

**REPORT OF NATIONAL WORKSHOP TO SUPPORT THE
REPUBLIC OF GHANA TO DOMESTICATE CONTINENTAL
AND INTERNATIONAL INSTRUMENTS RELATING TO
AQUATIC BIODIVERSITY CONSERVATION, CLIMATE CHANGE
ADAPTATION AND MITIGATION AND ENVIRONMENTAL
MANAGEMENT**



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Requests for such permission should be addressed to:

The Director
African Union – Inter African Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park, Museum Hill, Westlands Road
P.O. Box 30786-00100, Nairobi, KENYA
Or by e-mail to : ibar.office@au-ibar.org
Published by AU-IBAR, Nairobi, Kenya

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Executive Summary

AU-IBAR with support from the Swedish International Development Cooperation Agency (SIDA), implemented a 3-year project on “Conserving Aquatic Biodiversity in African Blue Economy”. The project sort to support African Union Member States to ratify, domesticate and implement Regional and Global Instruments that are key to the conservation of aquatic biodiversity, climate change mitigation and adaptation. The Republic of Ghana was selected as one of the beneficial Countries.

AU-IBAR organised a National Workshop to support Ghana to conduct an analysis of the country’s status of ratification, domestication and implementation of Global Instruments relating to aquatic biodiversity conservation, climate change adaptation and mitigation and environmental management. The workshop was held on 18th-19th June, 2024 at Alisa Hotel, North Ridge, Accra. At the workshop participants from various sector ministries and agencies reviewed national legislations and Policies and their alignments to Multi Environmental Agreements (MEA) that Ghana is a signatory to, with reference to aquatic biodiversity conservation, climate change adaptation and mitigation and environmental management.

Findings showed that Ghana has achieved notable advancements in establishing National policies and legal structures in key sectors like environment, fisheries, energy, and water resources management, that align closely with both Continental and Global standards. Examples of key International Agreements that Ghana has signed include; the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, the Ramsar Convention on Wetlands of International Importance, especially Waterfowl Habitats, United Nations Convention on the Law of the Sea, The International Convention for the Control and Management of Ships’ Ballast Water and Sediments, International Convention for the Prevention of Pollution from Ships, the Convention on Fishing and Conservation of the Living Resources of the High Seas, and the Food and Agriculture Organization (FAO) Agreement on Port State Measures among many others. Over the years, Ghana has demonstrated a strong commitment to aquatic biodiversity conservation, climate change mitigation and adaptation, and environmental management in that, the Country’s National Policies and plans, such as the National Biodiversity Strategy and Action Plan, the National Climate Change Policy; the Fisheries and Aquaculture Policies, the National Wetlands Conservation Strategy, the National Plan of Action for Illegal, Unreported, and Unregulated Fishing have been influenced by these commitments.

The assessment identified interconnected gaps in Ghana’s efforts to conserve aquatic biodiversity and align with Global Environmental Conventions and Multilateral Environmental Agreements (MEAs). Inadequate capacity and knowledge deficits, and weak enforcement undermine the effectiveness of implementing Global environmental Treaties resulting in gaps in compliance with MEAs. Also, inadequate funding, insufficient public awareness, and inadequate research and monitoring limit the ability to implement and sustain sector-specific Policies and action plans critical for meeting international obligations.

Recommendations to further improve Ghana’s ability to conserve aquatic biodiversity, manage the environment and meet its International commitments include enhancing capacity building of personnel and experts, increasing funding and resource allocation, increasing research and monitoring that would result in capacity-building initiatives and ensuring Policy implementations are adequately supported.

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Acronyms and Abbreviations

AU	African Union
AU-IBAR	African Union Inter African Bureau for Animal Resources
BNARI	Biotechnology and Nuclear Agriculture Resaerch Institution
CERGIS	Centre for Remote Sensing and Geographic Information Services
CITIES	Convention on International Trade in Endergered Apecies in Wild Fauna and Flora
CMS	Convention on Migratory Species
CSIR	Council for Scientific and Industrial Research
CSOs	Civil Society Organizations
CWSA	Community Water and Sanitation Agency
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organisation
FC	Forestry Commission
FC	Fisheries Commission
FCWC	Fisheries Committee for West Central Gulf of Guinea
FORIG	Forestry Research Institute of Ghana
GAEC	Ghana Atomic Energy Commission
GIDA	Ghana Irrigation Development Authority
GMA	Ghana Maritime Authority
GNPC	Ghana National Petroleum Corporation
GPHA	Ghana Ports and Harbours Authority
GRA-CD	Ghana Revenue Authority - Customs Division
GWCL	Ghana Water Company Limited
IMO	International Maritime Organization
LME	Large Marine Ecosystems
LMEs	Large Marine Ecosystems
LUSPA	Land Use and Spatial Planning Authority
MEAs	Multi Environmental Agreements
MESTI	Ministry of Environment, Science, Technology and Innovation
MLGDRD	Ministry of Local Government and Rural Development
MLNR	Ministry of Lands and Natural Resources
MMDAs	Metropolitan, Municipal And District Assemblies
MoFA	Ministry of Food and Agriculture
MoFAD	Ministry of Fisheries and Aquaculture Development
MoGCSP	Ministry of Gender, Children and Social Protection
MoTI	Ministry of Trade and Industry
MSWR	Ministry of Sanitation and Water Resources
NADMO	National Diasater Management Organisation
NBA	National Biosaftey Authority
NBSAP	National Biodiversity Strategy and Action Plan
NDPC	National Development Planning Commission
NGOs	Non-Governemntal Organisations
NISSAP	National Invasive Species Strategy and Action Plan
NPA	National Petroleum Authority

PPRSD	Plant Protection and Regulatory Services Directorate of MoFA
RMU	Regional Maritime University
SEA	Strategic Environmental Assessment
SIDA	Swedish International Development Cooperation Agency
VBA	Volta River Basin Authority
VRA	Volta River Authority
VSD	Veterinary Services Directorate of MoFA
WD	Wildlife Division
WRC	Water Resources Commission
WRI	Water Research Institute

Acknowledgements the Director of AU-IBAR:

The Director of AU-IBAR wishes to acknowledge the consultancy services by Ms. Peace Dziejzom Gbeckor-Kove who prepared the Report on Alignment and domestication of relevant Global Instruments related to aquatic biodiversity conservation, climate change mitigation, adaptation and environmental management for the the Republic of Ghana. The Director also extends appreciation to stakeholders from (Ministries, Departments and Agencies of the Republic of Ghana, Academic and Research institutions and experts who contributed immensely to improving the quality of this report during the National stakeholders' validation workshop.

Also, the Director of AU-IBAR would like to express profound gratitude to Hon. Ophelia Mensah Hayford, Minister of Environment, Science, Technology and Innovation (MESTI), for her leadership, personal involvement and dedication, the personnel of Environment Directorate of (MESTI) for organizing and coordinating the National workshop.

Acknowledgments by the Government of Ghana

The Government of Ghana through the leadership of the Ministry of Environment, Science, Technology and Innovation would like to acknowledge the Swedish International Development Cooperation Agency (SIDA) for providing the necessary funding support to AU-IBAR to facilitate this essential task across selected AU Member States. In addition, gratitude goes to Dr. Huyam Salih, The Director of AU-IBAR, Dr. Mohamed Seisay and staff of AU-IBAR for facilitating the review process.

Also, the Government of Ghana is grateful to all persons and all stakeholders whose names have not been mentioned but however contributed to the successful development of this National workshop report on review of National Policy frameworks related to aquatic biodiversity and ecosystems conservation and domestication of Global Instruments relevant to aquatic biodiversity conservation and environmental management to the National Policies and Regulatory Frameworks.

The Ministry of Environment, Science, Technology and Innovation of the Government of Ghana is thankful to the Ministry of Lands and Natural Resources, the Ministry of Fisheries and Aquaculture Development, the Office of the Attorney General and the Ministry of Justice, the Ministry of Sanitation and Water Resources, the Ministry of Tourism Arts and Culture, the Ministry of Gender, Children and Social Protection, the Ministry of Energy, the Ministry of Transport, Environmental Protection Agency, Fisheries Commission, Ghana Maritime Authority, Land Use and Spatial Planning Authority, Coastal Development Authority, SDG Office of Office of the President, and Wildlife Division of the Forestry Commission for their collaboration and inputs during this assessment.

Photo credit: A section of the Volta Lake in the Eastern. Region of Ghana – Environmental Protection Agency, Ghana.

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I. Introduction

1.1 Background

The African Union Inter-African Bureau for Animal Resources (AU-IBAR), is a specialized technical office of the Department of Agriculture, Rural Development, Blue Economy and Sustainable Environment (DARBE) of the African Union Commission (AUC). AU-IBAR is mandated to support and coordinate the utilization of livestock, fisheries, aquaculture and wildlife as resources for both human wellbeing and economic development in the African Union Member States (AU-MS).

The Vision of the AU-IBAR in the Strategic Plan 2018-2023 is an Africa in which animal resources contribute significantly to integration, prosperity and peace. AU-IBAR's intervention in the fisheries, aquaculture and other Blue Economy Sector is guided by the Policy Framework and Reform Strategy for fisheries and aquaculture in Africa (PFRS) and the African Blue Economy Strategy (ABES), both of which aim at socio-economic transformation of Africa, underpinned by increased sustainable contribution to food security, livelihoods and wealth creation within the framework of the African Union Agenda 2063.

The African Continent is adjacent to highly productive marine ecosystems including the seven African Large Marine Ecosystems (LMEs) viz., Agulhas Current LME, Benguela Current LME, Guinea Current LME, Canary Current LME, Mediterranean Sea LME, Red Sea LME and Somali Current LME. The Continent is also endowed with networks of freshwater Rivers and Lakes. The Seas, Oceans, Lakes and Rivers inhabit a significant number of biodiversity, and the ecosystems provide sources of livelihoods, food security and wealth. The African aquatic ecosystems inhabit living and non-living resources. However, the unsustainable exploitation of these resources is threatening biodiversity, natural resources and environmental sustainability.

Several factors are threatening aquatic biodiversity in Africa's aquatic ecosystems. These include over-exploitation of living species, pollution from several sources (land-based municipal and agricultural activities), uncontrolled introduction of exotic species in aquaculture systems, and untreated effluents from manufacturing activities. Other aquatic biodiversity threats include poorly or unplanned urban development and resource-based industries, such as illegal mining, coastal tourism activities, and coastal infrastructure development that destroy or reduce natural habitats. In addition, erosion, sedimentation and erosion, and climate change also pose threats to aquatic biodiversity.

The highest political organ of the African Union endorsed the African Blue Economy Strategy (ABES) aimed at addressing some of these challenges and for the AU-Member States to sustainably harness the resources of aquatic ecosystems. The ABES envisioned an inclusive and sustainable Blue Economy that significantly contributes to Africa's transformation and growth. The Strategy incorporates key critical vectors for promoting Blue Economy development of the Continent, including fisheries, aquaculture and ecosystem biodiversity conservation; shipping, maritime safety and trade; climate change mitigation and environmental sustainability and ecotourism; sustainable energy and extractive mineral resources; governance, institutions and job creation.

The objective of the ABES is to guide the development of an inclusive and sustainable Blue Economy that becomes a significant contributor to Continental transformation and growth, through advancing knowledge on marine and aquatic biotechnology, environmental sustainability, marine ecosystem utilization, conservation and carbon sequestration, the growth of an Africa-wide shipping industry, the development of Sea, River and Lake transport, the management of fishing activities on these water bodies, and the exploitation and beneficiation of deep Sea mineral and other marine resources.

The ABES is consolidated based on the following five thematic technical areas:

1. Fisheries, aquaculture, conservation and sustainable aquatic ecosystems;
2. Shipping/ transportation, trade, ports, maritime security, safety and enforcement;
3. Coastal and maritime tourism, climate change, resilience; marine ecosystem, environment, infrastructure;
4. Sustainable energy and mineral resources and innovative industries; and,
5. Policies, Institutional and governance; employment, job creation and poverty eradication, innovative financing.

Accordingly, AU-IBAR with support from the Swedish International Development Cooperation Agency (SIDA), is implementing a 3-year project on “Conserving Aquatic Biodiversity in African Blue Economy” whose overall objective is to enhance the Policy environment, Regulatory Frameworks and Institutional capacities of AU-Member States and Regional Economic Communities to sustainably utilize and conserve aquatic biodiversity and ecosystems.

The specific objectives of the project are as follows:

- a) To provide support to AU-MS to ratify and/or align relevant International/ Regional Instruments related to Blue Economy themes (with specific reference to protecting and conserving biodiversity);
- b) Optimizing conservation and sustainable use of biodiversity while minimizing conflicts among Blue Economy sub-themes;
- c) Strengthening measures for mitigating the negative impacts of coastal and marine tourism, oil, gas, deep Sea mining and climate change on aquatic biodiversity and environment; and,
- d) Strengthening gender inclusivity in aquatic biodiversity conservation and environmental management.

