitation are basic objectives that for the (states parties) concerned shall strive to achieve with Community support with a view to bringing an immediate improvement in the living conditions of their populations and to safeguarding those of future generations."

Moreover, the preamble to the 1994 Agreement Establishing the World Trade Organization (which is often referred to as the WTO agreement) expressly refers to "the objective of sustainable development"[46], and this was considered by the WTO Appellate Body in the *Shrimp/Turtle* case. The Body found that sustainable development as a concept "has been generally accepted as integrating economic and social development and environmental protection"[47].

F. The precautionary principle

Principle 15 of the Rio declaration provides that –

> "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The use of the word "approach" in that context indicates the controversy precaution generates. Some consider that it provides the basis for international legal action to address serious environmental threats, but its opponents claim the principle leads to overregulation and consequential adverse economic effects. Hence the controversy over whether precaution is truly a principle, or merely an approach.

The principle has appeared in a number of environmental treaties, including the 1991 Bamako convention, which requires parties to strive to adopt and implement –

> "… the preventive, precautionary approach to pollution which entails, inter alia, preventing the release into the environment of substances which may cause harm to humans or the

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[45] The Lomé Convention is a trade and aid agreement between the European Economic Community (EEC) and 71 African, Caribbean, and Pacific (ACP) countries, first signed in February 1975 in Lomé, Togo.

[46] "Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development".

[47] 38 ILM 121 (1999)

> environment without waiting for scientific proof regarding such harm. The parties shall cooperate with each other in taking the appropriate measures to implement the precautionary principle to pollution prevention throughout the application of clean production methods"[48]

Precaution applies in a number of international instruments relating to environmental protection of the oceans. So, for example, by virtue of Article 3.1 of the London Protocol, Contracting Parties must apply a precautionary approach to environmental protection from dumping of wastes or other matter in implementing the Protocol, whereby appropriate preventative measures are taken because there is reason to believe that waste or other matter introduced into the marine environment are likely to cause harm. There does not have to be conclusive evidence of a causal relationship between inputs and their effects to trigger the obligation to apply a precautionary approach. Although Contracting Parties to the Protocol will have, in practice, discretion to consider what evidence they require before they consider they have reason to believe that the introduction of wastes or other matter is likely to cause harm, appropriate preventative measures are to be taken even when there is an absence of conclusive scientific proof of harm.

G. The polluter pays principle

According to the polluter pays principle, the costs of pollution should be borne by the person responsible for causing pollution.

The proposition that the polluter should pay is widely accepted, but its codification generates controversy and – as with the case of precaution – there are differing opinions as to whether the concept is a “principle” or an “approach”. In *Rhine Chlorides*, the arbitral tribunal recognised that the polluter pays principle "features in several international instruments, bilateral as well as multilateral, and… operates at various levels of effectiveness" but the tribunal did "not view this principle as being a part of general international law".[49]

The globally accepted formulation of the polluter pays principle/approach appears in principle 16 of the Rio Declaration:

> "National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment."

A number of multilateral environmental agreements and international policy documents reflect the idea that the polluter should pay; for example it is codified in Article 3.2 of the London Protocol, which requires Contracting Parties, taking into account the approach that the polluter should, in principle, bear the cost of pollution, to endeavour to promote practices under which persons authorised to engage in

[48] Article 4(3)(f).
[49] Rhine Chlorides case ICGJ 374 (PCA 2004).

dumping or incineration at sea bear the cost of meeting the pollution prevention and control requirements.

In the Protocol the primary obligation is qualified: in implementing the obligation Contracting Parties must have due regard to the public interest and take into account the polluter pays approach.

The policy behind the polluter pays approach is this: without the application of the approach there would be an economic incentive to dump at sea leaving society to bear the costs of polluting activities.

H. Principle 10 of the Rio Declaration

Principle 10 of the Rio Declaration provides –

> "Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. "

There are three components of principle 10, namely -

- access to environmental information;
- public participation in environmental decision-making; and
- access to justice in environmental matters.

In the UNECE region, principle 10 is codified in the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, pursuant to which Parties assume detailed and prescriptive obligations that implement the three components of principle 10.

At the global level, principle 10 has received considerable support although it has not been enshrined in binding international law.

For example the *2002 Johannesburg plan of implementation*, adopted at the 2002 Johannesburg World Summit on Sustainable Development, contains a significant number of references to participation in environmental decision-making including, for example the participation of women, youth, different communities, local enterprises, all stakeholders and civil society.

Moreover the *2010 UNEP guidelines for the development of national legislation on access to information, public participation and access to justice in environmental matters* (often referred to as "the Bali Guidelines") provide guidance to states on how to promote effective implementation of principle 10 in their national laws.

I. The ecosystem approach

Decision V/6 of the fifth Conference of the Parties to the biodiversity Convention describes the ecosystem approach as follows -

> "The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Thus, the application of the ecosystem approach will help to reach a balance of the three objectives of the [biodiversity] Convention: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources."

The sustainable management of ecosystems enhances the resilience of the marine environment so that it can produce more food and economic benefits for society in the longer term.

The ecosystem approach has not only been implemented in the field of species and habitat protection (as is the case in the biodiversity Convention) but also in fisheries management and sustainable development more generally.

For example, in the field of fisheries management the 2001 Reykjavík declaration on responsible fisheries in the marine ecosystem supported the application of the ecosystem approach in fisheries management, recognising the interaction between species and also the impact of human activity on ecosystems, including non-fishery activities.[50]

Moreover the contracting parties to the Barcelona Convention decided to progressively apply the ecosystem approach to the management of human activities that may affect the Mediterranean marine and coastal environment for the promotion of sustainable development and adopted a roadmap for that purpose.[51]

The objective of the ecosystem approach is to ensure that governance mechanisms balance the use of natural resources with their conservation. This requires an evidence-based management and may generate controversy because changes in the way ecosystems are managed can be contentious, because they result in different flows of benefits from ecosystem services, and costs to be borne.

Implementation of the ecosystem approach needs to be methodical, and has several components. For example the contracting parties to Barcelona decided to initiate a process, involving scientists and policy makers, and when appropriate, other competent bodies/organizations/authorities, aiming at the gradual application of the ecosystem approach. They envisaged the following steps-

- Definition of an ecological Vision for the Mediterranean.
- Setting of common Mediterranean strategic goals.

[50] FAO Doc. C 200/IMF/25, Appendix 1.

[51] Decision IG 17/6 (2008).

- Identification of important ecosystem properties and assessment of ecological status and pressures.
- Development of a set of ecological objectives corresponding to the Vision and strategic goals.
- Derivation of operational objectives with indicators and target levels.
- Revision of existing monitoring programmes for ongoing assessment and regular updating of targets.
- Development and review of relevant action plans and programmes.

This approach is reflected in the recommendations at the end of this study.

J. Preliminary analysis

1. Different levels of acceptance of principles

The application of principles in African Ocean Governance is inconsistent and patchy. Some principles are much more embedded than others. For example, a comparison of the application of (a) the principle of prevention and (b) principle 10 shows appreciably greater acceptance for the former than the latter.

On the one hand, the principle of prevention is referred to in a number of treaties relating to the pollution of the seas, including provisions relating to pollution –

- by oil; [52]
- by radioactive waste; [53]
- by wastes and other matter;[54] and
- from any source.[55]

The principle of prevention also seems to be widely accepted in Africa; for example Articles 4, 6, 7 and 8 of the 2010 Nairobi Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities all relate in some way to that principle.

On the other hand, whilst principle 10 may *inform* the approach to rights with respect to information, participation in decision-making and access to justice with respect to ocean governance, there is limited formal recognition of the principle in Africa as a whole. Whilst the 2003 African Convention on the Conservation of Nature and Natural Resources contains provisions on participatory and procedural elements in environmental matters, that Convention is not yet in force. And whilst the right of all peoples to a "general satisfactory environment favourable to their development" enshrined in Article 24 of the 1981 African Charter on Human and Peoples' Rights is relevant for access to information and other public participation in decision-making, there is some way to go before the principle is enshrined in law and practice in the African region, which means that much stakeholder participation in oceans governance decision-making is generally not rights-based.

[52] See the preamble of the 1954 Oil Pollution Prevention Convention.
[53] See Article 25 of the 1958 High Seas Convention.
[54] See Article 2 of the 1996 London Protocol.
[55] See Article 194(1) of UNCLOS.

2. Failures of particular treaties and policies to apply important principles and approaches

It is difficult to find a treaty or policy within the scope of this study that applies all the key principles and approaches discussed above, although all those principles and approaches are well established and globally accepted.

If we consider, for example, UNCLOS, that Convention – possibly due to its age – reflects older principles but not the newer ones. Principle 2 of the Rio Declaration (which is far older than the Declaration itself) is reflected in Article 193 of UNCLOS, which provides –

> "States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment."

And cooperation is very clearly recognised. Article 197 of UNCLOS provides –

> "States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features."

Moreover, Article 123 of UNCLOS also makes provision for cooperation between States bordering enclosed or semi-enclosed seas.

On the other hand, the more modern principles and approaches – sustainability, precaution, the polluter pays, principle 10 and the ecosystem approach – are not reflected in UNCLOS at all.

To take a policy example, 2050 AIM is riddled with reference to cooperation and sustainability, refers to the precautionary and ecosystem approach in paragraph 35, makes a passing reference to sovereignty in paragraph 13, but does not deal with the polluter pays, prevention or principle 10 at all.

3. Inconsistent sectoral application of principles

Although it would be too large a task to make a forensic analysis of all sectoral application of the main principles, it seems likely that, for example, there may not be consistent application of key principles in regional fisheries management organisations. A study summarised in the table in Annex 3 shows the inconsistent application of principles identified during the continuing negotiations with respect to the ABNJ ILBI.

VI. Finance

A. The need for and sources of finance

The need to increase finance will often arise because of the demands of a policy process related to ocean governance, for example a new policy may be introduced because a new environmental problem

has arisen, because recently discovered health concerns have arisen, or because users or polluters of an ecosystem have a need for particular services. The policy process creates a demand for action, which in turn requires financing.

Groups that act in the field of ocean governance include: the public sector (possibly acting through public-private partnerships) in providing services; companies and other actors in the private sector, for example in order to take pollution abatement actions; or other stakeholders, such non-governmental organisations.

Financing comes from a variety of sources including the public sector, private sector, civil society, and international funding sources, and can come in the form of:

- grants from state, regional, or local authorities, special-purpose funds, multilateral or bilateral organizations, and other governmental and private sector entities; and
- loans, including commercial loans, loans from international financial institutions, government loans (domestic as well as foreign), soft loans and loans with guarantees.

Donors (either domestic or international) can be bilateral or multilateral institutions that provide grants and/or other forms of financing without cost, and include the GEF[56] and the African Development Bank, a regional multilateral development bank promoting the economic development and the social progress of its regional member countries in Africa.

B. Further action

Substantial and urgent further action will be required for the delivery and implementation of Ocean-related SDGs, against a background of declining ocean health.

> Despite a wide range of commitments at global, regional, national and local levels, the overall health of the ocean continues to worsen. Even more concerning, most of the threats faced by the ocean, including hypoxia, habitat loss, fisheries depletion and ocean acidification, continue to increase at a geometric rate whereas human planning processes generally follow a linear trend. Several planetary boundaries related to ocean health are being approached and in some cases have already been exceeded. Even under best case scenarios, the time frames for securing commitments to required ocean policy reforms and leveraging needed investments can be 15-20 years. The time to act is now if we wish to sustain the ocean commons and the trillions of dollars in goods and services that they provide to the global economy. [57]

[56] See page 72.

[57] Catalysing Ocean Finance: Transforming Markets to Restore and Protect the Global Ocean (2012) United Nations Development Programme. "Hypoxia", or oxygen depletion, is a phenomenon that occurs in aquatic environments with high organic carbon loadings as dissolved oxygen is depleted by bacteria consuming the organic carbon and becomes reduced in concentration to a point where it becomes detrimental to aquatic organisms living in the system.

Further action for the delivery of oceans-related SDGs requires sustainable financing[58] from both public and private sources. International public finance, including official development assistance and concessional financing, will be vital. Those sources of finance can complement domestic public resources and catalyse additional funds from private sources ranging from micro-enterprises and cooperatives to multinationals, civil society, and philanthropic organisations.[59]

Whilst a substantial proportion of the required resources will be allocated at the national level, public and private investments may be directed at the regional level as well. In this regard, coordination through any further regional governance arrangements could help to ensure that finance is properly targeted and coordinated; this could draw on existing mechanisms, such as Regional Trust Funds under the Regional Seas programmes and financial arrangements for Regional Fisheries Bodies, and LME projects funded by the GEF, supplemented by cash and other contributions by the participating countries wherever possible.

In October 2016 the UN Secretary General announced the creation of a new platform for innovative finance for the delivery of the SDGs. The UN Global Compact's Financial Innovation for the SDGs Action Platform has brought together a multi-disciplinary group of finance practitioners and experts to develop innovative private financial instruments that have the potential to direct private finance towards critical sustainability solutions. The platform will develop guidance on impact investment strategies that support all the Sustainable Development Goals, map current and emerging financial instruments, and provide a laboratory for the development of new innovative instruments.

The platform could help to raise awareness and engagement at the global level for ocean finance solutions, including those at the regional level. A number of international institutions such as the World Bank, the GEF, and donors are aligning their financing priorities to the 2030 Agenda and are keen to help support solutions at every appropriate scale, including by supporting regional efforts. Any new governance arrangement should engage with the Platform, in particular to see what added value it can bring by way of projects for innovative finance.

Innovative financing mechanisms that draw on private sector sources (and in particular those that aim to access capital markets) can be used to deliver finance both at a national and at a regional level. The African Development Bank could play an important role in catalysing finance for the regions and

[58] Sustainable financing means the ability to secure stable and sufficient long-term financial resources, their targeted and timely allocation and effective management.

Adapted from Dudley et al.,´Towards Effective Protected Area Systems: An Action Guide to Implement the Convention on Biological Diversity Programme of Work on Protected Areas´ (Secretariat of the Convention on Biological Diversity Montreal 2005).

[59] UNGA (2015). SEP

structure appropriate financing that includes public and private sector partners. Similarly, new public-private partnerships, for example a Regional Ocean Fund, could provide an innovative way forward.

VII. The existing legal and institutional framework at the global and regional level

A. Introduction

It is not possible in the space available to identify all the treaties and institutions having mandates that relate to African Ocean Governance. There are simply too many. Nevertheless in Annex 2 to this study there is a discussion of some of the main treaties and bodies that operate in the area; and there is a table below setting out the legal and institutional framework.

Table 1: the legal and institutional framework

International Institutions
International Maritime Organization The International Seabed Authority The World Trade Organisation The Food and Agriculture Organization The World Bank/Global Environment Facility UN Development Programme
Legal framework at the global level
United Nations Convention on the Law of the Sea (UNCLOS), Agreement relating to the Implementation of Part XI of UNCLOS The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (the Straddling Stocks Agreement) The Convention on Biological Diversity The United Nations Framework Convention on Climate Change (UNFCCC) The Kyoto Protocol The Paris Agreement FAO instruments The 1993 FAO Agreement to promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas The 1995 FAO Code of Conduct for Responsible Fisheries IMO treaties The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 The 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter The Convention on Migratory Species The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade The Stockholm Convention on Persistent Organic Pollutants The Minamata Convention on Mercury Proposed international legally binding instrument (on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction
Legal framework at the regional level (regional conventions and action plans)
The Mediterranean Action Plan and the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean The Programme for the Environment of the Red Sea and Gulf of Aden and the Regional Convention for the Conservation of the

Red Sea and Gulf of Aden Environment The Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean (the Nairobi Convention) The Commission for the Conservation of Antarctic Marine Living Resources
Regional Economic Commissions
The Economic Community of West African States The Inter-Governmental Authority for Development The South African Development Committee
Regional political bodies
African Union Indian Ocean Commission
Inter-governmental programme
The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
Partnerships
FISH-i Africa Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean
Fisheries Bodies
General Fisheries Commission for the Mediterranean Fishery Committee for the Eastern Central Atlantic Sub-Regional Commission on Fisheries Fishery Committee of the West Central Gulf of Guinea Regional Fisheries Committee for the Gulf of Guinea South East Atlantic Fisheries Organisation International Commission for the Conservation of Atlantic Tunas Southwest Indian Ocean Fisheries Commission Indian Ocean Tuna Commission
Large Marine Ecosystems in Africa
Canary Current Large Marine Ecosystem Guinea Current Large Marine Ecosystem (16 countries in West and Central Africa) Benguela Current Large Marine Ecosystem Agulhas and Somali Current Large Marine Ecosystems (East and Southern Africa) Mediterranean Large Marine Ecosystem

B. Governance issues

1. Preliminary comments

One of the defining characteristics of ocean governance is the way that it tends to fragment into component parts, which lack an overarching mechanism, strategic coordination and an underlying philosophy. The concept of fragmentation will be discussed in more depth later on. For the time being, this study will focus on the factors that contribute to that fragmentation, namely the complexity and diversity of subject matter; the number of institutions whose remit relates to African Ocean Governance; the way areas of ocean governance fall into siloes; further fragmentation within siloes; overlapping of treaties; the possibility of overlapping of activities under treaties and by bodies; and the large number of different actors operating in the same area.

2. Complexity and diversity of subject matter

Regional oceans governance is an enormous, complicated field, which deals with complex, politically challenging and often very technical issues.

The subject matter is wide-ranging and diverse, there are so many issues involved it would not be appropriate to list them here, but they include–

- Integrated coastal zone management;
- fisheries management;
- aquaculture;
- marine pollution from land-based sources:
- control of pollution from sources at sea, including pollution by oil, ships, hazardous substances, offshore mining and dumping;
- offshore and on shore mining;
- climate change;
- the protection of biodiversity such as through marine protected areas;
- coastal/marine tourism; and
- the generation of renewable energy.