In line with the provisions of the project, AU-IBAR commissioned a consultancy to assess relevant Continental and Global biodiversity and environmental Instruments and develop priority actions for their enhanced ratification and implementation.

The studies have been completed and the report validated. The next stage in the process under the Biodiversity Project is to support selected AU-MS to review National Policies, Regulatory Frameworks and align the National Instruments with relevant Continental and Global biodiversity conservation and environmental management Instruments.

The Republic of Ghana was selected to be supported in West Africa due to the necessity to conserve the vast nature of aquatic ecosystems and biodiversity therein and also, the oil and gas exploration and development as well as other development activities including developments in agriculture in Ghana.

1.2 Objectives

The objective of this consultancy is to engage a National Consultant to undertake a review of the National Policies and Regulatory Frameworks of the Republic of Ghana for coherence with relevant Continental and Global biodiversity and environmental management Instruments.

Specific tasks for this consultancy will include but not be limited to:

- Liaise with relevant personnel at AU-IBAR for detailed briefings on the tasks;
- Conduct extensive reading to digest the consultancy report;
- Identify, source and review relevant National Regulatory and Policy related documents in National Ministries, Departments, and Agencies responsible for environmental management and aquatic biodiversity conservation;
- Identify gaps in the National Instruments based on the provisions of the prioritized Global Instruments on conservation of aquatic biodiversity and environment management;
- Develop guidelines or mechanisms for filling the identified gaps for domestication of prioritized Global Instruments on conservation of aquatic biodiversity and environmental management into identified National Instruments relating to aquatic biodiversity conservation and environment management;
- Facilitate a National level workshop to validate the reviewed relevant National Instruments and the guidelines to facilitate domestication of relevant Global Instruments; and,
- Develop a comprehensive report on the outcome of the consultancy and the workshop.

Expected Outputs:

- i. Relevant MDAs with mandates in aquatic biodiversity conservation and environmental management identified and consulted;
- ii. Relevant National Instruments relating to aquatic biodiversity conservation and environmental management identified;
- iii. Relevant National Instruments reviewed and gaps identified in line with the provisions of the prioritized Global Instruments identified in the consultancy report;
- iv. Priority actions and guidelines developed for filling the identified gaps for domestication of Global Instruments on conservation of aquatic biodiversity and environment management into National Instruments;
- v. National workshop conducted and supported; and,
- vi. A Comprehensive technical report on the consultancy and the workshop report developed.

1.3 National Consultation

The prioritized sectors for the National Stakeholders meeting included: Environment, Fisheries, Maritime and Tourism. The meeting was attended by over twenty-eight (28) participants representing the Ministry of Environment, Science, Technology and Innovation, the Ministry of Lands and Natural Resources, the Ministry of Fisheries and Aquaculture Development, the Office of the Attorney General and the Ministry of Justice, the Ministry of Sanitation and Water Resources, the Ministry of Tourism Arts and Culture, the Ministry of Gender, Children and Social Protection, the Ministry of Energy, the Ministry of Transport, Environmental Protection Agency, Fisheries Commission, Ghana Maritime Authority, Land Use and Spatial Planning Authority, Coastal Development Authority, SDG Office of Office of the President, and the Wildlife

Division of the Forestry Commission. The list of participants is attached to this report as Annex I.

1.4 Key Workshop Proceedings

1.4.1 Welcome Remark by The Director AU-IBAR - Dr. Huyam Salih

The welcome statement was delivered by Dr. Mohamed Seisay on behalf of the Dr. Huyam Salih. He welcomed all participants to the National workshop and informed participants that the workshop was organized by the African Union Inter African Bureau for Animal Resources (AU-IBAR) in collaboration with the Ministry of Environment, Science, Technology and Innovation (MESTI) Ghana, with support from the Swedish International Development Cooperation Agency (SIDA). He went on to express deep appreciation on behalf of Her Excellency the Commissioner for Agriculture, Rural Development, Blue Economy, and Sustainable Environment, Ambassador Josefa Sacko, to the Government and People of the Republic of Ghana for hosting the workshop and for their continual commitment to the AU Agenda 2063.

He further went on to acknowledge all delegates from various Ministries, Departments and Agencies, and the vital role that aquatic biodiversity plays in ensuring food security, livelihoods, and socio-economic development.

Dr. Seisay also highlighted the mandate of the African Union Inter-African Bureau for Animal Resources (AU-IBAR), their role in supporting the implementation of Africa's Blue Economy Strategy and the Blue Economy Sector, the significance of Africa's productive marine ecosystems and freshwater networks, emphasizing the need to harness opportunities from these aquatic ecosystems for socio-economic transformation as outlined in the AU Agenda 2063.

He also mentioned that Ghana had benefited from a number of AU-IBAR's initiatives, including collaboration with the International Union for Conservation of Nature (IUCN), the University of Cape Coast and the University of Ghana in building capacities in marine fisheries, Policy, governance, aquatic biodiversity conservation and ecosystems management. Additionally, AU-IBAR has provided training for women fish processors and traders network in the Country.

Dr. Seisay further emphasized the need to strengthen the capacity of African Union Member States to adhere to Global best practices in conserving aquatic biodiversity and environmental management. In line with this, AU-IBAR since 2023 under the SIDA-funded aquatic project, has supported eight African Countries. He concluded by saying that AU-IBAR's is to provide support to Ghana to align National Policies with Continental and Global Instruments by commissioning a consultancy to review the status of ratification, adoption, and implementation of identified Instruments related to aquatic biodiversity conservation, climate change mitigation and adaptation, and environmental management/sustainability.

In conclusion, Dr. Mohamed Seisay thanked the Hon. Minister, the Government and People of the Republic of Ghana, the facilitator, participants, and representatives from various Ministries, Departments and Agencies for their support and participation. The speaker wished everyone successful and fruitful deliberations.



Figure 1: Dr. Mohamed Seisay delivering the welcome statement on behalf of the Dr. Huyam Salih

1.4.2 Statement by the Hon. Ophelia Mensah Hayford, Minister of the Ministry of Environment, Science, Technology and Innovation (MESTI)

The National stakeholder workshop was officially opened by Hon. Ophelia Mensah Hayford, Minister of Ministry of Environment, Science, Technology and Innovation. In the statement, she expressed great pleasure in welcoming attendees to the National workshop. She emphasized that the attendees' presence highlighted their collective commitment to tackling environmental challenges both Nationally and Globally.

The Minister thanked the African Union Inter-African Bureau for Animal Resources (AU-IBAR) for the support extended to Ghana and acknowledged the technical representatives from various Ministries, Departments, and Agencies and stressed the significance of their participation, which underscored the importance of biodiversity and the benefits derived from natural resources for sustainable blue economy development in Ghana.

Hon. Mensah Hayford highlighted Ghana's proximity to the Guinea Current Large Marine Ecosystem and its rich freshwater ecosystems, which are inhabited by diverse living and non-living resources. The minister then cautioned against the unsustainable exploitation of these resources, which threatens biodiversity, natural resources, and environmental sustainability. She went on to highlight a number of threats to aquatic biodiversity and ecosystems, including overexploitation of species, pollution from various sources, introduction of exotic species in aquaculture systems, and effluent from mining activities. Additional threats she mentioned, included unplanned urban development, resource-based industries, air and water pollution, sedimentation, erosion, and climate change.

She further assured all present that the Government of Ghana, through the Ministry of Environment, Science, Technology, and Innovation, would strengthen Policy, Regulatory frameworks and institutional structures to effectively address these issues with reference to these threats. Hon. Ophelia Mensah Hayford acknowledged the timely support from the Government of Sweden and AU-IBAR in aligning National Instruments and

initiating processes to domesticate relevant Global Instruments related to aquatic biodiversity conservation, climate change mitigation and adaptation, and environmental management. In conclusion, she expressed sincere gratitude to AU-IBAR for their support in making the workshop possible and looked forward to fruitful deliberations and meaningful outcomes that would advance the environmental agenda.



Figure 2: Hon. Ophelia Mensah Hayford, Minister of the Ministry of Environment, Science, Technology and Innovation delivering her statement

1.5 Presentation of Objectives and Agenda of the Workshop

Mr. Eric Nadiope the Aquatic Biodiversity Conservation Policy, Legal and Institutional Expert at AU-IBAR presented the background and the objectives of the project Conservation of Aquatic Biodiversity in African Blue Economy. After which the agenda (See Annex 1) for the meeting was adopted after modification by all participants present.

1.6 National Workshop Approach

The workshop was a comprehensive session that consisted of a series of presentations followed by group work. After each presentation participants were given the opportunity for interaction. During the group work sessions, participants were tasked to review a list of Global Instruments and indicate their implementation status through National institutions' Policies and legislation. Following this, participants presented their findings to the entire group at plenary, and additional comments and suggestions were offered by representatives from other sectors.

Prof. Wilson Waiswa Mwanja and Dr. Seisay Monamed from the AU-IBAR technical team made presentations that provided valuable insights into the Blue Economy, the importance of sustainable marine and coastal resource management, challenges and opportunities, Policies and governance structures, innovative solutions and best practices, financing the Blue Economy and implementation roadmap. In addition, it was recommended that Member States should endeavour to:

- align National Policies with the AU Blue Economy Strategy,
- Strengthen transboundary cooperation for marine resource management,
- Build capacity by enhancing the technical skills and knowledge of stakeholders,
- Promote education and awareness programs on Blue Economy,
- Invest in research and development for sustainable Blue Economy practices,
- Encourage innovation in marine technology,
- Leverage international partnerships for funding,
- Develop financial instruments to support Blue Economy initiatives and
- Involve local communities in Blue Economy projects.

1.6.1 Overview of Ghana's National Instruments/Regulatory Frameworks

Miss. Peace Dziedzom Gbeckor-Kove presented on National Regulatory frameworks in Ghana. highlighted the various International Agreements aimed at environmental conservation, particularly for coastal and marine ecosystems that Ghana has signed and ratified, and how these have been domesticated into Policies and legislations for the sectors such as Environment, Fisheries, Wildlife, Forestry, Tourism, Transport, and Climate Change. In addition, she presented those that have been signed by the Country for which the ratification and implementation of some International Agreements are still pending, which requires further attention from responsible institutions. Her presentation set the motion for interactive dialogues, that allowed participants to delve deeper into specific sector National Instruments or Regulatory frameworks.

1.7 Ghana's National Regulatory and Policy Instruments

1.7.1 Location

Ghana is situated within the Gulf of Guinea in West Africa and lies within longitudes 3° 5' W and 1° 10' E and latitudes 4° 35' N and 11° N. Ghana has about 550 km of coastline, an extensive Exclusive Economic Zone (EEZ) of over 218,000 km² and a continental shelf area of around 23,700 km². Ghana is bordered by the Republic of Togo to the east, the Republic of Côte d'Ivoire to the west, the Gulf of Guinea to the South and Burkina Faso to the North (See Figure 3). The total land area of Ghana is 238, 533 km² with a population of 30.8 million (Ghana Statistical Services, 2021).

1.7.2 Water Resources

Ghana's water resources consist of both surface and groundwater sources. The Volta, South Western, and Coastal River systems are the three primary River systems that drain Ghana and provide the majority of the Country's surface water resources. The Volta system is made up of the Oti River, the Red, Black, and White Volta Rivers which drains more than one third of the entire Country. While the Bia, Tano, Ankobra, and Pra Rivers comprise the South-Western River System. The coastal River systems are made up of the Densu, Ayensu, Ochi-Nakwa, Ochi-Amissah, and Tordzie/Aka.

1.7.3 Fish Resources

There are 157 species, 73 families, and 28 families of freshwater fish in Ghana out of which Nine species are endemic to Ghana’s freshwater systems. About 121 species are found in the Volta system. An estimated 124 fish species from 62 genera and 26 families are found in the major Rivers Pra, Tano, Ankobra, and Todzie-Aka. About 392 marine species, or 347 fish species from 82 families, have been identified in marine and coastal waters.

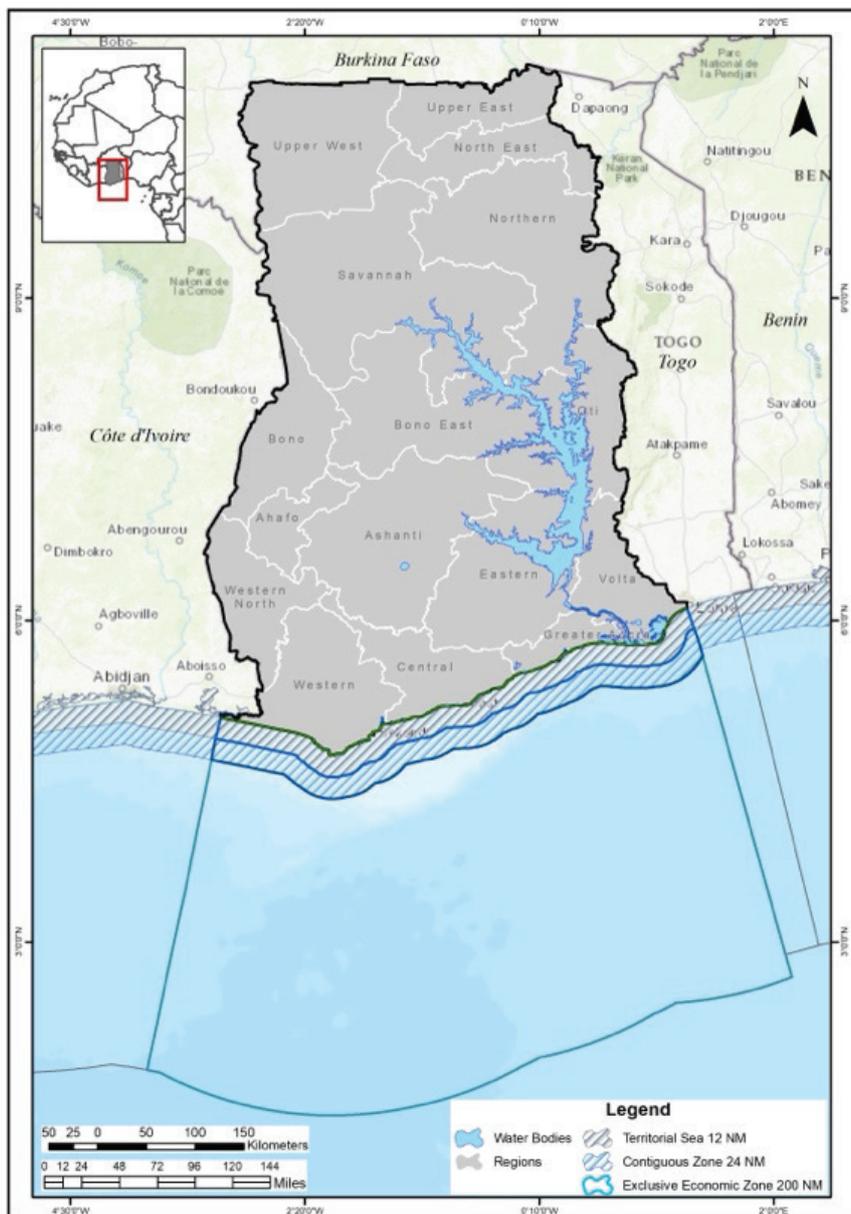


Figure 3: Map of Ghana showing the water bodies and the Exclusive Economic Zone of Ghana

2. Development Processes for Policy Strategies and Regulatory Frameworks for Conservation of Aquatic Biodiversity, Ecosystem and Environmental Management in Ghana

In Ghana, the process of development of Policy in general including that of aquatic biodiversity is guided by the National Public Policy Formulation Guidelines (National Development Planning Commission, 2020). The National Public Policy Formulation Guidelines aims at achieving the following:

- Standardising the public Policy development format.
- Streamlining public Policy formulation and approval process
- Strengthening coordination, harmonisation and implementation among key actors in Policy-making and
- Preventing overlaps duplications, conflicts and contradictions in public Policies.

The policy formulation process, led by the ministry responsible for the relevant sector, must ensure that the developed Policy exhibits the following features: futuristic, inclusive, multi-sectoral, evidence-based, informed by lessons learned, interactive, communicative, and incorporating evaluation and review functions. The process of Policy formulation is consultative in nature and involves all relevant stakeholders in the process. Figure 4 shows the key actors and institutions involved in the public Policy formulation in Ghana.

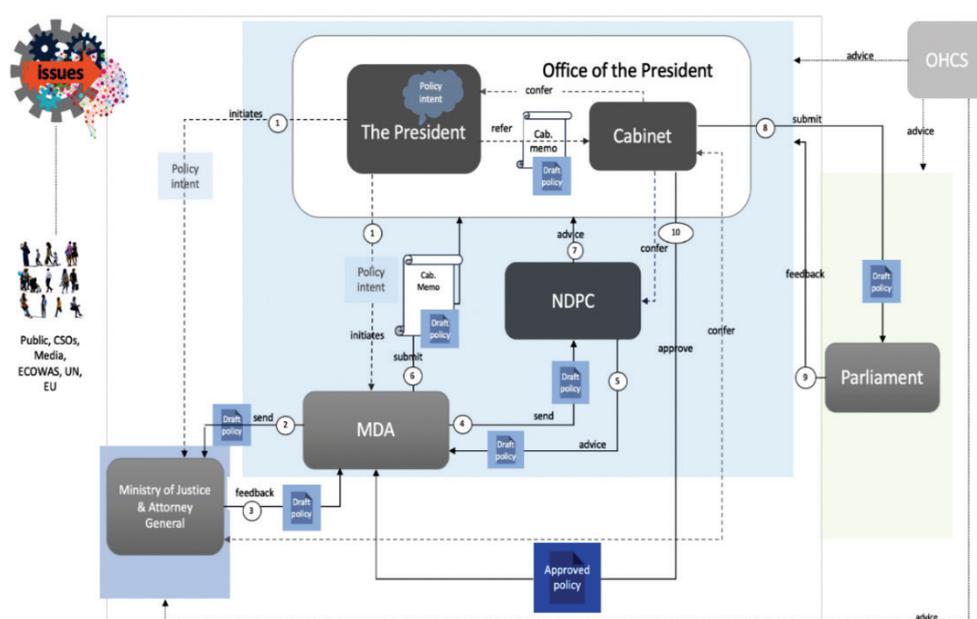


Figure 4: Key actors and institutions involved in the public Policy formulation in Ghana.

Source: (National Development Planning Commission, 2020).

2.1 Situational Analysis

The 1992 Constitution of Ghana, the legal foundation provides the broad Policy basis for the protection of human health and the environment. The pertinent sections are as follows:

- Article 36 (9):** The State shall take appropriate measures needed to protect and safeguard the National environment for posterity; and shall seek co-operation with other States and bodies for the purposes of protecting the wider International environment for mankind.
- Article 41 (k):** The exercise and enjoyment of rights and freedoms is inseparable from the performance of duties and obligations, and accordingly, it shall be the duty of every citizen to protect and safeguard the environment.

This report looks at International Agreements in various sectors such as environment, fisheries, water resources, tourism, and transport that Ghana is a signatory to with reference to aquatic biodiversity conservation, climate change mitigation and adaptation and environmental management. Management of aquatic biodiversity is multisectoral in Ghana. The main sectors and their Ministries with their respective agencies as follows:

2.1.1 Environment and Natural Resources Sector

The environment and natural resources sector is responsible for crucial Agreements like the Convention on Biological Diversity (ratified on 29th August, 1994), the United Nations Convention to Combat Desertification (ratified on 27th December, 1996), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (ratified on 12th February, 1976) and the Ramsar Convention on Wetlands (ratified on 24th July, 1989).

Institutions like the Ministry of Environment, Science, Technology and Innovation (MESTI) and the Ministry of Lands and Natural Resources play pivotal roles in managing and implementing these Agreements. Key Policies developed under these Agreements include the National Biodiversity Strategy and Action Plan, the National Climate Change Policy, and the National Wetlands Conservation Strategy.

2.1.2 Fisheries and Aquaculture Sector:

This fisheries and aquaculture sector is responsible for treaties such as the Convention on Fishing and Conservation of the Living Resources of the High Seas (ratified on 29th April, 1958) and the FAO Agreement on Port State Measures (ratified on 29th November, 2016). The execution of these Agreements is backed by measures like the National Plan of Action to address Illegal, Unreported, and Unregulated Fishing. Fisheries and aquaculture in the country are well-managed and developed. The Ministry of Fisheries and Aquaculture Development (MOFAD) serves as the focal institution, ensuring compliance and sustainable management of marine resources.

Other important Agreements include the International Convention for the Conservation of Atlantic Tunas (ratified on 17th April, 1968) and the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10th December, 1982 relating to the Conservation and Management of Straddling and Highly Migratory Fish Stocks (ratified on 27th January, 2017).

2.1.3 Water Resources Sector

A notable Agreement in the water resources sector is the Convention on the Law of the Non-Navigational Uses of International Water Courses (ratified on 21st May, 1997). The Water Resource Commission Act and the National Community Water and Sanitation Strategy are among the key Policies developed to support this Agreement. The Ministry of Sanitation and Water Resources (MSWR) oversees the implementation, along with supporting institutions like the Volta Basin Authority and Community Water and Sanitation Agency.

2.1.4 Tourism Sector

In tourism, the Convention Concerning the Protection of World Culture and Natural Heritage (ratified on 17th December, 1975) stands out as the main convention. Strategic management plans for all 28 UNESCO heritage sites are being developed. The National Cultural Policy and the Tourism Policy (currently being developed) aim to preserve and promote cultural heritage, with oversight from relevant governmental bodies such as Ghana Tourism Authority, Ghana Museums and Monuments Board, National Theatre of Ghana, National Commission on Culture, Ghana Tourism Development among many others.

2.1.5 Transport Sector

The transport sector Agreements include the International Convention for the Control and Management of Ships' Ballast Water and Sediments (ratified on 26th November, 2015) and the International Convention for the Prevention of Pollution from Ships (ratified on 3rd September, 1991). In addition, the International Convention for the Safety of Life at Sea (SOLAS) was ratified on 19th August, 1983, and the Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC Protocol) was ratified on 2nd July, 2010. Key strategies include the National Ballast Water Management Strategy and the Maritime Pollution Act of 2016. The Ghana Maritime Authority (GMA) is the focal institution, supported by various other Agencies, ensuring adherence to International maritime safety and environmental standards.

Overall, the ratification and implementation status of these Agreements highlight the country's commitment to International cooperation and sustainable development across multiple sectors. The number of Conventions ratified by Ghana reflects a proactive approach, while the pending and non-ratified Agreements indicate areas for potential improvement. Table I provides a detailed overview of Global Agreements related to environment, water, fisheries, tourism, wildlife and maritime sectors in Ghana.

Table I: List of Global Instruments and their status of ratification, domestication and implementation status

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
Environment	Convention on Biological Diversity	22 May, 1994	29 August, 1994	Yes	Yes	<ul style="list-style-type: none"> The Ministry of Environment, Science, Technology and Innovation is the focal Institution responsible for managing and reporting on the convention. National Biodiversity Strategy and Action Plan developed.
	Nagoya Protocol Access and Benefit Sharing	29 October, 2010 Entered into force on 12 October, 2014	Nov, 2019	Yes	Pending	<ul style="list-style-type: none"> "Informal Framework" is currently being used since, Ghana is yet to develop a specific legislation to regulate ABS. In the interim however, aspects of different biodiversity related laws are used to guide ABS implementation in the country.

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	United Nations Convention to Combat Desertification	17 June, 1994	15 October, 1994 27 December, 1996	Yes	Yes	<ul style="list-style-type: none"> EPA is the focal Institution National Action Programme, 2002 developed. National Drought Plan, 2020 developed Ghana Sustainable Investment Land Use Management developed.
	United Nations Framework Convention on Climate Change. (UNFCCC)	9 May, 1992	12 June, 1992/ 6 September, 1995	Yes	Yes	<ul style="list-style-type: none"> EPA/MESTI is the focal Institution responsible for managing and reporting on the convention. National Climate Change Policy developed. Nationally Determined Contribution Developed Carbon Market Framework developed.
	Ramsar Convention on Wetlands of International Importance, especially Waterfowl Habitats (Ramsar, Iran)	2 February, 1971	24 July, 1989	Yes	Yes	<ul style="list-style-type: none"> Lead: Ministry of Lands and Natural Resources (MLNR) and Agencies (Forestry Commission). Domesticated in the Wildlife Resources Management Act, 2023 (ACT 1115). 2012 Forest and Wildlife Policy of Ghana. Forestry Development Master Plan.
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	3 March, 1973	12 February, 1976	Yes	Yes	<ul style="list-style-type: none"> MLNR and Agencies (Forestry Commission) Domesticated in the Wildlife Resources Management Act, 2023 (ACT 1115) 2012 Forest and Wildlife Policy Ghana. Forestry Development Master Plan Memorandum of Understanding Concerning Measures for Marine Turtles of the Atlantic Coast of Africa
	United Nations Convention on the Law of the Sea (UNCLOS)	10 December, 1982	7 June, 1983	Yes		<ul style="list-style-type: none"> It has been passed into an Act of parliament as the Maritime Zones (Delimitation) Act, 1986, P.N.D.C. Law 159. Ghana Shipping Act, 2003 (Act 645) National Integrated Maritime Strategy