There are also a number of emerging issues that are not included in the traditional framework, such as subsidies, trade of marine related commodities and marine technologies.

The regional ocean governance regime comprises, amongst other things –

- overarching or framework treaties,
- inter-governmental mechanisms which govern ocean related issues, such as regional seas action plans;
- treaties specific to particular sectors;
- decisions made by states in inter-governmental frameworks;
- treaties and bodies with a global remit;
- regional measures and bodies, relating to different (and sometimes overlapping) geographic areas; and
- a wide range of institutions, mechanisms and procedures.

The number and nature of policy statements that relate to African regional ocean governance pose a particular strategic challenge. Those discussed earlier in this study give political messages from Ministers in the region; it is not entirely clear how those messages inter-relate, how the actions they envisage will be resourced, what actions should be prioritised and how some actions will be implemented. One way to deal with these statements would be to take them into account during decision-making within a new strategic framework.

3. The number of institutions whose remit relates to African Ocean Governance

Various institutions act in the field of ocean governance, and, for example, include[60]:

- the United Nations Food and Agricultural Organization;
- United Nations Environment;

[60] Note that this is not an exclusive list; many other institutions could be listed.

- regional political bodies (such as the Arab Maghreb Union (UMA) and the Indian Ocean Commission (IOC));
- regional economic communities/integration organisations (such as The Economic Community of West African States (ECOWAS), the Intergovernmental Authority on Development (IGAD) and the Southern African Development Community (SADC));
- regional fisheries bodies such as the Southwest Indian Ocean Fisheries Commission (SWIOFC);
- international financial institutions such as the Global Environment Facility; and
- the International Maritime Organization and various bodies set up under issue specific agreements such as the International Commission for the Conservation of Atlantic Tunas.

Although these organisations may form productive and effective partnerships on an ad hoc basis, for example within Large Marine Ecosystems, their role and activities with respect to African Oceans Governance are not coordinated overall and they do not refer to a single common strategy.

4. Division into silos

Whilst some legal instruments, such as UNCLOS, and some bodies such as UN Environment, have a remit that relates to most or all of African regional ocean governance, much of the area is divided up into sub-disciplines, such as the management of fisheries or the mitigation and adaptation of climate change.

Each individual regime operates within its own legal and institutional environment, with distinct objectives and issues to address. There is a proliferation of different regimes and there is no one set of goals, logic, or system to govern all possible situations. To some extent, therefore these legal orders appear to exist in a tangled mass, where each system may create solutions different to the solutions of another system, and where different missions are followed in different ways.

For example, anthropogenic activities are major threats to coral reefs. Apart from the well-documented adverse effects of climate change, such as erratic weather conditions, changes in surface temperature and rising sea-levels followed by ocean acidification there are other threats including:

- pollution,
- overfishing,
- destructive fishing practices using dynamite or cyanide,
- collecting live corals for the aquarium market;
- mining coral for building materials;
- leaking fuels,
- anti-fouling paints and coatings, and
- other chemicals that enter the water[61].

These activities have affected Africa's coral reefs.

Figure 1: Degree of threat to African coral reefs[62].

[61] National Oceanic and Atmospheric Administration at https://oceanservice.noaa.gov/education/kits/corals/coral09_humanthreats.html.

[62] This map is appears in The State of Biodiversity in Africa: A Mid-Term Review of Progress Towards the Aichi Biodiversity Targets (UNEP 2016), page 51.

Whilst the damaging activities are covered by a large number of treaties and agreement, poor coordination among Multilateral Environmental Agreements and international donors results in overlapping meetings and reporting requirements, and exhausts capacity in smaller countries, and uncoordinated global and regional conservation arrangements need to be addressed to improve policy and legislation, reduce impacts and enable conservation measures: a holistic approach outside silos is required to enhance protection[63].

5. Further fragmentation within silos

Within different siloes, there can be yet further fragmentation, so that in a particular sub-discipline a number of bodies may operate without adequate coordination. So, for example, the Jakarta Mandate on Marine and Coastal Biodiversity, which was welcomed by Ministers at the Conference of the Parties to the CBD, engages UNCLOS, the straddling stocks Agreement, the IMO, the FAO, the Regional Seas Conventions and Action Plans, LMEs and the World Bank.

6. Overlaps of treaty law

Fragmentation of primary treaty law arises when a number of treaties exist, creating multiple sets of international regulations that may apply to a given situation. This is a particular danger in the field of ocean governance, because of the number of treaties that apply in the area.

For example, the objective of the 1992 Treaty of the Southern African Development Community (SADC) is to "achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of southern Africa and support the socially disadvantaged through regional integration" (Article 5(1)(a)). According to the preamble, member states are committed to "coordinate, harmonise, and rationalise their policies and strategies for sustainable development in all areas of human endeavour..." and "agree to co-operate in the areas of natural resources and the environment" (Article 21(3)(e)). The SADC Treaty is administered by sectoral sub- committees including an Environment and Land Management sector and a Fisheries sector, which is relevant to the coastal and marine environment but not to land-based marine pollution directly.

A few years ago a study[64] by the UN Environment and the Nairobi Convention Secretariat addressed the challenge in the region of regulating international law relating to land-based marine pollution concerns. The authors of the study produced the table below, which illustrates how that challenge was complicated by overlapping membership of other relevant treaties, including the Nairobi Convention, the Treaty establishing the Common Market for Eastern and Southern Africa (COMESA), the Treaty for the Establishment of the East African Community (EAC) and the Seychelles General Cooperation Agreement, relating to the 1984 Indian Ocean Commission (IOC).

Table 2: SADC Treaty overlaps.

[63] UNEP-Nairobi Convention and WIOMSA (2015). The Regional State of the Coast Report: Western Indian Ocean, p.73.

[64] UNEP/Nairobi Convention Secretariat and WIOMSA (2009). Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment. UNEP Nairobi, Kenya.

Country	Nairobi (9)	SADC (15)	COMESA (19)	EAC (5)	IOC (5)
Angola		X			
Botswana		X			
Burundi			X	X	
Comoros	X		X		X
Djibouti			X		
DRC		X	X		
Egypt			X		
Eritrea			X		
Ethiopia			X		
Kenya	X		X	X	
Lesotho		X			
Libya			X		
Madagascar	X	X	X		X
Malawi		X	X		
Mauritius	X	X	X		X
Mozambique	X	X			
Namibia		X			
France (Réunion)	X				X
Rwanda			X	X	
Seychelles	X	X	X		X
South Africa	X	X			
Sudan			X		
Swaziland		X	X		
Tanzania	X	X		X	
Uganda			X	X	
Zambia		X	X		
Zimbabwe		X	X		

7. Overlaps of activities under treaties

Secondary activities are mandated by Parties to treaties and, amongst other things, can set a policy framework and take further action to promote the aims of an instrument. Such activities may take the form, for example, of decisions of Conferences of the Parties to embark on further action, or to investigate particular issues, or even to amend the treaties or to adopt Protocols under them. In

addition secondary rules under treaties may be adopted, and may include, for example, reporting and monitoring obligations, and dispute settlement arrangements.

For example, the Convention for the Conservation of Southern Bluefin Tuna, created the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). The Convention does not expressly relate to a geographical area, applying to southern Bluefin tuna in all oceans.

This means that the remit of the CCSBT overlaps with other regional fisheries management organisations including the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Indian Ocean Tuna Commission (IOTC); in order to manage those overlaps the CCSBT has needed to make agreements or to adopt Memoranda of Understanding, which clarify that the CCSBT has primary competence for the management of southern Bluefin tuna.

Whilst the ICCAT and IOTC have formally recognised that the CCSBT has competence to manage SBT, the CCSBT has been unable to agree on arrangements with the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) concerning southern Bluefin tuna fishing in CCAMLR's convention area.

Notwithstanding the progress that has already been made, the Strategic Plan for the Commission for the Conservation of Southern Bluefin Tuna, 2015 - 2020[65] recognises that more needs to be done to coordinate its activities with other regional fisheries management organisations, and under multilateral agreements. The Plan says –

> " - There are significant opportunities for the CCSBT to work more closely with and to harmonise measures with other RFMOs, especially with the other tuna- RFMOs, and this should be a priority area for the CCSBT.
>
> - The CCSBT should add combating IUU fishing activities to the list of crosscutting issues affecting all tuna RFMOs, as well as monitoring and regulating transhipment, particularly given CCSBT's geographical overlap with the Indian Ocean Tuna Commission and the Western and Central Pacific Fisheries Commission.
>
> Given the reliance of the CCSBT, in many ways, on cooperative relationships with other RFMOs for "harmonizing" with (and using directly) a number of those neighbouring RFMOs' measures, the work called for by the Kobe process and its 2010 workshops is particularly relevant. The CCSBT should look seriously for opportunities to re-invigorate discussions among its neighbouring RFMOs to work more closely to implement the Kobe recommendations. Key areas of collaboration include: more systematic exchange of data and information (interoperable databases); additional harmonization of measures; conducting more joint scientific workshops; increasing coordination of compliance work, particularly to combat IUU fishing and conserve

65

https://www.ccsbt.org/sites/default/files/userfiles/file/docs_english/operational_resolutions/CCSBT_Strategic_Plan.pdf

and manage ERS; large-scale tagging programmes; ecosystem approach implementation; large scale ecosystem-based modelling; Management Strategy Evaluation; harmonisation of MCS systems; common formats for assessing compliance (with data reporting; infringements, etc.); capacity-building (e.g. training courses); and development of common positions at IUCN, CITES, CBD, and the UNGA."

8. Different actors operating in the same field

There are many actors involved in ocean governance, including: states, secretariats, specialized treaty bodies, non-governmental organisations and community-based organisations. The large number of treaties and policy bodies relating to the African Oceans results in the proliferation of institutions to administer and enforce these international legal rules and policies, with a multitude of secretariats established for all the agreements, which creates a danger of policy and legal incoherence: decisions made with respect to policy and law may lack consistency and the quality of forming a unified whole, so that institutions operating in similar fields make decisions that fail to realise synergies, that are inconsistent or that duplicate efforts.

The importance of policy coherence is recognised at the global level. Resolution 71/312: Our ocean, our future: call for action[66] stresses "the need for an integrated, interdisciplinary and cross-sectoral approach, as well as enhanced cooperation, coordination and policy coherence, at all levels"[67] and calls on all stakeholders to

> "Strengthen cooperation, policy coherence and coordination among institutions at all levels, including between and among international organizations, regional and subregional organizations and institutions, arrangements and programmes[68]."

Moreover paragraph 14 of the call for action calls upon "the Secretary-General to continue his efforts to support the implementation of Goal 14….in particular by enhancing interagency coordination and coherence throughout the United Nations system on ocean issues…

At the regional level the Cape Town Declaration made by the eleventh Conference of the Parties to the Abidjan Convention also acknowledged the need for an institutional framework to enhance policy coherence: the Parties requested the secretariat "to support countries to elaborate and implement an institutional and legislation framework for marine and coastal management that is efficient and coherent".[69]

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[66] A/RES/71/312

[67] Paragraph 8.

[68] Paragraph 13(b).

[69] See Annex 2 to the Report of the 11th Meeting on the Contracting Parties to the Convention 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 (UNEP

The Regional State of the Coast Report: West Indian Ocean[70] describes how a plethora of institutions and overlapping mandate can lead to decision-making which is flawed –

> "The governments of the WIO region are Parties to the Nairobi Convention, which offers a regional legal platform for the protection, management and development of the marine and coastal environment, constituting a framework of governance in the WIO region. There are several other institutions, regulatory or policy frameworks with a mandate for governance, including national and regional institutions, regional economic integration organizations, regional and international civil society organizations, and global inter-governmental institutions. Legal and institutional frameworks for addressing the marine and coastal environment include constitutional provisions, framework environmental laws and sector-based laws. Governance responses and interventions are constrained by overlapping mandates of different level institutions, giving rise to inefficient use of governance instruments and resources."

In a similar vein, the report *Regional Oceans Governance: Making Regional Seas Programmes, Regional Fishery Bodies and Large Marine Ecosystems Work Better Together* [71] acknowledges that "regional oceans governance mechanisms are highly heterogeneous' and in the light of that proposes that "the mandates of various regional oceans governance mechanisms are revised so as, inter alia, to fill gaps and facilitate implementation of the ecosystem approach to fisheries … by [regional fisheries bodies] and [ecosystem based management] by Regional Seas programmes" and "In parallel, that individual mechanisms are strengthened to improve their efforts to better coordinate with other mechanisms".

VIII. Gap analysis

A. Introduction

Gap analyses are often used by businesses and public sector organisations to compare actual performance with potential performance, and require the identification of a target state, an analysis of a current state, and then a plan on how to fill the gap between the two states.

This analysis will identify how current governance needs to change in order –

- to reform governance in order to address issues connected with fragmentation, policy coherence, and a lack of regional capacity and regional sectoral governance arrangements; and
- to address key issues.

(DEPI)/WACAF/COP.11/9/Rev1).

[70] UNEP-Nairobi Convention and WIOMSA (2015). The Regional State of the Coast Report: Western Indian Ocean, p.5.

[71] UNEP (2016): Regional Oceans Governance Making Regional Seas Programmes, Regional Fishery Bodies and Large Marine Ecosystem Mechanisms Work Better Together, page xv.

The gap analysis will be followed with proposals to create a strategy for governance within which that action could take place to bridge the gaps identified.

B. Fragmentation, policy coherence, and a lack of regional capacity and regional sectoral governance arrangements

1. Fragmentation and coherence

The existing studies that have been considered earlier suggest that more needs to be done to coordinate ocean governance and to make it more coherent. This, coupled with the need for a governance strategy that is identified in the Cairo Declaration leads to the impression that African Ocean Governance is fragmented and lacks coherence, and that there are a number of areas where there is a lack of legal and institutional frameworks with a mandate to address specific problems, and/or there is a lack of capacity to address those problems. That analysis is reinforced by the work undertaken for the purposes of this study.

a) Fragmentation

(1) The concept of fragmentation

Whilst UNCLOS was initially concerned with regulating navigation and fisheries, the subject matter of marine ocean governance has expanded not only to cover the harmful effects of human activities on the marine environment but also a wide range of other topics that will be discussed later in this paper. This has resulted in the adoption of treaties, treaty institutions, and soft law instruments. There seem to be so many instruments, institutions, procedures and rules that focus on ocean governance that the effectiveness and efficiency of governance may be hampered.

> "[i]n the absence of a universal legislature or an administration with a comprehensive mandate, most international treaties exist parallel to one another and are further developed without the benefit of consideration being given to potential conflicts with other agreements either during their negotiation or at a later stage of their existence. Insofar as these agreements overlap, this overlap can either take the form of a doubling of efforts concerning a particular problem or as a contradiction or conflict between the objectives, programmes or means of the respective agreements. The phenomenon of a multitude of parallel, substantially or partial overlapping and colliding agreements in international environmental law, exacerbated by the practice of negotiating ever more binding instruments, has been labelled 'treaty congestion'.
>
> The doubling of efforts can diminish the effectiveness of international environmental law because scarce financial, administrative or technical resources may be wasted... The effectiveness of international environmental agreements can be significantly curtailed if conflicts between agreements lead to uncertainty concerning their interpretation and, consequently, their implementation and overall application... Generally, both the doubling of efforts and conflicts between environmental agreements require a systematic approach to

harmonization and coordination in order to provide for greater coherence and, accordingly, enhanced inefficiency of international environmental law."[72]

In short, fragmentation arises when a plethora of legal rules and institutions leads to the possibility of

- conflict and inconsistency;
- duplication of effort; and
- failure to achieve synergies and consistency of mission.

A number of commentators have highlighted fragmentation in ocean governance; for example one study refers to the "notoriously fragmented ocean governance system".[73]

(2) Areas of fragmentation in African Ocean Governance

As we have seen, there is evidence of fragmentation[74] because of -

- the complexity and diversity of subject matter that falls within the scope of African Ocean Governance;
- the number of institutions whose remit relates to African Ocean Governance;
- the way that laws and institutions become focused on particular subject matter, so that they divide up into silos;
- further fragmentation within those silos, so that different institutions and laws relate to the same subject matter without an obvious inter-linking framework;
- overlaps of treaty law, so that several international treaties may apply to a given situation;
- overlaps of activities under treaties; and
- the danger of many different actors operating in the same fields.

b) Lack of capacity and lack of regional sectoral governance frameworks

It seems probable that one of the reasons for fragmentation is the absence of a regional governance framework, which could provide cohesion to mitigate and avoid inconsistency, duplication and an absence of synergies.

In particular, an adequate governance framework would allow strategic oversight, that would allow there to be a focus on -

[72] Rüdiger Wolfrum and Nele Matz, Conflicts in International Environmental Law (Springer, 2003) at 2–3. The passage quoted relates to international environmental law but could equally well refer to ocean governance.

[73] Wright, G., Schmidt, S., Rochette, J., Shackeroff, J., Unger, S., Waweru, Y., Müller, A., 'Partnering for a Sustainable Ocean: The Role of Regional Ocean Governance in Implementing SDG14', PROG: IDDRI, IASS, TMG & UN Environment, 2017.

[74] See page 33 et. seq.

- issues that do not fall squarely within the scope of a particular treaty and/or the mandate of a particular organisation; or
- issues that fall wholly or partially within the scope of more than one treaty and/or the mandate of more than one organisation; or
- issues that no organisation has the capacity and/or mandate to address.

For the time being, there is no such strategic oversight: there is no framework, forum or mechanism in which there can be holistic and synergetic decision-making concerning regional ocean governance .In particular -

- there is no integrating structure for decision-making that oversees all aspects of oceans governance at the regional, or for that matter the global, level[75];
- there is a lack of an authoritative and defining framework that delivers consistent and clear messages for drawing together the range of sectoral and institutional decisions;
- there is a lack of a consistent philosophy for decisions on oceans governance, based on agreed governance principles;
- there is no overarching framework within which to discuss regional issues that have an impact on global issues;
- there is no regional mechanism for feeding into discussions on ABNJ, and for taking regional initiatives with respect to ABNJ; and
- there is no mechanism, for assessing and describing in concrete, specific, measurable, achievable and time related terms, what is required to be done to meet policy goals.

What is more, further refinement of regional ocean governance is necessary to enhance capacity in the region in order to address the policy issues discussed in the next section.

C. Areas of focus

Any development of a regional oceans governance strategy will set a framework for decision taking with respect to particular areas. It is not the purpose of this study to indicate what those decisions should be. But it should be helpful to indicate areas on which future decisions should focus. For that reason, there will now be a discussion of the globally agreed policy set out in the actions called for in paragraph 13 of General Assembly resolution 71/312. Our ocean, our future: call for action (the call for action)[76].

The call for action concerned the implementation of Sustainable Development Goal 14 of the 2030 Agenda for Sustainable Development, which is set out in Annex 4 to this study, together with its associated targets and indicators.

The 2030 Agenda for Sustainable Development calls on the international community to address sustainability issues as a whole. This requires action beyond silos action at the level of states, towards a

[75] As we have seen, the African Union has adopted a number of policy statements that relate to marine ocean governance, but African Ministers have acknowledged, in the Cairo Declaration the need to develop a governance strategy for effective management. African Union statements list policy goals, but do not set out a plan of action designed to achieve those goals, and lack key components of management.

[76] A/RES/71/312.

holistic approach to governing the ocean and coasts, and movement towards cooperation and integration. Efforts to coordinate regional ocean governance should play a crucial role in all this.

1. Policy integration and coherence

a) Subject matter

The call for action contains a number of policy goals relating to policy integration and coherence including –

- the implementation of Goal 14 in an integrated and coordinated way
- taking into account the potential synergies between Goal 14 and the other Goals; and
- strengthening cooperation, policy coherence and coordination among institutions at all levels. [77]

b) Discussion

As we have seen, this study has been mandated because of a perception that what has been lacking in Africa is a collective and effective mechanism to implement regional policies and that there is a need for a stronger coordination framework for activities relating to the marine environment and ocean governance. In short, this study, and the strategic elements that will be proposed later, are part of a drive for policy integration, coherence and coordination.

There is clearly a plethora of legal rules and institutions that relate, in one way or another, to African Ocean Governance; so much so that it is challenging to list those laws and bodies and to describe how they relate to each other. This is in part because legal instruments and bodies have been created on an ad hoc basis to engage with issues or groups of issues as and when they arise and become politically important, which has led to an absence of oversight and coordination at the African regional level.

Earlier in this analysis it is argued that **African oceans governance is hampered by fragmentation and a lack of policy coherence, capacity and regional sectoral governance arrangements**; if those issues are addressed policy integration and coherence will be greatly enhanced, and with that in mind the proposed elements at the end of this study set up a framework in which measures – including and in particular oversight, coordination, exchange of information; development of regional guidance, and the alignment of mandates and – may be put in place to give strategic direction and to set goals in concrete terms.

2. Development of partnerships[78]

a) Subject matter

The call for action policy goals relating to the development of partnerships are –

[77] See paragraph 13 of General Assembly resolution 71/312. Our ocean, our future: call for action: subparagraphs (a) and (b).

[78] *Ibid,* subparagraph (c).

- strengthening and promoting effective and transparent multi-stakeholder partnerships, including public-private partnerships; and
- enhancing the engagement of Governments with global, regional and subregional bodies and programmes, the scientific community, the private sector, the donor community, non-governmental organisations, community groups, academic institutions and other relevant actors. [79]

b) Discussion

The call for action reflects a global commitment to multi-stakeholder partnerships and enhancing the engagement of Government. This is matched at the regional level; for example the Cairo Declaration stressed the importance of the engagement of stakeholders and the AIM strategy recognised a large diversity of stakeholders. Any strategy to deliver the call for action will require the **identification of existing or prospective partnerships that contribute to the implementation of ocean-related SDGs, and where appropriate, the forging of new partnership**s, inter alia between regional or global organisations, with appropriate agreements or MOU setting out the terms of the partnerships.

(1) Stakeholder engagement

(a) Introductory comment

Whilst there are many papers on the methodology to use to engage stakeholders in decision-making and/or the advantages of stakeholder engagement, which will be discussed below, it is difficult to assess overall the state of stakeholder engagement. That may well be because of the difficulty in finding meaningful metrics that would allow such an assessment to take place; although the benefits of participation and accountability are unchallenged, they are to a large extent intangible[80].

(b) Enhancing environmental decision making by stakeholder engagement

Principle 10 of the Rio Declaration, one of the modern governance principles referred to earlier in this study, works on the basis that environmental issues are best handled with the participation of all concerned citizens, at the relevant level. With this in mind it provides for, inter alia, appropriate access to information concerning the environment and the opportunity for the public to participate in decision-making processes. As such it provides a basis for stakeholder engagement.

(c) Protection of coastal communities and societies

Many coastal communities depend on ecosystems resources for their livelihoods. Ecosystem based management should ensure that those livelihoods are protected, and should ensure the longevity of

[79] *Ibid,* subparagraph (c).

[80] Even where there is an advanced reporting system underlying a well-established legal framework, it is difficult to get an overall picture of stakeholder engagement: see, for example, the synthesis report on the status of implementation of the Aarhus Convention **(**ECE/MP .PP/2017/6).

those resources. So, for example, a case study of a rural community on the East Coast of Tanzania[81] showed the importance of tapping the ecological knowledge of local fisherman in order to deliver fisheries management that balanced environmental protection and the competing economic interests of seaweed farmers and fishermen.

(d) Proliferation of users in marine environments

Another reason to engage stakeholders is to ensure that the interests and contributions of the many different multiple users of the marine environment are reflected in decision-making. A sectoral approach to ocean governance – dealing with shipping routes, conservation areas, pipelines or fisheries – will fail to deliver optimal sustainability of ecosystems or human use of resources unless all stakeholders concerned, including stakeholders that are not directly concerned with the sector, are engaged. A wide range of stakeholders will include public and governmental authorities including municipalities and regional government, the state itself and (where applicable) federal states, intergovernmental organisations, business associations, non-governmental organisations, the academic and research community and citizens (collectively and individually). A number of interests will also need to be represented, such as shipping, nature conservation, fishing, mineral resources, fuels, energy generation, defence and scientific research.

Operation Phakisa[82] provides an example of a wide range of stakeholders. The operation was launched in July 2014 to maximise the capacity of the South African marine economy. It is estimated that the operation has the potential to contribute up to 177 billion rand to the country's gross domestic product, while creating up to 1 million new jobs, by 2033. The operation focuses on four priority sectors: marine transport and manufacturing; offshore oil and gas exploration; aquaculture; and marine protection services and governance.

The Phakisa process involves problem identification, selection of alternative solutions, design of implementation procedures, managing implementation, and in particular harnessing the ability of all stakeholders from and within the public and private sectors, academia and civil society. Stakeholders are expected to subscribe to the view that in order to achieve the Operation Phakisa of reducing poverty, crime and unemployment, a productivity improvement programme must be properly designed and agreed upon by all stakeholders at a leadership level as well as successfully implemented.

(e) Contribution to more successful outcomes

Devolution of fisheries governance to indigenous and local communities, shared governance, and co-management arrangements have contributed to successful fisheries management outcomes, especially in small-scale fisheries in developing countries. For example, coastal communities have demonstrated

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[81] Maricela de la Torre-Castro (2012) Governance for Sustainability: Insights from Marine Resource Use in a Tropical Setting in the Western Indian Ocean, Coastal Management.

[82] For information on Operation Phakisa, see http://www.operationphakisa.gov.za/Pages/Home.aspx

the ability to responsibly steward and manage marine ecosystems through a series of initiatives in Madagascar, Kenya, Tanzania and Senegal[83].

(2) Finance

As discussed earlier, substantial further action will be required for the delivery and implementation of SDG 14[84].

3. Awareness raising, education and research

a) Subject matter

The call for action contains a number of policy goals relating to awareness raising, education and research, including –

- development of comprehensive strategies to raise awareness of the natural and cultural significance of the ocean;
- supporting plans to foster ocean-related education, for example as part of education curricula, to promote ocean literacy and a culture of conservation, restoration and sustainable use of our ocean;
- dedication of greater resources to marine scientific research; and
- the collection and sharing of data and knowledge.[85]

b) Discussion

Full implementation of Sustainable Development Goal 14 will require behavioural change by individuals, organizations and governments. Understanding, awareness and appreciation of the issued raised by the goal underpin the willingness of individuals to make the necessary changes and actions and to create the political will for governments to act.

There is little data and information available to assess overall levels of awareness education and research vis-à-vis ocean governance, although as far as biodiversity is concerned, global trends suggest that people are aware of biodiversity values, but do not "view biodiversity protection as an important contribution to human wellbeing"[86]. Information in national reports under the CBD provides anecdotal evidence that some progress is being made with respect to awareness raising. For example Benin, Burundi and Guinea-Bissau have policies in place to raise awareness, while Malawi, Morocco, Swaziland and Uganda are integrating biodiversity education into school curricula. While progress has been made in raising people's awareness of the values of biodiversity there has been less progress in raising their awareness of the actions they can take to conserve and sustainably use biodiversity[87].

[83] The State of Biodiversity in Africa.

[84] See page 37.

[85] *Ibid,* subparagraphs (d) to (f)

[86] Leadley et al. 2014.

[87] CBD 2015b

Information from the global database, AidData, on investments in environmental education provides an indication of the commitment to increase awareness of environmental issues[88] and suggests that donor investment has been variable and as a general rule environmental education is a low priority for donors.

There have been numerous efforts by governments, Non-Governmental Organisations and other stakeholders to raise awareness of the value of biodiversity and ecosystem services in the African region. One of the strategies used in recent years to promote the value of biodiversity is economic valuation of biodiversity and ecosystem services.

At the regional level, African countries have been participating in the CBD's Communication, Education and Public Awareness (CEPA) programme, involving actions to increase biodiversity awareness, and there is action under other biodiversity-related multilateral environmental agreements to promote biodiversity awareness.

The effects of these national actions on awareness, education and research are not clear and it may be likely that efforts will need to be scaled up. **Further information gathering, for example by survey data, would help to enable action to be targeted**.

Notwithstanding the overall absence of information, there does appear to be a problem with the development and consolidation of scientific knowledge to drive forward evidence-based policy-making: the most recent report on the regional state of the West Indian Ocean [89] makes the following observation-

> "An analysis of the legal and policy frameworks in many of the countries reveals that there are many policy and legislative gaps. The credibility of the scientific record from knowledgeable science institutions is limited and states are unable to verify or adopt decentralized evidence-based environmental policies, and secondly, institutions empowered to make legal rules and adopt cooperative policies are weak and the coordination with relevant science institutions is poor.
>
> ….
>
> there is an absence of relevant legislation and policy instruments for key sectors, coupled with weak coordination structures between knowledgeable scientific institutions and legal institution…"

4. Addressing pollution

a) Subject matter

The call for action contains a number of policy goals relating to pollution

- the acceleration of actions to prevent and significantly reduce marine pollution of all kinds;
- the promotion of waste prevention and minimization;

[88] Tierney et al. 2011.

[89] UNEP-Nairobi Convention and WIOMSA (2015), p.447.

- the implementation of long-term and robust strategies to reduce the use of plastics and microplastics. [90]

b) Discussion

A number of forms of pollution are having serious impacts on African countries' ecosystems. Currently, in many African countries, less than 30 per cent of waste water is treated in sewage treatment plants[91]. Furthermore oil pollution in estuaries is a threat to aquatic systems where oil production is active.

Preventing and reducing marine pollution reduces adverse impacts to the marine environment and the food production it supports, which enhances the health and well being of local communities, and perhaps improving food security and reducing poverty.

While strengthening enforcement of regulations against pollution is crucial, there is also a need to institute detailed environmental assessments of developments that are likely to impact on African countries' ecosystems. The impact of pollution on the functioning of marine ecosystems is poorly monitored and documented, and with the further development of African infrastructure, pollution is likely to increase.[92] **Further information on pollution is required, so that targeted and effective marine pollution control may be coordinated across Africa.** Anecdotal evidence[93] suggests that whilst there are a number of national and international laws and policies relating to the protection and promotion of the coastal and marine environment, they have not yet been as effective as they should have been. Further evidence gathering could reveal whether this is a capacity and/or a governance issue, and help to prepare for appropriate measures to be taken.

A list[94] of issues that may need to be addressed when considering addressing pollution may include –

- policy and legislative inadequacies[95]
- limited institutional capacity[96]

[90] *Ibid,* subparagraphs (g) to (l)

[91] Nyenje et al. 2009

[92] The State of Biodiversity In Africa.

[93] UNEP-Nairobi Convention and WIOMSA (2015). The Regional State of the Coast Report: Western Indian Ocean, P.466.

[94] UNEP/Nairobi Convention Secretariat and WIOMSA (2009). Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment. UNEP Nairobi, Kenya, P.218.

[95] For example, inadequate updating, implementation, enforcement and monitoring of relevant legislation; and inadequate ratification and domestication of relevant international and regional instruments.

[96] Such as lack of mechanisms for effective coordination and inter-sectoral governance

- inadequate awareness[97]
- inadequate financial mechanisms[98]; and
- poor knowledge management[99].

5. Development of management tools

a) Subject matter

The call for action relating to the development of management tools, are–

- supporting the use of effective and appropriate area-based management tools, including marine protected areas and other integrated, cross-sectoral approaches; and
- applying the precautionary and ecosystem approaches.[100]

b) Discussion

Whilst in particular the regional seas Conventions and the LME system provide frameworks for the designation of marine protected areas and other area-based management tools, they need to be extended and a wider area covered. According to the Secretariat to the Convention on Biological Diversity the world's oceans are seriously under protected, with approximately 0.8% of the oceans and 6% of the territorial seas being within protected areas systems[101]. The protection of marine areas supports sustainable use of marine resources, which can help secure food supplies and job security, thereby bringing social and economic benefits.

There is little overall coordination of the application of area-based tools throughout the African region, and more coordinated action is needed to enhance Africa's contribution to sustainably manage the marine and coastal ecosystems.

The call for action promotes the application of the precautionary and ecosystem approaches; in addition all African Ocean Governance **would benefit from engagement with modern applicable governance principles as described above, because they would contribute to an over-arching philosophy of governance that would provide strategic direction and coherence.**

Inadequate human resources and technical capacity in institutions charged with the responsibility of addressing pollution-related issues

[97] For example, inadequate understanding and appreciation of the economic value of coastal/marine ecosystem goods and services among policy makers and legislators, the civil society and the private sector

[98] Inadequate financial mechanisms and resources for dealing with pollution-related issues.

[99] Lack of adequate scientific and socio-economic data and information to support policy making, monitoring and enforcement.

[100] *Ibid,* subparagraph (j)

[101] See https://www.cbd.int/ebsa/about

6. Effective measures to adapt to and mitigate climate change

a) Subject matter

The call for action's policy goal with respect to effective adaptation and mitigation measures is the development and implementation of "effective adaptation and mitigation measures that contribute to increasing and supporting resilience to ocean and coastal acidification, sea-level rise and increase in ocean temperatures, and to addressing the other harmful impacts of climate change on the ocean as well as coastal and blue carbon ecosystems, such as mangroves, tidal marshes, seagrass and coral reefs, and wider interconnected ecosystems impacting on our ocean, and ensure the implementation of relevant obligations and commitments". [102]

b) Discussion

Climate change is a major threat to the African coastal economy and environment because of its adverse effects on fisheries, biodiversity, tourism and livelihoods. But few countries are prepared for the impacts of climate change or associated natural disasters. Whilst states engage in global climate change conferences, few have put in place policy mechanisms for adapting to the impacts. Regional ocean policies could and should assist in integrating climate change adaptation into national oceans policy[103].

Future predicted increases in sea surface temperature, sea level rise and coastal erosion, are likely to put pressures on coastal ecosystems, including islands, estuaries, beaches, coral reefs and marine biodiversity. Sea level rise in combination with extreme weather events is likely to intensify flooding as the majority of coastland is low-lying, resulting in saline intrusion of aquifers[104]. In particular, coral reefs are vulnerable to adverse effects because of climate change; and have been affected by erratic weather conditions, changes in surface temperature and rising sea-levels followed by ocean acidification. Mitigating ocean acidification can reduce the adverse effect of carbon dioxide on resource productivity, reducing the risks for local communities of future shortages of food.

Whilst there is an extensive global treaty regime that comprehensively regulates the mitigation of and adaptation to climate change, there are issues that could be addressed at the regional level, for example the Abidjan Blueprint identifies as a challenge a limited capacity to respond to climate change. It seems that there is a necessity to strengthen resilience and the capacity to adapt to climate-related impacts.

7. Promotion of sustainable development, particularly with reference to fisheries

a) Subject matter

The call for action relating to the promotion of sustainable development, particularly with reference to fisheries, include–

- enhancing sustainable fisheries management;

[102] *Ibid,* subparagraph (k)

[103] Hewawasam and McLean, 2015.

[104] IUCN 2009.