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	Agreement 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 (BBNJ Agreement)	19 June, 2023	20 September, 2023	No	No	<ul style="list-style-type: none"> MESTI with technical support from EPA is leading the ratification process.
	The Convention on Cooperation in the Protection, Management and Development of the Marine and Coastal Environment (Abidjan Convention)	Adopted in 23 March, 1981 Entry into force: 18 August, 1984	23 March, 1981 20 July, 1989	Yes	Yes	<ul style="list-style-type: none"> Protocol Concerning Cooperation in Combating Pollution in Cases of Emergency in the Western and Central African Region formed the bases for the development of the National Oil Spill Contingency for Ghana. Coastal Sensitivity Atlas developed. Integrated Coastal Zone Management Plan developed The ratification of the following protocols are ongoing <ul style="list-style-type: none"> Pointe Noire Protocol on Integrated Coastal Zone Management Calabar Protocol on Sustainable Mangrove Management Malabo Protocol Protocol on Environmental Norms And Standards for Offshore Oil and Gas Exploration and Exploitation Activities Grand Bassam Protocol concerning the Cooperation in the Protection and Development of the Marine and Coastal Environment from Land-Based Sources and the Activities (LBSA) in the Western, Central and Southern Africa Region

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	UNESCO Man and Biosphere Programme	NA	NA	Yes	Yes	<ul style="list-style-type: none"> The programme is implemented in 3 Biosphere Reserve i.e. Bia Conservation Area and UNESCO BR, Songor Ramsar Site and UNESCO BR, Lake Bosomtwe Biosphere Reserve
	Minamata Convention on Mercury	19 January, 2013	24 Sep, 2014/ 23 Mar, 2017	Yes	No	<ul style="list-style-type: none"> EPA is the focal institution and is responsible for the reporting and implementation. Environmental Protection Agency 1994, Act 490. Environmental Assessment Regulation, 1999, LI 1652. Hazardous And Electronic Waste Control and Management Act, 2016 (Act 917). Hazardous Electronic and Other Wastes (Classification), Control and Management Regulations 2016, LI 2250. Incorporated into sections in National Environment Policy
	Stockholm Convention	22 May, 2001	23 May, 2001/ 30 May, 2003	Yes	Yes	<ul style="list-style-type: none"> Hazardous And Electronic Waste Control and Management Act, 2016 (Act 917). Hazardous Electronic and Other Wastes (Classification), Control and Management Regulations 2016, LI 2250. Incorporated into sections in National Environment Policy
	Convention on the control of Transboundary Movement of Hazardous wastes and their disposal (Basal Convention)	22 March, 1989	30 May, 2003	Yes	Yes	<ul style="list-style-type: none"> Mercury Act, 1989, (PNDCL 217). Minerals and Mining Act, 2006, (ACT 703), As Amended Regulations under the Minerals and Mining Act, 2006 (Act 703). Minerals and Mining (General) Regulations, 2012 (L.I. 2173). Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176). Water Resources Commission Act, 1996 (Act 522). National Action Plan on the elimination on the use of the use of Mercury from artisanal and small-scale gold mining Ghana Mercury Phase Out Strategy. Regulations and Guidelines on Mercury Management.
	Rotterdam Convention	10 September, 1998	11 September, 1998/ 30 May, 2003	Yes	Yes	<ul style="list-style-type: none"> Mercury Act, 1989, (PNDCL 217). Minerals and Mining Act, 2006, (ACT 703), As Amended Regulations under the Minerals and Mining Act, 2006 (Act 703). Minerals and Mining (General) Regulations, 2012 (L.I. 2173). Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176). Water Resources Commission Act, 1996 (Act 522). National Action Plan on the elimination on the use of the use of Mercury from artisanal and small-scale gold mining Ghana Mercury Phase Out Strategy. Regulations and Guidelines on Mercury Management.

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
Fisheries and Aquaculture sector	Convention on Fishing and Conservation of the Living Resources of the High Seas – Geneva	29 April, 1958. Entry into force: 20 March, 1966	29 April, 1958	Yes		<ul style="list-style-type: none"> Ministry of Fisheries and Aquaculture Development (MOFAD) /Fisheries Commission (FC) is the focal Institution
	Protocol for the establishment and operation of a Regional Fisheries Monitoring, Control and Surveillance Centre to the Convention for the establishment of the Fishery Committee for the West Central Gulf of Guinea	Entry into force: 13 December, 2019	13 December, 2019	No	No	<ul style="list-style-type: none"> MOFAD /FC is the focal Institution
	International Convention for the Conservation of Atlantic Tunas	Entry into force: 21 March 1969	4 May 1966/ 17 April, 1968	Adopted	In enforce	<ul style="list-style-type: none"> MOFAD /FC is the focal Institution The Committee and the Monitoring center established.
	Ministerial Conference of Fisheries Cooperation among African States Bordering the Atlantic Ocean	5 July 1991 Entry into force: 2 April 2014	5 July, 1991 2 September, 2014	Yes	Yes	<ul style="list-style-type: none"> MOFAD /FC is the focal Institution National Fisheries Laws in alignment
	Food and Agriculture Organization (FAO) Agreement on Port State Measures (PSMA) to prevent, Deter and Eliminate III, Unreported and Unregulated Fisheries (IUU)	Drawn up in 2005. Approved on 22 November 2009 Entry into force: 5 June 2016	22 November, 2009/ 29 November, 2016	Yes		<ul style="list-style-type: none"> MOFAD /FC is the focal Institution Regional and National Fisheries Laws, Regulations and plans in alignment Establishment of Fisheries Committee for West Central Gulf of Guinea (FCWC)

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	International Plan of action against Illegal, Unreported and Unregulated Fishing (IPOA-IUU), 2001	2001	2001	Yes	Yes	<ul style="list-style-type: none"> • MOFAD/FC is the lead Institution • National Plan of Action to Prevent, Deter, and Eliminate, Illegal, Unregulated and Unreported Fishing, (NPOA – IUU, 2021 – 2025). • Inspection plans and protocols developed. • Incorporated in the 2024 Fisheries Regulations.
	Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993	29 Nov, 1993 Entry into force: 24 April, 2003	12 May, 2003	Yes	Yes	
	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 and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement)	4 August, 1995 Entry into force: 11 December, 2001	27 January, 2017	Yes	Yes	
	Convention on Fisheries Cooperation among African States bordering the Atlantic Ocean (COM-HAFAT), 1991	5 July, 1991		Yes	Yes	<ul style="list-style-type: none"> • MOFAD/FC is the lead Institution. • Incorporated in the 2022 Fisheries Management Plan of Ghana.

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	Convention for the Establishment of the Fishery Committee for the West Central Gulf of Guinea (FCWC)	2007	2007	Yes		
Water Resources	Convention on the Law of the Non-Navigational uses of International Water Courses 1997 (Water Courses Convention)	21 May, 1997	2 September, 2020 22 June, 2020 (by Accession)	Yes	Yes	<ul style="list-style-type: none"> Ministry of Sanitation and Water Resources is the lead institution. Water Resource Commission Act 1996, Act 522. National Water Policy. Volta Basin Authority. Volta Basin Charter Water Sector Strategic Development Plan
Tourism	Convention Concerning the Protection of World Culture And Natural Heritage	16 November, 1972	4 September, 1975	Yes	No	<ul style="list-style-type: none"> The National Cultural Policy is currently under review. Tourism Policy is being developed. Strategic Management Plans developed for all the 28 UNESCO heritage sites developed.
	Convention for the Protection of the Underwater Cultural Heritage	2 November, 2001	20 April, 2016	Yes	No	
	Convention for the Safeguard of Intangible Culture Heritage	17 October, 2003	20 January, 2016	Yes	No	
Transport	The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM), 2004	Entry into force: 8 September, 2017	13 February 2004 26 November, 2015 (Accession)	Yes	Yes	<ul style="list-style-type: none"> Ghana Maritime Authority (GMA) is the Lead Institution.

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/1978	17 February, 1978	Annexes I and II were ratified first on 3 September, 1991 and in 2010, Ghana ratified the remaining Annexes III to VI which came into force on 1 January, 2011/ 17 February, 1978	In the process	In the process (A Bill for "Ballast Water Management has been drafted and yet to be passed)	<ul style="list-style-type: none"> GMA is the focal institution.
	International Convention for Bunker Oil Pollution Damage	23 March, 2001	-	-	No	<ul style="list-style-type: none"> GMA is the focal institution Part One of the Maritime Pollution Act, 2016 (Act 932). The Shipboard Oil Pollution Emergency Plan developed.
	International Convention for the Safety of Life at Sea (SOLAS) 1974 and the SOLAS Protocol of 1978	1 November, 1974 Entry into force: 25 May, 1980	1 November, 1974/ 19 August, 1983	No	In the process	Ghana Maritime Security, Act 2004 (Act 675) Act 675 gave effect to chapter XI-2 of the International Convention for the safety of life at sea (1974 (SOLAS) as amended to enhance maritime security and create a legal framework for the effective compliance with the International Ship and Port Facility Code (ISPS) in Ghana, Ghana Maritime Security Act 2004 (Act 675) As Amended.
	International Convention relating to intervention on the High Seas in Cases of Oil Pollution Casualties, 1969	29 November, 1969	20 April, 1978	Yes	Yes	<ul style="list-style-type: none"> Ghana Shipping Act, 2003 (Act 645). National Integrated Maritime Strategy.
	Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (LC PROTOCOL), 1996	7 November, 1996 Entry into Force: 24 March, 2006	2 July, 2010	Yes		<ul style="list-style-type: none"> Maritime Pollution Act, 2016 (Act 932)

Sector	Global Instruments	Date of Agreement	Date of Signing/ Date of ratification	Ratification Status/	Domestication Status	Implementation Status
	Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships	15 May, 2009	2 August, 2010	Yes		<ul style="list-style-type: none"> Maritime Pollution Act, 2016 (Act 932)
	International Convention on Oil Pollution Preparedness, Response and Cooperation, (OPRC) 1990	Entry into force: 13 May, 1980	30 November, 1990/ 2 September, 2010	Yes		<ul style="list-style-type: none"> Chapter Eight of Maritime Pollution Act 2016, (Act 932) National Oil Spill Contingency Plan.

2.2 Regional/National Policies, regulations and institutions addressing aquatic biodiversity conservation, ecosystems and Environmental Management in Ghana

2.2.1 Ministry of Environment, Science, Technology, and Innovation (MESTI)

The Ministry of Environment, Science, Technology and Innovation (MESTI) is the Statutory institution responsible for the creation of the enabling Policy and legal regimes for the conservation and sustainable management of biodiversity. The Ministry coordinates and collaborates with other relevant institutions in the implementation of related Policies that deal with the environment in Ghana. The mandate of the Ministry includes protecting the environment through Policy formulation, scientific and technological interventions needed to mitigate the negative impacts on biodiversity. In addition, setting standards and regulating activities concerning the application of science and technology in the management of the environment for sustainable development.

To achieve this, the MESTI operates through the following Agencies:

- Council for Scientific and Industrial Research (CSIR)
- Environmental Protection Agency (EPA)
- Ghana Atomic Energy Commission
- National Biosafety Authority (NBA)
- Nuclear Regulatory Authority

Ministry of Environment, Science, Technology and Innovation is the focal Institution responsible for managing and reporting on the following Conventions:

- Convention on Biological Diversity
- Nagoya Protocol Access and Benefit Sharing
- United Nations Framework Convention on Climate Change (UNFCCC)

MESTI is the focal institution for the Convention on Biological Diversity in Ghana. The country signed the Convention in June, 1992 and ratified it in November, 1994. The domestication of this convention is through the National Environment Policy and National Biodiversity Strategy and Action. Since ratification, Ghana has completed the 6th National Report to the CBD (6NR).

Environmental Protection Agency (EPA)

The Environmental Protection Agency (EPA) per its Act, EPA Act 1994, (Act 490), regulates environmental matters and implements environmental Policy objectives that affect the environment and public health. The EPA's mandate is to protect and conserve the Country's environment, ensures compliance with the environmental assessment procedures and recommended standards (EIA, SEA), promotes relevant research, surveys and analyses, develops databases and publications as well as coordinate biodiversity education for public awareness. The Agency is also the focal Institution responsible for managing and reporting on the following Conventions:

- i. The Convention on Cooperation in the Protection, Management and Development of the Marine and Coastal Environment (Abidjan Convention);
- ii. Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention);
- iii. UNESCO Man and Biosphere Programme;
- iv. Minamata Convention on Mercury;
- v. Basal Convention;
- vi. Stocklom Convention; and,
- vii. Rotterdam Convention.