- ending destructive fishing practices and illegal, unreported and unregulated fishing;
- accelerating further work and strengthening the cooperation and coordination on the development of interoperable catch documentation schemes and traceability of fish products;
- strengthening capacity-building and technical assistance provided to small-scale and artisanal fishers in developing countries;
- acting decisively to prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing;
- supporting the promotion and strengthening of sustainable ocean-based economies; and
- increasing efforts to mobilize the means necessary for the development of sustainable ocean-related activities and the implementation of Goal 14, particularly in developing countries, in line with the 2030 Agenda, the Addis Ababa Action Agenda and other relevant outcomes. [105]

b) Discussion

(1) Sustainable fisheries

It is of the utmost importance for African countries to ensure the achievement of Target 6 of the Aichi targets[106], so that **fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, inter alia avoiding overfishing and ensuring that fisheries have no adverse impacts on ecosystems.**

This is because fishing is a major source of income and nutrition for many African people. Over fishing and inappropriate fishing practices need to be addressed.

Whilst the fifth national reports to the CBD show that several African countries are working toward implementing global and national policies and strategies to combat the unsustainable harvesting of aquatic resources, most fishing practices in Africa are artisanal, and controlling their effect is challenging. The limited information available suggests that African countries have focused on developing and implementing recovery plans for depleted fish stocks and/or putting in place relevant legislation. And some countries have engaged in the FAO Fish Programme, which provides a number of initiatives to support the implementation of the Ecosystem Approach to Fisheries.

Dynamite fishing is of particular concern, as it is extremely destructive to ecosystems, particularly coral reefs[107]. Preventing the use of such destructive fishing practices would help to reduce the pressures on coral reefs and thereby increase the likelihood that they will be able to cope with the effects of climate change.

Whilst some African countries are making some progress, sustainable fisheries management remains a challenge. The presence of subsidized fleets in some regions of Africa, together will illegal fishing boats,

[105] *Ibid,* subparagraphs (l) to (r).

[106] See the Appendix to Annex 2.

[107] African Conservation Foundation 2013

and the currently slow progress towards certified fisheries in the region further compound this problem.[108]

Ending over-fishing, IUU fishing and destructive fishing practices should promote the recovery of fish stocks; and improve food security and sustainable livelihoods of coastal communities.

(2) Aquaculture

Whilst the fifth national reports to the CBD suggest that in general, unsustainable agriculture, aquaculture and forestry are the main pressures on biodiversity in Africa, there is very little information on aquaculture in Africa for the time being.[109] Appropriate aquaculture methods can significantly promote sustainable aquaculture.[110] **Further information is required before the extent of any problem with aquaculture is understood.**

8. Addressing ABNJ

a) Subject matter

With respect to addressing ABNJ, the call for action proposes active engagement in discussions and the exchange of views in the Preparatory Committee established by General Assembly resolution A/RES/69/292 so that the General Assembly can, before the end of its seventy-second session, taking into account the report of the Preparatory Committee to the General Assembly, decide on the convening and on the starting date of an intergovernmental conference.[111]

b) Discussion

The efforts of the international community will focus on the development of an international legally-binding instrument addressing ABNJ, which will have regional components. For example, with respect to the creation of measures such as area-based management tools, including marine protected areas, there is general agreement that the text of the ILBI would promote greater coherence with and complement existing relevant legal instruments and frameworks and relevant regional and sectoral bodies; the ILBI should be interpreted and applied in a manner which would not undermine these instruments, frameworks and bodies. Moreover, the ILBI is to provide a process for coordination and consultations on the proposal with relevant global, regional and sectoral bodies.[112] It follows that there is work to be done on how the African region will contribute to the development of the ILBI, and how it will function under that instrument[113].

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[108] The State of Biodiversity in Africa.

[109] *Ibid.*

[110] The Aquaculture Stewardship Council standards, for example, cover a range of highly commercial species, including pangasius, tilapia, bivalves, salmon and freshwater trout (UNEP 2013).

[111] *Ibid,* subparagraphs 13 (s) and (t).

[112] See the Report of the Preparatory Committee established by General Assembly resolution 69/292: Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (A/AC.287/2017/PC.4/2).

[113] For consideration of ABNJ and the role of the United Nations Environment Assembly, and the mandates of the Nairobi and Abidjan Conventions: see page 8. So far the Nairobi Convention has

9. Promoting further policy development

a) Subject matter

With respect to the promotion of further policy development, the call for action urges the consideration of further ways and means to support the timely and effective implementation of Goal 14.[114]

b) Discussion

This paper is mainly concerned with scoping, gap analysis, and the recommendations of elements of a future strategy on oceans governance, so it would go too far to anticipate what future policy developments may be required. For the time being, it may suffice to observe that the African region may need to consider further policy development in the field of maritime security, where the Lomé Charter provides for a general framework for action, which needs further implementation by detailed measures; and that more generally a governance structure based on project and programme management should indicate where further policy development is required by identifying objectives, setting baselines and indicators, and providing for reporting.

The report on the regional state of the West Indian Ocean, having explained that insufficient updating, implementation, enforcement and monitoring of existing legislation is a problem, goes on to observe that -

> "... despite WIO countries being signatories to many international and regional instruments there is inadequate domestication of relevant international commitment and obligations into national laws. With regard to limited institutional capacities, there is apparent lack of mechanisms for effective coordination and inter-sectorial governance among the institutions involved in the governance of the coastal and marine environment. Also there is inadequacy of human and technical resources and capacity in institutions charged with responsibilities over the coastal and marine environment in the countries of the region."

A full assessment of the scope of this problem would help the allocation of resources within a strategy; and in particular it would help a strategic balance to be struck between the development of new policy and the implementation of existing policy.

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recognised the significance of work on ecologically or biologically significant marine areas. The discussion on the implications of ABNJ are continuing. IUU fishing on the high seas (see pages 35 and 50) may prove to be an issue to be addressed at the regional level.

[114] *Ibid,* subparagraphs (u) and (v).

IX. Possible elements for a future Ocean Governance Strategy

A. Introductory comments

The draft elements that follow are proposed as an input to political and policy discussions. As such the elements are not intended to be prescriptive or to pre-empt subsequent discussions. They are simply designed to provide the raw material for the development of a strategy.

It is important to note that the following elements are the proposed building blocks for a plan of action designed to achieve effective and efficient ocean governance over a period of time. The elements do not explain how to achieve specific targets and goals; work on the achievement of specific targets and goals would be done with the framework of any strategy that is established.

B. Vision

As we have seen, this exercise is being undertaken pursuant to paragraph 14 of the Cairo Declaration mandates the development of a governance strategy for the effective management of Africa's shared maritime resources. This should provide better and stronger coordination than currently exists[115].

Once the strategic governance is in place, many different policies will need to be harmonised and synthesised. For the time being it suffices to have a vision that informs the *development* of the strategy; it is proposed that the vision for this exercise is as follows: **within [agreed time frame] ocean governance should be given strategic direction at a regional level that provides a framework for cooperation, coherence, synergies, effectiveness and efficiency.**

C. Principles

1. Introduction

"Principles" set the parameters for action and the criteria for organization.

For the purposes of these draft elements two sets of principles are identified. First there are principles that relate to the *development* of the strategy. Next there are principles that would inform the *implementation* of the strategy once it is in place.

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[115] Paragraph 8 of the paper on Organisation of a regional conference on Africa Ocean Governance strategy (UNEP/Ocean Governance/WG.1/ 3), which was prepared for the first meeting of the African Governance Strategy in 2015, explains the situation well -

"What has been lacking or is a challenge in Africa is having an collective and effective mechanism to consolidate and harness the natural blue capital potential of the four regional seas in Africa as part of their contribution to Agenda 2063 and its Africa Integrated Marine Strategy 2050 (AIM). There is need for a stronger coordination framework for activities related to the marine environment and ocean governance."

2. Principles relating to the development of the strategy

In the course of development of the strategy, it will be important to -

- prioritise: to focus on what is do-able and not to attempt to do too much at once;
- work within resources: so that work that cannot be resourced is not commenced;
- work with existing organisations: rather than create danger of further fragmentation by adding to the existing proliferation of institutions;
- be inclusive; so that all organisations and stakeholders are engaged; and
- to set measurable strategic goals wherever possible in order to measure success.

The principles guiding the development of the strategy could therefore include prioritisation, working within existing resources and with existing organisations, inclusiveness and establishing measurable goals.

3. Principles that could inform the implementation of the strategy

It is apparent from the gap analysis that there is a lack of a philosophy, that is to say a theoretical basis, underlying ocean governance; **that could be remedied by agreement to apply a core set of principles and approaches drawing from those discussed above: sovereignty over natural resources and the responsibility not to cause damage to the environment of other states or to areas beyond national jurisdiction; prevention; cooperation: sustainability; precaution; the polluter pays, Principle 10 of the Rio Declaration and the ecosystem approach.**

D. Means of Implementation

1. Introduction

It is also apparent from the gap analysis that there is no overarching framework for ocean governance. It is necessary to provide a framework for shared approaches to key policy problems and to mitigate fragmentation. Within such a framework it should be possible to find the means to cooperate directly, or through appropriate subregional, regional or global mechanisms.

2. The development of frameworks for regional ocean governance

It is recommended that **there should be an integrating framework for each region in Africa**[116]**.**

The frameworks could be developed in accordance with an agreed template to suit all African regions, and/or could be developed on an ad hoc basis, but should be developed collaboratively by –

- **regional seas programmes;**
- **regional fisheries bodies;**
- **Large Marine Ecosystem Mechanisms; and**

[116] It is proposed that the regions should be defined with reference to the geographic areas of the regional seas Conventions.

- **representatives of other institutions engaged in ocean governance in the areas[117]**

and provide for partnership with other stakeholders.

The geographic scope of each framework would be the corresponding regional sea convention engaged in each framework as envisaged by the Cairo Declaration.

3. The contents of frameworks

a) Purpose

Each framework's purpose would be to provide -

- **consistent messages; and more importantly**
- **strategic direction for ocean governance**

based on the agreed core principles.

b) Functions

Each framework should envisage functions relating to strategy, alignment, engagement with global processes and cooperation.

(1) Strategic functions

The strategic functions of each framework should include –

- **agreeing a strategy for the region including quantifiable goals linked with the SDGs, to help the assessment of the progress of implementation of the goals;**
- **focussing in particular on areas where more needs to be done to achieve agreed targets, such as the creation of more marine protected areas, and developing a strategy to meet the shortfall;**
- **coordination of oceans governance in the area on the basis of the strategy;**
- **the development of metrics to enable the assessment of progress;**
- **raising additional and sustainable financing from both public and private sources to implementation of Sustainable Development Goal 14 and other associated goals: and**
- **agreeing that actions should fall to particular institutions/stakeholders/states, who may commit to reporting back on what they have done to implement the action points.**

(2) Alignment functions

The functions of each framework relating to alignment of governance should include –

- **consultation on new policy and legal proposals with a view to avoiding fragmentation; and**
- **alignment of mandates of the institutions in the region to agreed objectives.**

(3) Engagement with global process

The functions of each framework relating to engagement with global processes should include –

[117] For examples of the bodies the institutions that might be engaged, see section VI.A.3 at page 30.

- **defining how the region should implement the ocean-related SDGs, especially goal 14;**
- **strategic engagement with the prospective development of a legally binding instrument relating to ABNJ and providing states in the region with updates;**
- **providing coordinated regional input to conferences of the parties of multilateral environmental agreements; and**
- **work within the governing bodies of conventions and relevant international organisations to contribute to the development of coordinated policy and scientific assessments.**

(4) Promotion of cooperation

The functions of each framework relating to the promotion of cooperation should include

- **promoting cooperation with respect to specific projects and programmes;**
- **generally facilitating coordination, cooperation, consultation and communication between and among states and international and regional organisations, including inter sectoral coordination.**

(5) Effective coordination

Moreover, where there is no effective coordination between bodies, distinct projects may be set up with specific timeframes to agree on ways of coordinating, for example by–

- **having joint meetings;**
- **consulting on specific matters;**
- **development of joint programmes;**
- **cooperating in the collection of data and information; and**
- **sharing data and information.**

E. Monitoring and Evaluation

There should be a procedure for overseeing activities under treaties and/or by institutions so that fragmentation may be avoided.

There should be regular review meetings on the progress of the agreed strategy.

Annex 1: Existing studies

A. Blueprint under the Abidjan Convention

1. The process

In January 2014 the Secretariat of the Abidjan Convention commenced an initiative to develop a Pan-African process that will give rise to an instrument aimed at sustainable Ocean Governance, which will be adopted at a proposed African Summit on Ocean Governance. The first meeting of the Panel of Experts, held in Cape Town (22-24 January 2014) agreed that this instrument would be a blueprint for Ocean Governance in Africa. This blueprint is to provide a broad implementation framework to address Ocean Governance issues and challenges faced by the region.

2. The challenges for Africa

Amongst the challenges identified in the Blueprint are the following.

a) Maritime Security

Maritime Security off the African continent is under threat as a result of lawlessness at sea. Often there is a lack of sufficient or suitable naval assets to protect territorial waters.

b) Fisheries and aquaculture

Despite the considerable contribution made by fisheries and aquaculture to the African economy – for example FAO estimates that value of the sector was 1.26% of the GDP of all African countries - there is the potential for the sector to make an even greater contribution by working on the regulatory framework, compliance and enforcement, particularly to combat illegal, unreported and unregulated fishing, and increased co-operation amongst African countries in the promotion of sustainable aquaculture.

c) Governance

The mandates of the four Regional Seas Programmes around the coast of Africa overlap with other regulatory bodies – such as the regional fisheries organisations – but there is no structured approach to co-operation amongst them, and new, independent governance structures related to the Large Marine Ecosystem programmes – such as the Benguela Current Commission – tend to undermine the Regional Seas Conventions.

There is also a lack of political will and support for Integrated coastal zone management (ICZM), and difficulties in achieving coordination amongst stakeholders.

There has been rapid growth of the number of cities and other settlements, which has been, to a large extent, unplanned and there is insufficient infrastructure to deal with all of the requirements for sustainable urban living. Moreover there are challenges in the management of pollution from land-based sources due, amongst other things, to the inadequacy of legal frameworks.

d) Climate change

Amongst the challenges related to climate change are the following: a limited capacity to respond to climate change, the emergence of new legal issues including those generated by displaced persons, the difficulty in representation at international negotiations and the cost of adaptation measures.

F. Regional Oceans Governance

In 2016, UN Environment published a paper entitled *Regional Oceans Governance: Making Regional Seas Programmes, Regional Fishery Bodies and Large Marine Ecosystems Work Better Together*. The paper reviewed some[118] existing regional oceans governance mechanisms in order to assist states that participate in such mechanisms, as well as those considering participating, by clarifying the key distinctions between the mandates of these mechanisms, highlighting their successes and the challenges they face, and outlining cooperation between them.

The paper argued that despite the absence of a general obligation or framework for cooperation, regional oceans governance mechanisms are increasing their efforts to ensure the coordination between their respective activities.

The paper reported that in the West, Central and Southern Africa Region, cooperation between regional fisheries bodies and the Abidjan Convention seems to be on track, as demonstrated by the 2012 Decision of the Abidjan Convention Contracting Parties to work together with these organisations and develop cooperation. A number of positive individual steps were identified[119].

Acknowledging that regional oceans governance mechanisms are highly heterogeneous and that this variety reflects the fragmentation of competences at the national level, it was suggested:

(a) that the mandates of various regional oceans governance mechanisms should be revised so as, inter alia, to fill gaps and facilitate implementation of the ecosystem approach to fisheries by the various bodies involved;

(b) in parallel, that individual mechanisms should be strengthened to improve their efforts to better coordinate with other mechanisms; and

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[118]The study only focused on the regional seas, regional fisheries bodies and large marine ecosystem mechanisms and excluded other regional ocean governance mechanisms, such as sub-regional economic integration or regional political bodies.

[119] "The Guinea Current Large Marine Ecosystem (GCLME) project has proven useful in the process of revitalising the Abidjan Convention. The Canary Current Large Marine Ecosystem (CCLME) project – currently being implemented – has established cooperative arrangements both with the Abidjan Convention and the Sub-Regional Fisheries Commission (SRFC). The decision to create the Guinea Current Commission (GCC) within the Abidjan Convention framework is a positive step and will facilitate cooperation between both mechanisms."

(Page xiv of *Regional Ocean Governance*)

(c) that informal cooperation and coordination should be promoted, as this is often more realistic than formal reorganisations for historical and institutional reasons.

G. Indicators for the Regional Seas and Action Plans: Measuring Success

More generally, Measuring Success: Indicators for the Regional Seas Conventions and Action Plans[120] considered the relevance of a coordinated set of indicators capable of comparing common regional marine ecosystem issues.

Chapter 6 of the publication related to Chapter 6 of "Indicators for the Regional Seas and Action Plans: Measuring Success" referred to a number of factors relating to ocean governance. The chapter set out a series of arguments to the effect that Regional Seas Conventions and Action Plans should recognize a set of ecosystem-based global pressures and respond by the collection of information that is specific to regions and relates to global commitments.

In this process it would be necessary to -

- build on existing efforts to develop indicators;
- reflect the Regional Seas strategic directions; and
- feed into agreed global assessment processes, such as the Aichi targets and the implementation of what is now Goal 14 of the Sustainable Development Goals.

[120] UNEP (2014): David Johnson, Angela Benn, Maria Adelaide Ferreira.

Annex 2: The existing legal and institutional framework at the global and regional level

A. International Institutions

Some of the more significant international institutions engaged in regional ocean governance are discussed below.

1. International Maritime Organization (IMO)

The IMO was established in 1948 to "promote adoption of high standards in maritime safety, navigation efficiency and prevention and control of marine pollution from ships." It is the global standard-setting authority for the safety, security and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented.

IMO measures cover all aspects of international shipping – including ship design, construction, equipment, manning, operation and disposal – to ensure that this vital sector remains safe, environmentally sound, energy efficient and secure. It is the parent body for the London Convention and the London Protocol.

IMO's framework of conventions and soft law instruments do not establish any international enforcement or regulatory authority for coastal and marine environments. Much of the responsibilities and obligations defined in these instruments devolve to coastal, flag and port states in the region.

2. The International Seabed Authority

The International Seabed Authority is an autonomous international organization established under UNCLOS and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea[121].

The Authority is the organization through which Parties to UNCLOS, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in Part XI and the Agreement, organize and control activities in the Area, particularly with a view to administering the resources of the Area.

There have been policy discussions related to improving regional cooperation and participation of African countries in the deep seabed regime, within the framework of SDG 14, and the need for African States to build relevant technical capacity in relation to activities in the deep seabed; increase participation in decisions that affect the Area; take part in the activities in the Area; define and enable sustainable activities in Africa's continental shelf; and contribute to the sustainable development of Africa's Blue Economy.

3. The World Trade Organisation (WTO)

[121] See page 74.

The World Trade Organization (WTO) is a global international organization dealing with the rules of trade between nations.

The Doha WTO Ministerial Conference launched negotiations to clarify and improve WTO disciplines on fisheries subsidies, and at the subsequent Hong Kong Ministerial Conference in 2005 there was broad agreement on strengthening those disciplines, including through a prohibition of certain forms of fisheries subsidies that contribute to overcapacity and overfishing.

Although the negotiations have been long lasting, they received a fillip after the adoption of the Sustainable Development Goals; in particular target 14.6 sets a deadline of 2020 for eliminating IUU subsidies and for prohibiting certain forms of fisheries subsidies that contribute to overcapacity and overfishing, with special and differential treatment for developing and least-developed countries.

The Buenos Ministerial Conference agreed to continue to engage constructively in the fisheries subsidies negotiations with a view to adopting an agreement by the next Ministerial Conference in 2019 on comprehensive and effective disciplines that prohibit certain forms of fisheries subsidies that contribute to overcapacity and overfishing, and eliminate subsidies that contribute to illegal, unreported and unregulated (IUU) fishing[122].

4. The Food and Agriculture Organization (FAO)

The FAO was established by the 1943 UN Conference on Food and Agriculture and is a specialized agency of the UN dealing with the sustainability, monitoring and improvement of agriculture and fisheries production on a global scale.

It gathers and analyses production figures, and disseminates statistics, promotes international action with respect to research and management and supports resource use education and administration.

The FAO provides support to regional fisheries bodies (RFBs) in a number of ways, and a number of RFBs have been established within the constitutional framework of FAO. Some of these bodies - those established in accordance with Article XIV of the FAO Constitution[123] - have a management mandate and can take decisions that are binding on their members while others - those established in accordance with Article VI of the FAO Constitution[124] - have an advisory mandate.

FAO also supports the Regional Fishery Body Secretariats Network, which is a network of RFB Secretariats. FAO also cooperates with RFBs in providing technical assistance support to regions and countries, and provides secretariat services for those RFBs under Article XIV of the FAO Constitution.

FAO has also promoted international environmental law making and was involved in the development of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas, the 1993

[122] For more discussion of IUU fishing, see pages 35 and 50.

[123] For example the General Fisheries Commission for the Mediterranean, see page 92.

[124] For example CECAF, see page 92.

Agreement to Promote Compliance with Conservation Measures on the High Seas and the 1995 Code of Conduct for Responsible Fisheries and the Agreement on Straddling and Highly Migratory Fish Stocks.

5. The World Bank/Global Environment Facility

The International Bank for Reconstruction and Development (IBRD) is one of the five institutions of the World Bank. The IBRD lends to governments of middle-income and low-income countries.

The Global Environment Facility (GEF) was established in the IBRD or in order to assist in the protection of the global environment and promote environmentally sound and sustainable economic development. The GEF is a financial mechanism for five major multilateral environmental agreements[125]. It is also the largest funding mechanism for multi-country collaboration on water and oceans with 156 GEF recipient countries and 24 non-recipient countries working together to manage their transboundary water resources.

The GEF works with partners to improve ocean governance, and, through transboundary partnerships, it helps countries develop regional institutional frameworks, which enable countries to implement ecosystem-based approaches to manage fisheries and other marine and coastal resources, including fisheries and coastal habitats.

The GEF's marine projects address a range of threats and issues facing ocean governance, including fisheries and pollution. Projects, for example, have targeted reduction of toxic substances as identified by international agreements such as Stockholm Convention. The GEF also supports effective sustainable management of large marine ecosystems. Further, the GEF has funded marine protected areas.

6. UN Development Programme (UNDP)

The UNDP is a specialized UN agency. It has a mandate to advance socio-economic development.

It has a Regional Service Centre for Africa, based in Addis Ababa, Ethiopia, which develops knowledge and policy and interfaces with regional and continental bodies such as the African Union and the Regional Economic Communities, and implements UNDP's Regional Programme for Africa, which aims to enhance inclusive and sustainable growth, widen political participation and develop responsive institutions which deliver desired services and promote inclusive processes of state-society dialogue.

Areas of work led from the Centre, on a regional and continent-wide basis include: preparation for the Sustainable Development Goals (SDGs), building capacity for disaster risk management and climate change mitigation and adaptation, enabling access to sustainable energy and sustainable use of natural resources.

[125] The United Nations Framework Convention on Climate Change, the United Nations Convention on Biological Diversity, the Stockholm Convention on Persistent Organic Pollutants, the United Nations Convention to Combat Desertification, and the Minamata Convention on Mercury.

Areas of focus include inclusive growth and sustainable development, which covers, inter alia, the management of ecosystems and biodiversity, marine resources, extractive industries and chemicals.

In Africa UNDP is the principal channel of multilateral, technical and investment assistance to developing countries.

B. Legal framework at the global level

The legal framework for global oceans governance is created by a large number of international instruments – far too many to discuss in depth in this study, which selects some of the most important hard and soft law instruments.

1. United Nations Convention on the Law of the Sea (UNCLOS)

UNCLOS lays down a comprehensive regime of law and order in the world's oceans and seas establishing rules governing all uses of the oceans and their resources. It enshrines the notion that all problems of ocean space are closely interrelated and need to be addressed as a whole.

The Convention entered into force on 16 November 1994 and codified in one instrument traditional rules for the uses of the oceans; it also introduced new legal concepts and regimes and addressed new concerns.

It contains provisions relating to a wide range of political, economic, environmental and social issues and sets out the legal and regulatory framework within which all activities, pertaining to the oceans and seas, must be carried out.

Parts V and VI of UNCLOS relate to the 200-nautical mile exclusive economic zone (EEZ) and the continental shelf, an area which can extend at least 200 nautical miles from the shore, and more under specified circumstances, which make provision to the following effect:

- Coastal States have sovereign rights in their EEZ with respect to natural resources and certain economic activities, and exercise jurisdiction over environmental protection, subject to the rights of all other States to freedom of navigation and overflight, as well as freedom to lay submarine cables and pipelines;
- land-locked and geographically disadvantaged States have the right to participate on an equitable basis in exploitation of an appropriate part of the surplus of the living resources of the EEZ's of coastal States of the same region or sub-region;
- Coastal States have sovereign rights over the continental shelf for exploring and exploiting it; and
- all marine scientific research in the EEZ and on the continental shelf is subject to the consent of the coastal State, but in most cases they are obliged to grant consent to other States when the research is to be conducted for peaceful purposes and fulfils specified criteria.

There have been two Agreements that were adopted to implement UNCLOS: one relating to the implementation of Part XI and the other relating to the conservation and management of straddling fish stocks and highly migratory fish stocks.

a) Agreement relating to the Implementation of Part XI of UNCLOS

The Agreement relating to the implementation of Part XI of UNCLOS entered into force on 28 July 1996. It consists of 10 articles dealing mainly with procedural aspects such as signature, entry into force and provisional application. Article 2 deals with the relationship between the Agreement and Part XI of the Convention and it provides that the two shall be interpreted and applied together as a single instrument. In the event of an inconsistency between the Agreement and Part XI, however, the provisions of the Agreement shall prevail. The Agreement also has an annex, divided into nine sections, dealing with the various issues such as costs to States Parties and institutional arrangements; decision-making mechanisms for the Authority; and future amendments of the Convention. 36 African countries have ratified the agreement.

b) The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (the Straddling Stocks Agreement)

The Straddling Stocks Agreement, which entered into force on 11 December 2001, sets out principles for the conservation and management of the fish stocks to which it relates and establishes that such management must be based on the precautionary approach and the best available scientific information. The Agreement elaborates on the fundamental principle, established in UNCLOS, that States should cooperate to ensure conservation and promote the objective of the optimum utilization of fisheries resources both within and beyond the EEZ.

The Agreement pursues this objective by providing a framework for cooperation in the conservation and management of those resources. It promotes good order in the oceans through the effective management and conservation of high seas resources by establishing, among other things, detailed minimum international standards for the conservation and management of straddling fish stocks and highly migratory fish stocks; ensuring that measures taken for the conservation and management of those stocks in areas under national jurisdiction and in the adjacent high seas are compatible and coherent; ensuring that there are effective mechanisms for compliance and enforcement of those measures on the high seas; and recognizing the special requirements of developing States in relation to conservation and management as well as the development and participation in fisheries for the types of stocks to which it relates.

c) United Nations Convention on the Law of the Sea and the offshore energy sector

As we have seen, UNCLOS recognises state sovereignty and sovereign rights over non-living marine resources; of such resources one of the most important resource is oil and gas and the exploitation of oil and gas is generating concentrated activity taking place in, amongst other places, offshore West

Africa[126]. There appear to be two gaps in ocean legal governance, relating to the offshore exploitation of oil and gas, namely the regulation of submarine cables and pipelines and offshore installations.

(1) Submarine cables and pipelines

There is no general Treaty on the construction and the use of pipelines at international law, whether onshore or offshore, neither is there a global treaty on submarine power cables; with respect to the latter, in 2010 the UN Secretary General Report on the Oceans and the Law of the Sea specifically noted that some states had expressed the "need to consider gaps in the existing legal regime regarding submarine cables at the international and national levels, in particular in the implementation of article 113 of the United Nations Convention on the Law of the Sea" with the current legal regime viewed as inadequate to address "the operation of, and threats to, submarine cables".

In the absence of a general treaty, or regional treaties, on submarine power cables the matter falls to the general provisions of UNCLOS for regulation.

(2) Regulation of offshore installations

Major blowouts in the Timor Sea (Montara, 2009) and the Gulf of Mexico (Deep Water Horizon, 2011) have focused renewed attention on the international regulatory gap with respect to pollution from offshore installations. In 2008 a UN secretariat study called for further regional measures to address pollution from offshore installations[127], but there has been little by way of international regulation, with the exception in the African region of the protocol to the Barcelona Convention for the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil[128].

2. The Convention on Biological Diversity (CBD)

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993. It has 3 main objectives:

- the conservation of biological diversity;
- the sustainable use of the components of biological diversity; and
- the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

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[126] "Non-living marine resources", D Rothwell and T Stevens, The international Law of the Sea (Hart publishing 2010) p.287

[127] Oceans and the Law of the Sea (A/63/342, 3 September 2008).

[128] Outside the African region, however, there are other international laws relating to the regulation of offshore activities. For example, Annex VI of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, relates to the prevention of pollution from offshore activities, and Decision 98/3 under the Convention for the Protection of the Marine Environment of the North-East Atlantic relates to the disposal of disused offshore installations.

Articles 4 and 22 primarily determine the applicability of CBD to marine biodiversity. In areas within the limits of national jurisdiction, which, inter alia, include the EEZ and the continental shelf, the provisions of the CBD are fully applicable. Those articles apply to the marine environment in a similar way as they apply to the terrestrial environment: they apply to components of biodiversity (for example a particular species or habitat) as well as to processes and activities carried out under the jurisdiction or control of states.

Article 22 ("Relationship with other International Conventions") provides in paragraph (1) that the Convention shall not affect rights and obligations under other existing international agreements except where their exercise "would cause a serious damage or threat to biological diversity." In the context of marine biodiversity, the CBD cooperates with global organisations like the FAO, regional organizations, regional seas agreements, as well as with regional fisheries management organisations.

The tenth conference of the Parties to the CBD adopted decision X/2: Strategic Plan for Biodiversity 2011-2020, which included the Aichi Biodiversity Targets, for the 2011-2020 period. Most targets may apply to marine and coastal biodiversity, and several targets refer specifically to issues dealing with the conservation and sustainable use of marine and coastal biodiversity. Some of those are listed in the Appendix to this study.

a) Ecologically or Biologically Significant Marine Areas (EBSAs) identified under the CBD

EBSAs are special areas in the ocean that in an important way support the healthy functioning of oceans and the many services that it provides.

The ninth CBD Conference of the Parties adopted scientific criteria for identifying ecologically or biologically significant marine areas in need of protection in open-ocean waters and deep-sea habitats.[129]

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[129] Those criteria are –

1. Uniqueness or Rarity

2. Special importance for life history stages of species

3. Importance for threatened, endangered or declining species and/or habitats

4. Vulnerability, Fragility, Sensitivity, or Slow recovery

5. Biological Productivity

6. Biological Diversity

7. Naturalness

See the CBD scientific criteria for EBSAs (Annex I, to decision IX/20)

The identification of EBSAs and the selection of conservation and management measures is a matter for States and competent intergovernmental organisations, in accordance with international law.

The tenth Conference of the Parties to the CBD encouraged Parties, and intergovernmental organisations to cooperate collectively or on a regional or subregional basis, to identify and adopt appropriate measures for conservation and sustainable use in relation to EBSAs, including by establishing representative networks of marine protected areas in accordance with international law.

3. Climate Change

a) The United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC entered into force on 21 March 1994 and has near-universal membership.

The ultimate objective of the Convention as provided for in Article 2 is to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system." It states "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."

b) The Kyoto Protocol

The Kyoto Protocol, which entered into force on 16 February 2005, is a Protocol to the UNFCCC. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."[130]

The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012.

c) The Paris Agreement

The Paris Agreement builds upon the UNFCCC and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius[131].

[130] See Article 10 of the Protocol
[131] See Article 2(1)(a) of the Agreement

Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

a) Climate change and the oceans: ocean acidification and geoengineering

There is a considerable overlap between the mitigation of climate change and ocean governance, which has led to some unresolved issues, particularly in the field of ocean acidification and geoengineering.

(1) Ocean acidification

Ocean acidification is caused by increased carbon dioxide emissions, which also contribute to climate change. Oceans assimilate CO_2 and become more acidic. This damages organisms such as shellfish, pteropods and corals, which in turn has significant consequences for global biodiversity, food production and related economic activity.

(2) Geo engineering

A range of techniques – often referred to as geoengineering - have been considered as means of mitigating climate change without reducing carbon dioxide emissions. The techniques fall into two groups: carbon dioxide removal and solar radiation management.

There are obstacles to an effective and efficient international response to ocean acidification and geoengineering, which fall within the ambit of a number of different treaties and international policy bodies, which results in overlaps and missed synergies.

(3) Coastal adaptation

Climate change can affect coastal areas in a variety of ways. Coasts are sensitive to sea level rise, changes in the frequency and intensity of storms, increases in precipitation, and warmer ocean temperatures. In addition, ocean acidification can have significant impacts on coastal and marine ecosystems.

Coastal adaptation comes within the ambit of the Adaptation Fund, which is an international fund that finances projects and programs aimed at helping developing countries to adapt to the harmful effects of climate change, set up under the Kyoto Protocol.

There is a UNEP guide about taking account of, and managing, ecosystems to help people adapt to climate change in coastal areas.[132]

[132] UNEP (2016). Options for Ecosystem-based Adaptation (EBA) in Coastal Environments: A Guide for environmental managers and planners. UNEP, Nairobi.

(4) Ocean renewable energy

Mitigation of climate change may involve the deployment of carbon neutral renewable energy sources, one of which is ocean energy, by means of which electricity can be generated from tidal streams, waves or differences in salinity.

(5) Blue carbon

The International Blue Carbon Initiative is a global program focused on mitigating climate change through the conservation and restoration of coastal and marine ecosystems, which sequester and store carbon from the atmosphere and oceans. The Initiative currently focuses on carbon in coastal ecosystems - mangroves, tidal marshes and seagrasses.

4. FAO instruments

The Food and Agriculture Organization (FAO) of the United Nations is the specialist body of the United Nations responsible for fisheries matters. The FAO has supported the development of both hard law and soft law instruments as noted in the earlier section for example the non-binding Code of Conduct for Responsible Fisheries. The FAO's Committee on Fisheries (COFI) is the only global inter-governmental forum where major international fisheries and aquaculture problems and issues are examined and recommendations addressed to all stakeholders in the international fisheries community.

a) The 1993 FAO Agreement to promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (the 1993 Agreement)

According to UNCLOS, flag states have the obligation to exercise effective jurisdiction and control over administrative, technical and social matters on their ships on the high seas. There is evidence that some states do not comply with this provision and do not implement adequate controls with regard to international maritime and environmental obligations.

The 1993 Agreement entered into force on 24 April 2003 and addresses the issue of reflagging of fishing vessels into flags of convenience to avoid compliance with agreed conservation and management measures.

The agreement applies to all fishing vessels that are used or intended for fishing in the high seas. Article V(2) allows a port state to promptly notify the flag state if it has reasonable grounds to believe that a fishing vessel has been used for an activity that undermines the effectiveness of international conservation and management measures.

b) The 1995 FAO Code of Conduct for Responsible Fisheries

The Code of Conduct for Responsible Fisheries is a voluntary code and is not legally binding. It encourages states and fishers to use selective and environmentally safe fishing gear and practices. The code contains six thematic areas or chapters for which guidelines should be developed, namely -

- fishery management practices;
- fishing operations;
- aquaculture development;

- integrating of fisheries into coastal area management;
- post –harvest practices and trade; and
- fishery research.