Table 2: Environment Sector Gaps, Policy objectives and collaborating institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
Convention on Biological Diversity (1992)	<ul style="list-style-type: none"> • National Environment Policy, 1994 	<ul style="list-style-type: none"> • Reversing the current insufficient commitment to environmental objectives, • Policies and interventions • Reversing rapid population growth, economic expansion, persisting poverty, poor • Governance and institutional weaknesses and failures • Improving quality and flow of information • Creating an understanding of the nature and causes of environmental problems • Establishing a clear definition of the national environmental agenda and its links • To economic growth and poverty reduction and weak legal, regulatory, financial, • Technical, human and institutional capacity • Mainstreaming international relations into the national environmental agenda • Improving the current environmental quality control programme by which prior • Environmental impact assessments of all new investments that would be deemed • To affect the quality of the environment are undertaken. • Taking appropriate measures, irrespective of existing levels of environmental • Pollution and extent of degradation to control pollution and the importation and • Use of potentially toxic chemicals. • Taking appropriate measures to protect critical ecosystems, including the flora and • Fauna they contain against destructive practices. 	<ul style="list-style-type: none"> • Inadequate capacity • Knowledge and Information Gap • Inadequate Funding to participating e in the convention processes and implementation of the convention and its protocol • Inability to Retain Experts • Complex Nature of Implementing MEAs in Ghana • Lack of Adequate Publicity on the Essence of the CBD • Weak collaboration 	<p>Lead: MESTI</p> <p>Supporting:</p> <ul style="list-style-type: none"> • MOFAD • EPA • CSIR • FC • Forestry Commission; FSD/WD/RMSC • MSWR • WRC • NDPC • Ministry of Finance • Ghana Statistical Services • MOFAD • FC • MOFA • GAEC • National Biosafety Authority • MLNR • MLGDRD • LUSPA • MMDAs • Lands Commission • Minerals Commissions • CSOs • Ghana Tourism Authority • Ministry of Transport • VRA • GMA • CODA • Ministry of Chieftaincy and Religious Affairs • GRA • Private Sector • Private Enterprise Federal (PEF) • FDA • GHPA • Civil Aviation • Research and Academia • NADMO • Office of Authority General and Ministry of Justice • Ministry of Trade • COCOABOA • Ministry of Education • Ministry of Foreign Affairs • Ministry Information • NCCE • Ministry of Gender and Children. Affairs • CSOs/NGOs

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
The Convention on Cooperation in the Protection, Management and Development of the Marine and Coastal Environment (Abidjan Convention)	<ul style="list-style-type: none"> National Environment Policy, 1994 		<ul style="list-style-type: none"> Inadequate funding to implement the relevant protocols under the convention Lack of a wholistic plan for marine and coastal zone management in Ghana. Inadequate capacity Ratification of the following: <ul style="list-style-type: none"> Pointe Noire Protocol on integrated coastal zone management Calabar Protocol on sustainable mangrove management Malabo Protocol on environmental norms and standards for offshore oil and gas exploration and exploitation activities Grand Bassam Protocol concerning the Cooperation in the Protection and Development of the Marine and Coastal Environment from Land-Based Sources and the Activities (LBSA) in the Western, Central and Southern Africa Region 	<p>Lead: EPA</p> <p>Supporting:</p> <ul style="list-style-type: none"> MESTI MOFAD Ministry of Lands & Natural Resources National Development Planning Commission Water Resource Commission Fisheries Commission Wildlife Division – Forestry Commission Acadermia GHPA Ghana Police Ghana Navy NGOs GMA CSIR Ministry of Foreign Affairs Traditional Authority GNPC PC Ghana National Association of Farmers and Fishermen Volta River Authority

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
	National Biodiversity Strategy and Action Plan (NBSAP)	<ul style="list-style-type: none"> To address the underlying causes of biodiversity loss by mainstreaming biodiversity into all sectors of government and society programmes; To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; To enhance the benefits of biodiversity to all sectors of the economy; To enhance implementation of national biodiversity action plan through participatory planning, knowledge management and capacity building. 	<ul style="list-style-type: none"> Inadequate capacity Knowledge and Information Gap Inadequate Funding to participating e in the convention processes and implementation of the convention and its protocol Inability to Retain Experts Complex Nature of Implementing MEAs in Ghana Lack of Adequate Publicity on the Essence of the CBD <p>Weak collaboration</p>	<p>Lead: MESTI</p> <p>Supporting:</p> <ul style="list-style-type: none"> MOFAD EPA CSIR FC Forestry Commission; FSD/WD/RMSC MSWR WRC NDPC Ministry of Finance Ghana Statistical Services MOFAD FC MOFA GAEC National Biosafety Authority MLNR MLGDRD LUSPA MMDAs Lands Commission Minerals Commissions CSOs Ghana Tourism Authority Ministry of Transport VRA GMA CODA Ministry of Chieftaincy and Religious Affairs GRA Private Sector Private Enterprise Federal (PEF) Food and Drugs Authority (FDA) GHPA Civil Aviation Research and Academia NADMO Office of Authority General and Ministry of Justice Ministry of Trade Ghana Cocoa Board Ministry of Education Ministry of Foreign Affairs Ministry Information NCCE Ministry of Gender and Children Affairs CSOs/NGOs
Nagoya Protocol Access and Benefit Sharing (ABS)	National Biodiversity Strategy and Action Plan (NBSAP)		<ul style="list-style-type: none"> Specific regulation to back the process of benefit sharing Ghana is yet to develop a specific legislation to regulate ABS. In the interim, however, aspects of different biodiversity-related laws are used to guide ABS implementation in the country. 	<ul style="list-style-type: none"> MESTI EPA MoFA MoH WRC MoFAD MNLR Research and Academia Traditional Authorities & Communities

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
UNESCO Man and Biosphere Programme	Ghana Action Plan (2018-2025)	<ul style="list-style-type: none"> • Aims at domesticating and operationalizing the Lima Action Plan at the local level. • Is to serve as a national strategy linked to sustainable development goals. • Priority areas include Capacity building, applied research, sustainable financing/investment, partnerships and communication 	<ul style="list-style-type: none"> • Inadequate funding • No legal backing, implementation is based on other existing laws • Research and monitoring 	<p>Lead: Environmental Protection Agency.</p> <p>Supporting:</p> <ul style="list-style-type: none"> • MESTI • Forestry Commission • University of Ghana • University of Energy and Natural Resources • Kwame Nkrumah University of Science and Technology • University of Cape Coast • University for Development Studies
	Handbook for Mainstreaming Biosphere Reserve Concept into Development Planning in Ghana.	<ul style="list-style-type: none"> • Promote conservation through sustainable use of natural resources on the site • Improve restoration efforts and enhancement of ecosystem services; and • Promote sustainable development, and capacity building, provide support for climate change mitigation and adaptation, and other aspects of global climate change 		<ul style="list-style-type: none"> • National Development Planning Commission • Ministry of Foreign Affairs • Ghana National Commission for UNESCO • Ministry of Tourism • Water Resources Commission • Forestry Research Institute of Ghana • Managers of the Biosphere Reserves • Council for Scientific and Industrial Research • MESTI • WD-FC • MMDA • Traditional Authority • WRC • NDPC • CSIR • University of Ghana • University of Cape Coast • Kwame Nkrumah University of Science and Technology • Ghana Wildlife Society

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
	National Invasive Species Strategy and Action Plan (NISSAP) for Ghana (2020 -2030)	<ul style="list-style-type: none"> • To institute measures to ensure prevention, early detection and rapid response to Invasive Species to minimise the number of invasions and their harmful consequences once introduced. • To improve control and Management of Invasive species to contain the spread and population of invasive species in Ghana to the long term • Capacity development and education to make available species management in the country. • To promote information management and research • To create public awareness and engagement. • To strengthen national policy, legal and institutional frameworks • To collaborate and cooperate with regional and international bodies to ensure harmonised and coordinated actions and effective dissemination of information on invasive species. • To provide timely and adequate resources for the management of invasive species. 	<ul style="list-style-type: none"> • Inadequate Funding • Inadequate capacity • Knowledge and Information Gap • Inadequate Funding for implementation • Need to update the NISSAP to incorporate the Global Biodiversity Framework Target 6 • Adequate Publicity on the Essence of the CBD • Weak/Inadequate collaboration 	<p>Lead: Environmental Protection Agency (EPA).</p> <p>Supporting:</p> <ul style="list-style-type: none"> • MESTI • MoFAD • MLNR • MLGRD • PPRSD • VSD • GRA – CD • FC • FC • GMA • MoTI • NBA • WRC, • GIDA • VRA • CSRI • BNARI • Universities • MMDAs • GAEC • NADMO • Private sector • MoFA • FORIG • CERGIS • NDPC

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
Minamata Convention on Mercury,	National Action Plan to Reduce and Where Feasible Eliminate Mercury use in Artisanal and Small-Scale Gold Mining in Ghana, 2020	<ul style="list-style-type: none"> Develop and promote the use of mercury-free alternatives that are cost-effective, efficient and available; Reduce the risk of exposure of vulnerable populations and populations with high risk of exposure to mercury; Minimize mercury emissions and releases to the environment; and Strengthen health systems to detect, treat and manage mercury-related health 	<ul style="list-style-type: none"> Current national legislation does not cover the entire life cycle management of chemicals. (including waste). Legislation is required, to regulate production, import/export, storage, trade, transport, application and recycling/ reuse of industrial and consumer chemicals in view of possible risks to public health and the environment; 	<p>Lead: Environmental Protection Agency (EPA)</p> <p>Supporting:</p> <ul style="list-style-type: none"> Minerals Commission Water Resources Commission Ghana Geological Survey Authority Precious Minerals Marketing Company Ghana Revenue Authority
Stockholm Convention on Persistent Organic Pollutants (POPs), Rotterdam Convention on Prior Informed Consent (PIC) Procedure of certain Pesticides and Chemicals in International Trade	Sound Management of Chemicals and Waste in Ghana Strategic Plan (2021 -2030)	<ul style="list-style-type: none"> Identify, implement and enforce measures to prevent, or where not feasible, minimise harm from chemicals throughout their life cycle including waste; Generate relevant data and information and make data available and accessible to all stakeholders to enable informed decisions and actions; Identify and prioritise emerging issues of national and international concern and address them through national, regional, and international actions; Promote sustainable consumption and production through the use of safer alternatives and innovative solutions to prevent or minimise risk to human health and the environment; Identify and mobilise adequate and sustainable financial and non-financial resources as essential elements to achieving sound management of chemicals and waste; and Mainstream and integrate sound management of chemicals and waste into the national development agenda as an essential element for attaining the 2030 Agenda for Sustainable Development. 	<ul style="list-style-type: none"> Implement Ghana's obligations under the UN Convention on Prohibition of the Development, Reduction, Stockpiling and use of Chemical Weapons and their Destruction; and Fully implement Ghana's obligations under the chemicals and waste related MEAs 	<p>Lead: Environmental Protection Agency (EPA)</p> <p>Supporting:</p> <ul style="list-style-type: none"> Ghana Chamber of Mines Ghana Private Road Transport Union Judiciary Services of Ghana Ministry of Defence (Ghana Armed Forces, Ghana Navy) Ministry of Education (Ghana Education Service, Universities) Ministry of Education (Universities) Ministry of Employment and Labour Relations (Department of Factories Inspectorate) Ministry of Energy (Energy Commission, Ghana National Petroleum Corporation, Electricity Company of Ghana, Volta River Authority) Ministry of Environment Science, Technology, and Innovation (Council for Scientific and Industrial Research, Ghana Atomic Energy Commission) Ministry of Finance Ministry of Finance (Ghana Revenue Authority-Customs Division) Ministry of Food and Agriculture (Cocoa Health Division-COCOBOD, Cocoa Research Institute of Ghana, Plant Protection and Regulatory Services Directorate, Veterinary Service Directorate, Plant Protection and Regulatory Services Directorate) Ministry of Foreign Affairs and Regional Integration Ministry of Gender, Children & Social Protection (Department of Gender, Department of Children) Ministry of Health (Food and Drugs Authority, Pharmacy Council, Ghana Health Service) Ministry of Interior (Ghana Police Service, Ghana Immigration Service, Narcotics Control Authority) Ministry of Justice and the Office of the Attorney General (including Legal Aid)
Basal Convention			<ul style="list-style-type: none"> Inadequate Technical capacity Inadequate storage facility for hazardous waste prior to final disposal Updating the National Inventory on hazardous waste 	

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
				<ul style="list-style-type: none"> • Ministry of Lands and Natural Resources (Forestry Commission, Minerals Commission) • Ministry of Local Government and Rural Development (Metropolitan, Municipal and District Assemblies) • Ministry of Railways Development (Ghana Railway Company Limited) • Ministry of Sanitation and Water Resources (Ghana Water Company Limited) • Ministry of Trade and Industry (Ghana Standards Authority, Ghana Enterprises Agency, Association of Ghana Industries) • Ministry of Transport (Ghana Ports and Harbours Authority)
	National Plastics Management Policy, 2020	<ul style="list-style-type: none"> • Promote awareness creation and public education. • Build capacity for sustainable plastics management. • Enhance the adoption of innovative technologies to deal with plastics. • Identify innovative sources of financing for plastics management. • Promote effective Institutional Coordination, good governance and inclusiveness for effective plastics management. • Progressively reduce and phase out some categories of plastics 	<ul style="list-style-type: none"> • Creating of linkage between producers and users - Promotion for products manufactured from recycled plastics • Strengthen institutional coordination • Research 	<p>Lead: MESTI</p> <p>Supporting:</p> <ul style="list-style-type: none"> • EPA • MSWR • CSIR • Ghana Recycling Initiative by Private Enterprises (GRIPE) • Association of Ghana Industries (AGI) • MoFAD • Fisheries Commission • Forestry Commission; FSD/WD/RMSC • WRC • NDPC • Ministry of Finance • Ghana Statistical Services • MOFA • GAEC • MLNR • LUSPA • MMDAs • Ghana Tourism Authority • Ministry of Transport • CODA • Mins of chieftaincy and religious Affairs • GRA • FDA • GHPA • Research and Academia • NADMO • Office of Authority General and Ministry of Justice • Ministry of Trade • Ministry of Education • Ministry of Foreign Affairs • Ministry Information • NCCE • Ministry of Gender and Children Affairs • CSOs/NGOs

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
United Nations Convention to Combat Desertification (1994)	National Action Programme, 2002	<ul style="list-style-type: none"> To help Ghana build its capacity in drought resilience through concrete actions for drought preparedness. It will help boost the resilience of people, communities and ecosystems against drought 	<ul style="list-style-type: none"> Inadequate Funding Research and monitoring Need to update existing documents 	Lead : EPA Supporting: <ul style="list-style-type: none"> LUSPA MESTI MMDA Traditional Authorities WD-FC WRC
	National Drought Plan, 2020	<ul style="list-style-type: none"> To sustain high agricultural production and ensure food security and enhanced livelihoods whilst combating desertification to maintain the integrity of the ecosystem and to properly manage and conserve natural resources. 	<ul style="list-style-type: none"> Inadequate Funding Need to update the document to incorporate emerging issues 	
	Ghana Sustainable Investment Land Use Management	<ul style="list-style-type: none"> To mainstream and scale-up sustainable land management in the development framework of Ghana at all levels to improve the governance of land management decisions and secure ecosystem services and improve rural livelihoods in the country. 	<ul style="list-style-type: none"> Inadequate Funding Research and monitoring 	
United Nations Framework Convention on Climate Change (UNFCCC)	National Climate Change Policy, 2014	<ul style="list-style-type: none"> Effective adaptation Social development Mitigation 	<ul style="list-style-type: none"> Difficulty in tracking climate financial inflows Duplication of activities and funding Lack of transparency in reporting on non-financial support for training and technical assistance Inadequate financial allocation in the national budget Inadequate number of experts 	Lead: MESTI/EPA Supporting: <ul style="list-style-type: none"> Forestry Commission MoFAD M of Finance Ministry of Energy Ministry of Transport Ministry of Information Ministry of Foreign Affairs and Regional Integration Ministry of Local Government and Rural Development Ministry of Education Research/academia CSIR NGOs/CSOs Media

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
United Nations Convention on the Law of the Sea (UNCLOS)	Aspects of this Convention have been incorporated into the various National Policies of the all the sector Ministries implementing specific aspects of UNCLOS in Ghana		<ul style="list-style-type: none"> • Ineffective coordination among various implementing Institutions • Inadequate enforcement of sector related legislations • Research and monitoring • Inadequate capacity of experts. 	<p>Lead: MESTI/EPA</p> <p>Supporting:</p> <ul style="list-style-type: none"> • Ministry of Fisheries and Aquaculture Development • Ministry of Transport • Ministry of Defence • Ministry of Interior • Ministry of Energy • Ministry of Foreign Affairs and Regional Integration • Ministry of Education • Ministry of Special Development Initiatives • EPA • GMA • GPHA • Ghana Armed Forces • National Development Planning Commission • Ghana Shippers Authority • Fisheries Commission • Ghana Hydrological Authority • Ghana Police Services • Ghana Immigration Service • Ghana National Petroleum Authority • Ghana Boundary Commission • Regional Maritime University • LUSPA • Coastal Development Authority
The Convention on Cooperation in the Protection, Management and Development of the Marine and Coastal Environment (Abidjan Convention)			<ul style="list-style-type: none"> • Inadequate funding to implement the relevant protocols under the convention • Lack of a holistic plan for marine and coastal zone management in Ghana. • Inadequate capacity. 	<p>Lead: EPA</p> <p>Supporting:</p> <ul style="list-style-type: none"> • MESTI • MOFAD • Ministry of Lands & Natural Resources • National Development Planning Commission • Water Resource Commission • Fisheries Commission • Wildlife Division – Forestry Commission • Academia • GHPA • Ghana Police • Ghana Navy • NGOs • GMA • CSIR • Ministry of Foreign Affairs • Traditional Authority • GNPC • PC • Ghana National Association of Farmers and Fishermen • Volta River Authority

2.2.2 Ministry of Lands and Natural Resources (MLNR)

The Ministry of Lands and Natural Resources was established under Section 11 of the Civil Service Law, 1993 (PNDCL 327) and is mandated to formulate policies and strategies to ensure the sustainable management and utilisation of the Nation's lands, forests and wildlife resources as well as the efficient management of the mineral resources for socio-economic growth and development.

The Ministry operates through the following agencies:

- Forestry Commission,
- Lands Commission,
- Minerals Commission and
- Boundary Commission.

Forestry Commission – Wildlife Division

The Forestry Commission is mandated by the Forestry Commission Act 1999, (Act 571) and is responsible for the regulation of the utilisation of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them. The Commission also regulates the utilisation of forest and wildlife resources, manages the Nation's forest reserves and protected areas, assists the private sector and other bodies in the implementation of forest and wildlife Policies, undertake the development of forest plantations for the restoration of degraded forest areas, the expansion of forests cover and increase in the production of industrial timber.

The Ministry of Lands and Natural Resources and its agency the Wildlife Division of the Forestry Commission is the focal institution for the following Conventions:

- Ramsar Convention on Wetlands of International Importance, especially Waterfowl Habitats (Ramsar, Iran)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Table 3: Natural Resources Sector Gaps, Policy Objectives and Collaborating Institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
<p>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</p>	<p>Forest and Wildlife Policy Ghana 2012</p>	<ul style="list-style-type: none"> • To manage and enhance the ecological integrity of Ghana’s forest, savannah, wetlands and other ecosystems for the preservation of vital soil and water resources, conservation of biological diversity, and enhancing carbon stocks for sustainable production of domestic and commercial produce. • To promote the rehabilitation and restoration of degraded landscapes through forest plantation development, enrichment planting, and community forestry informed by appropriate land-use practices to enhance environmental quality and sustain the supply of raw materials for domestic and industrial consumption and for environmental protection • To promote the development of viable forest and wildlife-based industries and livelihoods, particularly in the value-added processing of forest and wildlife resources that satisfy domestic and international demand for competitively-priced quality products. • To promote and develop mechanisms for transparent governance, equity sharing and citizens’ 	<ul style="list-style-type: none"> • Effective enforcement • Inadequate Research and monitoring. 	<p>Lead: Ministry of Lands and Natural Resources/ Forestry Commission</p> <p>Supporting:</p> <ul style="list-style-type: none"> • Ministry of Environment, Science and Technology and Innovation • Environmental Protection Agency • District and Metropolitan Assemblies, • Ministry of Food and Agriculture, • Survey and Meteorological Services Department, Ministry of Lands and Forestry, • Forestry Commission, Universities, • Council for Scientific and Industrial Research (CSIR) • NGOs.

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
Ramsar Convention on Wetlands of International Importance, especially Waterfowl Habitats (Ramsar, Iran)	National Wetlands Conservation Strategy Ministry of Lands and Forestry 1999	<ul style="list-style-type: none"> To promote the participation of local communities, traditional authorities, and other stakeholders in sound management and sustainable utilisation of Ghana's wetland resources; To maintain the ecological, cultural, recreational and aesthetic values of wetlands; To ensure that national policies, local knowledge, regulations and activities contribute to the wise use and sound management of Ghana's wetland resources; To ensure that national capacity-building and appropriate legal and institutional frameworks are put in place for effective wetland conservation; To create awareness among the people of Ghana on the importance of wetlands and solicit their commitment to conservation and wise use. 	<ul style="list-style-type: none"> Inadequate funding Effective enforcement Need to update management plans for Ramsar Sites Inadequate Research and monitoring 	<p>Lead: Ministry of Lands and Natural Resources/ Forestry Commission</p> <p>Supporting:</p> <ul style="list-style-type: none"> Ministry of Environment, Science and Technology (MEST), Environmental Protection Agency (EPA), District and Metropolitan Assemblies, Ministry of Food and Agriculture, Survey and Meteorological Services Department, Universities, Council for Scientific and Industrial Research (CSIR) NGOs.

2.2.3 Ministry of Fisheries and Aquaculture Development (MOFAD)

The Ministry of Fisheries and Aquaculture Development is mandated to formulate and implement Policies and strategies to resolve the challenges facing the fishery sector in Ghana. MOFAD coordinates policies pertaining to the sustainable exploitation of fisheries resources through the Fisheries Commission, reviews and enforces existing fisheries laws and regulations in line with domestic and International emerging issues for the protection of Aquatic Resources and develops strategies to promote Aquaculture Development. The Ministry operates through its Agencies such as the Fisheries Commission and the National Premix Secretariat.

MOFAD and its agency Fisheries Commission is the focal institution for the following agreements:

- International Convention for the Conservation of Atlantic Tunas, 1984
- Ministerial Conference of Fisheries Cooperation among African States Bordering the Atlantic Ocean
- The Food and Agriculture Organization (FAO) Port State Measures Agreement
- Convention on Fishing and Conservation of the Living Resources of the High Seas – Geneva
- Port State Measures (PSMA) to prevent, Deter and Eliminate ILL, Unreported and Unregulated Fisheries
- UN Fish Stocks Agreement (UNFSA) under UNCLOS

- The Food and Agriculture Organization (FAO)

Fisheries Commission

The Fisheries Commission is mandated by Fisheries Commission At 2002, (Act 625), to provide for the regulation and management of fisheries; to provide for the development of the fishing industry and the sustainable exploitation of fishery resources and to provide for connected matters. The Commission is also responsible for all monitoring, control, surveillance, evaluation, and compliance functions in all areas of fisheries development and management in Ghana, including fish health, post-harvest activities, safety, and quality assurance.

Table 4: Fisheries Sector Gaps, Policy Objectives and Collaborating Institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
Convention on Fishing and Conservation of the Living Resources of the High Seas Geneva			<ul style="list-style-type: none"> • Convention Not Domesticated but some aspects have been incorporated in the fisheries policy • Inadequate funding • Inadequate capacity 	Lead: MOFAD/FC is the focal Institution Supporting: <ul style="list-style-type: none"> • MESTI • GMA • Ghana Navy
International Convention for the Conservation of Atlantic Tunas	Fisheries Management Plan, 2022-2026		<ul style="list-style-type: none"> • Inadequate training on the identification of shark species 	Lead: MOFAD/FC is the focal Institution
Ministerial Conference of Fisheries Cooperation among African States Bordering the Atlantic Ocean	Fisheries and Aquaculture Policy 2021 Fisheries Management Plan, 2022-2026 Aquaculture Development Plan		<ul style="list-style-type: none"> • Language barrier 	
Food and Agriculture Organization (FAO) Agreement on Port State Measures (PSMA) to prevent, Deter and Eliminate IUU, Unreported and Unregulated Fisheries (IUU)	National Plan of Action to Prevent, Deter, and Eliminate Illegal, Unregulated and Unreported Fishing (NPOA-IUU, 2021-2025)			Lead: MOFAD/FC is the focal Institution Supporting:

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
<p>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 and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement) UNFSA</p>	<p>Incorporated in the Marine Fisheries Management Plan 2022-2026</p>	<ul style="list-style-type: none"> Align fishing effort with estimated annual sustainable levels Improve data collection and enhance knowledge of the biology Enforce fisheries legislation more adequately Enhance knowledge on fishing gear and develop gear regulations Protecting marine habitat, biodiversity and mitigate impacts of climate variability and change Improve the socio-economic well-being of fishers within the fisheries value chain 	<p>Convention not domesticated</p>	<p>Lead: MOFAD/FC is the focal Institution</p> <p>Supporting: Doner Partners</p>
<p>Protocol for the establishment and operation of a Regional Fisheries Monitoring, Control and Surveillance Centre to the Convention for the establishment of the Fishery Committee for the West Central Gulf of Guinea (FCWC)</p>	<p>FCWC 2021-2030 Strategic Action Plan (SAP)</p>	<ul style="list-style-type: none"> To combat illegal transshipment at sea To pool and share information and data with member states 	<p>Gaps identified during the implementation of the 2011-2020 SAP:</p> <ul style="list-style-type: none"> Discontinuity in the operationalization documents of the Plan Conceptual weaknesses of the two Triennial Programmes. Lack of outcome indicators. Imprecision or lack of clarity in the wording of certain lines of action or sub-activities. Lack of clarity of the orientations and guiding principles of the 2011-2020 SAP. 	<p>Member States (i.e. Benin, Côte D'Ivoire, Ghana Liberia, Nigeria, Togo)</p> <p>In country Lead: MoFAD/FC</p>

2.2.4 Ministry of Sanitation and Water Resources

The Ministry of Sanitation and Water Resources (MSWR) was established and mandated to initiate and formulate water, environmental health and sanitation policies taking into account the needs and aspirations of the people, undertake water and environmental sanitation sub-sectors development planning in consultation with the National Development Planning Commission (NDPC) and to co-ordinate, monitor and evaluate the efficiency and effectiveness of the performance of the sanitation and water sub-sectors. The Ministry operates through the following agencies:

- Water Resources Commission,
- Ghana Water Company Limited and
- Community Water and Sanitation Agency.

MSWR and its Agency Water Resources Commission is the focal institution for the following Agreement: Convention on the Law of the Non-Navigational uses of International Water Courses 1997 (Water Courses Convention)

Water Resources Commission

The Water Resources Commission (WRC) was established with the mandate to regulate and manage the utilisation of Ghana's Water Resources and co-ordinate relevant water-related Government Policies. The Commission monitors and assesses activities and programmes for the utilisation and conservation of water resources; provides planning for water resources development and management; collates, stores, and disseminates data and information on water resources in Ghana.

Table 5: Water Resources Sector Gaps, Policy Objectives and Collaborating Institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
<p>Convention on the Law of the Non-Navigational uses of International Water Courses 1997 (Water Courses Convention)</p>	<p>National Water Policy</p>	<ul style="list-style-type: none"> • Achieve sustainable management of water resources; • Ensure equitably sustainable exploitation, utilisation and management of water resources, while maintaining biodiversity and the quality of the environment for future generations. • Ensure availability of water in sufficient quantity and quality for cultivation of food crops, watering of livestock and sustainable freshwater fisheries to achieve sustainable food security for the country; • Ensure availability of water in sufficient quantity and quality to support the functions of the eco-systems in providing alternative livelihoods • Ensure adequate protection of water sources in mining and other industrial areas. • To minimize the effects of climate variability and change; • To institute measures to mitigate the effects of, and prevent damage caused by extreme hydrological occurrences (floods and droughts). • To develop and strengthen human resources and institutional and operational capacities; • To promote the generation and wide dissemination of information on IWRM to the general public. • Ensure participation of all stakeholders, including the private sector, local communities, particularly women, in decision-making on water-related issues; and 		<p>Lead: MSWR</p> <p>Supporting:</p> <ul style="list-style-type: none"> • WRC • CWSA • GWCL • VBA • EPA • MMDAs • CSOs/NGOs

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
		<ul style="list-style-type: none"> • Ensure good governance and a stable macro-economic situation to provide the enabling environment for sustainable water resources management and development • Promote and support scientific, technological and socio-economic research, including development and use of appropriate technologies and practices for sustainable water resources development. • Promote international cooperation in the management of shared water resources; ensure efficient basin-wide planning and efficient use of water resources as well as promotion of mutually beneficial economic cooperation with riparian countries. 		

2.2.5 Ministry of Transport (MoT)

The Ministry of Transport was established in 2009 by re-aligning the functions of the erstwhile Ministries of Aviation, Harbors and Railways and the Road Transport Services and mandated to formulate Policy and co-ordinate all issues related to the transport sector in Ghana, promote sector development, and create the enabling measures including research and public information, coordinating and integrating sector plans and strategies, including integration with other sector Ministries.

The Ministry operates through the following Agencies:

1. Aircraft Accident & Incident Investigation & Prevention Bureau (AAIB)
2. Ghana Airports Company Ltd. (GACL)
3. Ghana Civil Aviation Authority (GCAA)
4. The Ghana Maritime Authority (GMA)
5. Ghana Ports and Harbours Authority (GPHA)
6. Ghana Shippers' Authority (GSA)
7. PSC Tema Shipyard Ltd
8. Regional Maritime University (RMU)
9. Volta Lake Transport Company (VLTC)
10. Driver and Vehicle Licensing Authority
11. Government Technical Training Centre (GTTC)
12. Intercity STC Coaches Limited
13. Metro Mass Transit Limited
14. National Road Safety Commission (NRSC)

Ghana Maritime Authority (GMA)

The Ghana Maritime Authority (GMA) was established under the Ghana Maritime Authority Act 2002, (Act 630) and charged with the responsibility of monitoring, regulating and coordinating activities in the maritime industry.

Table 6: Transport Sector Gaps, Policy Objectives and Collaborating Institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWV), 2004	<ul style="list-style-type: none"> National Ballast Water Management Strategy for Ghana developed. 	<ul style="list-style-type: none"> To manage, minimize or avoid the risk of species introduction through ballast water by adopting a supportive environmental policy based on sound scientific and technical baseline information. 	<ul style="list-style-type: none"> Awaiting parliamentary approval the draft Bill for "Ballast Water Management Inadequate experts Currently no institution is evaluating and monitors the sea ports for Invasive Alien Species 	Lead: GMA Supporting: EPA RMU GPHA WRI Department of Marine and Fisheries Science of University of Ghana
International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/1978				Lead: GMA <ul style="list-style-type: none"> Supporting: Environmental Protection Agency Fisheries Commission Ghana Armed Forces Ghana Association of Stevedoring Companies Ghana Immigration Service Ghana Institute of Freight Forwarders Ghana Institute of Marine Surveyors Ghana Marine Police Ghana Merchant Navy Officers Association Ghana Navy Ghana Port & Harbours Authority Ghana Revenue Authority – Custom Division Ghana Shippers Authority Institute of Chartered Shipbrokers, Ghana Maritime Professionals Club Ministry of Transport National Petroleum Authority National Security Service National Union of Seamen Port and Allied Workers Regional Maritime University Ship Owners and Agents Association Volta Lake Transport Company Limited Volta River Authority

2.2.6 Ministry of Tourism Art and Culture

The mandate of the Ministry of Tourism Art and Culture (MoTAC) is to facilitate the interface between government, implementing bodies in tourism, culture and the creative industries as well as International civil society partners. The Ministry operates through 13 Agencies. (LIST ALL 13 AGENCIES AS DONE IN THE PREVIOUS SECTIONS)

Table 7: Tourism Sector Gaps, Policy Objectives and Collaborating Institutions

Global Instruments	National Policy/ Strategy/ Action Plan	Policy Objectives	Gaps	Collaborating Institutions
<p>Convention for the Protection of the Underwater Cultural Heritage</p> <p>Convention for the Safeguard of Intangible Culture Heritage</p>	<ul style="list-style-type: none"> The National Cultural Policy is currently under review Strategic Management Plans for the management of all the (28) UNESCO heritage sites developed. 	<ul style="list-style-type: none"> To document and promote Ghana's traditional cultural values, such as those enshrined in; concepts of human dignity, attitudes to nature and the environment, law and order, honesty and truthfulness, unity and peace, self-reliance and dignity of labour, family, community and national solidarity. To ensure the growth and development of our cultural institutions and make them relevant to human development, democratic governance and national integration. To enhance Ghanaian cultural life and develop cultural programmes to contribute to the nation's human development and material progress through heritage preservation, conservation, promotion and the use of traditional modern arts and crafts to create wealth and alleviate poverty. 	<ul style="list-style-type: none"> Tourism Policy is being developed. Inadequate funding 	<p>Lead: Ministry of Tourism Art and Culture</p> <p>Supporting:</p> <ul style="list-style-type: none"> MESTI EPA National Commission on Culture Ministry of Education (MOE) National Commission on Civic Education (NCCE) Forestry Commission UNESCO Ghana Association of Writers Department of Ghanaian Languages in Tertiary Institutions, Bureau of Ghana Languages Publishing Houses Media Ministry of Health MMDA CSOs Media (Electronic & Print)

3. Major Gaps in National Policies, and Regulations for Aquatic Biodiversity Conservation and Environmental Management in Ghana Compared to Continental and Global Ones

The following are gaps identified when existing National Policies, and regulations for aquatic biodiversity conservation and environmental management in Ghana as compared to Multilateral Environmental Agreements that Ghana is a party to;

(i) **Capacity and Knowledge Gaps**

Inadequate Capacity: There is limited capacity in terms of trained personnel, technical expertise, and institutional strength. This challenge hinders the efficient and effective implementation of Global environmental Treaties.

Knowledge and Information Gap: There is a significant gap in the availability and dissemination of relevant knowledge and information necessary for the conservation of aquatic biodiversity and ecosystems, thus affecting decision-making and public awareness.

(ii) **Funding and Resources**

- **Inadequate Funding:** The successful implementation of Conventions and their respective Protocols in Ghana through the various sector-specific National Policies, strategies and action plans are delayed as a result of a lack of adequate financial resources, affecting their implementation and enforcement.
- **Difficulty in Retaining Experts:** The effectiveness of environmental management and Policy implementation is compromised by the difficulty of retaining skilled experts because of insufficient financial incentives and resources.

(iii) **Legal and Regulatory Frameworks**

- **Complex Nature of Implementing MEAs:** The complex and often fragmented nature of implementing Multilateral Environmental Agreements (MEAs) in Ghana poses a significant challenge, this is because the implementation of obligations of some Agreements are multi-sectorial in nature.
- **Lack of Specific Legislation:** Ghana is yet to domesticate some of these Agreements and their Protocols, resulting in the absence of specific national legislation to regulate and guide their effective implementation.

(iv) **Public Awareness and Collaboration**

- **Lack of Adequate Publicity:** There is insufficient public awareness and understanding of the importance and essence of International Conventions.
- **Weak Collaboration:** Coordination among various institutions, including Governmental Agencies, research institutions, and civil society organizations is inadequate, leading to fragmented efforts and reduced effectiveness.

(v) **Research and Monitoring**

- **Inadequate Research and Monitoring:** There is a lack of comprehensive research and consistent monitoring, this hinders the ability to track progress and make necessary adjustments to conservation strategies.

(vi) **Policy and Strategy Development**

- **Need for Updated Documents:** National strategies and action plans require updating to incorporate emerging issues and also to align with current Global standards.
- **Duplication and Lack of Coordination:** There are instances of overlapping activities and funding, with a lack of transparency in reporting and coordination, leading to inefficient use of resources.

4. Conclusion and Recommendations

4.1 Conclusion

Ghana has signed a number of Conventions relating to aquatic biodiversity conservation, climate change mitigation and adaptation and environmental management. The Country has made significant efforts as required to domesticate such conventions by developing a number of National Policies for their Environment, Lands & Natural Resources, Fisheries, Energy, Transport and Water Resources Management sectors. In addition, Legal and Regulatory Frameworks for these sectors have been enacted. However, Ghana faces significant challenges in aligning its National Policies and regulations with continental and Global standards for aquatic biodiversity conservation, climate change mitigation and adaptation and environmental management. Identified gaps include; capacity/capacity building, inadequate funding, public awareness, and institutional collaboration all of which hinder effective implementation and enforcement of conservation efforts.

There is the need for the responsible institutions to take action to ratify Conventions that Ghana has signed onto but is yet to domesticate.

4.2 Recommendations

- (i) **Enhance Capacity Building:** There is the need for Government to invest in training and capacity-building programmes to develop skilled personnel and strengthen institutional capabilities for effective aquatic biodiversity conservation, climate change mitigation and adaptation and environmental management.
- (ii) **Increase Funding and Resource Allocation:** Efforts should be made by the Government to secure adequate funding for the implementation of National Policies and participation in International Conventions. There is also the need for implementing institutions to explore innovative financing mechanisms, including public-private partnerships.
- (iii) **Global Alignment: Ratification and domestication of relevant Conventions and Protocols:** Ghana ought to take the required actions to ratify and accede to the following MEAs
 - Agreement 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 (BBNJ)

Agreement)

- International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended in 1987 and the 1996 Protocol (London Convention)
 - International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances (HNS) by Sea.
 - Bamako Convention.
 - Nagoya Protocol Access and Benefit Sharing
 - Pointe Noire Protocol on Integrated Coastal Zone Management.
 - Calabar Protocol on Sustainable Mangrove Management.
 - Malabo Protocol on Environmental Norms and Standards for Offshore Oil and Gas Exploration and Exploitation Activities.
 - Grand Bassam Protocol concerning the Cooperation in the Protection and Development of the Marine and Coastal Environment from Land Based Sources and the Activities (LBSA) in the Western, Central and Southern Africa Region.
- (iv) Strengthen Legal Frameworks: There is the need to develop and enforce specific legislations to support the implementation of International Agreements to ensure comprehensive Regulatory frameworks.
- (v) Improve Public Awareness and Engagement: All implementing institutions should develop and implement public awareness plans/campaigns to educate citizens about the importance of biodiversity conservation and the roles they can play to encourage community participation in conservation and management efforts, access to information
- (vi) Enhance Cross-Sectoral Coordination and Collaboration: Enhance collaboration among Governmental Agencies, research institutions, civil society organizations, and International partners to ensure cohesive and integrated efforts in biodiversity conservation and environmental management.
- (vii) Focus on Research and Monitoring: Institutions should prioritize research and consistent monitoring to gather data, track progress, and inform Policy adjustments. Also, a centralized database for environmental information should be established to store environmental data and information.
- (viii) Update and Align Policies: there is the need to regularly update National strategies and action plans to reflect emerging issues and align with Global standards. In addition, efforts should be made by lead institutions of the various Agreements to ensure that Policies are comprehensive, inclusive, and adaptable to changing environmental conditions and trends.
- (ix) Enhance Transparency and Accountability: All implementing institutions should endeavour to promote transparency in reporting activities, funding, and outcomes. Establish mechanisms for accountability to ensure efficient use of resources and effective implementation of Policies.

By addressing these gaps and implementing the recommendations, it is envisaged that, Ghana can significantly improve its conservation efforts and align more closely with Continental and Global standards for aquatic biodiversity, Climate Change mitigation and adaptation and environmental management.

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ANNEXES

ANNEX 1: NATIONAL STAKEHOLDERS WORKSHOP AGENDA

AGENDA

NATIONAL WORKSHOP TO SUPPORT THE REPUBLIC OF GHANA TO ALIGN AND DOMESTICATE RELEVANT, KEY GLOBAL INSTRUMENTS RELATED TO AQUATIC BIODIVERSITY CONSERVATION, CLIMATE CHANGE MITIGATION AND ADAPTATION AND ENVIRONMENTAL MANAGEMENT.

18th - 19th June, 2024 at Alisa Hotel, Accra
Republic of Ghana

Time	Activity	Facilitator
Day 1: 18th Tuesday, 2024		
08:30-09:00	ARRIVAL & REGISTRATION OF PARTICIPANTS	AU-IBAR
OFFICIAL OPENING SESSION Program Director: Director from the Ministry of Environment, Science, Technology and Innovation, Ghana		
09:00-09:30 AM	Welcome Statement	Director AU-IBAR
	Opening Remarks	Hon. Minister Ministry of Environment, Science, Technology and Innovation, Ghana
	Background & Objectives of the meeting and overview of the project on (Conservation of Aquatic Biodiversity in African Blue Economy	Mr. Nadiope Eric Aquatic Biodiversity Conservation Policy, Legal and Institutional Expert, AU-IBAR
	Introduction of participants / PRAYER	All
09:30 – 10:00	FAMILY PHOTO AND TEA BREAK	AU-IBAR
TECHNICAL SESSION 1: SETTING THE SCENE PRESENTATION Moderator: Director/Environment – Ministry of Environment, Science, Technology and Innovation, Ghana		
10:00 – 10:05AM	Adoption of the Agenda of the meeting	Director for Environment, Ministry of Environment
10:05 – 10:20 AM	Africa Blue Economy Strategy	Dr. Seisay Mohamed Blue Economy Expert, AU-IBAR
10:20 – 11:05AM	Presentation of the outcomes of the Consultancy report on Global Instruments related to conservation of aquatic biodiversity and environmental management	Prof. Wilson Waiswa Mwanja Consultant AU-IBAR

11:05 – 11:35 AM	<p>Presentation on the outcome of review of relevant National Instruments/Regulatory Frameworks and the identified gaps vis a vis relevant Global Instruments by the technical facilitator</p> <ul style="list-style-type: none"> • Ministry of Environment, Science, Technology and Innovation • Ministry of Lands and Natural Resources • Ministry of Fisheries and Aquaculture Development • Ministry of Energy • Ministry of Tourism, Arts and Culture • Ministry of Transport • Ministry of Sanitation and Water Resources • Ministry of Gender, Children and Social Protection 	National Consultant Republic of Ghana
11:35-12:25 PM	<p>Presentation of synopsis of existing Policy or Regulatory Instruments for the following sectors:</p> <ul style="list-style-type: none"> • Ministry of Environment, Science, Technology and Innovation • Ministry of Lands and Natural Resources • Ministry of Fisheries and Aquaculture Development • Ministry of Energy • Ministry of Tourism, Arts and Culture • Ministry of Transport • Ministry of Sanitation and Water Resources • Ministry of Gender, Children and Social Protection 	National Consultant Republic of Ghana
12:25 -13:00	Discussion	
13:00-14:00	Lunch	
14:00-14:30	Discussions	All
<p>WORKING GROUP SESSIONS Moderator: Mr. Nadiope Eric and Joel AU-IBAR;</p>		

14:30-15:00	<p>Presentation of the terms of reference for the working group and organization of the Working Groups:</p> <table border="1" data-bbox="387 219 1027 1223"> <thead> <tr> <th colspan="3" data-bbox="387 219 1027 264">GROUP WORK</th> </tr> <tr> <th data-bbox="387 264 884 338">INSTITUTION</th> <th colspan="2" data-bbox="884 264 1027 338">SEC-TORS</th> </tr> </thead> <tbody> <tr> <td data-bbox="387 338 884 667"> A. Ministry of Environment Science, Technology and Innovation Ministry of Fisheries and Aquaculture Development Environmental Protection Agency Land Use Spatial Planning Authority Ministry of Sanitation and Water Resources Fisheries Commission </td> <td colspan="2" data-bbox="884 338 1027 667"> Environ-ment, Fisheries and Water Resources </td> </tr> <tr> <td data-bbox="387 667 884 996"> B. Ministry of Gender, Children and Social Protection Office of The Attorney General and Ministry of Justice Ministry of Tourism, Arts and Culture Forestry Commission (Wildlife Division) Ministry of Lands and Natural Resources </td> <td colspan="2" data-bbox="884 667 1027 996"> Tourism, Gen-der and Natural Resources </td> </tr> <tr> <td data-bbox="387 996 884 1223"> C. Ghana Ports and Harbours Authority Ministry of Energy Coastal Development Authority Ghana Shippers' Authority The SDG Unit, Office of the President </td> <td colspan="2" data-bbox="884 996 1027 1223"> Transport, Energy and Special Initiatives </td> </tr> </tbody> </table>	GROUP WORK			INSTITUTION	SEC-TORS		A. Ministry of Environment Science, Technology and Innovation Ministry of Fisheries and Aquaculture Development Environmental Protection Agency Land Use Spatial Planning Authority Ministry of Sanitation and Water Resources Fisheries Commission	Environ-ment, Fisheries and Water Resources		B. Ministry of Gender, Children and Social Protection Office of The Attorney General and Ministry of Justice Ministry of Tourism, Arts and Culture Forestry Commission (Wildlife Division) Ministry of Lands and Natural Resources	Tourism, Gen-der and Natural Resources		C. Ghana Ports and Harbours Authority Ministry of Energy Coastal Development Authority Ghana Shippers' Authority The SDG Unit, Office of the President	Transport, Energy and Special Initiatives		National Consultant Republic of Ghana
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15:00-16:00	<p>Working Groups on identification of issues, gaps, challenges and priority actions for harmonizing the National Strategy / Framework with the Global Instruments related to conservation of aquatic biodiversity and environment management into the following sectors:</p> <p>A. Environment, Fisheries and Water Resources B. Tourism, Gender and Natural Resources C. Transport, Energy and Special Initiatives</p>	Working Groups															
16:00-16:15	TEA BREAK	ALL															
16:15-17:45	<p>Working group session CONTINUED</p> <p>Working Groups on issues, Gaps, challenges and priority actions for harmonizing the National Strategy / Regulatory Framework with the Global Instruments related to conservation of aquatic biodiversity and environmental management into the following sectors:</p> <p>D. Environment, Fisheries and Water Resources E. Tourism, Gender and Natural Resources F. Transport, Energy and Special Initiatives</p>	Working Groups															
17:45-18:00	Closure for the day one																

TECHNICAL SESSION 2WORKING GROUPS		
08:30 - 08:40	RECAP of DAY 1 proceedings	Mr. Nadiope Eric
08:40-13:00 Including Tea-break	Working Groups on issues, Gaps, challenges and priority actions for harmonizing the National Strategy / Regulatory Framework with the Global Instruments related to conservation of aquatic biodiversity and environment management into the following sectors: A. Environment, Fisheries and Water Resources B. Tourism, Gender and Natural Resources C. Transport, Energy and Special Initiatives	National Consultant Republic of Ghana
13:30-14:00	LUNCH	
PLENARY SESSION: National Consultant Republic of Ghana.		
14:00 – 15:00	Plenary – presentation of identified issues, gaps, challenges and priority Policy actions or measures and objectives for mainstreaming relevant Global Instruments for conservation of aquatic biodiversity and environment management into the following sectors: D. Environment, Fisheries and Water Resources E. Tourism, Gender and Natural Resources F. Transport, Energy and Special Initiatives	All/ Group Chairs
15:00-16:00	General Discussions and adoption of identified Policy measures and objectives Harmonization of National Instruments (for the sectors below) G. Environment, Fisheries and Water Resources H. Tourism, Gender and Natural Resources I. Transport, Energy and Special Initiatives	All Participants
16:00-16:30	Presentation of the Outline for harmonization of sectoral Policies and Regulatory Frameworks with respect to Global Instruments on conservation of aquatic biodiversity and environmental management.	National Consultant Republic of Ghana
	Development of Communique	National Consultant and Nadiope Eric
16:30-16:45	Adoption of Communique	Nadiope Eric – AU-IBAR
CLOSING CEREMONY: Moderators:		
16:45-17:00	Vote of thanks Statement by a participant representative By representative of AU-IBAR Closing Statement MAAIF and Ministry of Environment, Science, Technology and Innovation, Ghana	

ANNEX 2: LIST OF PARTICIPANTS

NATIONAL WORKSHOP TO SUPPORT THE REPUBLIC OF GHANA TO ALIGN AND DOMESTICATE RELEVANT, KEY GLOBAL INSTRUMENTS RELATED TO AQUATIC BIODIVERSITY CONSERVATION, CLIMATE CHANGE MITIGATION AND ADAPTATION AND ENVIRONMENTAL MANAGEMENT.

18th – 19th June, 2024

Republic of Ghana

No.	Name	Title	Institution
	Hon. Ophelia Mensah Hayford	Hon. Minister	Ministry of Environment, Science, Technology and Innovation
	Dr. Peter Dery	Director	Ministry of Environment, Science, Technology and Innovation
	Raymond Ohene Ofori	Deputy Director	Ministry of Environment, Science, Technology and Innovation
	Samuel Wireko Junior	Assistant Engineer	Ministry of Environment, Science, Technology and Innovation
	Deborah Laryea	Programmes Officer	Ministry of Sanitation and Water Resources
	Felix Kwaku Logah	Director	Ministry of Gender, Children and Social Protection
	Dr. Geoffrey D. Tamakloe	Director /Tourism	Ministry of Tourism, Arts and Culture
	Peace Dziejdom Gbeckor-Kove	Principal Programme Officer	Environmental Protection Agency
	Emmanuel Dovlo	Director	Fisheries Commission
	Eunice Ofoli-Anum	Deputy Director	Fisheries Commission
	Mrs. Jewel Kudjawa	Director	Environmental Protection Agency
	Mohammed Gyimah	Deputy Director	Ministry of Environment, Science, Technology and Innovation
	William Abben Ghansah	Deputy Director	Coastal Development Authority
	Ebenezer Ntsiful	Head, Geographic Information System	Land Use and Spatial Authority
	Albert Oppong-Ansah	Editor	Ghana News Agency
	Emelyne Wright-Hanson	Principal Development Planning Officer	Ministry of Environment, Science, Technology and Innovation
	Sandra Kyere	Senior Programme Officer	Environmental Protection Agency
	Mavis De-Ocansey	Assistant Planning Officer	Ministry of Energy
	Aishah Mahamah	Intern	Ministry of Energy
	Abigail Kwakyewaa	Protocol Officer	Ministry of Environment, Science, Technology and Innovation
	Gloria Holm-Graves	Head, Public Relations Unit	Ministry of Environment, Science, Technology and Innovation
	Eunice Affa Haokson	Minister's Personal Assistant	Ministry of Environment, Science, Technology and Innovation
	Emmanuel A. Acquah		Ministry of Environment, Science, Technology and Innovation
	Prof. Waiswa W, Mwanja	Consultant	Busitema University, Tororo Uganda.
	Dr. Mohamed Seisay	Blue Economy Consultant	AU-IBAR
	Mr. Eric Nadiope	Policy, Legal and Institutional Expert	AU-IBAR
	Mrs. Adeline Oduor	Administrative Assistant	AU-IBAR
	Mr. Charles Lodiaga	Assistant Finance Officer	AU-IBAR



African Union
Inter-African Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park
Museum Hill, Westlands Road
P.O. Box 30786
00100, Nairobi, KENYA
Telephone: +254 (20) 3674 000 / 201
Fax: +254 (20) 3674 341 / 342
Website: www.au.ibar.org
Email address: ibar.office@au-ibar.org