5. The IMO treaties

a) The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Convention)

Between 1950 and the early 1970s, dumping of waste materials into ocean waters was recognized as a major threat to the health of the world's oceans and coastal waters. In order to support a global goal to protect marine waters, states negotiated the London Convention, one of the first international instruments for the protection of the marine environment from human activities, the object of which is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. It regulates the deliberate disposal at sea of wastes or other matter from vessels, aircraft, and platforms.

b) The 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Protocol)

In 1996, the governing body of the Convention adopted the London Protocol as a standalone treaty to modernize and tighten global dumping controls and replace the Convention. The Protocol entered into force on March 24, 2008. The objectives of the Protocol are set out in Article 2: Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and take effective measures to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter.

Under the Protocol, all dumping is prohibited, with the exception of certain listed categories of wastes or other matter, which may be considered for dumping provided that permits and permit conditions comply with the waste assessment provisions set out in Annex 2 of the Protocol.

6. The Convention on Migratory Species (CMS)

The CMS provides a legal framework for internationally coordinated conservation measures and sustainable use of migratory animals and their habitats throughout a migratory range. The Convention brings together the States through which migratory animals pass: the Range States. Migratory species threatened with extinction are listed on Appendix I of the Convention. Migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention.

The CMS is a framework Convention: it encourages the Range States to conclude global or regional agreements and thus acts as a framework Convention. The agreements may range from legally binding treaties (called Agreements) to less formal instruments, such as Memoranda of Understanding (MOU), and can be adapted to the requirements of particular regions. Multilateral agreements negotiated under CMS that have been ratified by African countries include-

- the Agreement on the Conservation of Albatrosses and Petrels (ACAP);

- the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS);
- the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA); and
- the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS).

MOUs relevant to African countries include -

- the Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa;
- the Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA Marine Turtle MOU);
- the Memorandum of Understanding on the Conservation of Migratory Sharks; and
- the Memorandum of Understanding concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia.

7. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basel Convention)

The Basel Convention was adopted in 1989 in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad.

The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as “hazardous wastes” based on their origin and/or composition and their characteristics, as well as two types of wastes defined as “other wastes” - household waste and incinerator ash.

The provisions of the Basel Convention aim to:

- reduce hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal; and
- restrict transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management.

The Convention establishes a regulatory system applying to cases where transboundary movements are permissible. That regulatory system is based on the concept of prior informed consent, and requires that, before an export may take place, the authorities of the State of export notify the authorities of the prospective States of import and transit, providing them with detailed information on the intended movement. The movement may only proceed if and when all States concerned have given their written consent (articles 6 and 7).

8. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention)

The Rotterdam Convention was adopted in 1998. Its objectives are:

- to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm; and
- to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.
-

The Convention creates legally binding obligations for the implementation of a Prior Informed Consent (PIC) procedure. It covers pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons by Parties and which have been notified by Parties for inclusion in the PIC procedure, which, following an international procedure, may be listed in Annex III of the Convention; once this happens a "decision guidance document" containing information concerning the chemical and the regulatory decisions to ban or severely restrict the chemical for health or environmental reasons, is circulated to all Parties.

Parties have nine months to prepare a response concerning the future import of the chemical. The response can consist of either a final decision (to allow import of the chemical, not to allow import, or to allow import subject to specified conditions) or an interim response. The import decisions are circulated and exporting country Parties are obligated under the Convention to take appropriate measure to ensure that exporters within its jurisdiction comply with the decisions.

9. The Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention)

The Stockholm Convention, which was adopted in 2001 is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

The Convention requires its parties to take measures to eliminate or reduce the release of Persistent Organic Pollutants (POPs) into the environment; including measures to prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention.

Annex B of the Convention allows for the registration of acceptable purposes for the production and use of the listed POPs, and for the registration of specific exemptions for the production and use of the listed POPs.

Parties are also required to reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention.

The Convention promotes the use of best available techniques and best environmental practices for preventing releases of POPs into the environment.

10. The Minamata Convention on Mercury (the Minamata Convention)

The Minamata Convention is a global treaty, which was adopted in 2013. Its objective is to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

It contains, in support of this objective, provisions that relate to the entire life cycle of mercury, including controls and reductions across a range of products, processes and industries where mercury is used, released or emitted.

The Minamata Convention includes measures that:

- ban new mercury mines and phase-out existing ones;
- reduce the use, emissions and releases of mercury from artisanal and small-scale gold mining and major industrial activities;
- phase-out and phase-down the use of mercury in a number of mercury-added products and processes, specifically its use in dental amalgam;
- restrict trade and prohibit the manufacture, import and export of mercury and a wide range of mercury-added products such as batteries or lights;
- control and reduce air emissions and land and water releases; and
- ensure the safer storage and proper management of mercury waste.

11. Proposed international legally binding instrument (ILBI) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (ABNJ)

In its resolution 69/292 of 19 June 2015, the UN General Assembly decided to develop an ILBI under the UNCLOS on the conservation and sustainable use of marine biological diversity of ABNJ and to that end established a Preparatory Committee (PrepCom) to make substantive recommendations to the General Assembly on the elements of a draft text for the ILBI. The PrepCom would start its work in 2016 and, by the end of 2017, report to the Assembly on its progress.

The General Assembly decided that the negotiations would be based on a package agreed in 2011, namely –

- marine genetic resources, including questions on benefit-sharing;
- measures such as area-based management tools, including marine protected areas;
- environmental impact assessments; and
- capacity building and marine technology transfer.

Additional elements were to include guiding principles, and relationship of an ILBI with other agreements ("the non-undermining clause").

The PrepCom recommended[133] that two sets of elements should be considered with a view to the development of a draft text of an ILBI under UNCLOS.

Section A of the recommendations included non-exclusive elements that generated convergence among most delegations. Section B highlighted some of the main issues on which there was a divergence of views.

Section A areas of convergence related to objectives, principles and approaches, and included an overarching objective is 'to ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction through effective implementation of the Convention'; and principles and approaches including due regard, sustainable development, the ecosystem approach, precaution, adaptive management, resilience to the effects of climate change, and transparency.

The Section B areas of greater divergence include whether the ILBI should regulate access to marine genetic resources (MGRs), monitoring of the utilization of MGRs, the modalities for and form of benefit-sharing of MGRs, governance of marine protected areas (MPAs) and application of area based management tools (ABMTs) (bearing in mind the 'non-undermining clause' and regional and sectoral bodies). There was no significant substantive discussion of monitoring and enforcement tools.

The General Assembly is to decide at its next session on the convening and starting date of an intergovernmental conference to elaborate on an ILBI.

C. Legal framework at the regional level (regional conventions and action plans)

1. The Mediterranean Action Plan (MAP) and the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (the Barcelona Convention)

a) The MAP

In 1975, 16 Mediterranean countries and the European Community adopted the MAP, which was the first-ever Regional Seas programme.

In 1995, the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) was adopted to replace the Mediterranean Action Plan of 1975. It has the following objectives:

[133] See the Report of the Preparatory Committee established by General Assembly resolution 69/292: Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (A/AC.287/2017/PC.4/2).

- to ensure the sustainable management of natural marine and land resources and to integrate the environment in social and economic development, and land-use policies;
- to protect the marine environment and coastal zones, through prevention of pollution, and by reduction and as far as possible, elimination of pollutant inputs whether chronic or accidental;
- to protect nature, and protect and enhance sites and landscapes of ecological or cultural value;
- to strengthen solidarity amongst Mediterranean coastal states, in managing their common heritage and resources for the benefit of the present and future generations; and
- to contribute to the improvement of the quality of life.

The Contracting Parties to the Barcelona Convention decide on the MAP system's strategies, budget and programme at their Ministerial level meetings, held every two years.

b) The Barcelona Convention

The Convention's main objectives are to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute to its sustainable development.

- There are seven Protocols to the Barcelona Convention addressing specific aspects of Mediterranean environmental conservation:
    - The protocol for the prevention and elimination of pollution of the Mediterranean Sea by dumping from ships and aircraft or incineration at sea
    - The protocol concerning cooperation in preventing pollution from ships and, in cases of emergency, combating pollution of the Mediterranean Sea
    - The protocol for the protection of the Mediterranean Sea against pollution from land-based sources and activities
    - The protocol concerning specially protected areas and biological diversity in the Mediterranean
    - The protocol for the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil
    - The protocol on the prevention of pollution of the Mediterranean Sea by transboundary movements of hazardous wastes and their disposal
    - The protocol on integrated coastal zone management

2. The Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA) and the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (the Jeddah Convention)

a) PERSGA

PERSGA was created in 1974 - in collaboration with the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the support of United Nations Environment as one of its Regional Seas Programmes – to provide regional cooperation to address threats such as marine pollution, depletion of marine resources and overfishing.

b) The Jeddah Convention

In 1982 the Jeddah Convention was adopted to provide PERSGA with a legal framework.

The Jeddah Convention recognises, inter alia, that pollution of the marine environment in the waters of the Red Sea and Gulf of Aden by oil and other harmful or noxious materials arising from human activities on land or at sea presents a growing threat and acknowledges the special hydrographic and ecological characteristics of the marine environment to which the Convention relates. The Convention does not prescribe specific measures, but provides a framework for further action by the Parties to combat marine pollution and to adopt Protocols to implement the Convention[134].

The legally binding Action Plan for the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden was adopted to translate the priorities set out in the Jeddah Convention into a framework of action for an environmentally sound and comprehensive approach to coastal area development.

There are four Protocols to the Convention:

- the Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency;
- the Protocol Concerning the Conservation of Biological Diversity and the Establishment of Network of Protected Areas in the Red Sea and Gulf of Aden;
- the Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden; and
- the Protocol Concerning Technical Cooperation to Borrow and Transfer Experts, Technicians, Equipment and Materials in Cases of Emergency (2009).

3. The Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean (the Nairobi Convention)

The Nairobi Convention is a partnership between governments, civil society and the private sector, working towards a prosperous Western Indian Ocean Region with healthy rivers, coasts and oceans. It pursues this vision by providing a mechanism for regional cooperation, coordination and collaborative actions; it enables the Contracting Parties to harness resources and expertise from a wide range of stakeholders and interest groups; and in this way it helps solve inter-linked problems of the region's coastal and marine environment.

The Convention provides for a regional legal framework for the Contracting Parties to "enter into bilateral or multilateral agreements, including regional or sub-regional agreements, for the protection and management of the marine and coastal environment" of the West India Ocean area: see Article 3(1).

[134] Article III of the Jeddah Convention.

Article 4 provides for a general obligation on Parties to take, individually and jointly, appropriate measures "to prevent, reduce and combat pollution of the Convention area and to ensure sound environment management of natural resources, using for this purpose the best practicable means at their disposal, and in accordance with their capabilities", and subsequent articles provide for obligations to mitigate pollution and to take conservation measures in particular fields and areas of activities.

The Nairobi Convention has the following Protocols:

- the Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (2010);
- the Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region (1985); and
- the Protocol Concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region (1985).

4. The Convention 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 (the Abidjan Convention)

The Abidjan Convention covers a marine area from Mauritania to South Africa, and provides an overarching legal framework for all marine-related programmes in West, Central and Southern Africa.

The Convention lists the sources of pollution that require control, and identifies environmental management issues. The mission of the Convention's Secretariat is to "protect, conserve and develop the Abidjan convention area and its resources for the benefit and well-being of its people."

The Convention has two Protocols, namely the Protocol Concerning Cooperation in Combating Pollution in Cases of Emergency in the Western and Central African Region which entered into force on 30 May 1996; and the Additional Protocol to the Abidjan Convention Concerning Cooperation in the Protection and Development of Marine and Coastal Environment from Land-Based Sources and Activities in the Western, Central and Southern African Region, which was adopted in 2012 and has yet to enter into force.

5. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

CCAMLR was established by the Convention for the Conservation of Antarctic Marine Living Resources in 1982 with the objective of conserving Antarctic marine life. This was in response to increasing commercial interest in Antarctic krill resources, a keystone component of the Antarctic ecosystem and a history of over-exploitation of several other marine resources in the Southern Ocean.

Being responsible for the conservation of Antarctic marine ecosystems, CCAMLR practises an ecosystem-based management approach. This does not exclude harvesting as long as such harvesting is carried out in a sustainable manner and takes account of the effects of fishing on other components of the ecosystem.

Based on the best available scientific information, the Commission agrees a set of conservation measures that determine the use of marine living resources in the Antarctic.

The key institutional components of CCAMLR are:

- the Convention, which entered into force on 7 April 1982;
- a decision-making body, the Commission;
- a scientific Committee, which advises the Commission using the best available science; and
- conservation measures and resolutions to support the conservation of Antarctic marine living resources, which are developed by the Commission and subsequently implemented by Members during the ensuing intersessional period and fishing season.

D. Regional Economic Commissions (RECs)

RECs also develop regional fisheries programmes and collaborate with the African Union in the implementation of fisheries and reforms strategies. They include the following.

1. The Economic Community of West African States (ECOWAS)

ECOWAS is a 15-member regional group established in 1975 with a mandate of promoting economic integration in all fields of activity of the constituting countries, which includes with respect to fisheries matters.

2. The Inter-Governmental Authority for Development (IGAD)

The Intergovernmental Authority on Development (IGAD) in Eastern Africa was created in 1996. The summit that launched IGAD endorsed a decision to enhance regional cooperation in three priority areas of food security and environmental protection, economic cooperation, regional integration and social development peace and security.

Since then the IGAD regional strategy focuses on core issues, priority areas of concern and key opportunities in three priority areas of food security and environmental protection, economic cooperation, regional integration and social development, peace and security.

3. The South African Development Committee (SADC)

The old Southern African Development Coordinating Conference was transformed into the SADC in 1992 when the SADC Treaty was adopted, transforming the basis of cooperation among Member States from a loose association into a legally binding arrangement.

The SADC Treaty has a number of Protocols that impinge on ocean governance including the 2001 Protocol on Fisheries and the 1999 Protocol on Wildlife Conservation and Law Enforcement.

E. Regional political bodies

1. African Union

The African Union (AU) is a regional organization, which unites all countries on the African continent, and was established on 26 May 2001 in Addis Ababa, Ethiopia.

New Partnership for Africa's Development (NEPAD)

The establishment of NEPAD was finalised on 23 October 2001. NEPAD has a vision and programme of action for the development of the African continent formulated by African leaders through the African Union. Its goals include the promotion of accelerated grown and sustainable development and the eradication of widespread and severe poverty and halting the marginalisation of Africa in the globalisation process.

NEPAD addresses priority environmental issues through an environmental action plan organised in clusters of programmatic and project activities to be implemented over an initial period of ten years; the priority sectors and cross cutting issues in this action plan include protecting marine and coastal resources, the cross border conservation of natural resources and addressing climate change. It is implementing a Partnership for African Fisheries and is working though the Comprehensive African Fisheries Reform Strategy to improve the sustainability of Africa's Fisheries.

NEPAD and the FAO are implementing a joint project aimed at promoting the enhanced contribution of fisheries and aquaculture to poverty alleviation, food security and economic growth through improved and sustainable management of the fishery and aquaculture sectors. This partnership aims to focus on environmental sustainability of ecosystems in both marine and inland fisheries.

2. Indian Ocean Commission

The Indian Ocean Commission was enshrined by the 1984 Victoria Agreement in Seychelles. The Commission of the Indian Ocean is composed of five African Indian Ocean island states; its mission includes development, through projects related to sustainability for the region, aimed at protecting the region, improving the living conditions of the populations and preserving the various natural resources that the countries depend on.

F. Inter-governmental programme

The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)

In 1995 an inter-governmental conference met in Washington, United States, to deal specifically with land-based marine pollution. The conference adopted two documents: the Washington Declaration on the Protection of the Marine Environment from Land-based Activities, and the GPA, which is a policy instrument designed to address the impacts of land-based sources and activities and physical degradation of the coastal and marine environments.

The GPA is an action-oriented inter-governmental programme, and not an international institution. The implementation of the GPA is primarily the task of Governments, in close partnership with all stakeholders including local communities, public organizations, non-governmental organizations and the private sector. Formulation of national and regional programmes of action is a necessity for successful

implementation. UNEP, as the Coordinating Unit of the GPA, and its partners is facilitating and assisting Governments in their tasks.

Its objectives, set out in Chapter 2 of the Programme include the strengthening of regional cooperation agreements, and where necessary to support effective action, strategies and programmes.

The GPA is focusing its efforts on three categories of sources of pollution: marine litter, wastewater and nutrient management. In order to address these three issues, three global multi-stakeholder partnerships have been launched.

G. Partnerships

No regional organisation has a mandate covering all aspects of ocean governance. So if a coordinated attempt were to be made, for example, to cover the entire set of ocean-related SDG targets, cooperation and coordination across sectors and among competent regional organisations would be crucial.

Tailor -made and regional partnerships for sustainable management of the ocean in specific contexts can prove useful in this regard. They can provide a platform for discussion of challenges within a region, and also provide a mechanism through which countries and competent regional and global management organisations may cooperate in order to harmonise governance.

Partnerships may gather different regional organisations and further involve stakeholders, NGOs, and scientists in regional discussions, sharing experiences and good practices, discussing common initiatives and identifying key challenges.

It is not possible to list and discuss all partnerships within the field of this study; so three examples have been singled out. The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem is discussed below[135]. Here are two more examples.

1. FISH-i Africa

FISH-i Africa was established to deal with IUU fishing in the Western Indian Ocean, which threatens to undermine legitimate industry and national efforts to build sustainable ocean economies. Eight coastal countries recognised that their combined waters of over 5 million square kilometres could not be effectively policed individually and decided to cooperate to better combat IUU fishing by improving cooperation and intelligence sharing in order to take action against IUU fishing operators.

The eight coastal countries work principally through national fisheries enforcement officers. They have a Task Force, meetings of which provide an opportunity for discussion, analysis, strategy building and planning. FISH-i Africa works in close cooperation with relevant regional organisations (e.g. Indian Ocean Tuna Commission, SADC) and cooperates with international organisations active in the fight against IUU fishing (FAO, UN Office on Drugs and Crime, INTERPOL). The project is coordinated by Stop Illegal Fishing (SIF) and supported by a number of international bodies and donors, including New Partnership for

[135] See page 80.

Africa's Development, the Pew Charitable Trusts, Fisheries Analytics Capacity Think-tank, and Nordenfjeldske Development Services.

The FISH-i partnership has resulted in improved enforcement on the water and the members have been able to take legal action against illegal fishing operators. This has resulted in a range of successful enforcement actions.

2. Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean (WIO-C)

Although the Western Indian Ocean (WIO) Region is one of the least ecologically disturbed regions of the world, it is increasingly facing pressures from resource exploitation and habitat degradation[136].

The ten governments in the region, through the Nairobi Convention, have developed collaborative partnerships with a variety of NGOs to implement a range of programmes, projects, and initiatives. Building on this experience, the Consortium for the Conservation of the Marine and Coastal Ecosystems of the WIO region (WIO-C) was created launched at the Fifth Meeting of the Contracting Parties to the Nairobi Convention in 2007 to enhance civil society participation in project/programme implementation and advocacy within the framework of the Nairobi Convention. It is a partnership of international and regional NGOs and intergovernmental organisations that support marine research, conservation, and management in the region.

The WIO-C provides a way for NGOs to anchor their activities in the Nairobi Convention's programme of work, while promoting synergies between projects and knowledge and information sharing amongst its members.

The WIO-C'S members come from Inter-Governmental Organisations, regional NGOs, and national and local NGOs that are active in marine and coastal management in the WIO. The members develop common policy positions on threats to the coastal and marine environment in the region and lobby for support from Nairobi Convention Contracting Parties.

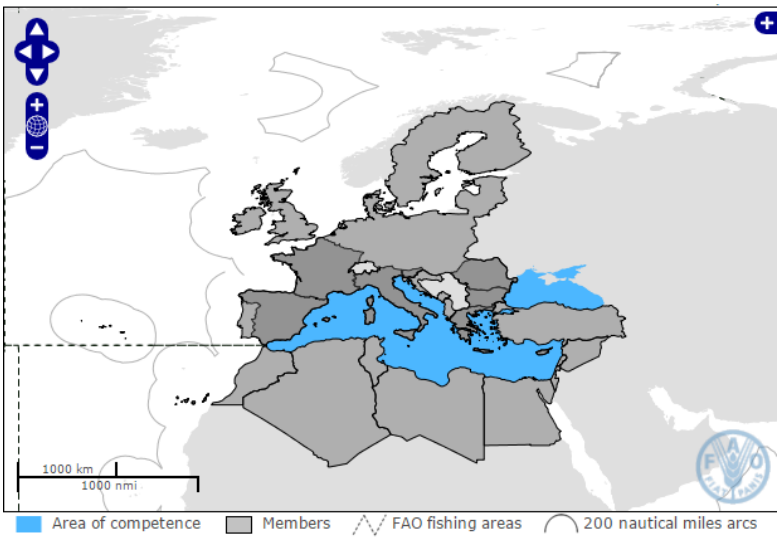
H. Regional Fisheries Bodies

1. General Fisheries Commission for the Mediterranean (GFCM)

The GFCM was established in 1952. It is a regional fisheries management organization (RFMO) established under the provisions of Article XIV of the FAO Constitution. Its objective is to "promote the development, conservation, rational management and best utilization of living marine resources as well as the sustainable development of aquaculture in the Mediterranean, the Black Sea and connecting waters"[137].

[136] WIOMSA UNEP-Nairobi Convention, 'Regional State of the Coast Report: Western Indian Ocean' (2015).
[137] http://www.fao.org/gfcm/background/about/en/

GFCM is composed of a Bureau and a Secretariat. During the intersessional periods the commission operates through the four committees: the Scientific Advisory Committee on Fisheries (SAC); the Scientific Advisory Committee on Aquaculture (CAQ); the Compliance Committee (CoC); and the Committee of Administration and Finance (CAF).

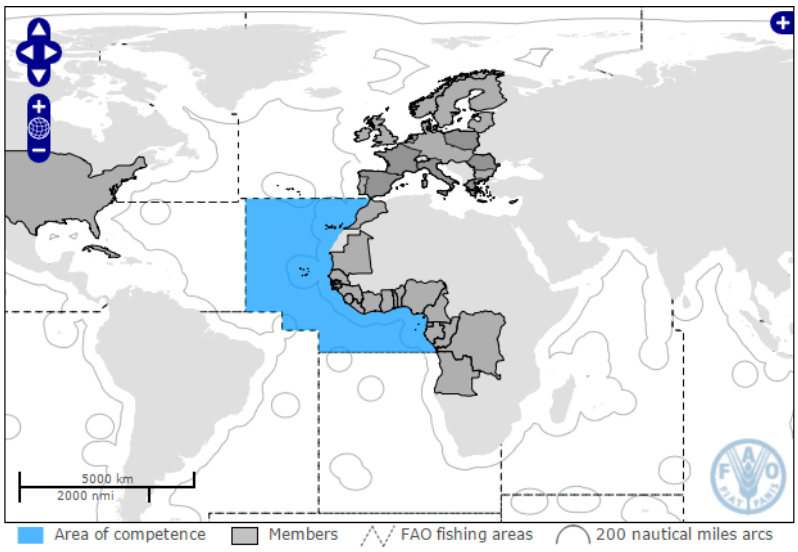


2. The Fishery Committee for the Eastern Central Atlantic (CECAF)

CECAF was established in 1967 under Article VI (2) of the FAO Constitution.

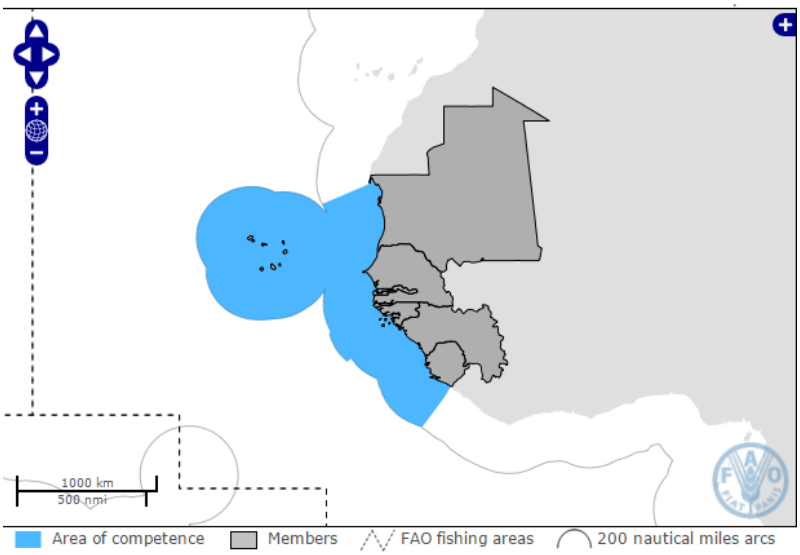
The Committee composed of the member states is the central body of the organisation. It has biannual sessions and can adopt recommendations on management issues. The Committee has established a Scientific Sub-Committee for fisheries managing decision. CECAF's function thus includes: to keep the state of the resources within its area of competency under review; to coordinate research in the area related to the living resources; to collect statistical data on marine fishery information; and to establish scientific basis for regulatory measures[138].

[138] UNEP (DEPI)/APSM.1 /INF.3.



3. Sub-Regional Commission on Fisheries (SRCF)

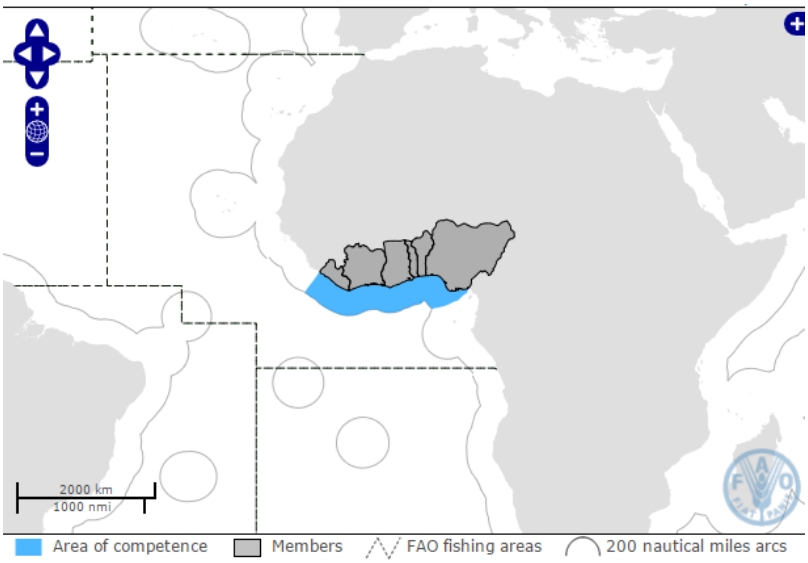
SRCF was established in 1985 with the objective to foster cooperation between member states and to coordinate the policies on fishery resources. SRCF is composed of: the Conference of Ministers, the Coordinating Committee and the Permanent Secretariat. The Conference of Ministers meets biannually[139].



[139] UNEP (DEPI)/APSM.1 /INF.3.

4. Fishery Committee of the West Central Gulf of Guinea (FCWC)

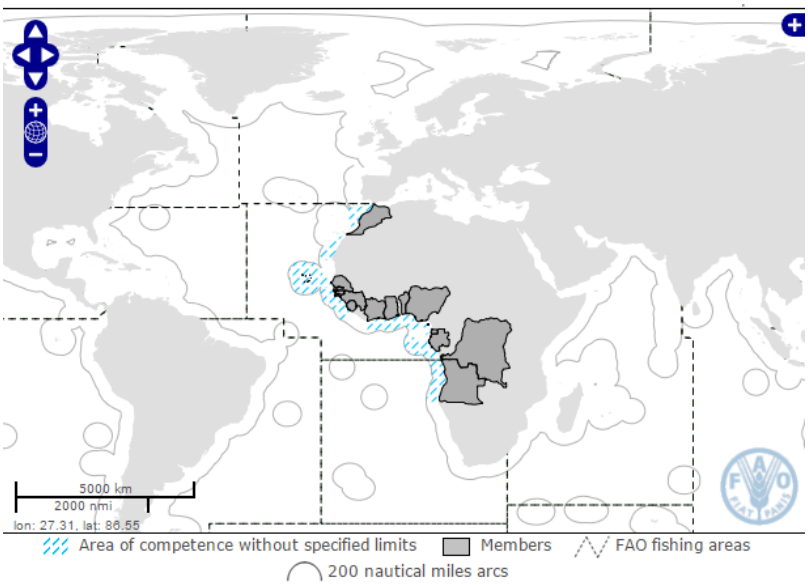
In 2006, the FCWC was established to promote cooperation of the Contracting Parties for conservation and optimum utilization of marine resources[140]. The overarching goal of the convention is "to ensure the sustainable development of the fisheries resources in the FCWC Convention Area". The Committee consists of three bodies: Conference of Ministers, Advisory and Coordination Committee (ACC) and a Secretariat. ACC's function includes supervision of the Secretariat and provision of technical and scientific advice to the Conference of Ministers[141].



5. Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic Ocean (COMHAFAT/ATLAFCO)

COMHAFAT was established in 1989. The area of competence of COMHAFAT encompasses waters under national jurisdiction as well as high seas[142]. The Ministerial Conference meets every two years.

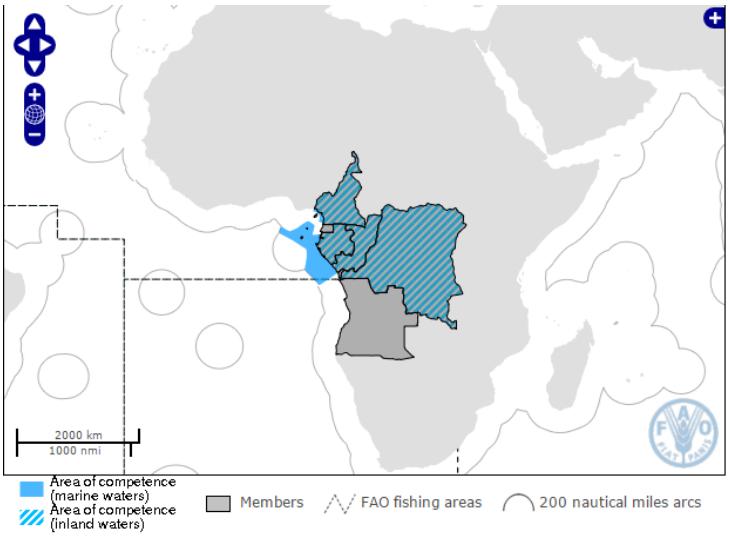
[140] http://www.fcwc-fish.org/about-us/about-fcwc
[141] Article 10 Convention for the Establishment of the Fishery Committee for the West Central Gulf of Guinea
[142] UNEP (DEPI)/APSM.1 /INF.3.



a) Regional Fisheries Committee for the Gulf of Guinea (COREP)

COREP was established in 1984. Since 2008, the COREP is a specialized organisation of the Economic Community of Central African States (ECCAS). Current member states are Cameroon, Congo, Dem. Rep. of the Congo, Gabon, and Sao Tome and Principe. Angola and Equatorial Guinea have observer status to COREP. Its objectives include: to assess the stock status; to harmonize fisheries policies of parties; and to preserve and protect marine and inland water. Thus COREP covers inland waters as well as coastal area under member states' national jurisdiction as is shown in the figure below.

COREP's governing body is the Council of Minister composed of Ministers for fisheries of each party. A Technical Committee exists to provide advice on scientific and technical issues to the Council. Scientific Sub-Committee also provides scientific and technical advice to the Technical Committee[143].



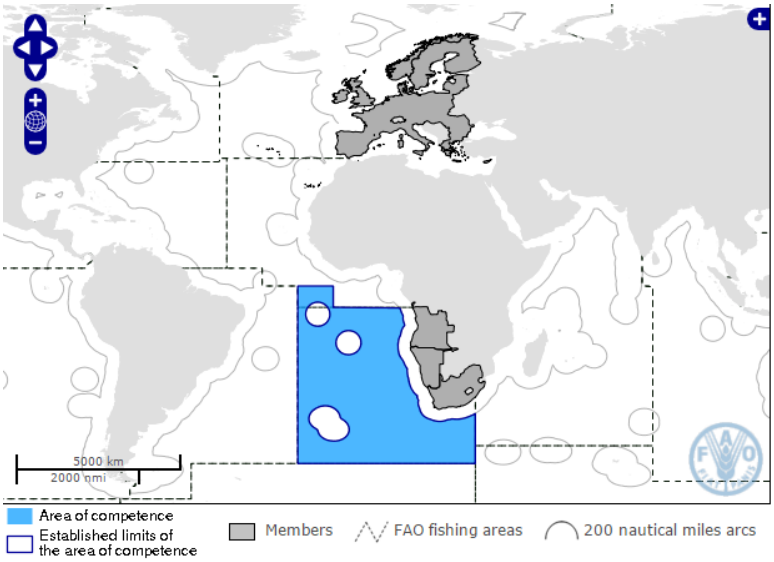
[143] UNEP (DEPI)/APSM.1 /INF.3.

6. South East Atlantic Fisheries Organisation (SEAFO)

SEAFO is an intergovernmental fisheries science and management body. SEAFO's primary objective is to *"ensure the long-term conservation and sustainable use of all living marine resources"*[144]. The member states are Angola, European Union, Japan, Namibia, Norway, Republic of Korea, and South Africa. As is shown in the map below the Convention Area does not include exclusive economic zones (EEZ) of the coastal states in the region. SEAFO comprises of the Commission, the Scientific Committee, the Compliance Committee and the Standing Committee on Administration and Finance and the Secretariat. The Scientific Committee provides the Commission with scientific advice on the status of marine resources. It should be noted that SEAFO does not cover the following two categories of species:

(1) Sedentary species subject to the fishery jurisdiction of coastal States pursuant to article 77 paragraph 4 of the 1982 UNCLOS; and

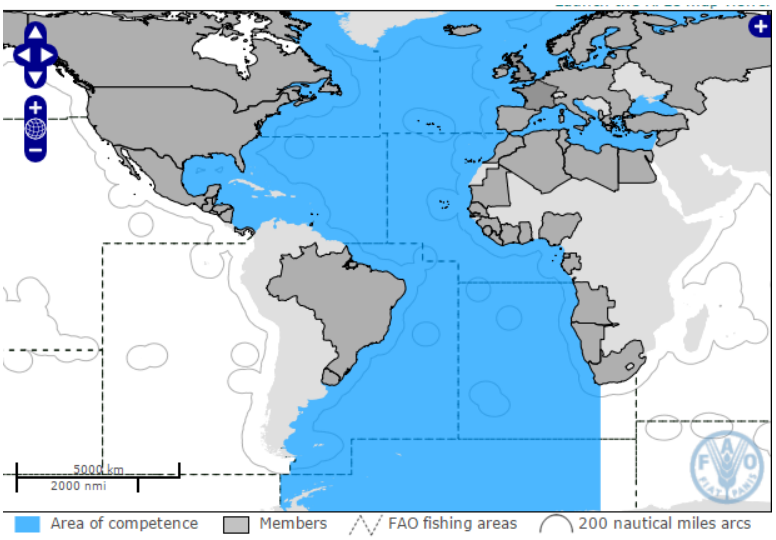
(2) highly migratory species listed in Annex I of the 1982 UNCLOS[145].



7. International Commission for the Conservation of Atlantic Tunas (ICCAT)

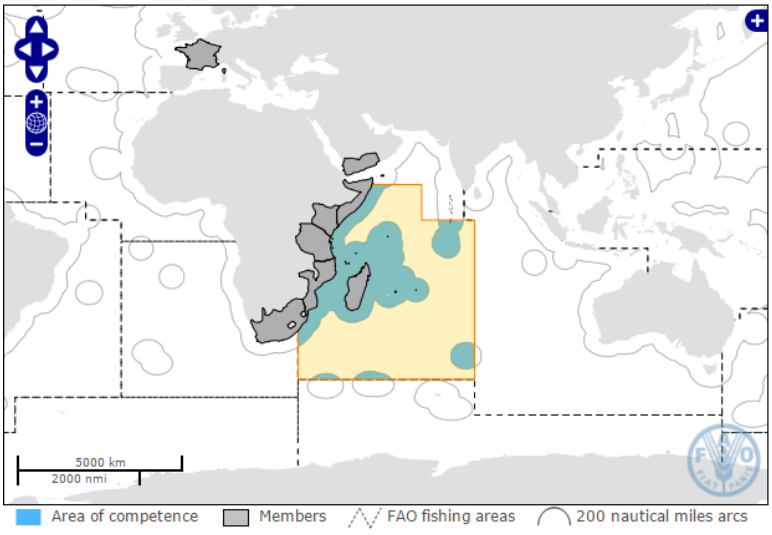
Established in 1966, ICCAT aims to maintain the population of tuna and tuna-like species fished in the Atlantic Ocean.

[144] http://www.seafo.org/
[145] http://www.fao.org/fishery/rfb/seafo/en



8. Southwest Indian Ocean Fisheries Commission (SWIOFC)

SWIOFC was established in 2004 under Article VI 1 of the FAO Constitution. Thus, SWIOFC is an advisory Regional Fisheries Body.

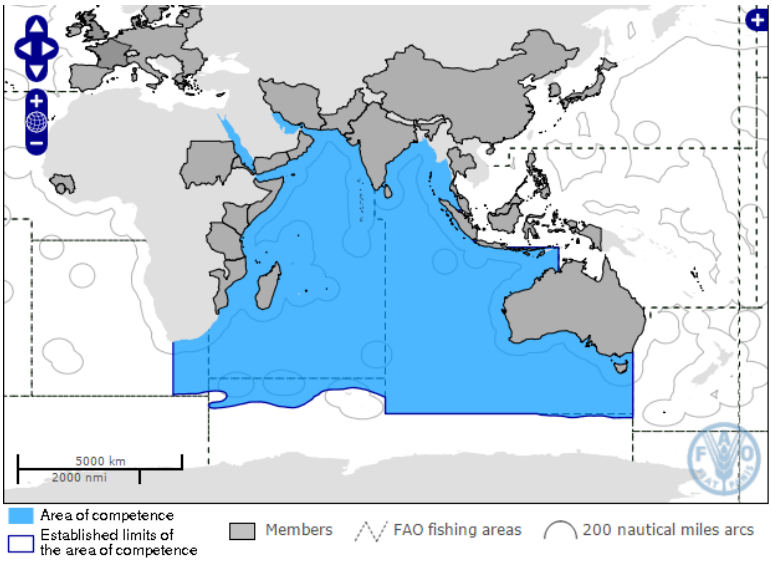


(Source: FAO[146])

[146] http://www.fao.org/fishery/rfb/swiofc/en

9. Indian Ocean Tuna Commission (IOTC)

The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organisation established under Article XIV of the FAO constitution. The target species are tuna and tuna-like species while the secretariat also collects data on species that are affected by tuna fishing activities such as shark and sea-birds.



(Source: FAO[147])

X. Large Marine Ecosystems in Africa

A. Introduction to LMEs

The US National Oceanic and Atmospheric Administration developed the system of Large Marine Ecosystems (LMEs) to identify areas of the oceans for conservation purposes; the objective was to use LMEs to enable ecosystem-based management and to provide a collaborative approach to management of resources within transnational areas.

1. What are LMEs?

LMEs are ecological units defined as "regions of ocean space of 200,000 km^2 or greater, that encompass coastal areas from river basins and estuaries to the outer margins of a continental shelf or the seaward extent of a predominant coastal current[148]".

[147] http://www.fao.org/fishery/rfb/iotc/en
[148] Sustaining the world's Large Marine Ecosystems

The physical extent of an LME and its boundaries are based on four linked ecological - rather than political or economic - criteria. Each LME has distinct bathymetry (depth), hydrography (tides, currents, and physical conditions of ocean waters), and biological productivity whose plant and animal populations are inextricably linked to one another in the food chain. Collaborating oceanographers and biologists have defined 64 LMEs worldwide.

2. The five module strategy

A five module strategy is used for LMEs. The modules help scientists and managers understand and integrate the monitoring, assessment and management of LMEs. The five modules relate to (i) productivity and oceanography, (ii) fish and fisheries, (iii) pollution and ecosystem health, (iv) socioeconomics and (v) governance.

The productivity module describes the availability of nutrients and primary productivity; the fish and fisheries module covers the status and changes in fish populations and their biomass; the pollution and health module defines the types and degree of pressure from pollutants like sediments and excessive nutrients; the socioeconomic module specifies the size and scope of activities of surrounding human populations and the various ways that humans exploit or manage the resources; and finally, the governance module analyses the laws and regulations, as well as the various entities responsible for managing the resources and enforcing laws.

3. The Global Environment Facility (GEF)

The GEF has adopted the LME concept for its work on International Waters, which is one of the six focal areas of work. International waters finance catalyses the development of transboundary Strategic Action Programs (SAPs) signed at the ministerial level. During implementation of the SAPs, the countries work toward long-term institutional and financial sustainability.

B. LMEs in Africa

There are seven LMEs in Africa. Their geographical coverage overlaps with the areas covered by the four Regional Seas Conventions in Africa as summarized below.

Regional Seas Convention	LMEs
Abidjan Convention Area	Canary Current
	Guinea Current
	Benguela Current
Nairobi Convention Area	Somali Coastal Current
	Agulhas Current
Jeddah Convention Area	Red Sea
Mediterranean Convention Area	Mediterranean Sea

LME mechanisms support existing regional ocean governance mechanism such as Regional Seas Programmes and Regional Fisheries Bodies. For example, the Guinea Current Large Marine Ecosystem (GCLME) project contributed to the revitalization of Abidjan Convention. The Canary Current Large Marine Ecosystem (CCLME) project has also made cooperative arrangements with Abidjan Conventions and Sub-Regional Fisheries Commissions (SRFC)[149].

1. Canary Current Large Marine Ecosystem

Seven countries participate in the Canary Current Large Marine Ecosystem project executed by FAO and UN Environment: Cape Verde, Guinea, Guinea Bissau, Mauritania, Morocco, Senegal and The Gambia. The GEF, participating countries and project partners fund the project.

The project has three main components:

(1) Multi-country process and frameworks for understanding and addressing priority transboundary concerns.

(2) Strengthened policies and management, based on improved knowledge and demonstration actions, to address priority transboundary concerns on declining marine living resources of the CCLME.

(3) Strengthened knowledge, capacity and policy base for transboundary assessment and management of habitat, biodiversity and water quality critical to fisheries.

Key expected outcomes of the project are[150]:

- Multi-country agreement on priority transboundary issues, governance reforms and investments to address priority transboundary issues;
- A sustainable legal/institutional framework for the CCLME;
- Strengthened existing transboundary waters institutions and regional policies and instruments;
- Stakeholders' involvement in transboundary waterbody priority setting and strategic planning, including 7 functioning National Inter-Ministry Committees;
- Improved knowledge and capacity to address concerns on 'Marine Living Resources' and 'Biodiversity, Habitat and Water Quality'; and
- Demonstrated management actions and related costs/benefits valuations addressing priority transboundary concerns.

2. Guinea Current Large Marine Ecosystem (16 countries in West and Central Africa)

Six countries participated in the GEF pilot phase of the GCLME project, which ended in 1999. After the pilot phase, the project was expanded with participation by sixteen (16) countries (Guinea Bissau, Guinea Conakry, Cape Verde, Sierra Leone, Liberia, Benin, Togo, Cote D'Ivoire, Nigeria, Cameroon, Gabon, Equatorial Guinea, Sao Tome/ Principe, Congo, DR. Congo, Gabon and Angola). The project concluded in 2012.

[149] Rochette et al. (2015).
[150] http://www.canarycurrent.org/en/about

The project took ecosystem-based approaches to achieve environmental and resource sustainability in the Guinea Current Ecosystem. Overall project objectives were to create an ecosystem-wide assessment and management mechanisms in the GCLME in order to (1) recover depleted fish stock; (2) restore degraded habitat; and (3) reduce land and ship-based pollution[151].

Important outputs of the project include: completion of a transboundary diagnostic analysis, development and endorsement of a strategic action programme, creation of the Interim Guinea Current Commission (IGCC) and the decision to create a permanent Guinea Current Commission (GCC) through a protocol to the Abidjan Convention[152].

3. Benguela Current Large Marine Ecosystem

The Governments of Angola, Namibia and South Africa requested a project entitled "Integrated Management, Sustainable Development and Protection of the Benguela Current Large Marine Ecosystems (BCLME)" funded by the GEF. The project aims to introduce an ecosystem-based approach for the management of BCLME.

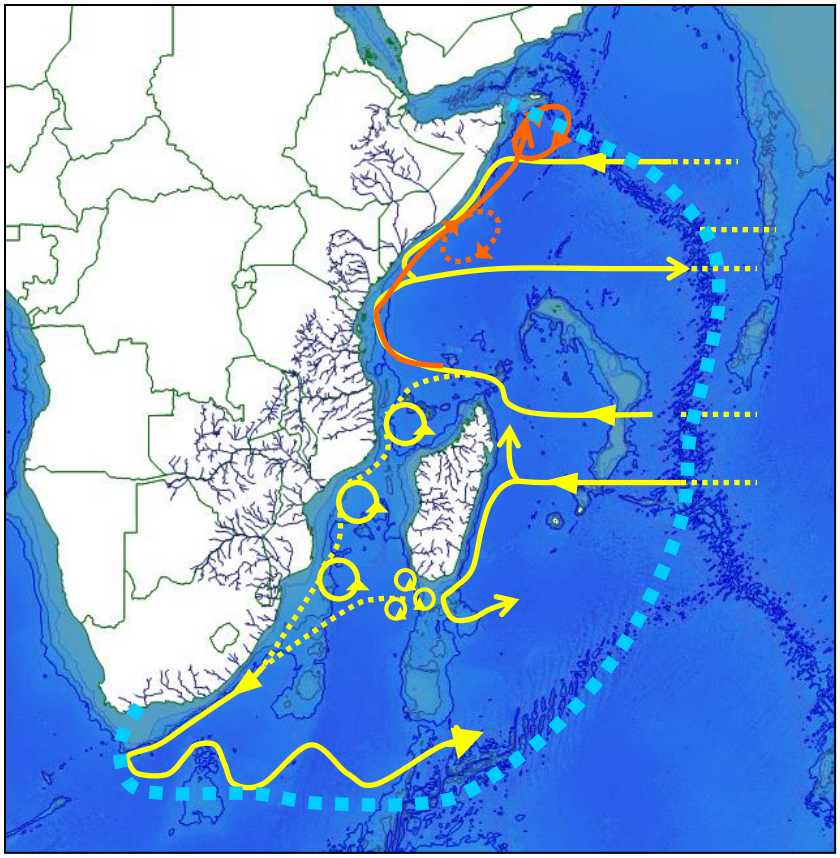
In 2013, the three governments signed the Benguela Current Convention and Benguela Current Commission, which had been in existence since 2007, was established as a permanent inter-governmental organisation.

The Benguela Current Commission is the first inter-governmental commission to be based on the LME concept of ocean governance. It is focused on the management of shared fish stocks; environmental monitoring; biodiversity and ecosystem health; the mitigation of pollution; and minimising the impacts of marine diamond mining and oil and gas production.

4. Agulhas and Somali Current Large Marine Ecosystems (East and Southern Africa)

Nine countries of the western Indian Ocean region (Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania) participated in the ASCLME project.

[151] file:///C:/Users/hasegawak/Downloads/2012_1188_TE_UNEP_REGIONAL_IW_FSP_GCLME.pdf
[152] file:///C:/Users/hasegawak/Downloads/2012_1188_TE_UNEP_REGIONAL_IW_FSP_GCLME.pdf



Source: Agulhas and Somali Current Large Marine Ecosystems SAP[153]

A Transboundary Diagnostic Analysis identified problems and a Strategic Action Program was proposed to address these issues. In order to implement the SAP, three programme were proposed:

(1) An Ecosystem Monitoring Programme;

(2) Capacity Building and Training Programme, and

(3) Science-Based Governance Programme.

5. Mediterranean Large Marine Ecosystem

Transboundary Diagnostic Analysis for the Mediterranean Sea formed the basis of two Strategic Action Programs, adopted to address identified transboundary concerns: land based pollution (SAP MED) and loss of biodiversity (SAP BIO) and to support the identification of agreed upon hotspots of degradation of the Mediterranean coastal areas to be adopted by the countries in the framework of their National Action Plans.

The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (MedPartnership, 2009-2015) a collective effort led by UN Environment / Mediterranean Action Plan, supported by the GEF and other donors and executed together with several leading environmental institutions and organizations

[153] http://www.asclme.org/SAP/

together with countries, was instrumental to this process by addressing the main environmental challenges faced by the Mediterranean marine and coastal ecosystems: http://archive.iwlearn.net/medpartnership/themedpartnership.org/index.html

While focusing on the priority actions identified by the Contracting Parties to the Barcelona Convention in the SAP-MED and SAP-BIO, the MedPartnership overarching goal was to reverse the degradation trends affecting the Mediterranean Large Marine Ecosystem, including its coastal habitats and biodiversity.

The MedPartnership catalysed action to create an enabling environment for the necessary policy, legal and institutional reforms in the partner countries, as well as investments, with the aim to:

- improve environmental conditions of pollution and biodiversity hotspots and other priority areas under stress;
- promote the sustainable use of marine and coastal resources through integrated approaches;
- reduce pollution from land-based sources;
- enhance the protection of 'critical' habitats and species;
- integrate climate considerations into national marine and coastal planning.

The MedPartnership supported 78 demonstration projects while producing over 300 documents including technical reports, guidelines and policy analysis. Moreover the project was instrumental for the implementation of ICZM national strategies in countries such as Croatia and Montenegro, where along with Algeria, inter-ministerial committees were created to support the long term sustainability of these processes. It also supported the update of the National Action Plans (NAPs) in several countries, and allowed the development of a regional Climate Change Adaptation Framework to increase the resilience of marine and coastal areas in the Mediterranean to the effects of climate change and variability.

Building on this successful story, the UN Environment / MAP and the GEF decided to strengthen their partnership through the Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security. The MedProgramme, approved by the GEF Council in October 2016 and currently under development, promotes an overarching vision for change that generates a series of interconnected projects and activities: "A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations".

Through the joining of forces of UN Environment, three GEF focal areas and of numerous partners including UN agencies, development banks, NGOs and others under the leadership of UN Environment/MAP, the MedProgramme is expected to achieve large-scale impacts in terms of improved livelihood and health of coastal populations, water security, and sustainability of marine and coastal ecosystem services.

Appendix: some Aichi targets related to marine and coastal biodiversity

Target 6: By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7: By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Target 11: By 2020, at least 17 per cent of terrestrial and inland-water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape.

Annex 3: Principles in RFMO and Agreements

Inclusion of Principles in RFMO/As

1. Respect for the (rule of) law of the sea;
2. Protect and preserve the environment
3. Duty to cooperate
4. Science-based approach
5. Precautionary approach
6. Ecosystem-based approach
7. Sustainable and equitable use
8. Public availability of information
9. Transparent and open decision-making
10. Stewardship of the environment

	1	2	3	4	5	6	7	8	9	10
CECAF	?		+	+					?	
SWIOFC	?		+	+					?	
WECAFC	?		+	+	+	+		+	?	
APFIC	?	?	+	+				+	?	
GFCM	?	?	+	+	+	+	+	+	?	
IOTC	?		+	+			+	+	?	
RECOFI	?		+	+	+				?	
CCAMLR	?	?	+	+	?	+	+	+	?	
CCSBT	?		+	?					?	
NAFO	?	+	+	+	+	+	+	+	?	
NEAFC	?	?	+	+	+	+	+	+	?+	
SEAFO	?		+	+	+	+	+	+	?	
SRFC	?		+		+	+			?	
ICCAT	?		+	+				+	?	
SIOFA	?	+	+	+	+	+	+	+	?	
NPAFC	?		+	+				+	?	
NPFC	?	+	+	+	+	+	+	+	?	
WCPFC	?	+	+	+	+	+	+	+	?	
SPRFMO	?	+	+	+	+	+	+	+	?	
	1	2	3	4	5	6	7	8	9	10

From Richard Barnes, 'UNCLOS Implementation Agreement and Fisheries Law', BIICL Conference/Book Launch Law of the Sea: UNCLOS as a Living Instrument (J Barrett and R Barnes eds.) BIICL, 2017

Annex 4: SDG Goal 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 Index of coastal eutrophication and floating plastic debris density
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	14.4.1 Proportion of fish stocks within biologically sustainable levels
14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine areas
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing

14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries
14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	14.a.1 Proportion of total research budget allocated to research in the field of marine technology
14.b Provide access for small-scale artisanal fishers to marine resources and markets	14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries
14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want”	14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources