

# **REPORT**

# ON

# REVIEW OF THE LEGAL FRAMEWORK FOR AGRICULTURE, ENVIRONMENTAL ASSESSMENT AND PROTECTED AREAS IN GHANA

# Submitted by

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<sup>&</sup>lt;sup>1</sup> A full list of the steering group Is provided for in Appendix 2.

#### ii. LIST OF ABBREVIATIONS

ACCNN African Convention on the Conservation of Nature and Natural Resources
AEWA Agreement on the Conservation of African-Eurasian Migratory Waterbirds

CBD Convention on Biological Diversity

CMS Convention on the Conservation of Migratory Species

CEPS Customs Excise and Prevention Services
CII Country Implementation Institution
CREMA Community Resource Management Area

CRMC Community Resource Management Committee

DA District Assembly

EA Environmental Assessment

EIA Environmental Impact Assessment EPA Environmental Protection Agency

FC Forestry Commission
FDA Food and Drugs Authority
FSD Forest Services Division

GMO Genetically Modified Organism
GRA Ghana Revenue Authority
GSA Ghana Standards Authority
GWS Ghana Wildlife Society

IBC Institutional Biosafety Committee

ISSAP International Single Species Action Plan

IDA Irrigation Development Authority

LUSP Land Use and Spatial Planning Authority

MC Minerals Commission

MESTI Ministry of Environment, Science, Technology and Innovation

MLGRD Ministry of Local Government and Rural Development

MLNR Ministry of Lands and Natural Resources

MOFA Ministry of Food and Agriculture NBA National Biosafety Authority

NCCC National Climate Change Committee

NCCE National Commission for Civil Education

NDPC National Development Planning Commission

NRMC Natural Resource Management Committee

NSC National Seed Council

NSDF National Spatial Developmental Framework

PA Protected Area

PAMAB Protected Area Management Advisory Board

PPRSD Plant Protection and Regulatory Services Directorate

RSPB Royal Society for the Protection of Birds

SDGs Sustainable Development Goals

SEA Strategic Environmental Assessment
SRA Social Responsibility Agreement
TMPC Traditional Medicine Practice Council

TNC The Nature Conservancy
TUC Timber Utilization Contract

UNFCCC United Nations Framework Convention on Climate Change

WD Wildlife Division

WRC Water Resources Commission

## **EXECUTIVE SUMMARY**

# Report purpose

A sound and effective legal framework across the field of Protected Areas, Agriculture and Environmental Assessment can help the Government of Ghana achieve the goal of sustainable land use with all its associated long-term benefits for people, the economy and the environment – the three interconnected pillars of the Sustainable Development Goals – and to fulfil its international obligations under treaties such as the Convention on Biological Diversity.

The purpose of this study is to assist the Government in reviewing the existing Ghanaian legislation and regulations in these three areas. This report has captured the institutional framework and requirements in law to address specific questions, identified the gaps in legislation, considered its application in practice and finally, put forward recommendations in terms of changes in legislation and enforcement actions.

The findings of the study are intended to provide information for further governmental action by way of coordinated legislative, policy and administrative improvements in the three reviewed areas..

# **Background**

The Ghana Wildlife Society (GWS), working in partnership with Royal Society for the Protection of Birds (RSPB), commissioned TaylorCrabbe Innitiative to review the legal framework for Protected Areas (PAs), Agriculture and Environmental Assessment (EA) in Ghana.

This work forms part of Birdlife's<sup>2</sup> East Atlantic Flyway Initiative programme of work on migratory birds focused on birds using the African-Eurasian Flyway who migrate through or use the landscapes of West Africa as their wintering grounds. Migrant bird population densities may be key general indicators of the capacity of the environment to retain wider biodiversity, The populations of many of these migratory birds have been in sharp decline over the last few decades. As yet, the precise causes and geographies of such declines are relatively unknown. Some migratory birds use specific sites within West Africa, and well-managed PAs may provide suitable habitats for roosting aggregations or stopover congregations. PAs can safeguard important areas of native habitat where they are well implemented. These are vital for the conservation of nature. Importantly, they can also provide resilience against challenges such as food and water security, disease, disaster risk reduction and climate

<sup>&</sup>lt;sup>2</sup> BirdLife International is a global partnership of 121 conservation organizations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. RSPB and GWS and RSPB are respectively the Ghana and U.K. country partners of Birdlife International.

change. PAs are however not isolated reservoirs of nature, but have an important and dynamic relationship with the land surrounding them. This land can provide vital ecological connectivity – or insurmountable barriers - with other PAs.

Yet, species of migratory birds occur more diffusely across the wider landscape where land use change, habitat degradation and uncontrolled development may be impacting the long-term sustainability of not just their populations but also Ghana's broader natural environment. Agriculture has been identified as a significant cause of land use change in Ghana. Unlike other relevant areas such as forestry, there is a paucity of information on how effective the legal framework on agriculture is in supporting the sustainable use of land as described in the Abuja Declaration<sup>3</sup>. This project seeks to address this gap in our understanding of the legislative underpinnings, to ensure that agricultural practices are carried out in a sustainable way, balancing the competing demands for food security and production, economic growth and the protection of the natural environment over the long-term. Especially in the face of increasing pressures such as climate change, water scarcity and invasive species.

Environmental Assessment (EA) is an important process that aims to ensure the incorporation of environmental information in sound and well-balanced decision-making, to ensure that development pressures do not adversely impact human well-being and the natural environment. It is intended to expedite sustainable development by incorporating public participation in decision-making, thus reducing potential conflict and enabling more equitable sharing of environmental benefits over the long-term.

# Methodology

This study used a qualitative five -step methodology, developed by the consultants to reflect on laws, both local and international, and practices in the areas under review. First was a collation of legislation, regulation and substantive policy relevant to PAs, Agriculture and EA. The second step was a desk review of all the identified laws and regulation relevant to these three areas to tease out the institutional framework and the requirements in law to address specific questions and to assess the effectiveness of Ghanaian legislation and regulation in these areas. The third step was to identify gaps and propose recommendations on changes to the legislation and/or enforcement of the identified requirements. The next step was to develop a matrix table of the findings and present it to a steering group. The final step was for the consultants to incorporate the comments from the steering group into their findings

<sup>&</sup>lt;sup>3</sup> The Abuja Declaration on Sustainable Land Use for People and Biodiversity, including Migratory Birds, in West Africa, was agreed by West African governments, international institutions and NGOs in November 2016, at a workshop organized by the UNEP Convention on the Conservation of Migratory Species of Wild Animals and hosted by the Nigerian government in Abuja

and to develop this narrative report. The steering group, which was made up of practitioners mainly from the government sector, greatly enhanced the validity of the findings.

## **Protected Areas**

# **Background**

Ghana has 14 state-established wildlife protected areas (wPAs), 2 community-owned wildlife protected areas and 5 coastal Ramsar sites. According to the National Biodiversity Strategy and Action Plan (NBSAP) 2016, these together constitute a total of 1.4147 million hectares (14,147 km²)<sup>4</sup> which is estimated to constitute about 5.9 percent of the total surface area of Ghana. This percentage figure compares with the 17% terrestrial protected area target by 2020 of the Aichi Target 11 under the CBD5.

For the purposes of this report, the state-established wPAs, community owned wPAs and Ramsar sites shall constitute PAs in Ghana. Forest reserves are sometimes included with wildlife conservation areas as protected areas and taken together they make up 16.2% of the total land area in Ghana. Importantly, however, Ghana's legal regime makes a distinction between Forest Reserves and PAs. Forest Reserves are established by executive instruments, that is by the use of executive power – executive instruments do not require parliamentary approval or consideration. In effect, they are established by the President to ensure the sustainable utility of forest resources. Hence, in a strict legal sense and for this report, Forest reserves are not considered as PAs.

Undoubtedly, some forest reserves in Ghana (e.g. Atewa Forest) could make a significant contribution to conservation if managed for biodiversity. Legislation could, for example, mandate the Forestry Commission to be responsible for protecting high conservation value (HCV) areas when they fall within forest reserves. Alternatively, HCV areas could be proclaimed as protected areas within forest reserves.

In contrast, wPAs are established by subsidiary legislation (legislative instruments) and are enacted or revoked through a more rigorous procedure; They are laid before parliament for parliamentary consideration and approval before coming into effect. It is the Minister for Lands and Natural Resources who has the mandate, on the advice of the Forestry Commission (FC), to make subsidiary legislation to establish new PAs, provide for their management and the protection of endangered species and other related matters. Practically these duties fall to the Wildlife Division (WD) of the FC whose obligations include protecting and developing Ghana's permanent estate of wPAs, assisting local communities to develop and manage their

<sup>&</sup>lt;sup>4</sup> Republic of Ghana. National Biodiversity Strategy Action Plan, Nov 2016, page 13. https://www.cbd.int/doc/world/gh/gh-nbsap-v2-en.pdf

<sup>&</sup>lt;sup>5</sup> https://www.cbd.int/sp/targets/rationale/target-11/

own reserves, fostering closer collaboration with communities adjacent to PAs through the promotion of community resource management areas (CREMAs) and promoting public awareness and education on wildlife management issues.

The most holistic document pertaining to the network of PAs in Ghana is the Ghana Forest and Wildlife Policy, 2012 produced by the Ministry of Land and Natural Resources (MLNR). The policy states that government aims at managing all national parks, wildlife sanctuaries, wildlife resource reserves and other PAs in accordance with the duly approved wildlife management plans to ensure comprehensive biodiversity conservation and development in line with national conservation policies, strategies and Government of Ghana's commitment to international conventions and protocols.

The last establishment of any new PAs in Ghana occurred on 1st December 1999 with the creation of five coastal Ramsar Sites and one inland Ramsar Site. There is no evidence of the existence of plans to create any new PAs beyond the two proposed in the National Biodiversity Strategy and Action Plan.

Some PAs and particularly Ramsar Sites have been severely degraded and this indicates a lack of enforcement of the requirements/safeguards in environmental protection legislation. International Law requires Ghana, as a state party, to control activities outside conservation areas which are detrimental to the purpose for which the conservation areas were created and establish for that purpose buffer zones around its borders. However, besides the provision in policy for a riparian buffer zone, there are no requirements in law or policy for establishing buffer zones around the borders of a PA as well as regulating offensive activities around these borders.

## **Findings**

Many of the elements investigated in this study were not covered by PA legislation and are explored fully in Part IV of this report. Some legislative gaps are covered by practices outlined in the Ghana Forest and Wildlife Policy, 2012 produced by the MLNR, notably .the production of individual management plans for each existing PA. Moreover, these plans have encouragingly been drawn up with some degree of local community consultation.

The policy states that government aims at managing all national parks, wildlife sanctuaries, wildlife resource reserves and other PAs in accordance with the duly approved wildlife management plans. This is to ensure comprehensive biodiversity conservation and development in line with national conservation policies, strategies and Government of Ghana's commitment to international conventions and protocols. The policy also states that the Government will for example, create biological corridors between existing networks of conservation areas to maintain genetic continuity of flora and fauna and promote trans-

boundary corridor management with neighbouring countries, develop guidelines for the use of biodiversity offsets to rehabilitate degraded areas, increase community participation in wildlife management in all forest areas and develop an incentive system to promote investment in community-based eco-tourism and commercial wildlife conservation and development.

But this policy does not carry the force of law and thus does not carry a legally binding mandate for such necessary actions to occur.

The list of findings has produced many areas that are recommended as important for attention by law-makers (see recommendations below and section 4.4 of the main report). For example, the law does not require the statement of the conservation objectives of the PA. There is no requirement in law for management plans for each PA to be drawn up, nor a requirement to consider threats for Invasive Alien Species. There is no provision in PA legislation that requires PA authorities to incorporate climate change considerations into protected area design and management (though this in part can be explained in that Ghana's legislation creating PAs was enacted before Ghana signed the United Nations Framework Convention on Climate Change (UNFCCC)). Similarly, the study found that there are no express requirements in PA legislation that require protected area authorities to incorporate considerations of migratory species into protected area design and management, though again the legislation was created prior to Ghana signing the Convention on Migratory Species. The study found no requirement in PA legislation that allows the public to request and receive information on PAs, nor are the PA authorities required to collect and disseminate information proactively to the public regarding PAs.

The study also found no requirements in PA legislation and regulations that require PA authorities, the FC and MLNR to ensure public participation in their decision making. It was found ,however, that, the Government is in the process of establishing Community Resource Management Areas (CREMAs) across Ghana, which, when established, will give the authority to a community represented by a locally elected Natural Resource Management Committee (NRMC) to regulate and control access to wildlife in the area defined. At the time of writing, CREMAs have been established at Bia, Ankasa and Mole. A Community Resource Management Committee (CRMC) has also been set up to lead the management of each of these areas. The CRMC also helps with resolving human-wildlife conflicts and issues between the PA authorities and the communities.

## Recommendations

The key recommendations that relate to PAs are detailed below, but this is by no means an exhaustive list, and further prioritization may be necessary. Some of these legislative gaps and

recommendations will be more contentious to pass and indeed implement than others. But all are important if the long-term future of Ghana's natural environment is to be secured.

## 1. PA network:

- (a) Creation of PAs: legislation should provide a mechanism that gives the public/ stakeholders an opportunity to propose the creation of new PAs or amend the status of existing ones. This should include a requirement in law for a mandatory wide and adequate consultation of relevant stakeholders in the establishment, reclassification or change of status of PAs.
- (b) National PA system plan: a legal requirement for the PA system to be synchronized into one national system that recognizes the importance of habitat connectivity and introduces legislation that will establish conservation corridors in PA design within and between Ghana and neighbouring countries.

# 2. Management:

- (a) Management plans: the production of PA management plans and their regular review by the FC should be based on sound empirical scientific findings. These plans should be publicly available and developed and reviewed through an extensive consultative process with local fringe communities.
- (b) Condition of PAs: there should include a legal requirement to monitor the condition of the PA and report on the level of implementation of the management plan. These assessments should be publicly available.
- (c) CREMAs: The Wildlife Division Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana should be given legal backing and expressed in PA legislation.
- (d) Consent for proposed policies, plans, projects and activities within a PA: these should only be consented by the relevant authorities following a strategic environmental assessment (SEA) and/or an environmental impact assessment to determine that they will not negatively affect the PA and its habitats and species for which it is designated.
- (e) Invasive Alien Species: legislation should require that an IAS list be prepared for each protected area which should be regularly reviewed and updated.
- (f) Climate change: PA legislation should be amended to specify that PA management plans should contain the need for regular assessment of the PA, its status and plans, using the best available science to identify any parts of the site that may be particularly vulnerable to climate change, and measures that may help build resilience and allow adaptation to preserve the conservation objectives of the area. The creation of PAs should include consideration of buffer zones and corridors for adaptation to climate change.

# 3. Information:

(a) Access to Information: PA authorities should provide timely access to accurate, relevant and understandable information, as well as provide a reasonable opportunity for the public to provide meaningful comments where significant decisions are being contemplated on the Protected Area.

## 4. International commitments:

(a) International commitments: The study highlighted the existence of many international commitments made by Ghana yet many of these commitments have not been transposed into existing or new domestic legislation. The effect is that such commitments are often not effectively implemented and monitored in Ghana.

# Agriculture

# **Background**

Ghana's agriculture land area is estimated at 13.6 million hectares, representing about 56 percent of the country's total land. The economy is heavily dependent on agriculture, employing nearly half of the national labour force. Yet agriculture remains largely rain-fed and subsistence-based, with rudimentary technology supporting 80 percent of total output. The majority of farm holdings are less than 2 hectares in size, although there are some large farms and plantations, particularly for rubber, oil palm and coconut. Most food crop farms are intercropped while monoculture is mostly associated with large-scale or commercial farms.

Agricultural intensification and expansion has been identified as a significant cause of land use change in Ghana. This is leading to the over exploitation and loss of trees and non-timber forest products across the landscape, increasing pressures on water supply through water abstraction for primarily irrigation, unquantified (over-)use of fertilizers and pesticides that seep into water courses threatening fishing resources and limiting water availability (because of pollution) still further. Aichi Target 7 of the CBD calls for the sustainable management of areas under agriculture, aquaculture and forestry by 2020<sup>6</sup>.

# **Findings**

This part of the review was both wide-ranging, covering 18 different topics as presented in Part V from Section 5.2, and challenging. Implementation of any legislation moreover, is a significant problem given the proportion of agricultural activity that takes place in the informal, as opposed to the formal sector. Solutions are complicated by the land tenure structure in Ghana that does not support comprehensive land use planning. Unlike other

<sup>&</sup>lt;sup>6</sup> https://www.cbd.int/sp/targets/rationale/target-7/default.shtml

jurisdictions, the allodial title<sup>7</sup> in the land is not held by one entity but is held by different stools, families and the state.

A limited number of key areas are summarised below, covering water, pesticides and fertilizers, and timber and trees in the agricultural landscape (as part of the complicated issue of benefit sharing).

Water resources: The legislation regarding the wise and equitable use of water, and the protection of water courses from pollution was investigated at length. A number of key findings are outlined below.

Water rights: a person is required by law to obtain water rights, in the form of a water use permitto divert, dam, store, abstract or use water resources, or construct or maintain any works for the use of water resources. The use of water for domestic purposes is exempted. The Water Resources Commission (WRC) is responsible for issuing and regulating the permits regime but this is subject to parliamentary ratification. Legal collaboration is required between the WRC and the Environmental Protection Agency (EPA) to decide whether an Environmental Impact Assessment (EIA) is necessary, while the WRC is also responsible for consulting the potentially affected local communities. In practice however, unless an operation is large scale there is no attempt to regulate water rights. It was further noted that the WRC is basin based, which means unless an operation affects a water basin, there is in practice no regulation by the WRC.

Benefit-sharing: In practice, communities affected by the grant of water rights do not get a share of the fee/sum paid for the water rights awarded. Also, there is some difficulty in ascertaining precisely which community is affected by the grant of water rights.

Regulation of irrigation: There is no specific regulation of irrigation in Ghanaian law. Legislation has created the Irrigation Development Authority (IDA) which has specific mandates for official irrigated farming, livestock improvement and fish culture. However, the legal framework only sets up the authority and gives it the above mandates. It does not give IDA regulatory powers or set up a regulatory regime to control irrigated farming.

Protection of freshwater bodies: A Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana exists that applies to lands adjacent to rivers, streams, lakes and wetlands and lands at the margins of municipal reservoirs. The Riparian

<sup>&</sup>lt;sup>7</sup> Allodial title is the highest interest in land that a person can acquire under Ghanaian Law. Most often, the stool (traditional community) and family hold this interest.

Buffer Zone Policy is to be implemented by Ministry of Sanitation and Water Resources with support from other governmental agencies but does not have the force of law. It depends on the political will of district officers and local officials to be effective. While this may have already affected the survival of freshwater bodies, the transformation of the policy into law will greatly correct the negative effects on water quality. The law on the riparian policy should particularly be applied within plantations and new agricultural developments. Logging operations or tree felling are not permitted within a buffer strip, 25 metres either side of any stream or 50 metres either side of a river. Besides logging operations, the consultants found no provision in law that forbade or regulated farming activities or construction activities within/along riverine/ riparian buffer zones.

Timber and trees in the agricultural landscape: The ownership of naturally occurring timber is vested in the President in trust for the people of Ghana. The management of the utilization of timber resources is the mandate of the FC on behalf of the President. A person requires timber rights in the form of a Timber Utilization Contract (TUC) to harvest timber in Ghana but TUCs can only be awarded by the Government to corporate bodies. An application for a TUC must be accompanied by a harvesting plan prepared in accordance with sustainable management of timber resources, an assessment of the likely environmental effect, a proposed programme to redress the effect, and proposals to assist in addressing social needs of the communities who have interest in the applicant's proposed area of operations through a Social Responsibility Agreement (SRA). The study has however revealed that applicants frequently fail to conclude the SRA after the grant of the timber rights or they fail to comply with the SRA if it is concluded.

The law superimposes state trusteeship over stool (i.e. local or traditional) trusteeship. In onreserve areas, the forest is protected for production as the main land use, and it is illegal for anybody to debark, uproot, lop or girdle any tree, including medicinal plants, of both indigenous and non-indigenous species for whatever purpose in a forest reserve without a written permission from a competent forest authority. In practice, community members however can enter the forest and take non-forest products as long as they are not injurious to the trees.

In off-reserve areas, however, agriculture is the primary activity and forestry has to fit into the farming system, not vice-versa. The study found that, in practice, timber in off-reserve areas,

especially in cocoa farms is unlawfully harvested<sup>8</sup>. This is destructive and goes contrary to Ghana's National Determined Contributions (NDCs) under the REDD+ programmes.

Pesticides: The law requires that pesticides must be registered before they can be imported, exported, manufactured, distributed, advertised, sold or used in Ghana. The EPA, as the responsible government agency must be satisfied that the pesticide does not present any toxicology risk to people, crops, animals and the environment before it approves and registers the pesticide. The study however found no provision in legislation/regulation that expressly takes into regard the impact of chemical/pesticide/herbicides on the ability of pollinating organisms to perform their function. EPA appoints inspectors at the district assembly level to ensure compliance with the requirements. In practice, there is weak enforcement of these requirements at the borders. Another challenge is the mixing of certified pesticides with illegal and inferior products. There is also a lack of supervision and monitoring of pesticides sold at the marketplace.

Fertilizers: It is a legal requirement that fertilizers are registered before they are manufactured or imported into Ghana by the Ministry of Food and Agriculture (MOFA). The Pesticide and Fertilizer Regulatory Division of the Plant Protection and Regulatory Services Directorate of MOFA is to ensure the correct labelling, inspection, sampling, testing and nutrient guarantees in accordance with the Act. MOFA has a unit that inspects and analyses fertilizers distributed across the country to ensure that they comply with the provisions of the Plant and Fertilizer Act. But as with pesticides, the practice of fertilizer use is different from the intended legislative framework: due to inadequate enforcement of the requirements in legislation, there is a problem of smuggling substandard fertilizers into Ghana across neighbouring countries through Ghana's border towns. Furthermore, it appears that subsidies on fertilizers create domestic shortages. There is government subsidy on approved fertilizers in the country to boost agriculture and this creates a financial incentive to smuggle these "cheap", quality fertilizers to neighbouring countries. The study found no regulation for the use of fertilizers that has the potential of curtailing improper use, overuse or the pollution of the environment.

#### Recommendations

The following identified requirements and recommendations, if well enforced, have the potential of providing a framework that will ensure that the impact of agricultural activities on ecosystems and biodiversity are assessed and controlled. In a sense, the proper assessment and control of these activities protects the environment from hazardous impacts that may distort or degrade ecosystem services and will enhance climate change mitigation

<sup>&</sup>lt;sup>8</sup> The harvesting is unlawful because ownership of naturally- occurring timber is vested in the President and consent of the Forestry Commission is required before any harvesting. The unlawful harvesting is done either by the farmers themselves or by timber contractors with the consent of the farmers.

and adaptation efforts. These recommendations represent a subset of those areas identified in the main body of the report (please refer to Part V). Clearly some of these legislative gaps will be more contentious to pass and indeed implement. But all are important if the long-term future of Ghana's food security and natural environment is to be secured.

## 1. Water Resources:

# (a) Water rights:

- An amendment to provide in detail the criteria the Water Resources Commission should use in the assessment of application for water rights.
- An incorporation in the criteria of "sustainability" as stated in the Abuja Declaration as one of the considerations the Water Resources Commission is to make in granting water rights or approving requests.
- A requirement in law that the publication of an application for water rights in a local area should be done by town criers or on radio in the language of the inhabitants as appropriate.

# (b) Water abstraction:

- An introduction of legislation to specify the thresholds of water abstraction and related activities which should require an EIA before the grant of water rights.
- A provision for a legal framework for Strategic Environmental Assessment (SEA), the threshold and criteria for its performance and its regular review in respect of water resources. The legal framework should require the performance of a SEA before the commencement of any activity that will impact water availability and rights across the landscape. This should be undertaken by a multi-sectorial task force of stakeholders with EPA providing leadership.
- A requirement in law that the WRC should prescribe what constitutes a fair and adequate consultation to ensure a proper representation of the inhabitants before making a grant of the right to use the water resource.

# (c) Protection of freshwater bodies:

 The existing Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana should be transformed into law as an Act of Parliament to ensure the proper management of freshwater bodies in Ghana. The law on the riparian policy should particularly be applied within plantations and new agricultural developments.

# (d) Regulation of irrigation:

• An amendment to the laws on irrigation should be introduced to require that the Irrigation Regulatory Authority to be given regulatory powers to regulate all forms of irrigation and irrigated lands in Ghana.

# 2. Trees in the agricultural landscape:

- (a) The underlying land ownership should determine the ownership of tree and timber resources thereon. The amendment of the existing vesting structure of timber and trees to divest the ownership of trees off reserves from the President to enable their vesting in the landowners or farmers or stools concerned.
- (b) The amendment of the tree tenure system to give farmers/inhabitants a share of proceeds made from the harvesting of any naturally occurring trees that they have nurtured.

# 3. Pesticides and fertilizer use in agriculture:

- (a) Legislation to create a requirement for a license for the use of pesticides in significantly large quantities. The license should require an EIA to assess the cumulative effect on the environment.
- (b) Legislation to provide a framework for regulating non-commercial quantities of fertilizers and to ensure that the impact of fertilizer products on ecosystems and biodiversity are assessed and controlled.

# 4. On Climate change and REDD+:

- (a) A translation of existing policies and action plans into law with express provisions for sustainable agriculture practices.
- (b) A provision of a legislative framework for the grant of a development permit that is detailed and comprehensive and addresses support for resilient livelihoods for communities, ecosystem services and sufficient natural habitats for both resident and migratory species.

# 5. Plants materials regime and GMOs:

- (a) District Assemblies are given a legal duty to establish district Agriculture Inspectorate Divisions to enforce the use of approved seeds particularly in farming communities.
- (b) An express provision in law for the protection of indigenous species in law by defining native species and providing a list in an Act of Parliament or subsidiary legislation.
- (c) The law needs to be amended to clearly require that GMOs used in Ghana should be properly monitored.

## 6. Administrative action:

- (a) Mechanisms be instituted that allow MOFA officials; and an increase in customs staff to be assigned to various entry points of Ghana to check unlawful introduction of unapproved plant material including seeds that may contain alien species into the country.
- (b) This will require a production of a list of agricultural and horticultural species that are approved to be imported to Ghana.
- (c) Mechanisms be instituted to control alien invasive species that may already be present in Ghana.

- (d) Transparency of information in respect of companies registered, certificates issued etc. so that any member of the public may be able to check compliance with the law.
- (e) Strengthening and resourcing of Civil Society Organizations (CSO) to monitor and compliment the work of state organizations working in the agricultural sector.

## **Environmental Assessment**

# **Background**

EA refers to a process that ensures the incorporation of environmental information in sound and well-balanced decision making. It can be delivered, alongside other assessments, through Environmental and Social Impact Assessment (EIA/ESIA), and Strategic Environmental Assessment (SEA). EIA/ESIA can be defined as 'an instrument to identify and assess the potential environmental and social impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures'. SEA can be defined as 'a systematic examination of environmental and social risks and impacts, and issues, associated with a policy, plan or program, typically at the national level but also in smaller areas.'9

The framework for EA in Ghana is set out by the Environmental Protection Act, 1994 and its subsidiary legislation, the Environmental Assessment Regulations 1999. The Environmental Protection Act, 1994 establishes the Environmental Protection Agency (EPA) and gives it the broad mandate, in addition to other functions, to request a full EIA for any activity which has the potential to cause significant impacts on the environment. This applies to governmental and private projects, as well as to national and foreign projects.

On receiving an application for an environmental permit, the EPA screens the application as an initial assessment, considers the geography of the undertaking, the technology intended to be used, the concerns of the general public, land use and any other factors the EPA may decide. After the screening, the EPA makes the decision on whether to grant the permit, refuse the application or request for further information through a preliminary environmental report or a full EIA.

# **Findings**

The findings on the legislative regime covering EA considered a wide range of issues, notably the clarity of responsibilities for implementing processes and decision making, experience and expertise of those carrying out EA, triggers and/or thresholds for when EAs are required, public participation (public consultation and information disclosure) and availability of EA

<sup>9</sup>http://documents.worldbank.org/curated/en/383011492423734099/pdf/114278-REVISED-Environmental-and-Social-Framework-Web.pdf

documentation in hard and soft copy, transparency in decision making and compliance and enforcement mechanisms. Some of these findings are summarised below but a fuller, more detailed discussion can be found in the main report, Part VI section 6.4. Four broad areas are summarised here.

Public participation and the availability of information: these factors lie at the heart of the process of EA. While legislation does prescribe the responsibilities of both a project's applicant, and the EPA to publicise an undertaking, the absence of a legal duty on the EPA to make available copies of EIA statements in soft copy makes access to information on the EIA undertaken difficult and cumbersome for the public. Besides making the scoping report and hard copies of the EIA statements available in its libraries and offices, there is no obligation on EPA to make the application for the environmental permit, screening reports, preliminary environmental reports, the review opinion on the EIA statement, the environmental plan, the annual environmental report and minutes and recommendations from a public hearing available to the public, either in hard or soft copy. The law does specify that the EPA must hold a public hearing for applications that receive adverse public reaction, but the law does not clearly indicate what constitutes "adverse public reaction" and does not specify a minimum notice period for such a hearing. Environmental Management Plans submitted to the EPA are also not published to allow public scrutiny.

SEA: the findings of this study indicate the absence in law of a requirement for SEAs in all areas. The current legal framework in place provides only for the requirement and procedure for EIAs to the exclusion of SEAs. Nonetheless, the consultants found that in practice, SEAs are occasionally undertaken and, indeed, EPA has a department for SEA. SEAs are usually undertaken by EPA in partnership with the relevant ministry to assess government policies and plans but there are no triggers or thresholds for the performance of SEA as this is largely determined by the availability of funding and political will.

Cumulative impacts: The law is silent on investigating the cumulative impacts of undertakings of a similar nature, across a given radius or locality. This may be compounded by the lack of coordination among sector agencies and institutions in giving out approvals or licenses in respect of physical developments affecting the environment. The introduction, and subsequent implementation of SEA legislation would go some way to alleviate this obvious loophole in environmental protection.

Monitoring, compliance and enforcement: The EPA has the duty to ensure compliance with any laid down EIA in the planning and execution of development projects, including compliance in respect of existing projects. Although an applicant is required to prepare an Environmental Management Plan, it is submitted after the issuance of the permit and after the

commencement of operations. The law speaks nothing of the consequences of an unsatisfactory plan.

The role of the EPA is somewhat undermined by triggers and thresholds that other sector legislation sets for EIAs to be performed. For example, a person planning to conduct any activity other than fishing, which is likely to have a substantial impact on fishery resources, must notify the Fisheries Commission. It also appears there is inadequate consideration of impacts on the environment in the award of mineral rights and petroleum exploration contracts as both do not require submission of an approved EIA statement during the application process. The law only requires that an environmental permit should be acquired before the commencement of mining or petroleum activities. In short, the application for utilization of any natural resources should be streamlined to make the EPA the first point of call for the application for any permit/approval or licenses to exploit any natural resource.

The EPA is under resourced in terms of workforce and logistics. This primarily affects the EPA's ability to undertake its core mandate and effectively monitor compliance. The penalty for default in procuring an environmental permit when required (i.e. GHC 12000, or up to one-year imprisonment) is an inadequate deterrent compared to the potential commercial worth of such undertakings.

## Recommendations

The application for utilization of any natural resources should be streamlined to make the EPA the first point of call for the application for any permit/ approval or licences to exploit any natural resource. EPA, on receiving any such application, guided by the thresholds or criteria set out in law, may request for an EIA and consider whether to grant an environmental permit prior to the issuance of subsequent permits by other commissions.

- 1. Public participation and the availability of information:
  - (a) Require EPA to make available on its website and its offices both hard and soft copies of the application for the environmental permit, screening reports, preliminary environmental reports, scoping opinions, EIA statements, the review opinion, the environmental plan, the annual environmental report and minutes and recommendations from a public hearing to the public to enhance transparency, public scrutiny, access to information and ultimately decision making.
  - (b) Specify that notice of an application and notice for a public hearing should be broadcasted at least on local radio stations or through a town crier in languages that inhabitants of the land can understand.
  - (c) Include provisions that specify requirement for a notice of a public hearing and a minimum notice period before such a hearing.

(d) Instead of a vague "adverse reactions" triggering a public hearing, specify an objective criterion such as: a petition signed by at least 100 citizens should suffice for the EPA to hold a public hearing in respect of an application for an environmental permit or in the alternative, make public consultation a compulsory part of all EA process.

#### 2. SEA:

- (a) Legislation is required to introduce a legal and technical framework governing SEA, the triggers and thresholds for its application, specifying which institution should supervise the process and criteria for its performance.
- (b) The legal framework should require the performance of an SEA before the commencement of any policy, plan or programme across a defined landscape. This should be undertaken by a multi-sectorial task force of stakeholders with the EPA providing leadership.
- (c) Establishing a legal basis for SEA is a necessary step but is not sufficient on its own. Effective and efficient implementation mechanisms should also be put in place to enhance the environmental performance.

# 3. Cumulative impacts:

- (a) The law should be amended to require an EIA for agricultural undertakings using prescribed criteria which takes into account cumulative, induced and indirect impacts, considerations of climate change mitigation, the likely pollution of soil or water from chemicals, removal of trees and other habitat, including protected species, degradation of soil, introduction of invasive species and considerations of the intensity of the activity of the land cleared for agriculture.
- (b) Incorporate investigations on the cumulative impacts of similar undertakings across a given radius or locality in an EIA. Rapid Cumulative Impact Assessment and Management (RCIA) six-stage steps could be adopted in legislation.

## 4. Monitoring, compliance and enforcement:

- (a) Setting up of a special environmental court to try environmental offences.
- (b) A revision of the penalty for failing to obtain an environmental permit before commencing an undertaking when necessary to make it more punitive and in effect deter offenders.
- (c) Inclusion of a penalty of ten percent of the project cost to punishments for noncompliance with the law for an Environmental permit.
- (d) A mandate for the EPA to publish annually offenders and defaulters who have been successfully prosecuted after starting or undertaking a project without the necessary and correct permits, together with the details of the respective punishments meted out.

- (e) A requirement in law that mandates the EPA to publish the annual environmental report and environmental management plans they receive from holders of environmental permits on its website to allow public scrutiny, assessment and comments.
- (f) Specify the structure and the contents of an environmental management plan and to require its submission before commencement of operations.
- (g) Provide that an unsatisfactory Environmental Management Plan is a ground for revoking or suspending the environmental permit.
- (h) There should be clarity on making information available in good and sufficient time to the public on the duties or work being done by the EPA.
- (i) Adequate resourcing of the EPA to undertake effective compliance monitoring.
- (j) Workshops and regular training for police officers, judges, state prosecutors and similar officers who are non-environmental experts to build their capacity to understand and appreciate environmental issues, environmental management principles and environmental offences.

# Conclusion and a way forward

This report assessed the legal framework of Ghana governing protected areas, agriculture and environmental assessment regime. It captured the institutional arrangements for regulation of these areas and how these arrangements interrelate. The report proposes recommendations, in terms of changes in legislation and enforcement action. These findings, gaps and recommendations provide a basis for future action and cooperation across all levels of Ghana's society to work towards a healthier and more sustainable natural environment that supports the development of the economy and enhances the livelihoods of its people.

The findings indicate the absence in law of a requirement for SEAs. This absence has meant that, *inter alia*, the cumulative and long-term effects of actions which affect the environment are not considered, the public is largely excluded from key decision-making and the degradation of Ghana's natural environment continues unchecked.

The study provided the opportunity to note the existence of many international commitments of Ghana yet many of these commitments have not been transposed into domestic legislation. The effect is to that such commitments are not effectively implemented and monitored in Ghana.

The research also noted the existence of a number of policies, plans and programmes in agriculture, PAs and EA. These are indicative of government intentions but they suffer from not having force in law. It is important that these are translated into law for effective implementation and enforcement. Three such policies have been specifically highlighted in this study, namely the Ghana Forest and Wildlife Policy, the Riparian Buffer Zone Policy for

Managing Freshwater Bodies and the Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana.

Finally, in the three areas addressed in the document – and repeatedly in discussion in the workshops - the issue of tenure rights related to trees and land came up repeatedly. These are hugely complicated and potentially contentious areas but at a minimum, the ownership and incentives for tree planting and preservation across the wider landscape should be given priority by the Government. Trees have multiple benefits that are indispensable if Ghana is to restore its natural environment so that it works for people and for nature.

# 1 PART I - INTRODUCTION AND BACKGROUND

## 1.1 Introduction

This report reviews the legal framework for protected areas, agriculture and environmental assessment in Ghana, undertaken to assess Ghanaian legislation and regulation in the areas aforementioned. This document synthesizes the findings, gaps and recommendations identified as a result of this matrix-based analysis.

This document is structured in seven parts: Part I provides the introduction, Part II discusses the sources of law in Ghana, Part III identifies the institutional framework for the implementation and enforcement of the requirements in law while Parts IV to VI discuss the findings of the review of the legal framework for protected areas, agriculture and environmental assessment in Ghana respectively. In the discussions on agriculture, linkages are made to the Abuja Declaration's <sup>10,11</sup> definition of sustainable land use. Part VII presents the conclusion and suggestions on next steps.

# 1.2 Project Background

The Ghana Wildlife Society (GWS), working in partnership with Royal Society for the Protection of Birds (RSPB), commissioned TaylorCrabbe Innitiative to review the legal framework for Protected Areas (PAs), Agriculture and Environmental Assessment (EA) in Ghana.

This work forms part of Birdlife<sup>12</sup>'s East Atlantic Flyway Initiative programme of work on migratory birds focused on birds using the African-Eurasian Flyway that migrate through or use the landscapes of West Africa as their wintering grounds. The populations of many of these migratory landbirds has been in sharp decline over the last few decades but as yet the precise causes and geographies of such declines are relatively unknown. Some of these landbirds use specific sites within West Africa, and well-managed protected areas may provide suitable habitat for roosting aggregations or stopover congregations. Protected areas can safeguard important examples of native habitats where they are well implemented and are vital for the conservation of nature. As importantly they also can provide resilience against

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<sup>&</sup>lt;sup>10</sup> The Abuja Declaration on Sustainable Land Use for People and Biodiversity, including Migratory Birds, in West Africa, was agreed by West African governments, international institutions and NGOs in November 2016, at a workshop organized by the UNEP Convention on the Conservation of Migratory Species of Wild Animals and hosted by the Nigerian government in Abuja. <sup>11</sup> The Abuja Declaration defines Sustainable Land Use as "Sustainable land management practices that, taken together over a defined area, support resilient livelihoods for communities, ecosystem services and sufficient natural and semi-natural habitat to ensure healthy populations of resident and migratory species. Such practices must also be adapted to climate change and take into account an integrated landscape approach to fulfil the needs of people and biodiversity."

<sup>&</sup>lt;sup>12</sup> BirdLife International is a global partnership of 121 conservation organizations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. RSPB and GWS and RSPB are respectively the Ghana and U.K. country partners of Birdlife International.

challenges such as food and water security, human health and well-being, disaster risk reduction and climate change.

However, many species of migratory birds are more thinly spread across the wider landscape where land use change, habitat degradation and uncontrolled development may be impacting the long-term sustainability of not just their populations but also Ghana's broader natural environment. Agriculture has been identified as a significant cause of land use change in Ghana. Unlike other relevant areas, such as forestry, there is a dearth of information on how effective the legal framework on agriculture is in supporting the sustainable use of land as defined in the Abuja Declaration. This project seeks to address this gap in our understanding of the legislative underpinnings to ensure that agricultural practices are carried out in a sustainable way, balancing the competing demands of food security, economic growth and the protection of the natural environment over the long-term, in the face of increasing pressures such as climate change, water scarcity and invasive species.

Environmental assessment (EA) is an important process that aims to ensure the incorporation of environmental information in sound and well-balanced decision making to ensure that development pressures do not adversely impact human well-being and the natural environment. It is intended to expedite, not hinder development that is not just sustainable but also incorporates the public's views in decision-making, reducing conflict and enabling the more equitable sharing of the common environmental good over the long-term. A robust and effective legal framework across these three areas will help the Government of Ghana achieve the goal of sustainable land use with all its associated long-term benefits for people, the economy and the environment – the three indivisible pillars of the Sustainable Development Goals.

# 1.3 Project Objective

The primary aim of this assignment was to undertake a comprehensive legal audit and assessment of the legal framework for protected areas, agriculture and environmental assessment in Ghana and to determine the effectiveness of Ghanaian legislation and regulation in these areas. The review entailed a collation of legislation, regulation and substantive policy relevant to these three areas and their assessment to answer the following questions:

## On Protected Areas (PA):

1. What types of PA are legally recognized within Ghana, and into which IUCN categories do they fall?

- 2. What requirements exist within current PA legislation and regulation relating to terrestrial, coastal and estuarine areas, and through what mechanisms are they fulfilled, with respect to:
  - a. Perpetual integrity
  - b. Management principles
    - i. System planning, including an ecosystem approach and reference to connectivity between PAs
    - ii. Management by conservation objectives
    - iii. Management plans
    - iv. Precautionary approach
    - v. Management of invasive alien species
    - vi. Management for climate change
    - vii. Taking an international perspective, including management for migratory species
  - c. Good governance
    - i. Principles
    - ii. Access to information
    - iii. Public participation
    - iv. Social equity and justice, including land tenure
    - v. Community-led PA governance
  - d. Multilateral obligations
    - i. Convention on Biological Diversity
    - ii. World Heritage Convention
    - iii. Ramsar Convention
    - iv. Convention on the Conservation of Migratory Species of Wild Animals
    - v. African Convention on the Conservation of Nature and Natural Resources
- 3. What requirements exist within current PA legislation and regulation that prohibit or put safeguards in place to address the impact on PAs of harmful land use changes identified in the Abuja Declaration, namely: increases in large scale monoculture plantations; intensive farming techniques that degrade the environment; loss of trees, woodlands and forests in the landscape; loss and degradation of permanent and seasonal wetlands; damaging and poorly planned infrastructure developments; and mining?
- 4. What changes or additions, if any, could strengthen the effectiveness of the requirements relating to these areas within current PA legislation and regulation, or under current agriculture or EA legislation and regulation examined within this review?

## On Agriculture:

- 1. What requirements exist within current agriculture legislation and regulation, and through what mechanisms are they fulfilled in respect of:
  - a. Biodiversity: species, habitats and ecological connectivity
  - b. Ecosystem services:
    - i. Provisioning: food; raw materials; fresh water; medicinal materials
    - ii. Regulating: Local climate and air quality; carbon sequestration and storage; moderation of extreme events; waste-water treatment; erosion prevention and maintenance of soil fertility; pollination; biological control.
  - c. Climate change adaptation and mitigation
  - d. Landscape scale planning
  - e. Community rights regarding benefit sharing
- 2. To what extent do the requirements identified enable the delivery of sustainable land use as defined by the Abuja Declaration?<sup>13</sup>
- 3. What requirements exist within current agriculture legislation and regulation that prohibit or put safeguards in place to reduce the impact of harmful land use changes identified in the Abuja Declaration, namely: increases in large scale monoculture plantations; intensive farming techniques that degrade the environment; loss of trees, woodlands and forests in the landscape; loss and degradation of permanent and seasonal wetlands; damaging and poorly planned infrastructure developments; and mining?
- 4. What changes or additions, if any, could strengthen the effectiveness of the requirements relating to these areas within current agriculture legislation and regulation?

# On Environmental Assessment (EA):

- 1. What requirements exist within current EA legislation and regulation in Ghana, and through what mechanisms are they fulfilled, with respect to:
  - a. Clear responsibilities for implementing processes and decision making
  - b. Experience and expertise of those carrying out EA
  - c. Triggers and/or thresholds for when EAs are required
  - d. Screening and scoping requests and opinions, including alternatives (and "No project")
  - e. Areas required to be considered as part of the impact assessment
  - f. Public participation (public consultation and information disclosure) and availability of EA documentation in hard and soft copy
  - g. Public accountability and transparency in decision making
  - h. Application of the mitigation hierarchy

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<sup>&</sup>lt;sup>13</sup> The definition of sustainable land use agreed in the Abuja Declaration and World Bank. 2007. Ghana Country Environmental Analysis, Report No. 36985-GH was considered for this review.

- i. EIA quality control
- j. Relation to sectoral regulation
- k. Sufficient arrangements for compliance and enforcement
- 2. What triggers or thresholds exist within current EA legislation and regulation that would avoid, mitigate or compensate for harmful land use changes identified in the Abuja Declaration, namely: increases in large scale monoculture plantations; intensive farming techniques that degrade the environment; loss of trees, woodlands and forests in the landscape; loss and degradation of permanent and seasonal wetlands; damaging and poorly planned infrastructure developments; and mining.
- 3. What changes or additions, if any, could strengthen the effectiveness of the requirements relating to these areas within current EA legislation and regulation?

# 1.4 Methodology

The consultants undertook this assignment deploying a seven-step methodology. First was a collation of legislation, regulation and substantive policy relevant to PAs, agriculture and environmental assessment. The list of collated legislation, regulations and policy on the three areas are found in *Appendix 1*. The second step was a desk review of all the identified laws and regulation relevant to these three areas to tease out the institutional framework and the requirements in law to address specific questions and to assess the effectiveness of Ghanaian legislation and regulation in these areas. The laws considered were the 1992 Constitution; Acts of Parliament, legislative instruments and ratified international conventions. Also assessed were some relevant and applicable national polices to these areas.

The third step was to identify gaps and propose recommendations on changes to the legislation and/ or enforcement of the identified requirements. The next step was to develop a matrix table of the findings and present it to a steering group comprising representatives of the consultants, the RSPB, Ghana Wildlife Society, Civil Society Organisations (Ecocare Ghana) the Lands Commission, the Ministry of Land and Natural Resources, the Wildlife Division of the Forestry Commission, the Ministry of Food and Agriculture and the Environmental Protection Agency for comments. The list of members for the steering group is found in Appendix 2.

The final step was for the consultants to incorporate the comments from the steering group into their findings and to develop this narrative report.

# 2 PART II - SOURCES OF LAW IN GHANA

The 1992 Constitution of Ghana emphatically provides in its first article its supremacy. All Acts of Parliament and laws inconsistent with the Constitution are to the extent of the inconsistency a nullity. Article 11 of the Constitution sums up the sources of law in Ghana as: The Constitution; enactments made by or under the authority of Parliament; any Orders, Rules and Regulations made by any person or authority under a power conferred by the Constitution (subsidiary legislation); customary law; the existing law; and the common law.

Article 11 suggests the hierarchy of laws in Ghana. As indicated earlier, the Constitution is the supreme law of the land and operates as the pantheon of Authority. Article 1(2) of the 1992 Constitution emphasizes this where it states that any law found to be inconsistent with the Constitution will be declared void (paraphrased). Any law here being the other sources of law provided under Article 11, be they orders, rules, regulations, customs, international law or the common law.

Next in order of authority after the Constitution are the Acts of Parliament. Parliament plays the role of making legislation subject to the Constitution. These enactments further expound on the Constitutional provisions and provide regulations that govern the functioning of some governmental bodies.

Subsidiary legislation falls next in line where the Constitution, and in some instances Parliament, delegates its function of law making to external bodies.

Ghanaian customary laws are not uniform. They are far spread and distinguishable from one part of the country to another. Ultimately these forms of law are regulated by the customary heads of the various ethnic groups or traditional area. They do not have as much force as enactment, however, and where they are found to be inconsistent or conflicting with the Constitution or other laws they are held as void.

Ghana identifies as a Commonwealth country and a dualist state in terms of its incorporation of international law. In this regard, Ghana is bound only by international laws and dictates that it has ratified, through the ratification process provided under article 75 of the Constitution.

For the purposes of this report, however, only the more concrete sources of law, that is the sources of law that can be readily identified in writing were utilized by the consultants. The consultants limited the scope of law to the 1992 Constitution, Acts of Parliament, subsidiary legislation and International laws ratified by Ghana. Customary law was excluded primarily because of its complex nature and its particularity to communities.

In Ghana, policies provide the framework through which the Executive branch of Government indicates its intention in a particular area of national life. As they are merely guides to the actions of Government, they are generally not enforceable. For this work, the national policies

in the three sectors of agriculture, protected areas and environmental assessment were identified but not assessed. However, in some instances, the existence of policies is used to explain some of the conclusions arrived at by the consultants.

# 3 PART III – INSTITUTIONAL ASSESSMENT

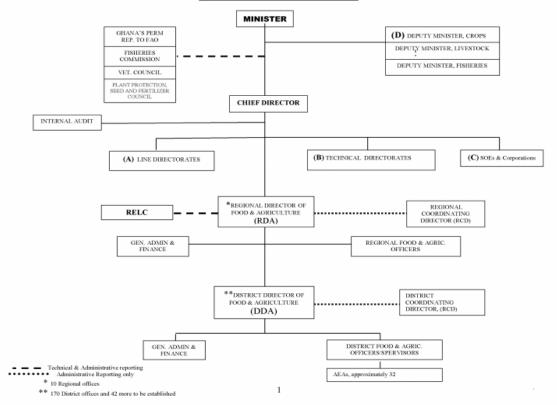
This part of the report identifies key government institutions relevant to protected areas, agriculture and environmental assessment. It provides a brief description of their corporate structure and discusses their mandates in the context of the questions considered and the findings for this project.

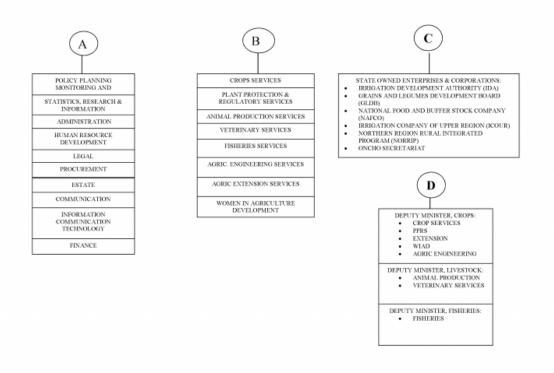
# Ministry of Food and Agriculture

The Ministry of Food and Agriculture (MOFA) is the most important institution for agriculture in Ghana. It is headed by a sector Minister who is assisted by deputies. The Ministry is the lead agency and focal point for developing and executing policies and strategies for the agriculture sector within the context of a coordinated national socio-economic growth and development agenda. It also performs regulatory functions through its technical directorates (see Figure 2, Section B). The structure of the Ministry is illustrated by the organogram<sup>14</sup> below:

<sup>&</sup>lt;sup>14</sup> Culled from the Ministry of Food and Agriculture website (last accessed 21/7/18): http://mofa.gov.gh/site/?page\_id=58

## ORGANOGRAM OF MOFA





For this review, two of these bodies merit detail discussion.

1. Plant Protection and Regulatory Services Directorate (PPRSD): The PPRSD forms part of the technical directorates of MOFA (see figure above under subset B). It derives its mandate from the Plants and Fertilizer Act, 2010 (Act 803). Its broad duty is to organize, regulate, implement and coordinate the plant protection services by providing services to safeguard quality and plants of crop from losses by pests and diseases. The Directorate is structured into four divisions: Crop Pests and Disease Management; Seed Inspection and Certification; Pesticides and Fertilizer Regulatory and Plant Quarantine.

The Crop Pests and Disease Management Division develops Good Agricultural Practices (GAPs), including guidelines for the Integrated Pest Management (IPM) of food crops. The division carries out training and provides comprehensive diagnostic and identification services of plant pests and diseases for stakeholders, monitors the pest situation in the country, ensures effective control of plant pests, manages calamity pest outbreaks (e.g. armyworms, grasshoppers etc), carries out classical biocontrol measures (mass rearing and release of bio-agents), and serves as the Secretariat for the National Fruit Fly Management Committee and National IPM programme.

The Seed Inspection and Certification Division supports the production of quality seeds and planting materials. The division seeks to achieve this through: field inspection, training of major stakeholders, laboratory analysis on seed samples, monitoring quality of seed and seed certification. The division registers seed growers, dealers, importers, and exporters; monitors seed and planting material production of crop species and seed dealers' outlets; and facilitates promotional activities in the seed industry. The division also educates and creates awareness amongst farmers on the benefits of the utilization of certified seed/planting materials.

The Pesticide and Fertilizer Regulatory Division supervises and trains regulatory inspectors of the EPA, publishes information materials, registers and trains pesticides and fertilizer dealers and applicators, keeps records as well as statistics of pesticides and fertilizers, facilitates the removal of obsolete and unwanted chemicals and manages pesticide and fertilizer stocks in the country. It supervises bio-efficacy trials carried out by research.

The Plant Quarantine Division works closely with the Customs Excise and Preventive authorities at all the official entry points. It supervises and trains Phytosanitary Inspectors, develops and publishes information material, keeps records of plant

imports and exports, the importers and exporters, as well as the pests and diseases of quarantine importance. It issues phytosanitary certificates and import permits. It also operates the Sanitary and Phytosanitary (SPS) Enquiry Point. The division also carries out inspection on marketing quality standards on fresh fruits and vegetables for export. Implementation of relevant International Standards for Phytosanitary Measures (ISPMs) are implemented by the Division.

2. The National Seed Council (NSC): NSC was established by Section 48 of the Plants and Fertilizer Act, 2010 (Act 803). Its functions include monitoring the supply of seeds to ensure seed security; formulating policies for the development, production, inspection, sampling, analysis, conditioning and marketing of seed; and prescribing standards for seeds and procedures for the certification of seeds.

Act 803 provides two standing committees for the NSC: the Technical and Variety Release Committee and the National Variety Release and Registration Committee. Interestingly, both committees are to advise NSC on the procedures for the registration of cultivars, standards for seeds and procedures for the certification of seeds, the fees for the certification and testing of seeds; crop varieties to be released or withdrawn from the National Variety register as well as crop species to be included and varieties for withdrawal where the maintainer does not have that seed variety available or the seed does not represent its original variety. NSC is responsible for creating and updating the National Variety Register.

# **Ministry of Lands and Natural Resources**

The Ministry of Lands and Natural Resources (MLNR) is the leading state institution responsible for making and implementing government policy on lands, forestry and mineral resources. MLNR is headed by a Minister of State and assisted by deputy ministers. It has a chief director who is the administrative head of the ministry and advisor to the Minister. MLNR has the following units/ directorates: Finance and Administration; Policy Planning, Budgeting, Monitoring and Evaluation (PPBME); Research, Statistics and Information Management (RSIM); Human Resources Management and Development (HRMD); three Technical Directorates (Forestry, Mines, and Lands) and an Internal Audit Unit. MLNR also provides ministerial supervision for the following state agencies: The Minerals Commission; Forestry Commission; Lands Commission and the Office of the Administrator of stool lands. The organizational structure of MLNR is shown below in figure 3.

#### ORGANIZATIONAL STRUCTURE FOR THE MINISTRY OF LANDS AND NATURAL RESOURCES MINISTER MINISTERIAL ADVISORY BOARD DEPUTY MINISTERS CHIEF DIRECTOR LANDS COMMISSION OFFICE OF ADMINISTRATION OF INTERNAL AUDIT STOOL LANDS **PUBLIC RELATIONS** FORESTRY COMMISSION MINERALS COMMISSION PRECIOUS MINERALS MKT. COMP.LTD GEOL. SURVEY DEPT D/HRM D/F&A TD/ TD/MINES TD/LANDS D/ PPBME D/ RSIM **FORESTRY** RECORDS TRG & DEVT POLICY RESEARCH POLICY POLICY POLICY PLANNING &STAT PLANNING PLANNING PLANNING CAREER TRANSPORT PLANNING Projects Projects Projects BUDGET MIS ESTATE/SECURITY PERF. MGT Project M&E M& E LIBRARY M&E PERSONNEL Coordination IPPD M&E PROCUREMENT Gender unit TREASURY ACCOUNTS

Figure 3: Organizational Structure of MLNR<sup>15</sup>

With respect to protected areas, the Minister of MLNR has ministerial responsibility for the Forestry Commission and may give it directions in writing on matters of policy<sup>16</sup>. The Minister also has a duty<sup>17</sup> under Act 43 to make subsidiary legislation to: create closed seasons for hunting of some specified animals; prohibit the hunting and destruction of specified animals over a specified and where appropriate over a specified period of time; create a licensing regime for the hunting of specified animals; establish reserves (PAs) within which it is unlawful

<sup>15</sup> http://www.mlnr.gov.gh/index.php/about-us/structure (last accessed 21/7/18)

<sup>&</sup>lt;sup>16</sup> Section 3 of the Forestry Commission Act, 1999 (Act 571)

<sup>&</sup>lt;sup>17</sup> Section 11 of the Wild Animals Preservation Act, 1961 (Act 43) as amended by Section 35 (2) of the Forestry Commission Act, 1999 (Act 571).

to hunt or capture specified animals; establish penalties for the flouting the provisions of Act 43; and specify permitted procedures for hunting animals. In summary, the Minister for MLNR has the mandate, on the advice of the Forestry Commission, to make subsidiary legislation to establish new protected areas, provide for their management and the protection of endangered species and other related matters.<sup>18</sup>

Further, the Minister has the power to declare closed seasons in Ramsar Sites whereby activities such as fishing and hunting are prohibited and the Minister may designate certain portions of a Ramsar Site as core areas for the effective management of the Ramsar Site.<sup>19</sup>

# **Environmental Protection Agency**

The Environmental Protection Agency (EPA) was established by the Environmental Protection Agency Act, 1994 (Act 490). It has the primary duty of regulating the environment and ensuring the implementation of government policies on the environment. The EPA is the primary regulatory authority for Environmental Assessments (EAs)<sup>20</sup> and Government's agency for improving and protecting the environment. The Ministry of Environment, Science, Technology and Innovation (MESTI) is responsible for giving the agency policy directions.

EPA consists of three divisions: Operations, Technical Services and General Services which are further sub-divided into departments. The Environmental Assessment and Audit Department of the Environmental Compliance and Enforcement Division is mainly responsible for the EArelated functions. EPA is governed by a board of directors, who are appointed by the President of Ghana, and supervise operations. The day-to-day management of operations is directly under an Executive Director and three divisional heads (Deputy Executive Directors).

EPA has 10 regional offices which serve as field operators of the Agency. These regional offices are mandated to carry out screening and review of EIAs at the regional level. There are cross-sectoral EIA Technical Review Committees set up in all 10 regions, and at the national level, to support the EPA offices in the screening and reviewing of EA applications and reports. The committees make recommendations after their review and submit these to the headquarters for quality assurance and approval.

The Regional EPA offices also play a role in compliance monitoring, the approval of annual environmental reports and verification of environmental management plans. They are mainly involved in the EIA process through public participation and monitoring activities. EIAs for

<sup>&</sup>lt;sup>18</sup> Section 11 of the Wild Animals Preservation Act, 1961 (Act 43)

<sup>&</sup>lt;sup>19</sup> Regulations 2 and 3 of the Wetland Management (Ramsar Sites) Regulations, 1999

<sup>&</sup>lt;sup>20</sup> EAs are usually performed in two main modes: Environmental Impact Assessment (EIA) and Strategic Environmental Assessments (SEA). There is a legal framework for the conduct of EIAs. Ghana does not have a SEA legislation. EA is treated in detail in Part IV of this report.

large-scale projects and high priority projects are directly under the responsibility of the Environmental Assessment and Audit Department located at the Head office of the EPA.

The EPA's specific mandate includes:

- (i) Advising the Minister of Environment, Science, Technology and Innovation on the formulation of policies on all aspects of the environment;
- (i) Coordinating the activities of bodies concerned with the technical or practical aspects of the environment and serving as a channel of communication between such bodies and the Ministry;
- (ii) Collaborating with such foreign and international agencies as the Agency considers necessary for the purposes of this Environmental Protection Agency Act, 1994 (Act 490);
- (iii) Issuing environmental permits and pollution abatement notices for controlling the volume, types, constituents and effects of waste discharges, emissions, deposits or other source of pollutants and of substances which are hazardous or potentially dangerous to the quality of the environment or any segment of the environment; and,
- (iv) Ensuring compliance with any legislated EIA procedures in the planning and execution of development projects, including compliance in the respect of existing projects.
- (v) Developing a comprehensive database on the environment and environmental protection for the information of the public.

#### **Water Resources Commission**

The Water Resources Commission (WRC) was established by an Act of Parliament (Act 522 in 1996) as the overall body responsible for water resources management in Ghana. WRC is made up of 15 members including a Chairman, an Executive Secretary, a Chief and two other persons, one of whom shall be a woman. The rest are representatives of the following institutions: Ghana Water Company Limited; organizations producing potable water; Hydrological Services Department; Volta River Authority; Irrigation Development Authority; Water Research Institute; Ghana Meteorological Agency; Environmental Protection Agency; Forestry Commission; and Minerals Commission.

WRC is responsible for the regulation and management of the utilization of water resources, and for the co-ordination of any policy in relation to them. Its specific functions include proposing comprehensive plans for the utilization, conservation, development and improvement of water resources, granting water rights, gathering and disseminating data or information on water resources in Ghana, making requests for water user agencies to undertake scientific investigations, experiments or research into water resources in Ghana. It also has the mandate to monitor and evaluate programmes for the operation and maintenance of water resources, advise the Government on any matter likely to have an

adverse effect on the water resources of Ghana and advise pollution control agencies in Ghana on matters concerning the management and control of pollution of water resources.

The Commission has the power to issue enforcement notices where the use of water resources poses a serious threat to the environment or to public health. The enforcement notice may either require the user to take the necessary steps to prevent or stop the activities or direct the immediate cessation of the offending activity where it considers that the circumstances so demand. The Act makes it an offence not to comply with the directives of an enforcement. A defaulter is liable to term of imprisonment not exceeding 3 years or a fine not exceeding 9000 Ghana Cedis.

The Commission is also required to make necessary investigations, after an application, including consultations with the inhabitants of the area of the water resources concerned before granting water right. The grant is, however, subject to ratification by Parliament.

As part of the application for the grant of water rights,<sup>21</sup> the WRC may require that the applicant undertakes an environmental assessment of the impact of the proposed undertaking and attach an approved Environmental Impact Assessment (EIA) statement by the EPA to the application.

# **Forestry Commission**

The Forestry Commission (FC) is one of the natural resources commissions<sup>22</sup> of Ghana and is under the general policy supervision of the MLNR. FC is responsible for the regulation of the utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them.

FC has the mandate to properly plan for the protection, harvesting and development of forest and wildlife resources in a sustainable manner; monitor the condition and extent of the nation's forest and wildlife resources; control the harvesting of forest and wildlife products; make recommendations to the Minister on the granting of timber rights and wildlife licences; advise the Minister on forest and wildlife policy with particular regard to management practices that sustain resources and improve productivity; liaise with national and international bodies and organizations on forestry and wildlife conservation and utilization and expand the country's forest cover<sup>23</sup>. FC is composed of the following divisions: Forest Services Division, Wildlife Division, Timber Industry Development Division, Forestry Commission Training Centre and Resource Management Support Centre.

<sup>&</sup>lt;sup>21</sup> Regulation 12 of the Water Use Regulations, 2001 (L.I. 1692)

<sup>&</sup>lt;sup>22</sup> Established under Article 269 of the 1992 Constitution of Ghana

<sup>&</sup>lt;sup>23</sup> Section 2 of the Forestry Commission Act,1999 (Act 571)

The Wildlife Division (WD) of the Forestry Commission is responsible for all wildlife in the country and administers the wPAs, coastal Ramsar Sites and the Accra and Kumasi Zoos. It also assists with the running of community owned Wildlife Sanctuaries. Its main mandate is to conserve wildlife in Ghana in general and manage wPAs in particular within representative ecological zones of the country. Each of the Protected Areas have Park Managers who are supported by Wildlife Rangers, Technical Assistants, Wildlife Guards and other auxiliary staff. The Park Managers report directly to a Regional Wildlife Manager who also reports to the Executive Director of the Wildlife Division.

Specifically, WD has the following obligations: to protect and develop Ghana's permanent estate of wPAs; promote the management and development of wildlife outside wPAs; develop eco-tourism potentials of the PAs; promote the development of wildlife-based enterprises; develop linkages with other agencies and NGOs whose activities impact on wildlife; assist local communities to develop and manage own reserves; foster closer collaboration with communities adjacent to PAs through the promotion of community resource management areas (CREMAs) and promote public awareness and education on wildlife management issues.

The FC also has a standing Timber Rights Evaluation Committee. The Timber Resource Management Act, 1998 (Act 547)<sup>24</sup> gives the committee the duty to evaluate applications for timber utilization contracts and rank qualified applicants on merit through a competitive procedure. As part of the application process for a timber utilization contract, an applicant is required by law to submit an assessment of the likely environmental effect and proposed programme to redress the effect. The committee must consider this report in its assessment of the application.

#### **Fisheries Commission**

The Fisheries Commission is the implementing agency of the Ministry of Fisheries and Aquaculture Development. It was established by the Fisheries Commission Act, 2002 (Act 625).<sup>25</sup> The Fisheries Commission has the mandate to manage the utilization of fishery resources, ensure their proper conservation, promote co-operation among fishermen, make recommendations for the grant of fishing licenses, hear and determine complaints from aggrieved persons in fish related matters, liaise with district assemblies in fishing communities for the passage of by-laws and perform any other function given by law.

The governing body of the Commission is a Council consisting of representatives from the Ministry responsible for Transport; the Ministry responsible for Defence; the Ministry

<sup>&</sup>lt;sup>24</sup> Section 5 of the Timber Resource Management Act, 1998 (Act 547)

<sup>&</sup>lt;sup>25</sup> Section 1 of Fisheries Commission Act, 2002 (Act 625)

responsible for the Environment; the Ghana Marine Fishing Officers Association; the Water Research Institute; the Ghana Irrigation Development Authority; the National Fisheries Association of Ghana, one person with requisite knowledge of the fishing industry or natural resource renewal management, and the Director of the Commission.

The law requires that a person planning to conduct any activity other than fishing which is likely to have a substantial impact on fishery resources should notify the Commission. The Commission may require the person or body undertaking such an activity to provide reports illustrating the likely damage and possible means of minimization.<sup>26</sup>

#### **Minerals Commission**

The Minerals Commission (MC) is established by Article 269 of the 1992 Constitution and the Minerals Commission Act 1993, Act 450. The Minerals Commission as the main promotional and regulatory body for the minerals sector in Ghana is responsible for the regulation and management of the utilization of the mineral resources of Ghana and the coordination and implementation of policies relating to mining. It also ensures compliance with Ghana's Mining and Mineral Laws and Regulation through effective monitoring.

The MC is to receive applications for mineral rights, assess the application and then recommend to the Minister of Lands and Natural Resources whether or not to grant or refuse the application.

The Minister may award or refuse the grant of minerals rights before an EIA is performed. The law, however, requires that before the holder undertakes any activity or operation under the mineral right, the holder is required to obtain the necessary approvals and permits required from the Forestry Commission and the Environmental Protection Agency for the protection of natural resources, public health and the environment.

## **National Development Planning Commission**

The National Development Planning Commission (NDPC)<sup>27</sup> was established by the 1992 Constitution of Ghana as part of the Executive Arm of Government. NDPC comprises a chairman appointed by the President and representatives of key state and Government agencies<sup>28</sup>. The Commission operates through a number of committees whose composition changes with the focus of a medium-term development plan (in the case of the Thematic Committees) or the needs of the Commission as determined by its current members (the Standing Committees). NDPC has three technical divisions and a fourth one for

<sup>&</sup>lt;sup>26</sup> Section 93(2) of Act 625

<sup>&</sup>lt;sup>27</sup> Established under Articles 86 and 87 of the 1992 Constitution

<sup>&</sup>lt;sup>28</sup> Minister responsible for Finance and such other Ministers of State as the President may appoint; The Government Statistician; The Governor of the Bank of Ghana; One representative from each region of Ghana and Such other persons as may be appointed by the President having regard to their knowledge and experience of the relevant areas and roles pertaining to development, economic, social, environmental and spatial planning

administration. The technical divisions are: Development Policy, Plan Coordination, and Monitoring and Evaluation.

The Development Policy Division is responsible for technical support to the Government on policy formulation, review and analysis, and the identification and selection of sound policy advice based on research. The Plan Coordination Division is responsible for coordinating all development policies, plans, programmes and projects between the national and local governments. The Monitoring and Evaluation Division is responsible for monitoring and evaluating the implementation of government policies, programmes and projects at all levels, as well as developing and managing a functional national monitoring and evaluation system based on the decentralized planning system.

The core mandate of the NDPC is to advise the President on development planning policy and strategy. At the request of the President or Parliament, or on its own initiative, NDPC is required to make proposals for the protection of the natural and physical environment; monitor, evaluate and coordinate development policies, programmes and projects and study and make strategic analyses of macro-economic and structural reform options. To promote synergy and foster mutually beneficial learning, the Commission is represented on several public bodies, including the National Council for Tertiary Education, the Council for Scientific and Industrial Research, the Local Government Service Council, the Ghana Investment Promotion Council, the Energy Commission, and the Institute for Social, Statistical and Economic Research.

## **National Biosafety Authority**

The National Biosafety Authority (NBA) was established by the Biosafety Act, 2011 (Act 831). It was established to receive, process, respond to and make decisions on applications on modern biotechnology activities in the country and to act as the national focal point responsible for liaising with any other agencies or international organizations concerned with biotechnology and biosafety. NBA also has a duty to promote public awareness, participation and education concerning the activities of the Authority under the Act.

Act 831 enjoins NBA to operate in conjunction with other regulatory agencies such as the Food and Drugs Authority (FDA), Ghana Standards Authority (GSA), Customs Division of the Ghana Revenue Authority (GRA), the Environmental Protection Agency (EPA), Veterinary Division, the Plant Protection and Regulatory Services Division (PPRSD) and the Ministry of Local Government and Rural Development (MLGRD) to ensure an integrated approach to the regulation of modern biotechnology and its products. In addition, the Authority is represented by certified Institutional Biosafety Committees (IBCs) in research and academic institutions conducting research on Genetically Modified Organisms (GMOs) in Ghana. The Act also establishes a Technical Advisory Committee to support the Authority in conducting risk

assessment and management of GMOs and also to provide scientific advice to the Authority on issues under the Act. Furthermore, the Authority is supported by an Appeals Tribunal which deals with concerns of aggrieved persons on issues regarding applications and other matters under the Act. The mandate of the Authority focuses on ensuring protection from GMOs resulting from modern biotechnology that may have adverse effects on human health and the environment.

# **Land Use and Spatial Planning Authority**

The Land Use and Spatial Planning Authority (LUSP) was established by the Land Use and Spatial Planning Act (Act 925) which was enacted in 2016. The first members of its governing board were sworn in in 2017. LUSP was established to provide for the sustainable development of land and human settlements through a decentralized planning system; ensure judicious use of land; and enhance the attainment of Ghana's decentralization programme and in particular create an enabling environment for District Assemblies to better perform the spatial planning and human settlements management functions.

To achieve the above goals, LUSP is required to collaborate with the National Development Planning Commission (NDPC) to prepare and provide for the technical human settlements planning component for inclusion in the national development plans or infrastructure plan prepared by NDPC. LUSP is also required to ensure the control of physical development in uncontrolled or less controlled but sensitive areas such as forest reserves, nature reserves, wildlife sanctuaries, green belts, coastal wetlands, water bodies, water catchment areas, mining areas, open spaces and public parks; ensure that the exploitative use of natural resources for agriculture, mining, industry and other related activities do not adversely impact on human settlements and oversee the implementation of approved policies regarding spatial planning and physical development within the country.

#### **Bushfire Control Sub-Committees of District Assemblies**

The Control and Prevention of Bush Fires Act, 1990 (PNDCL 229) establishes a Bushfire Control sub-committee in each district assembly. The membership of the sub-committee is to be determined by the Assembly. The mandate of the sub-committee includes the drawing-up for the consideration of the District Assembly the appropriate by-laws to ensure adequate prevention, control and monitoring of bushfires, specifying the periods in the year within which the burning of farm slash, grass, herbage and dead wood shall be prohibited and setting up town, area and unit bushfire control committees which shall direct the activities of the town, area or unit fire volunteer squads. The sub-committee is also required to compile data on the bushfire outbreaks and offences within the District.

#### The Courts

The 1992 Constitution establishes the High Court. The High Court has jurisdiction<sup>29</sup> in all matters criminal and civil. Furthermore, the High Court has original jurisdiction<sup>30</sup> in enforcing the Fundamental Human Rights and Freedom provisions captured in Chapter 5 of the Constitution. This includes the right to information stated in Article 21(f). This right to information has recently been given impetus by the High Court<sup>31</sup>, when it indicated that it would enforce a request for public information. This has the potential of improving the transparency regime in the country.

The High Court also has the mandate to protect against of deprivation of property in Article 20. The Constitution gives the High Court the authority to issue such directions or give orders in the nature of prerogative writs as it may consider appropriate for the purposes of enforcing any of the provisions on fundamental human rights and freedoms. A person not satisfied with the judgment of the High Court may appeal to the Court of Appeal with a right of further appeal to the Supreme Court. The High Court has various divisions aimed at promoting specialization. These include the Labour Court and the Human Rights Court. There are currently over 95 High Courts scattered over the country particularly in the regional capitals.

<sup>&</sup>lt;sup>29</sup> Article 140 of the 1992 Constitution

<sup>&</sup>lt;sup>30</sup> Article 33 of the 1992 Constitution gives

<sup>&</sup>lt;sup>31</sup> Lolan Sagoe-Moses v AG (unreported; Suit No: HR/0027/2015)

# 4 PART IV – ANALYSIS OF PROTECTED AREAS

#### 4.1 Introduction

A Protected Area (PA) is a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.<sup>32</sup> For this study, the consultants were concerned with only terrestrial (including freshwater) and coastal/estuarine protected areas; offshore marine areas were excluded.

# 4.2 Protected Areas (PAs) in Ghana

Ghana has 16 state-established wildlife protected areas (wPAs), 2 community-owned wildlife protected areas and 5 coastal Ramsar sites<sup>33</sup>. For the purposes of this report, the state-established wPAs, community owned wPAs and Ramsar sites shall constitute PAs in Ghana. The PAs constitute a total of 14,147 square kilometers<sup>34</sup> or about 6% of the total surface area of Ghana. The list and the establishing legislation of the 14 State established wPAs, 2 community owned wPAs and 5 Ramsar sites is shown in Appendix 3. These comprise:

- a. 6 National Parks
- b. 6 Resource Reserves<sup>35</sup>
- c. 3 Wildlife Sanctuaries
- d. 1 Strict Nature Reserve and
- e. 5 coastal wetlands (Ramsar sites).

Except for Ramsar sites, legislation identifies the categories of PAs in Ghana without defining them nor specifying their conservation objectives. The *Ghana Forest and Wildlife Policy*, 2012 describes the categories as follows:

**National Park:** Generally, large and relatively undisturbed areas of outstanding nature containing representative samples of major natural regions, features or scenery and containing one or several entire ecosystems and not materially altered by man (or reflecting long-standing cultural land management practices). The areas should be accessible to the public and have high recreational, educational, inspirational and cultural potential of clear benefit to the local people, the region and the nation. The WD will administer and manage

<sup>32</sup> https://www.iucn.org/theme/protected-areas/about

<sup>&</sup>lt;sup>33</sup> The Owabi Wildlife Santuary which is part of the 16 state established wildlife protected area is also classified as an inland Ramsar site.

<sup>&</sup>lt;sup>34</sup> Republic of Ghana. National Biodiversity Strategy Action Plan, Nov 2016, page 13. https://www.cbd.int/doc/world/gh/gh-nbsap-v2-en.pdf

<sup>&</sup>lt;sup>35</sup> These are not described in the Ghana Forest and Wildlife Policy, <sup>2012</sup>. However, our understanding is that a resource reserve is created to focus on more specific areas of conservation like an identifiable specie or habitat that require continuous protection rather than that of a natural feature.

these areas so as to prevent or eliminate exploitation or intensive occupation in order that they may be maintained in perpetuity in a natural or near natural state.

**Wildlife Sanctuary:** Relatively small areas used to protect plant or animal species, either resident or migratory, of exceptional conservation interest, from any form of destruction. Such species will be protected from any form of exploitation which is inconsistent with their conservation status, except where that intervention is necessary to secure the continued survival of particular species. These areas are opened to public access for cultural, touristic, education, scientific, spiritual or inspiration reasons.

**Strict Nature Reserve:** Generally, relatively small areas containing fragile habitats, outstanding ecosystems and/or natural features in a relatively undisturbed state. They are prime representatives of the scientific study, monitoring, education or conservation of biological or cultural resources. Such areas are to be maintained in an evolutionary dynamic state and will require strict protection with minimal human disturbance, i.e. no management interventions will generally be permitted. Tourism, recreation and public access will be generally proscribed except for educational, scientific and cultural reasons, when only non-mechanized access will be allowed.

Ramsar Site: An area designated to be managed in accordance with the "wise use" concept of the Ramsar Convention.<sup>36</sup> The wise use concept means sustainable utilization for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem<sup>37</sup>. Sustainable utilization is defined as human use of the wetland so that it may yield the greatest continuous benefit to the present generations while maintaining its potential to meet the aspiration of future generations<sup>38</sup>.

The wPAs in Ghana fall into the following IUCN categorization of Protected Areas<sup>39</sup> (as shown in Table 1 below):

Table 1: Types of Protected Areas in Ghana

	Type of Protected Area	IUCN Categories
1	National Parks	Category II - National Park
2	Resource Reserves	Category IV - Habitat/Species Management Area

<sup>&</sup>lt;sup>36</sup> Regulation 10 of the Wetland Management (Ramsar Sites) Regulations,1999 (L.I. 1659)

<sup>&</sup>lt;sup>37</sup> Regulation 10 of the Wetland Management (Ramsar Sites) Regulations,1999 (L.I. 1659)

<sup>&</sup>lt;sup>38</sup> Regulation 10 of the Wetland Management (Ramsar Sites) Regulations,1999 (L.I. 1659)

<sup>&</sup>lt;sup>39</sup> Protected Areas categories have been listed in legislation but not defined in law. The consultant's classification to IUCN categories is based on both the management plans used in managing the Protected areas and the descriptions provided in the Ghana Forest and Wildlife Policy, 2012.

3	Wildlife Sanctuaries	Category III - Natural Monument or Feature Category IV - Habitat/Species Management Area
4	Strict Nature Reserve	Category IA - Strict Nature Reserve
5	Coastal Wetlands	Category VI - Protected Area with sustainable use of natural resources

## 4.3 Forest Reserves and Protected Areas – A Distinction

Forest and wildlife conservation areas constitute about 16.2 percent of the total land area<sup>40</sup> in Ghana. Ghana's legal regime makes a distinction between Forest Reserves and Protected Areas(PAs). Forest reserves are established by Executive Instruments whereas wildlife protected areas (wPAs) are established by subsidiary legislation (legislative instruments). Executive Instruments do not require parliamentary approval or consideration. They are records of the use of executive power. Once the President exercises his power, it is published in the gazette and immediately implemented. Similarly, to revoke it, the President has to issue an order for its revocation and the order becomes effective once it is published. The legislative instruments, on the other hand, are enacted or revoke through a more rigorous procedure by being laid before parliament for parliamentary consideration and approval.

Forest Reserves are established with the aim of safeguarding the water supply of the district, assisting the wellbeing of the forest and agricultural crops grown on those lands or in the vicinity of those lands, or securing the supply of forest produce to the inhabitants of villages situated on those lands or in the vicinity of those land.<sup>41</sup> In effect, they are established by the President to ensure the sustainable utility of forest resources.

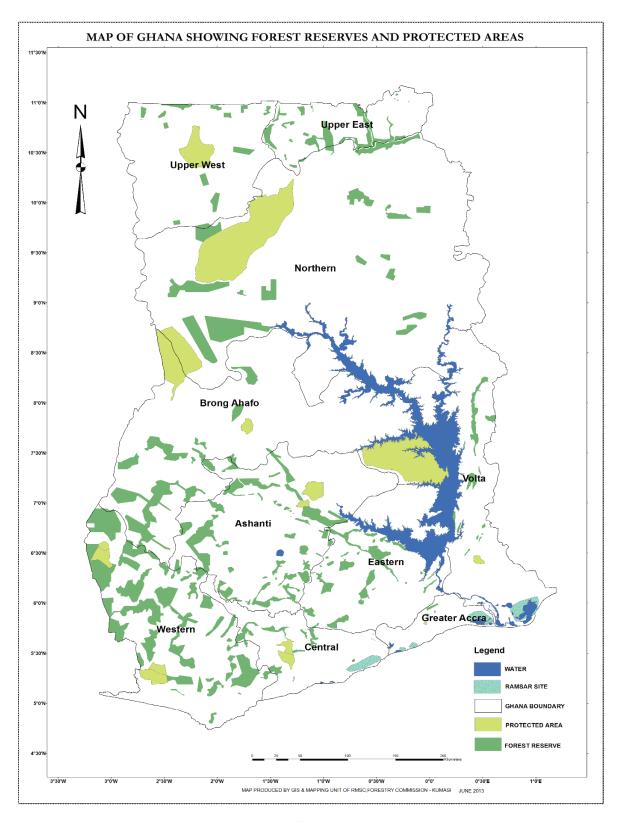
In contrast, Protected Areas in Ghana are established for the conservation biodiversity and associated ecosystems. Furthermore, Forest Reserves are managed by the Forest Services Division (FSD) while Protected Areas are managed by the Wildlife Division (WD). Both FSD and WD are divisions of the Forestry Commission (FC). Hence, in a strict legal sense and for this report, Forest Reserves are not considered as Protected Areas.

Figure 1 shows the location of both Forest Reserves and PAs whereas Figure 2 shows the location of only the PAs in Ghana.

<sup>40</sup> Ghana Forest and Wildlife Policy, 2012

<sup>&</sup>lt;sup>41</sup>Section 2d of the Forests Act, 1927 (CAP 157)

Figure 1: Forest Reserves and PAs in Ghana (credit-Ghana Forest and Wildlife Policy, 2012)



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PROTECTED WILDLIFE AREAS IN GHANA Mole NP Kyabobo NP **Bui NP** Digya NP Boabeng-Fiema WS Agumatsa WS Bomfobiri WS Kalakpa RR Owabi WS Shai Hills RR Bia NP & Bia RR Keta Lagoon RS Songor RS Sakumo RS Densu Delta RS Muni-Pomadze RS

Figure 2: PAs in Ghana (credit-Wildlife Division of Forestry Commission)

25

Ankasa RR & Nini-Suhien NP Kakum NP & Assin Attandanso RR

# 4.4 Requirements in Current PA Legislation and Regulation and Mechanisms through which they are fulfilled in Respect of:

# 4.4.1 Perpetual Integrity

# **Findings**

PAs in Ghana are created through subsidiary legislation<sup>42</sup>. The Minister of MLNR has the mandate to establish, design or alter the status of PAs through subsidiary legislation<sup>43</sup>. The creation of the PA must, however, be on the advice of the Forestry Commission<sup>44</sup>.

The law requires a subsidiary legislation to be laid before Parliament for 21 days after which it becomes law if not annulled. <sup>45</sup>. Ghana's laws follow a vertical hierarchy. Hence, a subsidiary legislation can only be repealed by another subsidiary legislation, an Act of Parliament or the Constitution of Ghana. <sup>46</sup> A subsidiary legislation establishing a PA remains in force until it is repealed by either another subsidiary legislation or an Act of Parliament.

The last establishment of PAs occurred on 1<sup>st</sup> December 1999 with the creation of 5 costal Ramsar sites and 1 inland Ramsar site.<sup>47</sup> It also seems that MLNR undertakes some feasibility studies before the creation of a PA. Further, research showed that the payment of compensation for people affected by the establishment of the protected area is not timely and this occasionally results in displaced persons returning to the designated areas.

# Gaps

- 1. There is no mechanism in law which gives the public and interested persons the opportunity to propose to the FC and the MLNR the creation or change of status of a PA.
- 2. There is no mechanism in PA legislation that permits the public/ stakeholders to propose creation of new PAs or to amend the status of existing ones.
- 3. The law is silent on the need for wide consultation and participation in the establishment, reclassification or change of status of PAs.
- 4. Though in practice, it appears MLNR consults with the inhabitants, local and traditional authorities, in the establishment, reclassification or change of status of PAs, there are no clear guidelines on how the consultation should be done.

## Recommendations

PA legislation should be amended to:

<sup>&</sup>lt;sup>42</sup> Section 11 of the Wild Animals Preservation Act, 1961 (Act 43) as amended by the Forestry Commission Act, 1999 (Act 571)

<sup>&</sup>lt;sup>44</sup> There is no mechanism in law to propose creation of new PAs. Currently, there are no lists of potential PAs. The focus now is on the creation of CREMAs

<sup>45</sup> Article 11(7) of the 1992 Constitution

<sup>&</sup>lt;sup>46</sup> Article 11 of the 1992 Constitution of Ghana.

<sup>&</sup>lt;sup>47</sup> Through the passage of the Wetland Management (Ramsar Sites) Regulations 1999 (L.I 1659); the following sites were created: Densu Delta, Sakumo, Songor, Keta Lagoon Complex, Muni-Pomadze and Owabi Wildlife Sanctuary.

- 1. Provide a mechanism that gives the public/ stakeholders an opportunity to propose the creation of new PAs or to amend the status of existing ones.
- 2. Require wide and adequate consultation of relevant stakeholders in the establishment, reclassification or change of status of PAs.
- 3. Require that decisions to establish or reclassify PA should be based on clear verifiable criteria to enhance the perpetual integrity of the PA established.
- 4. Specify at a minimum the stakeholders necessary for the consultation.
- 5. Require MLNR to publish guidelines on how the necessary public consultation should be conducted for the establishment or reclassification of a PA.
- 6. Incorporate principles that provide that:
  - a. the decision to alter the legal status of a PA is based on verifiable criteria and analysis of the impact of such an action on the protected areas system or site, as well as on national biodiversity conservation goals.<sup>48</sup>
  - b. the decision to alter the legal status of a PA should take account of the longterm social and environmental impact of any revocation on ecosystem services and functions for local communities and the country as a whole.<sup>49</sup>
  - c. Finally, reasons for proposing the altering of the legal status of a PA should be made public in writing in advance of the action, the public should be given the opportunity to comment on the reasons, and these comments should be considered in making the decision.<sup>50</sup>
- 7. Include in addition to the Geographic Coordinate System (GCS) Coordinates, the Global Positioning System (GPS) coordinates for easy identification.

# 4.4.2 System Planning

#### **Findings**

A system plan is the design of a total reserve system covering the full range of ecosystems and communities found in a particular country.<sup>51</sup> The plan should identify the range of purposes of PAs, and help to balance different objectives.<sup>52</sup> The plan should also identify the relationships among the system components – between individual areas of PAs, between PAs and other land uses, and between different sectors and levels of the society concerned.<sup>53</sup> It should help demonstrate important linkages with other aspects of economic development, and show how various stakeholders can interact and co-operate to support effective and

<sup>&</sup>lt;sup>48</sup> IUCN Guidelines for Protected Areas Legislation

<sup>&</sup>lt;sup>49</sup> IUCN Guidelines for Protected Areas Legislation

<sup>&</sup>lt;sup>50</sup> IUCN Guidelines for Protected Areas Legislation

<sup>&</sup>lt;sup>51</sup> National System Planning for Protected Areas

<sup>&</sup>lt;sup>52</sup> IUCN's Guidelines for Protected Areas Legislation (Lausche, Barbara. (2011). Guidelines for Protected Areas Legislation. IUCN, Gland, Switzerland.)

<sup>53</sup> ibid

sustainable management of protected areas. Lastly, a system plan should be a means to establish the priorities for a workable national system of protected areas.<sup>54</sup>

The consultants found no requirements in law for a system plan for PAs.

The closest holistic document pertaining to the network of PAs in Ghana was the *Ghana Forest* and *Wildlife Policy*, 2012 produced by the MLNR. On PAs, the policy states that Government aims at managing all national Parks, wildlife sanctuaries, wildlife resource reserves and other PAs in accordance with the duly approved wildlife management plans to ensure comprehensive biodiversity conservation and development in line with national conservation policies, strategies and Government of Ghana's commitment to international conventions and protocols. In pursuance of this, the Government intends<sup>55</sup> to:

- a. Create biological corridors between existing networks of conservation areas to maintain genetic continuity of flora and fauna.
- b. Promote trans-boundary corridor management with neighboring countries.
- c. Develop guidelines for the use of biodiversity offsets to rehabilitate degraded areas.
- d. Increase community participation in wildlife management in all forest areas through appropriate participatory models such as the CREMA concept for sustainable livelihood of fringe communities.
- e. Develop an incentive system to promote investment in community-based eco-tourism and commercial wildlife conservation and development.

The consultants found no requirements in law for the ecosystem approach for managing PAs. PA legislation seemed to emphasize only conservation of wildlife.<sup>56</sup>

## Gaps

- 1. There are no requirements in law for a system plan for PAs.
- 2. Though it is expressed in law that the Forestry Commission shall have the duty to manage the nation's forests and protected areas by proper planning,<sup>57</sup> Act 571 does not specify what constitutes "proper planning".

#### Recommendations

PA legislation should be amended to:

1. Require consent for proposed policies, plans, projects and activities within a PA: these should only be consented by the relevant authorities following a strategic

55 Ghana Forest and Wildlife Policy, 2012

<sup>57</sup> Section 2(b)(i) of the Forestry Commission Act, 1999 (Act 571)

<sup>54</sup> ibid

<sup>&</sup>lt;sup>56</sup> Section 3 of Wildlife Reserve Regulations, 1971 (L.I. 710), Section 4 and schedules of the Wild Animals Preservation Act, 1961 (Act 43) as amended and Regulations 1,2,3 and 4 of the Wildlife Conservation Regulations, 1971 (L.I. 685)

- environmental assessment and/or an environmental impact assessment to determine that they will not negatively affect the PA and its habitats and species for which it is designated.
- 2. Require a national protected areas system plan, give guidance on its overall objectives, and specify who is responsible for its preparation, regular review and oversight.<sup>58</sup> Legislation should also require public consultation in the preparation of the protected areas system plan.
- 3. Provide a framework within which operational priorities and overall budgets and resources can be allocated and adjusted over time. The framework should identify trade-offs and be monitored for biodiversity and socioeconomic outcomes. It should also address the interrelationships between protected areas and incorporate international obligations.<sup>59</sup> The law should specify that trade-offs should only be permitted in exceptional circumstances and only be allowed if overall conservation objectives for the protected area can be achieved.
- 4. Require that the System Plan to be produced should:
  - take a more strategic view of PAs;
  - ii. identify buffer zones that may be needed and also identify ecological corridors linking PAs in order to connect ecological processes, patterns of vegetation, habitats for threatened and vulnerable species, and other living resources within landscapes or seascapes;
  - define roles of key players in relation to PAs and the relationships between iii. these players;
  - iv. identify gaps in PA coverage (including opportunities and needs for connectivity and deficiencies in management); and
  - identify current and potential impacts both those affecting PAs from ٧. surrounding land (e.g. encroachment by neighbouring communities) but also those emanating from PAs and affecting the neighbouring land (e.g. wildlife impacting farmland).
- 5. Steps should be taken to codify the international obligations of Ghana as set out in ratified treaties into domestic legislation.60

international agreeements will lead to the full enforcement by the courts.

<sup>59</sup> IUCN Guidelines for Protected Areas Legislation

<sup>60</sup> The Supreme Court has indicated in case law that the codification and domestication in Ghanaian law of ratified

# 4.4.3 Management by Conservation Objectives

# **Findings**

Managing PAs by conservation objectives means that the management of a specific PA should be in accordance with the goals and objectives for which the site was designated. The review of legislation revealed that though the categories of PAs created are stated, the PA's conservation objectives do not exist in the law.

Ghana does not have legal definitions of a National Park and Resource Reserve. However, since 1994, government's policies<sup>63</sup> have adopted the definitions of a National Park and Resource Reserve used by the International Union for the Conservation of Nature and Natural Resources (IUCN) in New Delhi 1961.

The aim of the 1994 policy was the "conservation and sustainable development of the nation's forest and wildlife resources for maintenance of environmental quality and perpetual flow of optimum benefits to all segments of society." The definitions of National Park and Resource Reserve have, however, not been expressed in legislation.

## Gaps

1. Though the categories of PAs created are stated, the law does not state the conservation objectives of the PAs created.

#### Recommendations

Legislation should be amended to:

- 1. provide that each proposed and existing site for a PA has clear and specific conservation objectives to guide site-specific management planning and actions.
- 2. provide on the principle that management of a specific protected area should be in accordance with the goals and objectives for which the site was designated.

# 4.4.4 Management Plans

## **Findings**

A management plan for a protected area is a document which sets out the management approach and goals, together with a framework for decision making, to apply in the protected area over a given period of time.<sup>64</sup> The consultants found no provision in law for a protected area management plan but the Wildlife Division of the Forestry Commission has produced

<sup>&</sup>lt;sup>61</sup> IUCN Guidelines for Protected Areas Legislation

<sup>&</sup>lt;sup>62</sup> Regulation 6 of the Wildlife Reserves Regulations, 1971 (L.I. 710) states that "Reserve" includes a National Park, Game Production Reserve, Strict Nature Reserve and Wildlife Sanctuary.

<sup>63 1994</sup> Forest and Wildlife Policy of Ghana

<sup>64</sup> IUCN Guidelines for Protected Areas Legislation

management plans for all the established PAs in the country. The core objective of the management plans<sup>65</sup> reviewed was to protect and maintain biodiversity. There are also specific biodiversity-related objectives such as bush fire control, and specific objectives related to the improvement of people of fringe community's well-being, e.g. setting up of community committees that regulate harvesting of Non-Timber Forest Products. The plans appeared to give the park managers significant amount of discretion in managing the PAs. Some of the plans did not provide for the life of the plan and basic cycle for review, revision and updating.

According to the management plans reviewed, consultations with members of fringe communities and traditional authorities, academic institutions, inputs from other management plans, field patrol reports and surveys and other stakeholders were undertaken in preparing the management plan. The Wildlife Division's policy and management objectives for PA were also taken into consideration. The plans generally described the location, legal, administrative and bio-physical status of the sanctuary, the inherent heritage values and the designated management zones of the PAs. The plans further analyzed apparent pressures, threats, opportunities and constraints faced by the sanctuary. The broad vision of the PAs, specific objectives and underlying management actions and other associated activities were also highlighted.

The plans also stated cursorily the steps to be taken to enable effective protection and restoration of flora and fauna of the area. Lastly there was a broad outline of strategies to be adopted to win the confidence and collaboration of local communities for the protection of the PAs and to encourage their involvement in the making of decisions affecting the sanctuary.

## Gaps

- 1. There is no requirement in law for the production and the review of PA management plans.
- 2. There is also a lack of definitive policy or management guidelines in preparing the plans. As such, there was no consistency between the strategies of different FC park managers posted to take charge of the reserves. Thus the officer in charge seems to be at liberty to determine his own priorities.

#### Recommendations

Legislation should be amended to:

<sup>&</sup>lt;sup>65</sup> The Management Plans of the following PAs were reviewed: Mole, Bomfobiri, Kogyae, Shai hills

- 1. Require the production of PA management plans and their regular review by the FC through a public consultation process.
- 2. Provide a mechanism for the evaluation of the PA management plans produced and their consequent revisions based on empirical results.
- 3. The requirement for a forest management plan should provide for the:
  - a. Content of the plan.
  - b. The process of plan preparation.
  - c. Legal status of the plan.
  - d. Issues of implementation.
- 4. The content of the plan should state, among others:
  - a. Legal description of the area and how it relates to the system plan of Protected Areas for coherence.
  - b. Kinds of activities permitted and prohibited in the area.
  - c. Monitoring plan.
  - d. Performance criteria for evaluating progress toward goals and objectives, and effectiveness of specific management approaches.
- 5. The law should also require management plans to be developed for PAs through extensive consultative processes with local fringe communities.

# 4.4.5 Precautionary Approach

#### **Findings**

The precautionary principle provides that where knowledge is limited and there is lack of certainty regarding the threat of a serious environmental harm, this uncertainty should not be used as an excuse for not taking action to avert that harm.<sup>66</sup> According to the IUCN guidelines for PA legislation, the precautionary principle in legislation provides a fundamental policy basis to anticipate, avoid and mitigate threats to the natural environment.

The consultants found no provision in Ghana's PA legislation which requires PA authorities to use the precautionary approach whenever there is a basis to exercise discretion in the design and management of the PA, such as in the issuing of permits, licences or approvals with respect to the PAs.

The consultants found that each of the PAs have a Protected Area Management Advisory Board (PAMAB) made up of all key stakeholders who meet regularly to deliberate on sensitive decisions to be made on the PAs.

<sup>&</sup>lt;sup>66</sup> IUCN Guidelines for Protected Areas Legislation

## Gaps

- 1. The precautionary principle is not captured in PA legislation.
- 2. There are no established guidelines for consultations and deliberations required to be made in respect of decisions on delicate/sensitive matters in the PA.

## Recommendations

The PA legislation should be amended to:

- 1. Include the principle that where knowledge is limited and there is lack of certainty regarding the threat of an environmental harm, PA Authorities should take action to avert that harm and this consideration should be reflected in the issuing of permits, licences or approvals with respect to PAs.
- 2. Require that PA management should endeavour to consult all relevant stakeholders and rights holders in a transparent process of assessment, decision making and implementation to make the best possible judgements about overall risks, threats and required actions, particularly where there is uncertainty. Legislation should also specify who the relevant stakeholders are.
- 3. Require PA authorities to ensure that the best scientific information is available by undertaking regular research.
- 4. Require the use of an adaptive management in managing the PAs such as regular monitoring, review and flexibility of procedures and making them essential elements of the decision-making process to enable new information obtained to be incorporated
- 5. Require all public bodies/government departments to consult with MLNR, Forestry Commission and the National Development Planning Commission on any proposed policy, legislation, decisions, activities etc that are likely to affect PAs and their species as well as more generally for protected species outside PAs.
- 6. Finally, PA authorities should make information available to the public on the work being done in respect of PAs.

## 4.4.6 Management of Invasive Alien Species (IAS)

## **Findings**

Invasive Alien Species is defined as an alien species that is able to survive and reproduce or spread outside of human intervention/cultivation and whose introduction and/or spread has a negative impact on biodiversity or ecological functions within a Protected Area. <sup>67</sup>

The consultants found no requirements in Ghana's PA legislation in respect of IAS and their management. The closest provisions to such a requirement were the following: the law

<sup>&</sup>lt;sup>67</sup> The Nature Conservancy (TNC) and IUCN-WCPA in 2009 in producing a guide on invasive species, for use by protected area practitioners.

requires that plant and plant material gain approval and a phytosanitary certificate be issued by the Ministry of Food and Agriculture (MOFA) before they can be imported into the country<sup>68</sup>. The MOFA is required to produce an official list of varieties of seeds that can be registered in Ghana.<sup>69</sup> Consequently, there is a prohibition on the production, marketing and selling of seeds not of a registered variety, whether foreign or indigenous.<sup>70</sup> A new variety of seed can only be introduced into the country with the approval of the Minister.<sup>71</sup> Finally, approval is required for the introduction into the environment, import, transit confined use activity or the development of genetically modified organisms (GMOs).<sup>72</sup>

In reviewing some of the PA management plans developed by the Forestry Commission, the consultants found that the plans identified IAS prevalent in that particular area and the steps to minimize their threat.

# Gaps

1. There is no requirement in legislation that ensures that IAS are identified, A list is prepared and regularly updated and steps are taken to prevent their introduction into the PA.

#### Recommendations

The following principles should be incorporated into PA legislation:

- 1. A requirement that an IAS list should be prepared for each PA which should be regularly reviewed and updated.
- 2. There should be a requirement for IAS research and monitoring, to detect new threats, prevent their introduction into the country and monitor existing controls.
- 3. A requirement for IAS education and public awareness to support both voluntary and regulatory means for IAS prevention, eradication, control and containment.

# 4.4.7 Management for Climate Change

## **Findings**

The consultants found no provision in PA legislation that require PA authorities to incorporate climate change considerations into PA design and management. It is helpful to note that Ghana's PA creating legislation was enacted before Ghana signed onto the United Nations Framework Convention on Climate Change (UNFCCC) in June 1992.

<sup>&</sup>lt;sup>68</sup> Section 2 of Plant and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>69</sup> Section 43 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>70</sup> Section 38 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>71</sup> Section 43 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>72</sup> Sections 11, 12, 13 and 15 of the Biosafety Act, 2011 (Act 831)

Nonetheless, in the most recent policy on the environment, Ghana Forest and Wildlife Policy, 2012<sup>73</sup>, the Government expressed plans to enact the necessary legislation to guide the allocation of carbon rights and related matters; undertake training and education in forest resource management at district levels in carbon rights allocations; and create awareness about the role of forests in climate change, particularly in adaptation and mitigation.

The Government of Ghana has also established a National Climate Change Committee (NCCC) which is hosted by the MESTI. The NCCC has the mandate of reviewing policies and programs to complement national priorities and contribute to the reduction of greenhouse gas emissions, an increase in carbon sinks and also to adaption. The NCCC has the duty to ensure the implementation of the National Climate Change Adaptation Strategy, Ghana National Climate Change Policy, the Ghana National Climate Change Master Plan Action Programmes for Implementation: 2015-2020 and to provide a framework for adapting to climate change.

#### Gaps

- 1. Absence of provisions in PA legislation that require PA authorities to incorporate climate change considerations into PA design and management.
- 2. The Climate Change policies do not have the force of law and may be jettisoned by the government of the day.

#### Recommendations

- 1. PA legislation should be amended to specify that PA management plans should contain the need for regular assessment of the PA, its status and plans, using the best available science to identify any parts of the site that may be particularly vulnerable to climate change, and measures that may help build resilience and allow adaptation to preserve the conservation objectives of the area.
- 2. In order for PAs to achieve conservation objectives in the face of climate change, legislation should be amended to require considerations of climate change in the design of outer boundaries of old and new PAs in order for some flexibility for adaptive management.
- 3. Legislation should also be amended to require that the system plan for PAs ensure connectivity between the PAs in their designs.
- 4. PA legislation should be amended to require the use of an adaptive management approach in managing the PAs such as regular monitoring, review and flexibility of procedures.
- 5. The creation of PAs should include consideration of buffer zones and corridors for adaptation to climate change.

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<sup>73</sup> Policy strategy 1.8.1, Ghana Forest and Wildlife Policy, 2012

# 4.4.8 Taking an International Perspective, Including Management for Migratory Species

## **Findings**

In broad terms, the 1992 Constitution of Ghana provides that the state shall take the appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek cooperation with other states and bodies for the purpose of protecting the wider international environment for mankind.<sup>74</sup>

In addition, the Forestry Commission is required to co-operate and liaise with national and international bodies and organizations on forestry and wildlife conservation and utilization in implementing Ghana's Forest and Wildlife policies.<sup>75</sup>

However, there are no express requirements in PA legislation that require protected area authorities to incorporate considerations of migratory species into protected area design and management. It is helpful to note that Ghana's legislation creating Protected Areas was enacted before Ghana became a party to the Convention for the Conservation of Migratory Species in 1988.

## Gaps

1. There are no express requirements in PA legislation that require PA authorities to incorporate considerations of migratory species into PA design and management.

#### Recommendations

1. PA legislation should be amended to establish conservation corridors in PA design within and between Ghana and neighboring countries. This will facilitate migration of species and habitat management and conservation.

## 4.4.9 Access to Information and Public Participation

# **Findings**

The consultants found no requirement in PA legislation that allows the public to request and receive information on PAs. There is also no requirement in PA legislation that requires PA authorities to undertake record-keeping and for dissemination mechanisms to enable government agencies to collect and actively distribute information without request.

However, the broad Constitutional right to information may be used in court to request public information on PAs.<sup>76</sup> The 1992 Constitution gives the High Court the mandate to enforce fundamental human rights provisions, including the right to information.<sup>77</sup> The difficulty with

<sup>74</sup> Article 36(9) of the 1992 Constitution of Ghana

<sup>75</sup> Section 2 (c) of the Forestry Commission Act, 1999(Act 571)

<sup>&</sup>lt;sup>76</sup> Article 21(1) (f) of the 1992 Constitution of Ghana and Lolan Sagoe-Moses v A.G (Unreported; Suit No. HR/0027/2015)

<sup>77</sup> Article 33 of the 1992 Constitution of Ghana

this provision is that the language is broad, requires interpretation and one has to resort to the slow judicial process for enforcement. This mechanism tends to be cumbersome and inconvenient.

It is important to note that in preparing this report, the consultants found that the FC was ready to provide information on the PAs which was available. At the time of writing, the Government of Ghana has laid a Right to Information Bill before Parliament. The bill seeks to operationalize the Constitutional right to information by laying out in much detail the procedure for requests and for government response.

The consultants also found no requirements in PA legislation and regulations that require PA authorities, the FC and MLNR to ensure public participation in their decision making.

In practice, the consultants were informed that attempts are made to consult with the locals of the area before the establishment of the PAs.

## Gaps

- 1. No requirement in PA legislation that allows the public to request and receive information on PAs, such as management plans, system plan, monitoring, evaluation and financial reports.
- 2. There are no requirements in PA legislation and regulations that require PA authorities, the FC and/or MLNR to ensure public participation in their decision making.

#### Recommendations

The PA legislation should be amended to require that:

- PA authorities provide timely access to accurate, relevant and understandable information, as well as provide a reasonable opportunity for the public to provide meaningful comments where significant decisions are being contemplated on the Protected Area.
- 2. The FC publishes (i) proposals to declare an area as a protected area, (ii) draft and final system plan and PA management plans and (iii) monitoring, evaluation and financial reports and other related documents on its website to make these documents accessible to the public and CSOs for public scrutiny and participation.<sup>78</sup> Legislation should also state the time frame and means by which comments on these documents will be received and considered in decision making.
- 3. Significant decisions taken by the PA authorities and FC are published for public scrutiny. Significant decisions should include decisions on designating or amending a protected area, designating site management authorities, developing and approving a management

<sup>78</sup> IUCN Guidelines for Protected Areas Legislation

plan, configuring and laying out a strategy for a protected area system plan, and reviewing a draft environmental and social impact assessment regarding proposed actions of the protected areas agency.

## 4.4.10 Social Equity and Justice

## **Findings**

The title in the lands of PAs are vested in the State. The State has the power to compulsory acquire land space for the creation of a PA.<sup>79</sup> The 1992 Constitution, however, ensures that owners of properties that are compulsorily acquired by the state are adequately compensated by giving conditions under which the state may exercise this power. It provides that interest or rights over any property can only be compulsorily acquired by the state under the following conditions:

- 1. The acquisition is necessary in the development or utilization of property in such a manner as to promote the public benefit.
- 2. The necessity for the acquisition is clearly stated and of a nature as to provide reasonable justification for causing any hardship that may result to any person who has an interest in or right over the property.
- 3. The compulsory acquisition of the property by the State must be made under a law which makes provision for:
  - a. the prompt payment of fair and adequate compensation; and
  - b. a right of access to the High Court by any person who has an interest in or right over the property for the determination of his interest or right and the amount of compensation to which he or she is entitled.<sup>80</sup>

Furthermore, where the acquisition involves the displacement of any inhabitants, the State is required to resettle the displaced inhabitants on suitable alternative land with due regard for their economic well-being and social and cultural values.<sup>81</sup> The Constitution also establishes the High Court as having the mandate to enforce fundamental human rights provisions, including the protection from deprivation of property.

In most of the PAs, the locals are still allowed to pass (walk) through specified paths within the PA. Also, the management plans of the PAs reviewed contain the objectives of setting up community committees to regulate harvesting of Non-Timber Forest Products by locals.

<sup>79</sup> Article 20 of the 992 Constitution of Ghana

<sup>80</sup> Article 20 of the 992 Constitution of Ghana

<sup>81</sup> Article 20 of the 1992 Constitution of Ghana

#### Gaps

There are no requirements in PA legislation and regulations that require PA authorities, the FC and MLNR to ensure public participation in their decision making.

#### Recommendations

PA Legislation should be amended to:

- 1. Include the obligation of protected area authorities to ensure the full participation of local communities and other stakeholders and rights holders, particularly where they may be impacted by protected area decisions.
- 2. Require protected area authorities to make arrangements for the design and management of protected areas that ensure the fair and equitable sharing of costs and benefits across the many interests involved.

## 4.4.11 Community Led PA Governance

# **Findings**

The consultants found no requirements in PA legislation and regulations that provide for community-led PA governance. However, the Forestry Commission has produced the Wildlife Division Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana.

Land adjacent to the protected area network is of the highest priority for the establishment of CREMAs. The communities are encouraged to establish CREMAs on their own initiative. At the time of this report, CREMAs have been established adjacent to the national parks at Bia, Ankasa and Mole. Community Resource Management Committees (CRMC) have been set up to lead the management of these areas. The CRMC also helps with resolving human-wildlife conflicts or issues between the PA authorities and the communities.

According to the Wildlife Division Policy for Collaborative Community Based Wildlife Management, the Wildlife Division, in co-operation with the District Assembly and Traditional Authorities (where appropriate), will give the authority to a community represented by a locally elected Natural Resource Management Committee (NRMC) to regulate and control access to wildlife in the area defined as the CREMA.

The regulation of resource uses in the defined area will be the responsibility of the CREMA within a framework agreed by the Wildlife Division and in accordance with national legislation safeguarding in particular any specially protected, rare or endangered species. The CREMA will be held accountable for the protection, conservation and sustainable use of all wildlife in its own area of jurisdiction. The Collaborative Resource Management Unit within the Wildlife

Division of the Forestry Commission has the duty to create, develop and assist in the management of CREMAs throughout Ghana.

## Gaps

There are no requirements in PA legislation and regulations that provide for community-led PA governance.

## Recommendations

1. The Wildlife Division Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana should be given legal backing and expressed in PA legislation.

# 4.4.12 Convention on Biological Diversity (CBD)

## **Findings**

Ghana signed the CBD during the Earth Summit in June 1992 and ratified it in 1994. Ghana has established 21 recognized wildlife Protected Areas (wPAs) through legislation.<sup>82</sup> This comprises 16 PAs and 5 Ramsar sites. PA legislation provides for the Forestry Commission's mandate to manage the nation's forests and protected areas by proper planning, monitoring and controlling the harvest of forest and wildlife products.<sup>83</sup> Ghana, therefore, has legislation<sup>84</sup> in place which satisfies the obligation under the convention to develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations. The architecture of the Wild Animals Preservation Act, 1961 (Act 43) permits easy amendment of the list of protected species by amending the schedule to the legislation.

Ghana has a commitment, under the *Strategic Plan for Biodiversity* 2011-2020 of the Convention to create at least 17 % of well-connected terrestrial PA cover by 2020.<sup>85</sup>

<sup>&</sup>lt;sup>82</sup> Wildlife Reserves Regulations, 1971 (L.I.710), Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022), Wildlife Reserves (Declaration of Game Reserves) (Amendment) Regulations, 1991 (L.I.1525), Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105), Wildlife Reserves (Amendment) (Declaration of Game Reserves) Regulations, 1976 (L.I. 1085), Executive Instrument No 20 of 16/09/1993. The legislation setting up Protected Areas satisfies Ghana's obligation to establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity under Article 8 of the Convention.

<sup>&</sup>lt;sup>83</sup> Section 2(2)(b) of the Forestry Commission Act, 1999 (Act 571). This partially satisfies the obligation to regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use under Article 8 of the Convention.

<sup>&</sup>lt;sup>84</sup> the Wild Animals Protection Act, 1961 (Act 43) Wildlife Reserves Regulations, 1971 (L.I.710), Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022), Wildlife Reserves (Declaration of Game Reserves) (Amendment) Regulations, 1991 (L.I.1525), Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105), Wildlife Reserves (Amendment) (Declaration of Game Reserves) Regulations, 1976 (L.I. 1085), Executive Instrument No 20 of 16/09/1993

<sup>&</sup>lt;sup>85</sup> Target 11, Aichi Biodiversity Targets.

The Minister for Lands and Natural Resources may, on the advice of the Forestry Commission, make subsidiary legislation to establish more PAs, provide for the management of PAs, the protection of endangered species and other related matters.<sup>86</sup>

## Gaps

- 1. Review of PA legislation<sup>87</sup> revealed that legislation fails to provide definitions for key terms such as biological diversity and ecosystem.
- 2. Legislation also fails to provide for guidelines for the selection and establishment and management of protected areas.
- 3. Legislation also fails to provide a mechanism for the public to propose the creation or change of status of PAs in Ghana.
- 4. In addition, legislation fails to provide for the obligation to promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of the protected areas.
- 5. Lastly, there is no requirement for regular revision and update of the list of protected species in the schedule to Act 43.

#### Recommendations

- 1. In addition to recommendations made earlier on PAs, particularly on definitions, public and stakeholder participation in creation and management of PAs, it is further recommended that PA legislation is amended to:
  - i. provide for guidelines for the selection and establishment and management of protected areas.
  - ii. require the regular review and amendment of the list of protected species in the schedule to Act 43.

# 4.4.13 Ramsar Convention

## **Findings**

The Ramsar Convention entered into force in Ghana on 22 June 1988. Ghana currently has 6 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 176,134 hectares. The Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659) was enacted pursuant to Ghana's obligation under the Convention<sup>88</sup>. The Ramsar sites

<sup>&</sup>lt;sup>86</sup> Section 11 of the Wild Animals Preservation Act, 1961 (Act 43).

<sup>&</sup>lt;sup>87</sup> The Wild Animals Preservation Act, 1961 (Act 43) Wildlife Reserves Regulations, 1971 (L.I.710), Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022), Wildlife Reserves (Declaration of Game Reserves) (Amendment) Regulations, 1991 (L.I.1525), Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105), Wildlife Reserves (Amendment) (Declaration of Game Reserves) Regulations, 1976 (L.I. 1085), Executive Instrument No 20 of 16/09/1993

<sup>&</sup>lt;sup>88</sup> Regulation 1 of Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659). This is in compliance with Article 2(1) of the Ramsar Convention. Parties to the Convention have an obligation to designate, at the time of ratification or accession, at

comprise five coastal Ramsar sites and one inland Ramsar. The five coastal ones are: Muni-Pomadze, Densu Delta, Sakumo, Songor and the Keta Lagoon Complex. The Owabi Wildlife Sanctuary is the inland Ramsar site.

The schedule of the Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659) specifies the boundaries of the designated Ramsar sites. <sup>89</sup> The Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659) specifies restricted and proscribed activities in the designated sites and also specifies the penalties for flouting the regulations. <sup>90</sup> The Wildlife Division of the Forestry Commission has the mandate to enforce the provisions of the regulations.

# Gaps

- 1. The management plans for the Ramsar sites identified were outdated and they provided no mechanism for their regular review and revision.
- 2. Also, no requirements addressing Ghana's duty to formulate and implement national land use plans to promote wise use of all wetlands in Ghana's territory and not just those on the Ramsar List were identified.<sup>91</sup>

#### Recommendations

The Regulations should be amended to require the regular review, evaluation and revision of management plans for the Ramsar sites with ecosystem objectives and the precautionary approach principle.

# 4.4.14 Convention on the Conservation of Migratory Species of Wild Animals (CMS)

## **Findings**

Ghana is a range state for 22 Appendix I species<sup>92</sup> and 101 Appendix II species<sup>93</sup>. The Wild Animals Protection Act, 1961 (Act 43)<sup>94</sup> and its implementing regulations<sup>95</sup> provide for:

a. Restrictions in import or export of 10 species listed in Appendix I and 30 species listed in Appendix II.

least one wetland for inclusion in the List of Wetlands of International Importance (the Ramsar List), to promote conservation of the site and to continue designating suitable wetlands within its territory.

<sup>&</sup>lt;sup>89</sup> The schedule to the Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659) specify the boundaries of the designated Ramsar Sites. This fulfils Ghana's obligation to maintain the boundaries of a wetland site once it is on the Ramsar List.

<sup>90</sup> Regulations 6,7,8 of the Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659).

<sup>&</sup>lt;sup>91</sup> Article 3(1) of the Ramsar Convention.

<sup>&</sup>lt;sup>92</sup> Parties that are Range States of Appendix 1 species have an obligation to strictly protect Appendix 1 animals, conserve or restore their habitats, prevent or minimize obstacles to their migration, and control other factors that might endanger them. (Art. III). The species protected include:

<sup>&</sup>lt;sup>93</sup> Parties that are Range States of these species have the obligation to endeavor to conclude agreements benefiting the species, giving priority to those species with an unfavorable conservation status.

<sup>94</sup> Section 4 and the schedules of the Wild Animals Preservation Act, 1961 (Act 43);

<sup>95</sup> Regulation 1,2,3 and 4 of the Wildlife Conservation Regulation, 1971 (L.I. 685) as amended

- b. Prohibition of hunting of 14 species listed in Appendix I and 10 species in Appendix II.
- c. Prohibition of hunting of the young of 15 species listed in Appendix I and 12 species in Appendix II.
- d. Prohibition of the hunting of the female with the young of 15 species listed in Appendix I and 12 species in Appendix II.
- e. Restriction in hunting of some of the listed species in certain periods of the year.
- f. Restrictions in the keeping of wild animals.

Owing to Ghana's obligation to endeavor to conclude agreements benefiting the species in Appendix II of the Convention, Ghana has concluded 5 non-binding MOUs which have not been expressed in law. The main agency responsible for enforcing Act 43 is the Forestry Commission through its Wildlife Division.<sup>96</sup>

## Gaps

Besides restriction in hunting of some of the endangered species listed in Appendix I, the consultant found no expression in law to conserve or restore their habitats, prevent or minimize obstacles to their migration, and control other factors that might endanger them as required by the convention.

#### Recommendations

The Minister for Lands and Natural Resources should use his mandate under Act 43 to make subsidiary legislation that provides for strategies to strictly protect the animals, conserve or restore their habitats, prevent or minimize obstacles to their migration, and control other factors that might endanger them as required by the convention. Specifically, the law should prescribe a mechanism to identifying endangered species and then set up a Species Action Plan to protect the species and the habitats.

# 4.4.15 Agreement on the Conservation of African-Eurasian Migratory Water birds (AEWA)

## **Findings**

Ghana became a contracting party to the Agreement on the Conservation of African-Eurasian Migratory Water birds (AEWA) on 10<sup>th</sup> October 2005. Under the agreement, Ghana has a duty to work towards the conservation and sustainable management of migratory water birds, paying special attention to endangered species as well as to those with an unfavourable conservation status. Ghana's specific commitments under the agreement in respect of PAs include:

<sup>&</sup>lt;sup>96</sup> has the mandate to manage the nation's forests and protected areas by proper planning, monitoring and controlling the harvest of forest and wildlife products.<sup>96</sup>

- 1. Identification and publication of national inventories of habitats within its territory which is important to specified migratory bird species. This has not been expressed in legislation or policy.
- 2. Continuing with the establishment of PAs to conserve habitats important for the specified species and to develop and implement management plans for these areas. Though there is a mechanism in law to establish PAs by the Minister, no new PAs have been established after the signing of this agreement. The last establishment of PAs was in 1999 in creating Ramsar Sites. Ghana's duty to give special protection to and ensure wise use of wetlands has been fulfilled through the enactment of the Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659) enforcement of the regulations is a significant issue.
- 3. Preparation and distribution of information materials, in the appropriate languages, describing such regulations, standards and control measures in force and their benefits to people and wildlife and this has yet to be done. All relevant materials on PAs are in English. There is no effort to sensitize the public on PA laws and regulations.
- 4. Rehabilitation and restoration of degraded important habitats for the specified species. In preparing this report, the consultants found that the Sakumo Ramsar site and other wetlands have been degraded but found no mechanism in law for their rehabilitation.
- 5. Enactment of laws that regulate the taking and modes of taking of specified birds and their eggs, prohibit the deliberate disturbance in so far as such disturbance would be significant for the conservation of the population of the specified birds and prohibit the possession or utilization of, and trade in, birds or eggs of the specified birds. Ghana is also to phase out the use of lead shot for hunting in wetlands. There is no provision in law or government policy against the use of lead shot in hunting in Ghana.
- 6. Establishment of a proficiency test for hunters, including among other things, bird identification. This duty has not been fulfilled or expressed in law.'
- 7. Cooperation with other states to develop and implement international single species action plans for specified birds and in addition and pursuant to the international single species action plans, develop national species action plans and adaptive harvest management for some specified birds. These species action plans should also contain reestablishment plans where appropriate. At the time of this report, Ghana has not developed any National Single Species Action Plans<sup>97</sup>
- 8. Ghana is also required to prohibit the introduction into the environment of non-native species of animals and plants which may be detrimental to specified birds. The consultants found no official national list of non-native species of animals and plants or a requirement in law to produce one in preparing this report. However, the management plans of some PAs reviewed specified some invasive species and steps to deal with them.

<sup>97</sup> Report on the implementation of AEWA for the period 2012-2014 filed on

Furthermore, there is a requirement in law for procuring a phytosanitary certificate for plants or plant parts imports.

There is also a regulatory regime for GMOs in terms of their introduction into the environment, importation, transition, confinement, use and their development.<sup>98</sup> But it appears there is no provision or mechanism in law for invasive animal species.

9. Establishment and effective enforcement of adequate statutory pollution controls in accordance with international norms and legal agreements, particularly as related to oil spills, discharge and dumping of solid wastes, for the purpose of minimizing their impacts on the populations of specified birds. Ghana has in place an environmental protection regime and the Environmental Protection Agency, for its implementation.<sup>99</sup> The consultant found that some PA's particularly Ramsar sites have been severely degraded and this indicates lack of enforcements of the requirements/ safeguards in environmental protection legislation.

## Gaps

- 1. Ghana has yet to identify and publish national inventories of habitats within its territory which are important to specified migratory bird species and there is no mechanism in legislation that requires this to be done.
- 2. Ghana has yet to turn the International Single Species Action Plans (ISSAP), for some specified species into National Single Species Action Plans and there is no mechanism in legislation that requires this to be done.
- 3. Since Ghana became a contracting party to the AEWA, no new PA has been established and there is no mechanism in law that gives the public or stakeholders the opportunity to propose to Government the creation of new PAs.
- 4. Though the Environmental Protection Agency has a duty in law to initiate and pursue formal and non-formal education programmes for the creation of public awareness of the environment and its importance to the economic and social life of the country, research by the consultants revealed that this duty wasn't being performed.
- 5. There is no provision in law or government policy against the use of lead shot in hunting in Ghana.
- 6. The consultants found no regulatory framework for re-establishments of specified water birds in the AEWA in Ghana.
- 7. Ghana's commitment to establish a proficiency test for hunters, including among other things, bird identification has not been fulfilled or expressed in law.
- 8. The consultants found no official national list of invasive foreign species of animals and plants and requirement in law to create one.

<sup>98</sup> Section s 11, 12, 13 and 15 of the Biosafety Act, 2011 (Act 831)

<sup>99</sup> The section on Environmental Assessment (PART V) addresses this regime in much detail.

9. Lastly, the consultants found that there is lack of enforcement for some of the requirements/ safeguards in environmental protection legislation particularly in Ramsar sites.

#### Recommendations

Pursuant to Ghana's obligation under the AEWA

- 1. Legislation should be amended to:
  - a) Provide a mechanism for the identification and publishing of national inventories of habitats within Ghana which is important to the specified migratory water bird species.
  - b) Require the production of National Single Species Action Plans from the International Single Species Action Plans (ISSAP) for the specified water bird species.
  - c) Give the public or stakeholders a mechanism to propose to Government the creation of new PAs.
- 2. Legislation should prohibit the use of lead shot in hunting in Ghana.
- 3. Forestry Commission should be given an additional mandate to prepare and distribute information materials, in the appropriate languages, describing such regulations, standards and control measures in force and their benefits to people and wildlife.
- 4. Legislation should provide for a regulatory framework for re-establishments of specified water birds in the AEWA in Ghana.
- 5. Ghana's commitment to establish a proficiency test for hunters, including among other things, bird identification should have expressed in law and licensing regime should be established and implemented by the Forestry Commission.
- 6. Legislation should be amended to require the preparation and regular review of an official national list of invasive foreign species of animals and plants. The amendment should also provide a mechanism for strategies to deal with them.

# 4.4.16 Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa, 2002

#### **Findings**

Ghana signed unto the Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa, 2002 (MoU) in 1999. The intention at the signing of the MoU was to give consideration, after a certain number of years, to transforming the MoU into a legally binding Agreement, with more concrete institutional arrangements. The MoU in its current state give Ghana the following obligations:

- 1. Ghana is to review and revise, as necessary, existing legislation or enact new legislation to provide for the protection of marine turtles, and oversee its enforcement.
- 2. Further, Ghana is to put in place an administrative structure which has, as part of its responsibility, the conservation of marine turtles. Ghana has in place Wildlife Preservation Act, 1961 (Act 43) and Wildlife Conservation Regulation, 1971 (L.I. 685) which completely protects all marine turtles including all the species mentions mention in the MoU. The protection in legislation entails a complete prohibition of the hunting, capture or destruction of any marine turtle found anywhere in Ghana. Legislation also sets up the Forestry Commission and gives it the mandate to enforce Act 43. The Wildlife Division of the Forestry Commission is Government's focal point on all matters related to the MoU.
- 3. Ghana is also to encourage the adoption of by-laws at local levels against killing and eating of turtles, make them part of customary laws and integrate elements of conservation programmes in school curricula. This obligation has not been expressed in legislation or policy.
- 4. Furthermore, information gathered about turtles and the results of conservation efforts are to be transmitted back to fishermen and the local community. This commitment has not been expressed in legislation or policy.
- 5. Importantly Ghana is to draft detailed national action plans and projects for marine turtle conservation and establish national databases of individuals, organizations concerned with marine turtle conservation, particularly develop and maintain a web-based regional database of marine turtle focal points, interested NGOs, researchers, resource persons. These commitments have yet to be done.

#### Gaps

- 1. There are no single-species action plans for the identified marine turtles or no mechanism in law for their production.
- 2. There are currently no detailed national action plans and projects for marine turtle conservation and national databases of individuals and/or organizations concerned with marine turtle conservation.

## Recommendations

Pursuant to Ghana's commitments under the MoU, legislation should be amended to:

- 1. Provide the requirement for the production of single species action plans for the identified marine turtles and their regular review.
- 2. Provide in the requirement for the production of detailed national action plans and projects for marine turtle conservation and national databases of individuals, organizations concerned with marine turtle conservation.

# 4.4.17 Convention on the Revised African Convention on the Conservation of Nature and Natural Resources, 2017 (ACCNN)

# **Findings**

Ghana signed and ratified the ACCNN in 2003 and 2007 respectively. The ACCNN was revised in 2017. Since the signing and ratification of the ACCNN, no new legislation on PAs have been passed. Hence, Ghana's obligations under the ACCNN have not been transposed into domestic law and therefore, they are not enforceable before the courts though Ghana owes international obligations under the treaty. Nonetheless, there are some requirements in existing legislation that may, if well enforced, satisfy Ghana's obligations under the ACCNN.

In line with Ghana's duty<sup>100</sup> to establish conservation areas, Ghana has established 21 recognized Wildlife Protected Areas (wPAs) through legislation. Ghana also has a duty<sup>101</sup> to regularly assess potential impacts and the necessity of establishing additional conservation areas. Ghanaian legislation only gives the Minister of MLNR the mandate, on advice of the FC, to establish new PAs. The law is silent on the mechanism for regular assessments of impacts and the need for new PAs.

Ghana is also under a duty to promote the establishment of areas managed by local communities primarily for the conservation and sustainable use of natural resources. At the time of this report, the Forestry Commission had produced the *Wildlife Division Policy for Collaborative Community Based Wildlife Management* for the establishment of Community Resource Management Areas (CREMAs) across Ghana. Ghana is also obligated to control activities outside conservation areas which are detrimental of the purpose for which the conservation areas were created and establish for that purpose buffer zones around its borders. Besides the provision in policy for a Riparian Buffer Zone<sup>102</sup>, there are no requirements in law or policy for establishing buffer zones around the borders of a PA as well as regulating activities around these borders.

Parties under the ACCNN<sup>103</sup> are also required to adopt legislation regulating all forms of taking, including hunting, capture of wildlife and fishing and collection of whole or parts of plants to ensure any population is sustainable. There is also an obligation to identify the factors causing the depletion of animal and plant species, tackle the factors and accord such

<sup>100</sup> Article XII of the ACCNN

<sup>&</sup>lt;sup>101</sup> Article XII of the ACCNN

<sup>&</sup>lt;sup>102</sup> Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana, 2011 and Section3.2 of The Revised Logging Manual for Ghana (2003) prepared in accordance with Section 10 of The Timber Resources Management Act, 1997 (Act 547)

<sup>103</sup> Article IX of the Revised African Convention on the Conservation of Nature and National Resources, 2003

endangered species protection by law. The corresponding legislation is the Wild Animals Preservation Act, 1961 (Act 43) and the Wildlife Conservation Regulations,1971 (L.I 685) as amended, which specify regulations, for the hunting and capture of classes of wildlife, in respect of young and old, and the permitted seasons for such activities. The legislation also specifies restrictions on the import or export of trophies.<sup>104</sup>

On sustainable development, Ghana is to ensure that the conservation and management of natural resources are treated as an integral part of national and/or local development plans, i.e. in the formulation of all development plans, full consideration should be given to ecological as well as to economic, cultural and social factors. Ghana has a legal framework for development planning. This is done by the National Development Planning Commission, in collaboration with the relevant sector ministries. One of NPDC's duties is to make "proposals for the protection of the natural and physical environment to ensure that development strategies and programmes are in conformity with sound environmental principles." But the legal regime in place for environmental assessment (treated in Part VI) appears only to provide for the requirement and procedure for Environmental Impact Assessments for projects to the exclusion of Strategic Environmental Assessments. Nonetheless, the consultants found that in practice, SEAs are occasionally undertaken when there is donor support and the EPA has a department for SEA. SEAs were also found to be usually performed to assess government policies and plans.

Finally, Ghana has obligations under the ACCNN to adopt legislative and regulatory measures necessary to ensure timely and appropriate dissemination of environmental information, access of the public to environmental information and participation of the public in decision making with a potentially significant environmental impact, <sup>106</sup> yet, there is no express provision in legislation requiring PA authorities to publish and make information on the PAs available and accessible to the public.

#### Gaps

- 1. There is no mechanism in legislation for the regular assessment of potential impacts and the necessity of establishing additional conservation areas.
- 2. Though there is a policy for the establishment of Community Resource Management Areas (CREMAs) across Ghana, this is not law and thus not enforceable.
- 3. There is no provision in legislation for the creation of buffer zones around PAs.

<sup>&</sup>lt;sup>104</sup> Trophies have been defined as animals listed in the schedule to the Act, whether dead or alive.

<sup>&</sup>lt;sup>105</sup> Section 2(c) of the National Development Planning Commission Act, 1994 (Act 479)

<sup>&</sup>lt;sup>106</sup> Article XVI of the Revised African Convention on the Conservation of Nature and National Resources, 2003

- 4. There is no mechanism in legislation to ensure that there is a regular review, revision and update of wild life listed in the schedule of the Wild Animals Preservation Act, 1961 and the Wildlife Conservation Regulations, 1971 (L.I 685).
- 5. There is no legal framework for the requirement and performance of Strategic Environmental Assessment, which is vital to ensure that the conservation and management of natural resources are treated as an integral part of national and / or local development plans as required by the ACCNN.

#### Recommendations

- 1. Legislation should be amended to require the regular assessment of potential impacts and the necessity of establishing additional conservation areas by the Forestry Commission.
- 2. The policy for the establishment of Community Resource Management Areas (CREMAs) across Ghana, should be transposed into law to make it enforceable on successive governments.
- 3. Legislation should provide for the creation of buffer zones around PAs.
- 4. A mechanism should be created in legislation to ensure that there is a regular review, revision and update of wild life listed in the schedule of the Wild Animals Preservation Act, 1961 and the Wildlife Conservation Regulations, 1971 (L.I 685).
- 5. Legislation should provide a legal framework for the requirement and performance of Strategic Environmental Assessment, which is vital to ensure that the conservation and management of natural resources are treated as an integral part of national and/or local development plans as required by the ACCNN.

# 4.4.18 Impact on PAs of Harmful Land Use Changes Identified in The Abuja Declaration

#### **Findings**

Harmful land use changes identified in the Abuja Declaration include: increases in large scale mono-culture plantations; intensive farming techniques that degrade the environment; loss of trees, woodlands and forests in the landscape; loss and degradation of permanent and seasonal wetlands; damaging and poorly planned infrastructure developments; and mining. The consultants found the following requirements in legislation which in effect puts safeguards in place to address harmful land use changes identified in the Abuja Declaration.

- 1. A person requires authorization before entering a PA.<sup>107</sup>
- 2. A person cannot hunt or capture any animal or collect or destroy any plant within a PA except with a written consent of the PA authorities and this authorization shall only be given for conservation and management purposes.<sup>108</sup>

<sup>&</sup>lt;sup>107</sup> Regulations 2 of the Wildlife Reserves Regulations, 1971 (L.I. 710)

<sup>108</sup> Regulation 3 of the Wildlife Reserves Regulations, 1971 (L.I. 710)

- 3. A person cannot also bring into a PA any equipment which may be used to hunt, capture or destroy any wildlife.<sup>109</sup>
- 4. No plant or animal can be taken out of a PA without the consent of the PA authorities. 110
- 5. A person cannot light any fire in a PA; pollute any water within a PA; abandon any litter within a PA. And most importantly, a person cannot clear or cultivate any area within the PA unless he/she obtains a written authorization from the PA authorities.
- 6. In relation to the safeguards against the loss of trees, woodlands and forests in the landscape, the consultant found that a person requires authorization either from the Director of Agricultural Extension Services or the Director of Animal Health and Production Department to set fire to a specified area other than a conservation area for the purpose of range management or any other agricultural purpose. 111 Also, the fire set must be controlled and confined to the specified area and shall not exceed the purpose for which the fire is permitted.
- 7. Furthermore, the law makes it an offence not to seek authorization to start a bush fire. 112 And it is an offence not to report a person who starts a bush fire. 113 Lastly, every district assembly is to have a Bushfire Control Sub-committee with a mandate to stipulate by-laws to ensure adequate prevention, control and monitoring of bushfires.
- 8. For the purpose of Environmental Assessment, PAs and other specified areas<sup>114</sup> have been classified as "Environmentally Sensitive Areas."<sup>115</sup> The clearing of land or the construction of pipelines for the transmission of oil, natural gas and other related products within an Environmentally Sensitive Area requires registration and an environmental permit from EPA. But the law gives EPA the discretion to request for an EIA before granting a permit, if in its opinion, such activity is likely to have adverse effect on the environment.<sup>116</sup>

<sup>&</sup>lt;sup>109</sup> Regulation 3 of the Wildlife Reserves Regulations, 1971 (L.I. 710)

<sup>&</sup>lt;sup>110</sup> Regulation 3 of the Wildlife Reserves Regulations, 1971 (L.I. 710)

<sup>111</sup> Section 4 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

<sup>112</sup> Section 11 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

<sup>113</sup> Section 12 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

<sup>114 1.</sup> All areas declared by law as national parks, watershed reserves, wildlife reserves and sanctuaries including sacred groves.

2. Areas with potential tourist value. 3. Areas which constitute the habitat of any endangered or threatened species of indigenous wildlife (flora and fauna). 4. Areas of unique historic, archaeological or scientific interests. 5. Areas which are traditionally occupied by cultural communities. 6. Areas prone to natural disasters (geological hazards, floods, rainstorms, earthquakes, landslides, volcanic activity etc.) 7. Areas prone to bushfires. 8. Hilly areas with critical slopes. 9. Areas classified as prime agricultural lands. 10. Recharge areas of aquifers. 11. Water bodies characterized by one or any combination of the following conditions a. water tapped for domestic purposes; b. water within the controlled and/or protected areas; c. water which support wildlife and fishery activities. 12. Mangrove area~ characterized by one or any combination of the following conditions a. areas with primary pristine and dense growth; b. areas adjoining mouth of major river system; c. areas near or adjacent to traditional fishing grounds; d. areas which act as natural buffers against shore erosion, strong winds or storm floods.

<sup>115</sup> Regulation 30(2) of Environmental Assessment Regulations, 1999 (LI 1652).

<sup>&</sup>lt;sup>116</sup> Section 12 of the Environmental Protection Agency Act, 1994 (Act 490) and Regulations 1&2 of Environmental Assessment Regulations, 1999 (LI 1652).

- 9. Also, the clearing of land for farms involving land greater than 40 hectares in an area requires registration with EPA and obtaining an environmental permit from EPA.<sup>117</sup>
- 10. The requirements for undertaking an EIA include:
  - a. EPA is to publish notices of receipt and such parts of the EIA it considers necessary at the cost of the applicant in the media. 118
  - b. EPA must hold a public hearing for applications which receive great adverse public reaction or which the Agency considers could have extensive and far reaching effects on the environment.<sup>119</sup>
  - c. EPA is to publish all environment permit issued in the gazette and mass media. 120
- 11. After the issue of an Environmental Permit, an Environmental Management Plan is to be submitted to the EPA within 18 months of the commencement of operations and every 3 years thereafter.<sup>121</sup>
- 12. For ensuring compliance with requirements for environmental assessments, permits and provisions of the EPA Act, the EPA has appointed environmental officers to surveil and monitor new developments. It is also an offence not to comply with any provision of the Environmental Protection Agency Act, 1994 (Act 490) and the Environmental Assessment Regulations, 1999 (LI 1652). The offender could be fined or imprisoned for a term not exceeding one year or to both.

## Gaps

- 1. Though registration and an environmental permit is mandatory for clearing of land and related activities in a PA, an EIA is not.
- As noted and elaborated in the section on EAs, information and documents prepared for the EIA is not readily accessible to the public to enhance participation in the decision making.

#### Recommendations

- 1. The law should be amended to specify that any activity in an Environmentally Sensitive Area should require an EIA and an environmental permit.
- Legislation should also specify that an environmental permit to undertake any activity in a PA should only be awarded if the proposed undertaking will not affect the PA and their species.
- 3. All the recommendations made under the section on EAs on how to improve its performance apply here. For emphasis, information, materials and documents prepared

<sup>&</sup>lt;sup>117</sup> Regulation 1 of the Environmental Assessment Regulations, 1999 (LI 1652)

<sup>118</sup> Regulation 16 of the Environmental Assessment Regulations, 1999 (LI 1652)

<sup>119</sup> Regulation 17 of the Environmental Assessment Regulations, 1999 (LI 1652)

<sup>120</sup> Regulation 8 of Environmental Assessment Regulations, 1999 (LI 1652)

<sup>121</sup> Regulation 24 of the Environmental Impact Assessment Regulations, 1999 (LI 1652)

for the EIA process should be made accessible to the public on EPAs website to enhance, transparency, scrutiny participation and ultimately better decision making.

# 5 PART V – ANALYSIS OF AGRICULTURE

## 5.1 Introduction

As noted in section 1.2, agricultural intensification and expansion have been identified as a significant cause of land use change in Ghana. This part presents requirements found in current agriculture legislation that have the potential of achieving sustainable land use<sup>122</sup> as defined in the Abuja Declaration and the mechanisms through which they are fulfilled. Each section concludes with recommendations by the consultants to improve on the effectiveness of the requirements.

The identified requirements and recommendations, if well enforced, have the potential of providing a framework that will ensure that the impact of agricultural activities on ecosystems and biodiversity are assessed and controlled. In a sense, the proper assessment and control of these activities protect the environment from hazardous impacts that may distort or degrade ecosystem services and will help to enhance climate change mitigation and adaptation efforts. Ultimately, the goal of sustainable land use becomes achievable.

5.2 Requirements in Current Agriculture Legislation and Mechanisms through which they are fulfilled in respect of:

# 5.2.1 Biodiversity: Species (Plant Protection)

## **Findings**

The law requires that a phytosanitary certificate is obtained before any plant and plant material can be imported into the country<sup>123</sup>. This requirement is consistent with Ghana's obligation under the International Plant Protection Convention<sup>124</sup>. The permits are issued by the Minister for Food and Agriculture through its Plant Protection and Regulatory Services Directorate (PPRSD).<sup>125</sup> It is an offence to import plant and plant material into the country without a phytosanitary certificate. The penalty for the offence is a fine of 1,200 Ghana Cedis or imprisonment for a term not exceeding 6 months or one year upon subsequent conviction for the same offence.

<sup>&</sup>quot;Sustainable land management practices that, taken together over a defined area, support resilient livelihoods for communities, ecosystem services and sufficient natural and semi-natural habitat to ensure healthy populations of resident and migratory species. Such practices must also be adapted to climate change and take into account an integrated landscape approach to fulfil the needs of people and biodiversity."

<sup>123</sup> Section 2 of Plant and Fertilizer Act, 2010 (Act 803)

<sup>124</sup> Section 4 of Plant and Fertilizer Act, 2010 (Act 803)

<sup>125</sup> Section 2 of Plant and Fertilizer Act, 2010 (Act 803)

#### Gaps

- 1. Ghana's agriculture sector is largely informal. This provides challenges in enforcing this requirement. Not only are many imports not subject to regulatory control, there are also informal entry points where enforcement of existing regulations does not occur.
- 2. The review revealed that in practice this requirement is usually enforced only against incorporated companies/entities that have registered with MOFA. Moreover, there is a focus on the formal sector and large-scale imports to the neglect of the informal and smallscale imports into the country.
- 3. There is no duty on any institution in law to educate on the legal obligation to obtain a plant and plant material phytosanitary certificate prior to import.
- 4. It appears that a number of institutions including the Ghana Standards Authority, Food and Drugs Authority and the PPRSD must be coordinated to issue the phytosanitary certificate; the existence of institutional rivalry amongst these actors affects the effectiveness of enforcement.
- 5. The number and capacity of custom officers is inadequate to police compliance with this requirement.

#### Recommendations

- 1. The existing legislation on phytosanitary certificates should be amended to give the National Commission for Civic Education (NCCE) a duty to educate the public on the need for phytosanitary certificates, the requirements under the law and the consequences of non-compliance.
- 2. On enforcement, mechanisms should be instituted that allow MOFA officials to be assigned to various entry points of Ghana to check unlawful introduction of unapproved plant material that may contain alien species into the country.
- 3. Government should use the restrictions in the ECOWAS protocol for free movement of goods and services to check entry of species that could be harmful to Ghanaian native species.
- 4. There should be transparency of information in respect of companies registered, certificates issued etc. so that any member of the public may be able to check compliance with the law.
- 5. The immigration staff at the national borders should be increased to improve surveillance.

## 5.2.2 Biodiversity: Species (Seed Variety)

# **Findings**

The law requires that an official list of varieties of seeds is created and updated by the National Seed Council. MOFA is required to keep this register.<sup>126</sup> A new variety of seed can only be introduced into the country through the approval of the Minister<sup>127</sup>. Consequently, there is a prohibition on the production, marketing and selling of seeds that are not of a registered variety.<sup>128</sup>

Dealers in the import, export, production or selling of seeds must be registered with the MOFA.<sup>129</sup>

## Gaps

- 1. In practice the focus is only on targeted seeds coming into the country through the formal points of entry. There appears to be no scrutiny of seeds that enter the country through the various informal entry points.
- 2. Again, much of Ghana's agriculture sector is not formal and there is no mechanism within the law to check the large informal sector to ascertain whether unapproved seeds are being used by farmers.
- 3. The district level MOFA extension service units are ill-equipped to provide the muchneeded technical support for farmers on the choice of species (planting stock).
- 4. In practice, there is much focus on foreign varieties and little or virtually no protection for indigenous varieties.
- 5. Focus of legislation is mainly on seeds to the neglect of other propagation materials such as roots and tubers which are also used for propagation/cultivation in the large informal sector.
- 6. The majority of Ghana's agriculture sector is informal. As a result, a substantial amount of unregistered seed finds its way into the country through informal entry points.

#### Recommendations

- 1. There is the need to amend legislation to give District Assemblies a duty to establish district Agriculture Inspectorate Divisions to enforce the use of approved seeds particularly in farming communities.
- 2. There should be express provision for the protection of indigenous species in law by defining native species and providing a list.

<sup>126</sup> Section 43 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>127</sup> Section 43 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>128</sup> Section 38 of the Plant and Fertilizer Act, 2010 (Act 803)

<sup>129</sup> Section 31 of Plant and Fertilizer Act, 2010 (Act 803)

- 3. Increased surveillance by MOFA on the importation of seeds and planting stocks into the country, particularly in farming communities across the border should be improved.
- 4. Effort must be put into training and recruiting qualified extension officers who will support local farmers on the choice of better planting stocks and seeds.
- 5. The restrictions in the ECOWAS protocol for free movement of goods and services should be used to check entry of species that could be harmful to Ghanaian native species.

# 5.2.3 Biodiversity: Species (Biosecurity)

# **Findings**

Approval is required for the introduction into the environment, the importation, the transition, the confinement, the use, any activity or the development of GMOs.<sup>130</sup> The required approval is given by the National Biosafety Authority (NBA). The NBA is required to publish all applications for approval for the release of GMOs into the environment. The NBA is to appoint inspectors for specific areas who have the authority to enter, without warrant, premises they suspect are flouting the requirements of the Biosafety Act, 2011.

## Gaps

- 1. An application for approval lacks the requirement for a comprehensive insurance or guarantee to cater for/remedy accidents or the potential dangers that may occur from the testing/ release of these new technologies.
- 2. In terms of enforcement, there appears to be focus on imports and not on GMOs produced in Ghana. The definition of a GMO is still not clear within the Ministry.

#### Recommendations

Applications for approval should, if possible, be accompanied by an undertaking from the applicant to deal or to pay for dealing with unexpected eventualities. The law should be amended to clearly require that GMOs produced in Ghana should be properly monitored.

# 5.2.4 Ecosystem Services: Provisioning (Right to Use Water Resources)

#### **Findings**

A person is required by law to obtain water rights, in the form of a water use permit, to divert, dam, store, abstract or use water resources<sup>131</sup>; or construct or maintain any works for the use

<sup>&</sup>lt;sup>130</sup> Sections 11, 12, 13 and 15 of the Biosafety Act, 2011 (Act 831)

<sup>&</sup>lt;sup>131</sup> Act 522 defines water resources as all water flowing over the surface of the ground or contained in or flowing from any river, spring, stream or natural lake or part of a swamp or in or beneath a watercourse and all underground water but excluding any stagnant pan or swamp wholly contained within the boundaries of any private land

of water resources.<sup>132</sup> The use of water for domestic purposes is exempted. The Water Resources Commission (WRC) is responsible for issuing the permits.

Besides the construction of dams, impounding of reservoirs and irrigation schemes, legislation fail to specify thresholds of water abstraction which make the performance of an Environmental Impact Assessment (EIA) mandatory before the grant of water permit. Legislation, however, requires WRC to consult with the Environmental Protection Agency (EPA) in deciding whether there is need for an EIA in respect of an application for a water use permit.<sup>133</sup>

Where WRC decides that an EIA is necessary, the EIA statement must be submitted to and approved by the EPA and a copy of the assessment must be attached to the application for the water use permit. If in the opinion of the EPA, the proposed or existing water use requires an environmental management plan, that requirement shall also be one of the conditions for the grant of a water use permit.

WRC must consider the following in making a determination of whether or not to grant the water rights: technical data, sustainability of the water resources, national security, public safety, or other reasonable justification.<sup>134</sup>

Furthermore, the law requires the WRC to consult with the inhabitants of the area of the water resources concerned before granting water rights. WRC must publish notice of all applications for water rights in the gazette and a national newspaper for possible objections by persons with valid concerns. WRC must hold a public hearing in respect of an application where:

- (i) there is adverse public reaction to the proposed use of the water resource,
- (ii) the use of the water involves the dislocation, relocation, resettlement or destruction of the natural water resources of the community, or
- (iii) the Commission considers that the use of the water will have an impact on the natural resources of the basin.

<sup>132</sup> Section 13 of the Water Commission Act, 1996 (Act 522)

<sup>133</sup> Regulation 12 of the Water Use Regulations, 2001 (LI 1692)

<sup>&</sup>lt;sup>134</sup> Regulation 13 of the Water Use Regulations (L.I 1692)

<sup>135</sup> Section 16 of the Water Commission Act, 1996 (Act 522)

<sup>136</sup> Section 16 of the Water Commission Act, 1996 (Act 522) and Regulation 3 of the Water Use Regulations, 2001 (LI 1692)

<sup>137</sup> Regulation 6 of Water Use Regulations, 2001 (LI 1692)

A grant of water right is subject to ratification by Parliament.<sup>138</sup> The law however gives Parliament the option to resolve to exempt some classes of water rights from the requirement of Parliamentary ratification.<sup>139</sup>

A person requires the approval of the WRC for a transfer of water rights granted.<sup>140</sup> Water rights granted may be revoked, suspended or modified if the Commission is satisfied that the water resource in an area is insufficient, the water resources are required for a public purpose or the holder of the permit has failed to comply with a condition of the grant. <sup>141</sup> Furthermore, WRC has the power to enter onto lands to inspect and demolish unlawful constructions abstracting or using water resources without a permit. <sup>142</sup>

In practice, unless it is a large-scale operation there is no attempt to regulate water rights. The WRC is basin based and unless the operation is affecting a water basin there is in practice no regulation by the WRC. The grant of a water permit requires evidence of consultation and agreement with likely affected inhabitants at the very early stages of the application and EPA most often requires an EIA<sup>143</sup> for the use of the water resources<sup>144</sup>. Also in practice, some government projects, usually when funded by development partners, undertake a Strategic Environmental Assessment (SEA) before commencement. This is conducted even though there is no legal framework for an SEA in Ghana.

Where the harvesting of the water affects landowners near the water resource, the applicant for the water right is required to pay compensation for land rights use. There is however no evidence whether in practice this is paid.

#### Gaps

- 1. Although the law requires WRC to consider the impact that a proposed water use will have on the water resource, the law does not provide clarity on what constitutes an impact or how this is to be measured.
- 2. Besides the construction of dams, impounding of reservoirs and irrigation schemes, the law fails to provide a threshold of general water abstraction that must require an EIA.
- 3. WRC requires an applicant for a water right to undertake an EIA approved by the EPA. There is, however, no legal framework that requires the consideration of cumulative small-scale abstractions from the water resource by either the EPA or the WRC in giving approval or water right respectively.

<sup>138</sup> Section 16 of the Water Commission Act, 1996 (Act 522)

<sup>139</sup> Section 16(9) of the Water Commission Act, 1996 (Act 522)

<sup>&</sup>lt;sup>140</sup> Section 17 of the Water Commission Act, 1996 (Act 522)

<sup>141</sup> Section 19 of the Water Commission Act, 1996 (Act 522)

<sup>142</sup> Section 29 and 30 of the Water Commission Act, 1996 (Act 522)

<sup>&</sup>lt;sup>143</sup> Part V of this report explores Enivironmental Assessments in detail.

<sup>144</sup> The guildelines adopted are the same for any undertaking and it is not specific to water alone.

- 4. Under the law, WRC must publish in the gazette and a national newspaper, a notice of an application for water right for possible objections by persons with valid concerns. However, most of these water resources are found and used in areas with low literacy rates. Therefore, frequently the inhabitants do not receive adequate notice to raise their concerns with WRC.
- 5. Though the law specifies that WRC must hold a public hearing to take the concerns of inhabitants in making a decision on whether to grant a water right or not, the law does not specify a minimum notice period for such a hearing.
- 6. The law also requires that WRC must consult with the inhabitants of the area of the water resources concerned before making a grant. However, the law fails to prescribe what constitutes a fair and adequate consultation. This risks representation of the inhabitants captured to be an elite capture, chieftaincy capture or money capture.
- 7. No requirement exists in law for the control and metering of water that is abstracted by the water rights applicant after obtaining the water rights.
- 8. The law specifies no criteria that the WRC must use in determining whether an application for a water right requires an EIA.

#### Recommendations

Legislation should be amended to:

- 1. Provide in detail the criteria the WRC should use in the assessment of applications for water rights. Legislation should also specify the thresholds of water abstraction and related activities which should require an EIA before the grant of water rights.
- 2. Incorporate the term "sustainability" as stated in the Abuja Declaration as one of the considerations the WRC is to make in granting water rights or approving requests.
- 3. Provide for a legal framework for Strategic Environmental Assessment, the threshold and criteria for its performance and its regular review in respect of water resources.
- 4. As recommended in the section on EAs, the application process for the utilization of natural resources should be streamlined to make the EPA the first point of call for the grant of any permit/ approval or licenses to exploit any natural resource. On receiving any such application, the EPA is guided by the thresholds or criteria set out in law and may request for an EIA in considering whether to grant an environmental permit prior to the issuance of other permits to exploit the natural resource being granted by the other commissions.
- 5. Require that the publication of an application for water rights in a local area should be done by town criers or on radio in an appropriate language which inhabitants can understand..
- 6. On the requirement that the WRC must consult with the inhabitants of the area of the water resources concerned before making grant, the law should prescribe what

constitutes a fair and adequate consultation to ensure a proper representation of the inhabitants. Legislation should also prescribe a minimum notice period for where a public hearing is required

- 7. Legislate the Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana, 2011 into law to enhance its enforceability.
- 8. Clarity on making information timely available to the public on the duties performed by the agency responsible for enforcing the requirements.

# 5.2.5 Ecosystem Services: Provisioning - Fresh Water (Irrigation)

## **Findings**

The consultants found no express regulatory requirements for irrigation generally in legislation. However, the Irrigation Development Authority (IDA) has a duty to develop the water resources of the country for irrigated farming, livestock improvement and fish culture and carry out land-use planning in areas earmarked for development in order to conserve the soil and water resources in those areas<sup>145</sup>.

The law<sup>146</sup> only sets up the authority and gives it the above mandate. It does not give IDA regulatory powers or set up a regulatory regime to regulate irrigated farming or to ensure the performance of the mandate of land-use planning in areas earmarked for development in order to conserve the soil and water resources in those areas by the authority. Also, the law fails to create a mechanism to ensure that these mandates are performed.

#### Gaps

The law:

- 1. Sets up the authority but fails to create a mechanism to ensure that these mandates are performed.
- 2. Does not give the IDA regulatory powers or set up a regulatory regime to regulate irrigated farming or to ensure the performance of the mandate of land-use planning in areas earmarked for development in order to conserve the soil and water resources in those areas by the authority.
- 3. Fails to give clarity on the role of the District Assemblies/local authorities in irrigation development.

In practice, the IDA regulatory function is only targeted at the formal sector. Regulation by the IDA, EPA and WRC is not enforced in the non-formal irrigation sector.

#### Recommendations

<sup>&</sup>lt;sup>145</sup> Section2 of Irrigation Development Authority Act, 1977 (S.M.C.D. 85)

<sup>&</sup>lt;sup>146</sup> The Irrigation Development Authority Act, 1977 (S.M.C.D 85)

- 1. The law should be amended to create a mechanism to ensure that these mandates of the Authority are performed.
- 2. Furthermore, the legal regime on the IDA should be amended to broaden the mandate of the IDA to the regulation of all issues related to irrigation.

## 5.2.6 Ecosystem Services: Provisioning (Medicinal Materials)

# **Findings**

The Traditional Medicine Practice Council (TMPC) has a duty to collaborate with the appropriate agencies for large-scale cultivation of medicinal plants and for the preservation of biodiversity<sup>147</sup>.

The Forest Protection Act only applies to forest reserves but makes it illegal for anybody to debark, uproot, lop or girdle any tree, including medicinal plants, of both indigenous and non-indigenous species for whatever purpose in a forest reserve without a written permission from a competent forest authority<sup>148</sup>.

It is an offence not to obtain written permission from a competent forest authority before undertaking proscribed activities in a forest reserve. The penalty for the offence is a fine not exceeding 6000 Ghana Cedis or imprisonment not exceeding 2 years or to both, except that for a second or subsequent offence, the offender shall be liable on summary conviction to a fine of not less than 3000 Ghana Cedis or to imprisonment not exceeding 3 years or to both. Also, a person convicted of an offence shall, in addition to any other punishment imposed, pay twice the commercial value of each tree or of the timber or forest produce which is the subject matter of the offence.

In practice, community members however can enter the forest and take non-forest products as long as they are not injurious to the trees.

#### Gaps

- 1. The law as it stands is without a mechanism to ensure that the Council performs this assigned duty.
- 2. While the Forestry Commission has a duty to properly plan for the protection, utilization and development of forest and wildlife resources in a sustainable manner, there is no express requirement that timber trees are protected from an ecological perspective or for the Forestry Commission to work together with other agencies such as the EPA and TMPC to understand the cumulative impacts on loss of tree diversity.

<sup>&</sup>lt;sup>147</sup> Section 2 of the Traditional Medicine Practice Act, 2000 (Act 575)

<sup>&</sup>lt;sup>148</sup> Section 1 of Forest Protection Act, 1974 (NRCD 243)

#### Recommendations

The law should be amended to:

- 1. Provide a mechanism that will enable that TMPC performs this assigned duty such as setting up a fund and setting up a joint task force of the TMPC, Forestry Commission and the local authorities.
- 2. Provide a mechanism to ensure that timber trees are protected from an ecological perspective.
- 3. Require the authorities i.e. the Forestry Commission, EPA, Local Authorities, TMPC and the Ministry of Environment to work together to understand the cumulative impacts of tree loss across their different jurisdictions.

## 5.2.7 Ecosystem Services: Regulating (Purification of Water and Air)

# **Findings**

This area relates particularly to the EPA and the requirements for performing an EIA. This is fully addressed in part VI of this report which deals with environmental assessment. However, in the context of agriculture, the clearing of land for farms involving land greater than 40 hectares in area or involving the clearing of land located in an environmentally sensitive area<sup>149</sup> requires registration with the EPA, undertaking an EIA and obtaining an environmental permit from EPA.<sup>150</sup> The law also gives EPA the power to issue an enforcement notice where, in the opinion of the EPA, an activity or an undertaking poses a serious threat to the environment or to public health<sup>151</sup>. In the enforcement notice, EPA is to specify steps to be taken to prevent or stop the offending activity.

#### Gaps

1. The clearing of land less than 40 Hectares for agriculture purposes does not trigger the requirement for an EIA but such an undertaking may have similar or more profound effect on the environment than agriculture on a land more than 40 Hectares because of the use of intensive farming techniques and chemicals.

<sup>&</sup>lt;sup>149</sup> Regulation 30(2) of the Environmental Assessment Regulations, 1999 (LI 1652) provides a list of sensitive areas in schedule 5 of the Legislation. These areas include: all areas declared by law as national parks, watershed reserves, wildlife reserves and sanctuaries including sacred groves; Areas with potential tourist value; Areas which constitute the habitat of any endangered or threatened species of indigenous wildlife (flora and fauna); Areas of unique historic, archaeological, or scientific interests.; Areas which are traditionally occupied by cultural communities.; Areas prone to natural disasters (geological hazards, floods, rainstorms, earthquakes, landslides, volcanic activity, etc.); Areas prone to bushfires.; Hilly areas with critical slopes.; Areas classified as prime agricultural lands; Recharge areas of aquifers; Water bodies characterized by one or any combination of the following conditions; water tapped for domestic purposes; water within the controlled and/or protected areas; water which supports wildlife and fishery activities;. Mangrove areas characterized by one or any combination of the following conditions— areas with primary pristine and dense growth; areas adjoining mouth of major river system; areas near or adjacent to traditional fishing grounds;) areas which act as natural buffers against shore erosion, strong winds or storm floods.

<sup>&</sup>lt;sup>150</sup> Regulation 1 of the Environmental Assessment Regulations, 1999 (LI 1652)

<sup>151</sup> Section 13 of the Environmental Protection Agency Act, 1994 (Act 490)

2. There is no legal framework for undertaking a Strategic Environmental Assessment. This creates a gap because there is a lack of mechanism to ascertain the cumulative impacts of farms each smaller than 40 Ha but cumulatively bigger that 40Ha in the same locality.

#### Recommendations

The law should be amended to:

- Create a requirement for an EIA for agricultural undertakings using prescribed criteria
  which takes into account cumulative impacts, considerations of climate change
  mitigation, the likely pollution of soil or water from chemicals, removal of trees and other
  habitat, including protected species, degradation of soil, introduction of invasive species
  and considerations of the intensity of the activity on the land cleared for agriculture.
- 2. Provide a legal framework for the performance of a Strategic Environmental Assessment before the commencement of any policy, plan or programme across a defined landscape. This should be undertaken by a multi-sectorial task force of stakeholders such as the National Development Planning Commission, Forestry Commission, Lands Commission, the local authorities with EPA providing leadership.

# 5.2.8 Ecosystem Services: Regulating (Pest and Disease Control)

# **Findings**

Pesticides<sup>152</sup> must be registered<sup>153</sup> before they can be imported, exported, manufactured, distributed, advertised, sold or used in Ghana.<sup>154</sup> A person also requires a license to deal in pesticides.<sup>155</sup> EPA is the Governmental agency responsible for regulating the import, manufacturing, distribution, advertisement and sale of pesticides and the licensing of pesticides dealers in Ghana<sup>156</sup>. EPA must be satisfied that the pesticide does not present any toxicology risk to people, crops, animals and the environment before it approves and registers the pesticide.<sup>157</sup>

<sup>&</sup>lt;sup>152</sup> Section 63 of the Environmental Protection Agency Act, 1994 (Act 490); Section 1 of the Pesticides Control and Management Act, 1996 (Act 528)

<sup>&</sup>lt;sup>153</sup> Section 28 of the Environmental Protection Agency Act, 1994 (Act 490): In determining whether or not to approve the registration of a pesticide and the classification of a registered pesticide, the Board shall consider (a) the characteristics of the pesticide formulation, such as the acute dermal, oral or inhalation toxicity; (b) the persistence, mobility and susceptibility to biological concentration of the pesticide; (c) the experience gained from the use of the pesticide, such as the likelihood of its misuse and any good safety record which is contrary to available laboratory toxicological information; the relative hazards of its patterns of use, such as granular soil applications, ultralow volume or dust aerial applications or air blast sprayer applications; the extent of the intended use; the supporting data and any other technical information that the Agency may request from the applicant or from a public institution; and any other matter relevant to the control or management of pesticides.

<sup>.</sup> 154 Section 28 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>155</sup> Section 40 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>156</sup> Section 43 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>&</sup>lt;sup>157</sup> Section 9 of the Pesticides Control and Management Act, 1996 (Act 528)

The consultants found no provision in legislation/regulation that expressly takes into regard the impact of chemical/pesticide/herbicides on the ability of pollinating organisms (mainly insects) to perform their function. A dealer must keep a record of the quantities of pesticides imported, exported, manufactured, distributed or sold by that person for a minimum of 10 years. The record of the quantity of pesticides dealt in may be requested by the EPA at any time. Failure to comply with the requirements on registration of pesticides, obtaining a licence or keeping a record of the quantity of pesticides constitutes an offence. The penalty for the offence is either paying a fine or imprisonment not exceeding 2 years or paying both the fine and imprisonment.

EPA is to appoint inspectors at the district assembly level to ensure compliance with the requirements. <sup>162</sup> In practice, there is weak enforcement of these requirements at the borders. Another challenge is the mixing of certified pesticides with illegal, inferior and dangerous ones. There is also a lack of supervision and monitoring of pesticides sold at the marketplace. Seized or confiscated pesticides by EPA are buried in landfill sites and dealers with expired chemicals are to report to the EPA and EPA will advise on the mode of disposal.

# Gaps

- 1. There is an absence of the requirement of an EIA for the use of pesticides on large scale to address the possibility of toxicity.
- 2. There is no express provision in legislation/regulation that takes into regard the impact of chemical/pesticide/herbicides on the ability of pollinating organisms (mainly insects but also birds, bats and other organisms) to perform their function.
- 3. Generally, there is a lack of regulation of the use of pesticides.
- 4. The penalty of a maximum fine of GHC 3,000 and imprisonment for a maximum period of two years for flouting the requirements do not provide a sufficient deterrent.

#### Recommendations

- 1. The law should be amended to create a requirement for a licence for the use of pesticides in significantly large quantities. The license should require an EIA to assess the effect on the environment.
- 2. The threshold of pesticides use that constitutes large quantity should also be specified in law.
- 3. The Law should also define "significantly large quantities", and this definition should consider cumulative effects.

<sup>&</sup>lt;sup>158</sup> Section 51 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>&</sup>lt;sup>159</sup> Section 51 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>&</sup>lt;sup>160</sup> Section 57 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>&</sup>lt;sup>161</sup> Section 57 of the Environmental Protection Agency Act, 1994 (Act 490)

<sup>&</sup>lt;sup>162</sup> Section 54 of the Environmental Protection Agency Act, 1994 (Act 490)

- 4. The law should provide some ecological parameters/criteria to be used in making the decision whether or not to register a pesticide.
- 5. The law should be amended to provide for fines and terms of imprisonment that are adequately deterrent.
- 6. Government should increase sensitization of the public of the need to only purchase and deal in pesticides that have been approved by the EPA and also over the negative environmental impacts of the overuse of chemicals and pesticides.
- 7. There should also be efforts to build the capacity of dealers and sellers to be knowledgeable in the nature and effect of the pesticides they are dealing in.

## 5.2.9 Ecosystem Services: Supporting Services – Fertilizers (Soil Fertility/Formation)

## **Findings**

Fertilizers must be registered before they are manufactured or imported into Ghana by the Ministry of Food and Agriculture (MOFA)<sup>163</sup>. MOFA is to accept an application for registration only where it is satisfied that the fertilizer in respect of which the application is made is suitable for the country.<sup>164</sup> A person dealing in the importation, manufacture or distribution of fertilizers in commercial quantities must register with MOFA.<sup>165</sup>

The Pesticide and Fertilizer Regulatory Division of the Plant Protection and Regulatory Services Directorate of MOFA is to ensure the correct labelling, inspection, sampling, testing and nutrient guarantees in accordance with the Act. MOFA has an inspectorate unit that inspects and analyzes fertilizers distributed across the country to ensure that they comply with the provisions of the Plant and Fertilizer Act. A person who fails to comply with the requirements of the Plant and Fertilizers Act, 2010 commits an offence and upon conviction will be fined a maximum of 500 penalty units or imprisoned for a term not exceeding 2 years or to both.

The consultants found that due to inadequate enforcement of the requirements in legislation, there is a problem of smuggling substandard fertilizers into Ghana across neighboring countries through Ghana's border towns. Furthermore, it appears that subsidies on fertilizers create domestic shortages. There is government subsidy on approved fertilizers in the country to boost agriculture and this creates a financial incentive to smuggle these "cheap" and quality fertilizers to neighboring countries.

<sup>&</sup>lt;sup>163</sup> Section 68 of Plants and Fertilizer Act, 2010 (Act 803) and Regulations 11 and 12 of the Plant Fertilizer Regulations 2012 (L.I 2194)

<sup>164</sup> Section 69 of Plants and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>165</sup> Section 76 of Plants and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>166</sup> Section 107 of Plants and Fertilizer Act, 2010 (Act 803)

<sup>&</sup>lt;sup>167</sup> A penalty unit is equivalent to 12 Ghana cedis.

## Gaps

- 1. While the law requires that a person must register with the MOFA to import, manufacture or distribute fertilizers in commercial quantities, what amounts to commercial quantities is not defined or prescribed in law.
- 2. It seems there is no regulation of non-commercial quantities of fertilizers.
- 3. The consultants also found no regulation for the use of fertilizers that has the potential of curtailing improper use, overuse or the pollution of the environment with a fertilizer.

#### Recommendations

- 1. The power of the Minister under section 123 of the Plant and Fertilizers Act to make subsidiary law should be used to make regulations to specify what constitutes commercial quantities for the purpose of the Act.
- 2. The law should be amended to provide a framework for regulating non-commercial quantities of fertilizers and to ensure that the impact of fertilizer products on ecosystems and biodiversity are assessed and controlled.
- 3. The law should also be amended to regulate the use of fertilizers to curtail their improper use and abuse.
- 4. There is a need for a base map of fertilizer use in Ghana.
- 5. Government should increase surveillance across border towns in Ghana to curb smuggling.
- 6. Government must also increase sensitization and education on registered fertilizers and harmful agrochemicals.
- 7. Government must increase awareness over the correct application of fertilizers.

## 5.2.10 Ecosystem Services: Supporting Services (Fresh Water-Buffer Zones)

#### **Findings**

Logging operations are not permitted within a buffer strip, 25 metres either side of any stream or 50 metres either side of a river. No tree felling is also permitted in the buffer strip<sup>168</sup>. Besides logging operations, the consultants found no provision in law that forbade or regulated farming activities or construction activities within/along riverine/ riparian buffer zones.

However, there is a Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana, 2011. The policy applies to: lands adjacent to rivers, streams, lakes and wetlands and lands at the margins of municipal reservoirs. According to the policy, buffer zones are to be

<sup>&</sup>lt;sup>168</sup> Section3.2 of The Revised Logging Manual for Ghana (2003) prepared in accordance with Section 10 of The Timber Resources Management Act, 1997 (Act 547)

permanently reserved by law (legislative instruments). The policy also provides for the creation of management plans for riparian buffer zones.

The prohibition of logging operations within buffer strips is to be enforced by the Forestry Commission<sup>169</sup> whereas the Riparian Buffer Zone Policy is to be implemented by Ministry of Water Resources and Sanitation with support from: The Ministry of Lands and Natural Resources, Ministry of Energy, Ministry of Environment, Science, Technology and Innovation, Ministry of Food and Agriculture and the Ministry of Local Government and Rural Development.

Except with prior approval of the appropriate authorizing agencies, the following practices and activities are to be restricted within the buffer zone:

- 1. Clearing or grubbing of existing vegetation;
- 2. Clear cutting of vegetation or trees;
- 3. Soil disturbance by practices such as grading and striping;
- 4. Filling or dumping of waste;
- 5. Use, storage, or the application of pesticides, herbicides, and fertilizers<sup>170</sup>; and
- 6. Conversion of existing established vegetation from majority native to majority exotic species.

The Policy recommends the following buffer widths:

- a. Municipal reservoir shoreline protective buffer: 60 to 90 meters (e.g. Weija Dam and Lake Bosomtwe);
- b. Major perennial rivers/streams: 10 to 60 meters (e.g. Volta, Tano, and Offin);
- c. Minor perennial streams: 10 to 20 meters;
- d. Important seasonal streams: 10 to 15 meters;
- e. Streams within forest reserves: 10 to 50 meters; and
- f. Wetlands: 30 meters around the perimeter as defined from the high-water elevation.

It was found that the policy is not being enforced in practice, perhaps because there are no sanctions for flouting the requirements or due to the lack of political will.

## Gaps

1. The Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana does not have the force of law and depends on the political will of district officers and local officials to be effective.

<sup>&</sup>lt;sup>169</sup> Section 10 of the Timber Resources Management Act, 1997 (Act 547) and Section 2 of the Forestry Commission Act, 1999 (Act 571)

<sup>&</sup>lt;sup>170</sup> The discussion on the regulation of pesticides and fertilizers are fully done in sections 4.1.8 and 4.1.9 respectively

2. The Riparian Buffer Zone Policy does not assign the duty to create management plans for riparian buffer zones to any specific state agency or department.

#### Recommendations

- 1. The tangible terms of the Buffer Zone Policy should be enacted as law to ensure compliance and make it enforceable.
- 2. The law should also aim at correcting conditions that adversely affect water quality and quantity from land degradation.
- 3. The law on buffer zone should assign the duty to create management plans for riparian buffer zones to a specific state agency or department

# 5.2.11 Ecosystem Services: Cultural Services (Sacred Groves & Community Resource Management Areas (CREMAs))

## **Findings**

No logging operation, including felling, skidding, road and log yard construction is permitted in a "protected area". Such areas include sacred groves, hill sanctuaries, provenance protection areas, convalescent areas, special biological protection areas, and swamps.<sup>171</sup> The term 'protected area' is used loosely here to refer to specified areas in forest reserves where there is a restriction on logging activities. Such protected areas are to be clearly marked on the Timber Utilization Contract Operational Plan and on the Annual Logging Plan.<sup>172</sup> The Forestry Commission has appointed District Forest Officers who regularly inspect and monitor the logging activities of companies holding a Timber Utilization Contract.

The consultants found no requirements in PA legislation and regulations that provide for community-led PA governance. The Forestry Commission, however, has put in place the Wildlife Division Policy for Collaborative Community Based Wildlife Management 173 for the establishment of Community Resource Management Areas (CREMAs) across Ghana. The Wildlife Division of the Forestry Commission in co-operation with the District Assembly and Traditional Authorities (where appropriate) will give the authority to a community represented by a locally elected Natural Resource Management Committee (NRMC) to regulate and control access to wildlife in the area defined as the CREMA.

<sup>&</sup>lt;sup>171</sup> Section 3.2 of The Revised Logging Manual for Ghana (2003) prepared in accordance with Section 10 of The Timber Resources Management Act, 1997 (Act 547)

<sup>&</sup>lt;sup>172</sup> Section3.2 of The Revised Logging Manual for Ghana (2003) prepared in accordance with Section 10 of The Timber Resources Management Act, 1997 (Act 547)

Wildlife Division Policy for Collaborative Community Based Wildlife Management, Accra, September 2000. This can be found at: <a href="https://www.fcghana.org/assets/file/Publications/Wildlife%20Issues/wd">https://www.fcghana.org/assets/file/Publications/Wildlife%20Issues/wd</a> policy collaborative community.pdf

## Gap

There are no requirements in legislation and regulations that provide for community-led PA governance. The Wildlife Division Policy for Collaborative Community Based Wildlife Management for the establishment of CREMAs does not have the force of law.

#### Recommendation

1. The Wildlife Resources Management Bill/law should be passed at the first opportunity. The Wildlife Division Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana should be expressed in PA legislation.

# 5.2.12 Climate Change (Mitigation): Prevention of Bush Fires

## **Findings**

A person requires authorization either by the Director of Agricultural Extension Services or the Director of Animal Health and Production Department to set fire to a specified area or any other agricultural purpose.<sup>174</sup> The specified area in the Act does not include setting fire in a conservation area for the purpose of range management. Any fire set must be controlled and confined to the specified area and shall not exceed the purpose for which the fire is permitted. It is an offence not to seek authorization to start a bush fire.<sup>175</sup> It is also an offence not to report a person who starts a bush fire.<sup>176</sup> The law provides that every District Assembly is to have a Bushfire Control sub-committee with a mandate to stipulate by-laws to ensure adequate prevention, control and monitoring of bushfires. The steering group deliberations for this project revealed that, in practice, this requirement is rarely enforced.

#### Gaps

- 1. A legislative instrument (subsidiary legislation/regulation) to operationalize the Act has still not been enacted. As its stands the procedure for application for authorization, appeal on the decision on the application and the term and conditions of the grant is at the discretion of the Director of Agricultural Extension Services or the Director of Animal Health and Production Department.
- 2. The law does not state the considerations or the precautions that need to be taken by the Director of Agricultural Extension Services or the Director of Animal Health and Production Department in making the grant of such a permit.

#### Recommendations

1. A legislative instrument should be passed to operationalize the Act.

<sup>&</sup>lt;sup>174</sup> Section 4 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

<sup>175</sup> Section 11 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

<sup>&</sup>lt;sup>176</sup> Section 12 of the Control and Prevention of Bush Fire Act, 1990 (PNDCL 229)

- 2. Local authorities should then be given guidelines for the grant of such permits that reflect the need for environmental protection and sustainable land use and this should be expressed in law.
- 3. The law should be amended to place a duty on district chief executives/assemblymen/traditional leaders to grant the permit to set bushfires in a controlled manner.
- 4. A subsidiary legislation/regulations with details of the considerations, the precautions and requirements for a grant of this permit should be passed.
- 5. Awareness needs to be raised of the existence of the law (and the important changes to be made to the authorization process)
- 6. The law should be revised and the punishment for non-compliance with the requirement should be made more punitive to create a greater deterrent.

## 5.2.13 Climate Change (Mitigation): Utilization of Timber Resources

## **Findings**

The ownership of naturally occurring timber is vested in the President in trust for the people of Ghana. The management of the utilization of timber resources is the mandate of the Forestry Commission (FC) on behalf of the President. A person requires timber rights in the form of a Timber Utilization Contract (TUC) to harvest timber in Ghana. TUCs are awarded by the Government only to corporate bodies. An application for a TUC must be accompanied by: a harvesting plan prepared in accordance with sustainable management of timber resources, an assessment of the likely environmental effect, a proposed programme to redress the effect, and proposals to assist in addressing the social needs of the communities who have an interest in the applicant's proposed area of operations 179

TUCs awarded must be ratified by Parliament.<sup>180</sup> The applicant must undertake to execute a reforestation plan during the period of the contract to the satisfaction of the Executive Director of the Forest Services Division of the FC<sup>181</sup>. The land in respect of which a TUC is applied for must be surveyed in accordance with the Survey Act, 1962 (Act 127).<sup>182</sup>

The law superimposes state trusteeship over stool trusteeship and whereas, in on-reserve areas, the forest is protected for production as the main land use<sup>183</sup>, in off-reserve areas

<sup>&</sup>lt;sup>177</sup> Section 1 of the Timber Resources Management Act,1998 (Act 547)

<sup>&</sup>lt;sup>178</sup> Section 2 of the Timber Resources Management Act,1998 (Act 547

<sup>&</sup>lt;sup>179</sup> Section 3 of the Timber Resources Management Act,1998 (Act 547)

<sup>180</sup> Section 9 of the Timber Resources Management Act, 1998 (Act 547)

<sup>&</sup>lt;sup>181</sup> Section 8 of the Timber Resources Management Act,1998 (Act 547)

<sup>&</sup>lt;sup>182</sup> Section 11 of the Timber Resources Management Act,1998 (Act 547)

<sup>&</sup>lt;sup>183</sup> Manuals of procedure, Section A, Instruction Sheets A2.6, k A 2.7 and A2.8

agriculture is the primary activity and forestry has to fit into the farming system, not viceversa. The applicant must have a manager who is a professional forester in charge of the timber operations to be eligible for a TUC.<sup>184</sup> Transfer of the TUC requires prior approval from the FC.<sup>185</sup>

The Forest Protection Act also makes it illegal for anybody to debark, uproot, lop, girdle any tree for whatever purpose in a forest reserve without a written permission from a competent forest authority<sup>186</sup>.

Ghana also has commitments under the REDD+ programme. Government has produced the Ghana REDD+ Strategy, 2016 -2035 including goals to:

- 1. Significantly reduce emissions from deforestation and forest degradation over the next twenty years, while enabling carbon stock enhancement through sustainable forest management and forest restoration strategies such as forest plantation establishment.
- 2. Preserve Ghana's forests in order to sustain their ecosystem services, conserve biological diversity, and maintain a cultural heritage for generations to come;
- 3. Transform Ghana's major agricultural commodities and NTFPs into climate-smart production systems and landscapes;
- 4. Expand platforms for cross-sector and public-private collaboration and sustainable economic development;
- 5. Generate innovative, substantial and sustainable economic and non-economic incentives and benefits to improve livelihoods across all regions of Ghana.

The consultants found that, in practice, timber in off-reserve areas, especially in cocoa farms is unlawfully harvested. This is destructive and goes contrary to Ghana's National Determined Contributions (NDCs) under the REDD+ programmes.

#### Gaps

- 1. The law as it stands protects timber for sustainable utilization but does not provide any legal framework for the protection of the forest for climate change mitigation.
- 2. There is a big challenge with enforcement. Politicians and industry are able to find illegal ways and sometimes loopholes in legislations to harvest timber within and out of forest reserves. There is currently a lack of political will to enforce the law because of vested interests.

<sup>&</sup>lt;sup>184</sup> Section 12 of the Timber Resources Management Act,1998 (Act 547)

<sup>&</sup>lt;sup>185</sup> Section 16 of the Timber Resources Management Act,1998 (Act 547)

<sup>&</sup>lt;sup>186</sup> Section 1 of Forest Protection Act, 1974 (NRCD 243)

#### Recommendations

- 1. The underlying land ownership should determine the ownership of tree and timber resources thereon. The existing vesting structure of timber and trees in section 16(4) of Concession Act, 1962 (Act 124) will have to be amended to divest the ownership of trees off reserves from the president to enable their vesting in the landowners or farmers or stools concerned.
- 2. The law should clearly vest trees and timber resources off-reserve in the appropriate stools and communities as appropriate.
- 3. Noting the revenue loss that may arise from recommendation 1 and 2, as an alternative, there should be a law on benefit sharing of resources that arise from the utilization of timber resources off-reserve to include land owners and community members.
- 4. The amendment should require the creation of the necessary institutional infrastructure to back the implementation of the recommended tenurial regime for the off-reserve. These tenurial arrangements will take care of the issues of the ownership regime for nurtured trees, trees on farms and planted trees on off-reserves. The amendment should further create room within the tenurial arrangements for contractual arrangements for the determination of ownership rights and also set contractual baselines for the determination of the management roles and benefit schemes.
- 5. The tree tenure system should be amended to give farmers/inhabitants a share of proceeds made from the harvesting of any naturally occurring trees that they have nurtured.

## 5.2.14 Climate Change (Mitigation): Environmental Protection

## **Findings**

The requirements found in law, gaps and recommendations in respect of "Ecosystem Services: Regulating - Purification of Water and Air" reviewed in section 5.2.7 apply in full effect for this section. The need for an EIA for an undertaking, which in the opinion of the Environmental Protection Agency (EPA), is likely to have adverse effect on the environment is also a mechanism to mitigate climate change.

In addition, Ghana has signed and ratified the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Accord. Ghana has commitments under these treaties, which include<sup>188</sup>:

<sup>&</sup>lt;sup>187</sup> Section 12 of the Environmental Protection Agency Act, 1994 (Act 490) and Regulations 1&2 of Environmental Assessment Regulations, 1999 (LI 1652).

<sup>&</sup>lt;sup>188</sup> Article 4 of the UNFCCC

- 1. Formulating and implementing national programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of greenhouse gases and measures to facilitate adequate adaptation to climate change.
- 2. Cooperating in the development, application and diffusion practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases and in preparing for adaptation to the impacts of climate change.
- 3. Promoting sustainable management, and promoting and cooperating in the conservation and enhancement, as appropriate, of sinks and reservoirs of greenhouse gases.
- 4. In accordance with the Kyoto Protocol to the UNFCCC, Ghana has a duty to promote sustainable forms of agriculture in light of climate change considerations<sup>189</sup>.

The EPA is the lead institution for UNFCCC activities in the country and is the main Country Implementation Institution (CII) for the technical coordination of activities on climate change and other environmental conventions ratified by Ghana.

#### Recommendations

With respect to climate change, EIA laws should be amended to provide a framework for Strategic Environmental Assessments (SEA). There should be a provision for regular SEAs which should be done with a view on Ghana's carbon commitments under the UNFCCC, the Kyoto Protocol and the Paris Accord. Furthermore, the findings of the SEAs should inform considerations of EIAs undertaken and whether or not environmental permits should be refused or granted.

Lastly, the law should also be amended to prescribe the criteria for the considerations EPA must make in making an opinion that an undertaking is likely have an adverse effect on the environment. This should include climate change mitigation considerations and Ghana's commitments under international treaties and conventions.

# 5.2.15 Climate Change (Adaptation)

## **Findings**

The consultant found no express requirements in Ghana agriculture law for climate change adaptation. However, as noted in Part III regarding the Institutional assessment, the National Development Planning Commission's mandate may be broadly interpreted to include formulating policies to address this gap in legislation.<sup>190</sup>

In addition, the Government of Ghana, through its Ministry of Environment, Science, Technology and Innovation (MESTI) has produced a: National Climate Change Adaptation

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<sup>&</sup>lt;sup>189</sup> Article 2 of the UNFCCC

<sup>&</sup>lt;sup>190</sup> Section 1 and 2 of the National Development Planning Commission Act, 1994 (Act 479)

Strategy; Ghana National Climate Change Policy; The Ghana National Climate Change Master Plan Action Programmes for Implementation: 2015-2020 and The National Climate-Smart Agriculture and Food Security Action Plan of Ghana (2016-2020) to provide a framework for adapting to Climate Change.

There is also a National Climate Change Committee (NCCC), hosted by the MESTI to implement and review these policies regularly. This committee is made up of representatives from relevant ministries, universities, research institutions, private sector and non-governmental organizations.

#### Recommendation

It is recommended that as far as practical, the policies that have been put in place to address climate change should be reduced into law for effective implementation and enforcement.

## 5.2.16 Landscape Planning

## **Findings**

A National Spatial Developmental Framework (NSDF) is to be carried out and prepared for the whole country by the Land Use and Spatial Planning Authority in consultation with the National Development Planning Commission<sup>191</sup>. The NSDF must prescribe the spatial aspects of the social and economic development and related human settlement.<sup>192</sup> The NSDF must be prepared in accordance with the scope, objectives and minimum content and methodology prescribed by the regulations.<sup>193</sup> The NSDF must have as its object the judicious use of land.<sup>194</sup> The NSDF must contain a strategic environmental assessment of the spatial development framework.<sup>195</sup> The NSDF shall be approved by the president.<sup>196</sup> From the NSDF, Regional Spatial Development Frameworks (RSDFs) are to be prepared for all the ten regions of Ghana. This is to be done by Regional Spatial Planning Committees. From the NSDF and RSDFs, District Development Frameworks are to be prepared for the districts in Ghana. This is to be done by the Local District Assemblies. In accordance with the systematic development model of the NSDF, RSDF and the DDF, a zoning scheme/local plan is to be prepared for every district in Ghana. The zoning scheme is to provide for various purposes including agriculture and the use of land found in the zone.

A person cannot dispose of any land unless that person can demonstrate to the prospective buyer that the land has been zoned or re-zoned for the purpose for which it is being acquired

<sup>191</sup> This requirement in law does not have any specific timeframe for this to be accomplished.

<sup>&</sup>lt;sup>192</sup> Section 48 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>193</sup> Section 48 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>194</sup> Section 49 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>195</sup> Section 50 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>196</sup> Section 50 of the Land Use and Spatial Planning Act, 2016 (Act 925)

or disposed.<sup>197</sup> A person who enters into an agreement for land use commits an offence if that person does not have evidence that the land is zoned for the purpose of the transaction entered into.<sup>198</sup> The person disposing the land must attach evidence of the approved land use to the instrument disposing or conveying interest in the land.<sup>199</sup> An application to register title in land must be accompanied by a Land Use Certificate.<sup>200</sup>

Physical development on any piece of land requires a permit from the District Assembly (DA).<sup>201</sup> Physical development<sup>202</sup> on any piece of land without a permit from the DA is an offence.<sup>203</sup> Any physical development carried without a permit from the DA may be pulled down.<sup>204</sup> A Planning and building inspectorate unit of the Land Use and Spatial Planning Authority is established by the Act to ensure compliance with its provisions. <sup>205</sup>

## Gaps

- 1. The National Land Use and Spatial Planning Authority is required by the Act to issue guidelines in respect of zoning schemes affecting agriculture.<sup>206</sup> But this has yet to be done.
- 2. The object of the NSDF is the judicious use of land but the law fails to define judicious use.
- 3. The NSDF must be prepared in accordance with the scope, objectives and minimum content and methodology prescribed by the regulations.<sup>207</sup> But these regulations have not been passed.
- 4. In practice, there is no zoning of agricultural lands.
- 5. The framework for the grant of a development permit is not detailed and comprehensive. The Minister for Local Government has yet to make subsidiary legislation that gives details on the considerations to be made for the issuance of a development permit. However, the

<sup>197</sup> Section 96 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>198</sup> Section 96 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>199</sup> Section 96 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>&</sup>lt;sup>200</sup> Section 97 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>&</sup>lt;sup>201</sup> Section 113 of the Land Use and Spatial Planning Act,2016 (Act 925) and Section 49 of the Local Government Act, 1993 (Act 462). The Minister for Local Government has yet to make subsidiary legislation that gives details on the considerations to be made for the issuance of a building permit. However, the ministry has issued general guidelines for assessing applications for a permit. They include: a. Aviation safety b. Radiation Protection c. Environmental protection d. Fire safety e. Petroleum operations f. Verification certificate g. Traffic impact h. Geo-technical report I. Hydrological report j. Structural integrity k. Highway clearance l. Stakeholder consultation report

<sup>&</sup>lt;sup>202</sup> Section 198 of the Land Use and Spatial Planning Act,2016 (Act 925) defines "physical development" as the carrying out of building, engineering, mining or other operations on, in, under or over land, or the material change in the existing use of land or a building and includes the sub-division of land, the disposal of waste on land including the discharge of effluent into a body of still or running water and the erection of advertisement or other hoarding;

<sup>&</sup>lt;sup>203</sup> Section 117 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>&</sup>lt;sup>204</sup> Section 119 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>&</sup>lt;sup>205</sup> Section 158 of the Land Use and Spatial Planning Act, 2016 (Act 925)

<sup>&</sup>lt;sup>206</sup> Section 85 of the Land Use and Spatial Planning Act, 2016 (Act 925).

<sup>&</sup>lt;sup>207</sup> Section 48 of the Land Use and Spatial Planning Act, 2016 (Act 925)

- ministry has issued broad and general guidelines for assessing applications for a permit<sup>208</sup>. There is an absence of consideration of potential effect on ecosystem services and support for the natural habitats of resident and migratory species.
- 6. The land tenure structure in Ghana does not support Land Use Planning. Unlike other jurisdictions, the allodial title in the land is not held by one entity but is held by different stools, families and the state.

#### Recommendations

- 1. The National Land Use and Spatial Planning Authority should issue guidelines in respect of zoning schemes affecting agriculture.
- 2. Judicious use of land should be defined in legislation and incorporate the definition of sustainable land use as defined in the Abuja declaration.
- 3. Regulations/subsidiary legislation that prescribe the scope, objectives and minimum content and methodology for drawing up the NSDF should be passed.
- 4. Government should make subsidiary legislation that creates a framework for the grant of a development permit that is detailed and comprehensive.
- 5. Also, Civil Society Organizations (CSOs) should be strengthened and resourced to advocate for the incorporation of the definition of sustainable land use by the Abuja Declaration into the definition of judicious land use and the regulations/subsidiary legislation to prescribe the scope, objectives and minimum content and methodology for drawing up the NSDF, which has yet to be passed.

## 5.2.17 Community Rights Regarding Benefit Sharing – Grant of Timber Rights

## **Findings**

The Application for a Timber Utilization Contract (Timber Right) must be accompanied with proposals to assist in addressing social needs of the communities who have an interest in the applicant's proposed area of operations through a Social Responsibilities Agreement (SRA).<sup>209</sup> In practice, a Social Impact Assessment is undertaken during the application for timber rights to the Forestry Commission. The right in timber trees on publicly owned lands is vested in the President of Ghana.<sup>210</sup> Applicants frequently fail to conclude the SRA after the grant of the timber rights or they fail to comply with the SRA if it is concluded.

#### Gaps

1. The law does not prescribe penalties or the consequences when a holder of a TUC fails to adhere to the proposals to assist in addressing social needs of the communities who have

<sup>&</sup>lt;sup>208</sup> These include aviation safety, radiation protection, environmental protection, fire safety, petroleum operations, verification certificate, traffic impact, geo-technical report, hydrological report, structural integrity, highway clearance, stakeholder consultation report and Zoning Assessment and Justification Report.

<sup>&</sup>lt;sup>209</sup> Section 8 of the Timber Resource Management Act, 1998 (Act 547)

<sup>&</sup>lt;sup>210</sup> Section 16(1) of the Concessions Act, 1962 (Act 124)

interest in the applicant's proposed area of operations. Violation of the provision of social needs does not invalidate the TUC.

#### Recommendations

- 1. The law should be amended to prescribe the consequences of failing to adhere to the promises in the SRA.
- 2. The tree tenure system should be amended to give farmers/inhabitants a share of proceeds made from the harvesting of naturally occurring trees they have nurtured.

# 5.2.18 Community Rights Regarding Benefit Sharing – Grant of Water Rights

## **Findings**

The framework for the grant of water rights is discussed in Section 5.2.4. WRC, in considering an application (for water rights), must make the necessary investigations including consultations with the inhabitants of the area of the water resources concerned<sup>211</sup>. The law provides that a person who claims that their interests will be affected by the grant of a water right may notify the Commission within three months of the notice in the gazette of the objection to the grant of the water right and shall specify the grounds of the objection.<sup>212</sup> The Board shall consider the objections made in respect of it and shall after consultation with the persons and authorities that it may consider necessary, determine whether the water right shall be granted.<sup>213</sup>

In practice, communities affected by the grant of water rights do not get a share of the fee/sum paid for the water rights awarded. There is, in addition, some difficulty in ascertaining precisely which community is affected by the grant of water rights: is it confined just to communities in the immediate vicinity of the project or to include communities downstream? Often, consideration is given only to the community(-ies) immediately affected by the grant.

## Gaps

- 1. Though the law specifies that the WRC must have a public hearing to take the concerns of inhabitants in making a decision on whether to grant a water right or not, the law does not specify a minimum notice period for such a hearing.
- 2. The requirement to publish a notice in the gazette is not effective in communicating the intended project to inhabitants who may be affected. This is because of the high level of illiteracy in many areas in the Country.

<sup>&</sup>lt;sup>211</sup> Section 16 of the Water Resources Commission Act, 1996 (Act 522)

<sup>&</sup>lt;sup>212</sup> Section 16 of the Water Resources Commission Act, 1996 (Act 522)

<sup>&</sup>lt;sup>213</sup> Section 16 of the Water Resources Commission Act, 1996 (Act 522)

- 3. Furthermore, the law does not provide any guidance for determining, at a minimum, who should be consulted in making the decision whether to grant the right or not. This has the risk of money capture, elite capture and chieftaincy capture.
- 4. Unlike the application for a Timber Utilization Contract which must be accompanied with proposals to assist in addressing the social needs of the communities who have an interest in the applicant's proposed area of operations, there is no such requirement in an application for a water right.
- 5. The considerations the commission must make in determining whether to grant the right or not does not include considerations on the effect of the project on ecological connectivity, cumulative impact, and/or the habitat for migratory species.

#### Recommendations

The law should be amended to:

- 1. Include provisions that specify the requirement for a notice of a public hearing and a minimum notice period before such a hearing.
- Specify that notice of an application and notice for a public hearing should be broadcast
  at least in radio stations or through a town crier in languages the inhabitants understand.
  The scope of persons to be consulted should also be prescribed.
- 3. Ensure that any application for water rights is accompanied by proposals to assist in addressing the social needs of the communities who have an interest in the applicant's proposed area of operation.
- 4. Provide that the criteria for granting water rights should include consideration of the effect of the project on ecological connectivity, cumulative impact, and the effect on the project on the habitat for migratory species.

## 6 PART VI – ANALYSIS OF ENVIRONMENTAL ASSESSMENT

## 6.1 Introduction

For the purposes of this report, Environmental assessment (EA) refers to a process that ensures the incorporation of environmental information in sound and well-balanced decision making. It can be delivered alongside other assessments, through:

- a. Environmental and Social Impact Assessment (EIA/ESIA), defined as 'an instrument to identify and assess the potential environmental and social impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures'; and/or
- b. Strategic Environmental Assessment (SEA) (also called Strategic Environmental and Social Assessment (SESA)), defined as 'a systematic examination of environmental and social risks and impacts, and issues, associated with a policy, plan or program, typically at the national level but also in smaller areas.'<sup>214</sup>

# 6.2 Legal Framework for EA in Ghana

The framework for EA is set out by the Environmental Protection Act, 1994 (Act 490) and its subsidiary legislation, the Environmental Assessment Regulations 1999 (L.I. 1652). Act 490 establishes the Environmental Protection Agency (EPA) and gives it the broad mandate, in addition to other functions, to request a full EIA for any activity which has the potential to cause significant impacts on the environment. This applies to governmental and private projects, as well as to national and foreign projects.

From a review of Act 490 and L.I. 1652, it appears that the current legal framework in place provides only for the requirement and procedure for EIAs to the exclusion of SEAs. Nonetheless, the consultants found that in practice, SEAs are occasionally undertaken and, indeed, EPA has a department for SEA. SEAs are usually undertaken by EPA in partnership with the relevant ministry to assess government policies and plans. For example, in 2012, the Ministry of Energy (MoEn), in collaboration with EPA and the National Development Planning Commission (NDPC) undertook a SEA for the oil and gas sector for the purpose of guiding the entire oil and gas sector in terms of policy, legal framework and public education. The recently passed Land Use and Spatial Planning Act, 2017 (Act 925) establishes a Land Use and Spatial Planning Authority (LUSPA) and gives it a duty to develop a National Land Use and Spatial Development Framework and undertake an SEA in developing the framework.<sup>215</sup>

EPA regulates activities in the environment through the issuance of environmental permits. The law specifies some activities that require a permit before commencement. These activities

<sup>&</sup>lt;sup>214</sup> 2016. "World Bank Environmental and Social Framework." World Bank, Washington, DC

<sup>&</sup>lt;sup>215</sup> Section 50(f) of the Land Use and Spatial Planning Act, 2017 (Act 925)

are specified in schedule 1 and schedule 2 of L.I. 1652 and they are incorporated into this report as *Appendix 4 & 5* respectively. Both schedule 1 and 2 projects require some form of assessment. Schedule 1 projects are required to register with the EPA and obtain an environmental permit. Schedule 2 projects also require environmental permits but are required by law to undertake a full EIA before an environmental permit can be issued by the EPA.

#### 6.3 Outline of Procedure for Environmental Permit

The first step in procuring an environmental permit for a proposed project starts with an application to EPA. The EPA screens the application with the assistance of a cross sectoral technical review committee and makes a decision on whether there is a need for environmental assessment; or whether a preliminary environmental assessment or a full environmental assessment is necessary before the grant of an environmental permit. Apart from the activities listed in schedule 2 of L.I. 1652 (Appendix 5 of this report), which require an EIA for an environmental permit, the need for a full EIA is at the discretion of the EPA. The screening decision is issued in a report.

EPA may also decide that instead of an EIA, a preliminary environmental assessment will suffice. A preliminary environmental assessment is a document containing information detailing the effects which the undertaking would have on the environment. EPA, however, may request a full EIA after review of the preliminary environmental assessment.

Where EPA decides that an EIA is required, the applicant must submit a scoping report for approval. The scoping report sets out the extent of the EIA to be carried out by the applicant. The scoping report also includes a draft terms of reference, which indicates the essential issues to be addressed in the EIA. EPA must approve the scoping report before commencement of the EIA. During the scoping, the applicant is required to give notice of the proposed project to relevant government agencies and make copies of the scoping report available for inspection by the public.

Thereafter, the EIA is carried out and EPA reviews the EIA statement. In reviewing the EIA statement, the EPA is to hold public hearings in respect of the application where: (i) there is adverse public reaction to the proposed undertaking; (ii) the undertaking will involve the dislocation, relocation or resettlement of communities; or (iii) EPA considers that the undertaking could have extensive and far reaching effects on the environment. Then the decision-making process on the issuance of the environmental permit follows.

The EIA statement is reviewed by the EPA, assisted by cross-sectoral technical committees at the regional and national level. According to EPA, it uses an 'instructions for reviewing EIA reports' document. The review results in a summary of strengths and weaknesses of the report, needs for further study (if any), any impact monitoring required and any terms and conditions that should apply if approval is granted.

The EPA and the committee make the decision whether a revision of the EIA report is required or whether approval can be issued by the EPA. Then the EIA report may be finalized.

Compliance monitoring is required to be conducted after the permit has been issued. Twenty-four months after the issuance of the permit, a provisional environmental permit is required to be replaced by an environmental certificate, where all permit conditions have been complied with.

# 6.4 Requirements in Current EA Legislation and Mechanisms in which they are fulfilled in respect of:

## 6.4.1 Clear Responsibilities for Implementing Processes and Decision Making

# **Findings**

The Environmental Protection Agency Act, 1994 (Act 490) establishes the Environmental Protection Agency (EPA) and sets out its duties. These include primarily, the regulation and management of all activities likely to affect the environment. The Act allows this mandate to be carried out with assistance from committees appointed by the Agency itself. The EPA is the lead government institution for implementing government's policies on environmental protection and the Environmental Protection Act, with assistance from the Minister responsible for Environment, who may give directives of a general nature regarding matters of policy to the Agency. In practice, EPA outsources some of its mandate to external consultants.

The Agency has a duty to ensure that any EIAs required by law are performed<sup>218</sup> and permits are issued for all undertakings in schedules 1 and 2 of L.I. 1652 (see Appendix 4 and 5) before the commencement of any activity.<sup>219</sup> Besides specified activities in Act 490, it is the EPA that decides whether or not an EIA is required for any undertaking.<sup>220</sup> Where an EIA is required, EPA notifies any other relevant regulator of the sector of the proposed undertaking that they cannot issue any approval, permit or license for the undertaking unless the EIA has been performed and EPA has given its approval.<sup>221</sup> On receiving an application for an environmental permit, the EPA screens the application, as an initial assessment, considers the geography of the undertaking, the technology intended to be used, the concerns of the general public, land

<sup>&</sup>lt;sup>216</sup> Section 2 of Act 490

<sup>217</sup> Section 9 of Act 490

<sup>&</sup>lt;sup>218</sup> Regulation 3 of L.I. 1652

<sup>&</sup>lt;sup>219</sup> Regulation 1 of L.I. 1652

<sup>&</sup>lt;sup>220</sup> Section 12 of Act 490

<sup>&</sup>lt;sup>221</sup> Section 12 of Act 490.

use and any other factors the EPA may decide.<sup>222</sup> After the screening, the EPA makes the decision on whether to grant the permit, refuse the application or request for further information through a preliminary environmental report or a full EIA.<sup>223</sup>

The applicant is responsible for producing the preliminary environmental report or performing the EIA as the case may require.<sup>224</sup> The applicant is also responsible for preparing a scoping report which includes a terms of reference for the EIA.<sup>225</sup> The law, however, prescribes at a minimum what the content of the terms of reference should include.<sup>226</sup> Within 25 days of receipt, the EPA is required by law to make a determination on whether the scoping report for the submitted EIA is satisfactory or not.<sup>227</sup>

Where an applicant has been asked to undertake an EIA and submit a report, it is the applicant's responsibility to give notice of the proposed undertaking to the relevant Ministries, government departments and agencies; advertise in at least one national newspaper and a newspaper, if any, circulating in the locality where the proposed undertaking is to be situated. The applicant and EPA are both to make copies of the scoping report available for inspection by the persons in the locality of the proposed undertaking. The EPA is also to publish notice of the report of the EA in the mass media at the cost of the applicant. The EPA must hold public hearing forums in respect of certain applications.<sup>228</sup>

Ultimately, it is EPA's duty to ensure compliance with any laid down EIA procedures in the planning and execution of development projects, including compliance in respect of existing projects. <sup>229</sup> After the environmental permit is issued, the applicant must submit to the EPA an environmental management plan within 18 months of commencement of operations and an

<sup>222</sup> Regulation 5 of L.I 1652

<sup>&</sup>lt;sup>223</sup> Regulation 6 of L.I 1652

<sup>&</sup>lt;sup>224</sup> Regulation 3, 9 and 10 of Environmental Impact Assessment Regulations 1999 (LI 1652).

<sup>&</sup>lt;sup>225</sup> Regulation 12 of L.I. 1652.

the need for the undertaking; (c) alternatives to the undertaking including alternative situations where the undertaking is not proceeded with; (d) matters on site selection including a statement of the reasons for the choice of the proposed site and whether any other alternative site was considered; (e) an identification of existing environmental conditions including social, economic and other aspects of major environmental concern; (f) information on potential, positive and negative impacts of the proposed undertaking from the environmental, social, economic and cultural aspect in relation to the different phases of development of the undertaking; (g) the potential impact on the health of people; (h) proposals to mitigate any potential negative socio-economic, cultural, and public health impacts on the environment. (i) proposals to be developed to monitor predictable environmental impact and proposed mitigating measures; (j) contingency plans existing or to be evolved to address any unpredicted negative environmental effect; (k) consultation with members of the public likely to be affected by the operations of the undertaking; (1) maps, plans, tables, graphs, diagrams and other illustrative material that will assist with comprehension of the contents of the environmental impact statement; (m) a provisional environmental management plan; (n) proposals for payment of compensation for possible damage to land or property arising from the operation of the undertaking; and (o) an indication whether any area outside Ghana is likely to be affected by the activities of the undertaking.

<sup>&</sup>lt;sup>227</sup> Regulation 13 of L.I 1652

<sup>&</sup>lt;sup>228</sup> Regulation 17 of LI 1652

<sup>&</sup>lt;sup>229</sup> Section 2(i) of Act 490.

annual environmental report on the undertaking.<sup>230</sup> The EPA has the power to suspend or revoke an environmental permit when the holder is in breach of any provision of the Environmental Assessment Regulations, 1999 or any other enactment relating to environmental assessment.<sup>231</sup>

## Gaps

- 1. There is no detailed information available in the regulations on the considerations/criteria on which the EIA approval or the environmental permit decision is based.
- 2. In practice the monitoring of compliance to an environmental permit, its renewal and adherence to the conditions of the grant is not regular.
- 3. Although an applicant is required to prepare an Environmental Management Plan (EMP), it is submitted after the issuance of the permit and after the commencement of operations. The law speaks nothing of the consequences of an unsatisfactory plan.
- 4. Though the law specifies that the EPA must hold a public hearing for applications that receive adverse public reaction to consider the concerns of inhabitants in making a decision on whether or not to grant an environmental permit, the law does not clearly indicate what constitutes "adverse public reaction" and does not specify a minimum notice period for such a hearing.

#### Recommendations

EA legislation should be amended to:

- Specify in explicit terms the considerations/criteria on which the EIA approval or which the
  environmental permit decision should be based. The criteria should include consideration
  of ecosystem services, sustainable land use, health of resident and migratory species,
  cultural values, climate change and biodiversity.
- 2. Specify the structure and the contents of an EMP and to require its submission before commencement of operations.
- 3. Provide that an unsatisfactory<sup>232</sup> EMP is a ground for revoking or suspending the environmental permit.
- 4. Include provisions that specify what constitutes adverse public reaction and provide a minimum notice period before a public hearing.
- 5. Specify that notice of an application and notice for a public hearing should be broadcasted at least in radio stations or through a town crier in languages the inhabitants understand.

<sup>&</sup>lt;sup>230</sup> Regulation 24 and 25 of L.I 1652

<sup>231</sup> Regulation 26 of L.I 1652

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<sup>&</sup>lt;sup>232</sup> There is no definition in law of the word unsatisfactory. By specifying in law the structure and contents of a management plan, there is a benchmark to determine what is satisfactory.

6. Specify that all notices and all documents, submitted in respect of an EIA application, and including the EIA statement, Scoping Report, Terms of Reference, Preliminary Environmental Report and EMP, should be made available on the EPA's website for transparency and ease of access.

# 6.4.2 Experience and Expertise of those Carrying out EIA.

# **Findings**

The President, in making appointments to the governing board of the EPA, is to have regard to the knowledge, expertise and experience of the persons he considers for appointment, especially in matters relating to the environment.<sup>233</sup>

In practice, there is a requirement by the EPA that the consultants who undertake EIAs be named in the EIA report and other such reports prepared for the environmental permit. The EPA also has a blacklist in place for consultants who commit professional misconduct. Blacklisted consultants are not recommended<sup>234</sup> to prospective applicants. Neither practice is grounded in law.

The law is also vague in respect of the qualification of persons on the EPA board or members of the committees to be formed by the EPA in assisting with the performance of its duties.

## Gaps

- 1. There are no requirements in law that provide for the qualifications, i.e. the experience and expertise, of persons who carry out EIAs, supervise EIAs and review EIAs.
- 2. The blacklisting done by the EPA of consultants who commit misconduct is of no consequence as there is no requirement in law as to who exactly is qualified to conduct the EIAs and the law does not give the EPA the authority to punish consultants.

#### Recommendations

The law should be amended to provide for:

- 1. A registration, certification, licensing and code of ethics regime by EPA for persons and companies who undertake both EIAs and SEAs.
- 2. The licensing requirements for persons who can undertake both EIAs and SEAs should include minimum qualification and experience for such persons.
- 3. Express provisions setting minimum qualifications for persons who serve on committees that review environmental permit applications and EIA.

<sup>&</sup>lt;sup>233</sup> Section 4(3) of Act 490.

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<sup>&</sup>lt;sup>234</sup> The consultant was informed of the practice where indirectly the EPA recommends consultants by providing an exclusionary list and refusing to accept the nomination of consultant in the blacklist.

- 4. Express provisions setting minimum qualifications for persons who are to supervise environmental permit applications and EIA.
- 5. Specify minimum qualifications for persons who can serve on the EPA board.
- 6. The mandate for EPA to blacklist consultants who commit misconduct and mechanisms for meting out punishments such as suspension and revoking of such licenses and the prescription of sanctions for misconducts.

# 6.4.3 Triggers and Thresholds for when EA is Required

# **Findings**

EPA generally has the power to require a person to submit an EIA if it is of the opinion of the EPA board that the undertaking in which the person is involved is likely to have adverse effect on the environment. The activities listed in schedule 1 of the Environmental Assessment Regulations, 1999 (L.I. 1652) (shown in *Appendix 4*) require registration and an environmental permit before they can be undertaken, while the activities listed in schedule 2 of L.I. 1652 (shown in *Appendix 5*) require an EIA to be done before the EPA can issue an Environmental Permit. For all other activities not captured in *Appendix 4* and 5, the EPA has the discretion to screen applications for environmental permits and determine if a preliminary environmental report will suffice or whether a full EIA is necessary.

Besides the EIA legislation, other sector legislation sets triggers or thresholds for EIAs to be performed. A person planning to conduct any activity other than fishing, which is likely to have a substantial impact on fishery resources, must notify the Fisheries Commission<sup>238</sup>. The Commission may require the person undertaking the said activity to provide reports illustrating the likely damage and possible means of minimization.<sup>239</sup> Also, as part of the application process for a timber utilization contract, an applicant must submit an assessment of the likely environmental effect that the project activities may have, together with a proposed program to redress the effect.<sup>240</sup> In addition, no person can undertake any petroleum activity unless an EIA is conducted.<sup>241</sup>

## Gaps

- 1. There is no provision to trigger EIAs that will assess the cumulative impacts of activities, such as farms, within a given radius / in the same locality.
- 2. There is no legal framework for performing SEAs.

236 Regulation 1 of L.I. 1652

<sup>&</sup>lt;sup>235</sup> Section 12(1) of Act 490.

<sup>&</sup>lt;sup>237</sup> Regulation 3 of L.I 1652

<sup>&</sup>lt;sup>238</sup> Section 93(1) of Act 625.

<sup>&</sup>lt;sup>239</sup> Section 93(2) of Act 625.

<sup>&</sup>lt;sup>240</sup> Section 3(3)(b) of Timber Resource Management Act, 1998 (Act 547).

<sup>&</sup>lt;sup>241</sup> Section 82(1) of Petroleum Exploration Production Law Act, 2016 (Act 919).

- 3. There is no provision in law that expressly requires an EIA for introduction of GMOs.
- 4. The term "substantial impact on fishery resources" is not defined in law.
- 5. Where there is change in the ownership rights of an undertaking, there is no requirement that the new owner should notify the EPA or subsequently engage with them.
- 6. The EPA as it stands, has too much discretion in making decisions over whether or not an EIA should be undertaken.

## Recommendations

Legislation should be amended to require:

- 1. EIAs for agricultural undertakings using prescribed criteria to take into account cumulative impacts, considerations of climate change mitigation, the likely pollution of soil or water from chemicals, removal of trees and other habitat, including protected species, degradation of soil and introduction of invasive species.
- 2. A legal and technical framework for the performance of SEAs, specifying which institution should supervise it, the procedure, how regular they should be done, the sectors and the triggers and thresholds for their undertaking.
- 3. The express requirement of an EIA before the introduction of GMOs since within the law the introduction of GMOs can be considered as an undertaking.
- 4. A definition in legislation<sup>242</sup> for the phrase "substantial impact on fishery resources".
- 5. The law should provide that the list of undertakings in schedule 1 and 2 of L.I. 625 should be regularly revised and updated to capture new emerging activities.

# 6.4.4 Screening and Scoping Requests and Opinions, Including Alternatives (And "No Project")

# **Findings**

When the EPA receives an application, it is required to screen the application as a form of initial assessment. The screening is to take into consideration the location, size, likely output of the undertaking, the technology to be used, the concerns of the general public, the land use and other factors, as the EPA may decide.<sup>243</sup>

As part of the screening process, the applicant is required to submit the environmental and health impact of the undertaking, commit to avoiding adverse environmental effects and address unavoidable environmental and health impacts together with alternatives to the undertaking.<sup>244</sup> After the screening, EPA will issue a report<sup>245</sup> on whether it has approved or

<sup>&</sup>lt;sup>242</sup> Section 93(1) of Act 625

<sup>&</sup>lt;sup>243</sup> Regulation 5 of L.I 1652

<sup>&</sup>lt;sup>244</sup> Regulation 5(2) of L.I 1652.

<sup>&</sup>lt;sup>245</sup> The law does not indicate whether this report may be made accessible to the public.

rejected the application for the environmental permit, or whether there is a need for a preliminary environmental report or a full EIA instead.<sup>246</sup> There is no requirement for EPA to make a determination on the alternatives to the proposed undertaking.

Before an EIA is undertaken, a scoping report setting out the scope or extent of the EIA to be carried must be submitted to the EPA for approval.<sup>247</sup> This report must include a draft Terms of Reference (TOR), which shall indicate the essential issues to be addressed in the environmental impact statement.<sup>248</sup>

The draft TOR must deal with the following matters:

- a. a description of the undertaking; an analysis of the need for the undertaking;
- b. alternatives to the undertaking including alternative situations where the undertaking does not get taken forward;
- c. matters on site selection including a statement of the reasons for the choice of the proposed site and whether any other alternative site was considered;
- d. an identification of existing environmental conditions including social, economic and other aspects of major environmental concern;
- e. information on potential, positive and negative impacts of the proposed undertaking from the environmental, social, economic and cultural aspect in relation to the different phases of development of the undertaking;
- f. the potential impact on the health of people;
- g. proposals to mitigate any potential negative socio-economic, cultural, and public health impacts on the environment;
- h. proposals to be developed to monitor predictable environmental impact and proposed mitigating measures;
- i. contingency plans existing or to be evolved to address any unpredicted negative environmental effect:
- j. consultation with members of the public likely to be affected by the operations of the undertaking;
- k. maps, plans, tables, graphs, diagrams and other illustrative material that will assist with comprehension of the contents of the environmental impact statement;
- I. a provisional environmental management plan;
- m. proposals for payment of compensation for possible damage to land or property arising from the operation of the undertaking;

<sup>247</sup> Regulation 11 of L.I 1652.

<sup>&</sup>lt;sup>246</sup> Regulation 6 of L.I 1652.

<sup>&</sup>lt;sup>248</sup> Regulation 12 of L.I 1652

n. and an indication whether any area outside Ghana is likely to be affected by the activities of the undertaking.<sup>249</sup>

# Gaps

- 1. The screening does not take into consideration the social and cultural impacts of an undertaking.
- 2. The list of undertakings listed in L.I. 1652 does not encompass all possible activities including emerging activities that may require an EIA. Therefore, assessment of emerging activities is left to the discretion of the EPA.
- 3. Although a draft TOR is provided in the law, there is no requirement to include the impacts of the proposed development on biodiversity in the TOR.

#### Recommendations

The law should be amended to require:

- 1. Social and cultural impact assessments during the screening process.
- Regular revision and updates of the list of undertakings in schedule 1 and 2 to better capture new emerging activities.
- 3. A re-wording of regulation 12(b) of LI 1652 to enhance the scope of the draft TOR from the onset. Regulation 12(b) may be re-worded to read "Alternatives in the event the undertaking does not proceed at the original location, form or size".
- 4. Inclusion of impacts of the proposed development on biodiversity in the TOR for an EIA.

## 6.4.5 Areas Required to be Considered as Part of the Impact Assessment

## **Findings**

The law requires that an EIA should address the possible direct and indirect impacts of an undertaking at the pre-construction, construction, operation, decommissioning and post-decommissioning phases; and includes assessments of:<sup>250</sup>

- 1. The concentrations of pollutants in environmental media including air, water and land from mobile or fixed sources;
- 2. Any direct ecological changes resulting from such pollutant concentrations as they relate to communities, habitats, flora and fauna;
- 3. Alteration in ecological processes such as the transfer of energy through food chains, decomposition and bio-accumulation which could affect any community, habitat or specie of flora or fauna;
- 4. Ecological consequences of direct destruction of existing habitats from activities such as dumping of waste and vegetation clearance and fillings;

<sup>&</sup>lt;sup>249</sup> Regulation 12 of L.I 1652

<sup>250</sup> Regulation 14 of L.I 1652

- 5. Noise and vibration levels;
- 6. Odour;
- 7. Vehicle traffic generation and potential for increase in road accidents;
- 8. Changes in social, cultural and economic patterns relating to:
  - decline in existing or potential use of valued resources arising from matters referred to in paragraphs (a) to (d) of this sub-regulation;
  - (ii) direct or indirect employment generation;
    - (iii) immigration and resultant demographic changes;
    - (iv) provision of infrastructure such as roads, schools and health facilities;
    - (v) local economy;
    - (vi) cultural changes including possible conflict arising from immigration and tourism; and
    - (vii) potential land use in the area of the proposed undertaking.<sup>251</sup>

## Gaps

 The law is silent on investigating the cumulative impacts of undertakings of a similar nature, across a given radius or locality. The law also bears no consideration of the impact a proposed undertaking may have on the environment in respect of migratory and endangered species.

## Recommendations

The law should be amended to:

- 1. Incorporate investigations on the cumulative impacts of similar undertakings across a given radius or locality in an EIA. Rapid Cumulative Impact Assessment and Management (RCIA)<sup>252</sup> six-stage steps could be adopted in legislation. The six stages are:
  - (a) Determine spatial and temporal boundaries;
  - (b) Identify Valued Environmental and Social Components (VECs)<sup>253</sup> in consultation with affected communities and stakeholders and identify all developments and external natural and social stressors affecting the VECs;
  - (c) Determine present conditions of VECs;
  - (d) Assess cumulative, indirect and induced impacts and evaluate their significance over VECs' predicted future conditions;

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<sup>&</sup>lt;sup>251</sup> Regulation 14 of LI 1652.

<sup>&</sup>lt;sup>252</sup> The RCIA six stage step is stated in the Good Practice Handbook Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets published by the International Finance Corporation in

<sup>&</sup>lt;sup>253</sup> VECs are environmental and social attributes that are considered to be important in assessing risks; they may be: physical features, habitats, wildlife populations (e.g., biodiversity); ecosystem services; natural processes (e.g., water and nutrient cycles, microclimate); social conditions (e.g., health, economics), or cultural aspects (e.g., traditional spiritual ceremonies).

- (e) Design and implement: (a) adequate strategies, plans, and procedures to manage cumulative impacts, (b) appropriate monitoring indicators, and (c) effective supervision mechanisms;
- 2. Require EAs to address the impact a proposed undertaking may have on the environment and the connectivity of that impact for migratory species.
- 3. Include climate change mitigation and adaptation as considerations of an EIA.

# 6.4.6 Public Participation (Public Consultation and Information Disclosure) and Availability of EA Documentation in Hard and Soft Copy

## **Findings**

Where an EIA is required, the applicant is required to give notice of the proposed undertaking to the relevant Ministries, government departments and organizations and the relevant Metropolitan, Municipal or District Assembly (MMDA).<sup>254</sup> The applicant is also required to advertise in at least one national newspaper and a newspaper, if any, circulating in the locality where the proposed undertaking is to be situated.. The applicant is also required to make copies of the scoping report available to the general public in the locality of the proposed undertaking ,for inspection..<sup>255</sup>

After the EIA is undertaken, the applicant is required to submit copies of the EIA statement to sector Ministries, government departments and organizations of relevance to the undertaking.<sup>256</sup> EPA is also required to publish for 21 days<sup>257</sup> a notice of the EIA statement in the mass media and also post at appropriate places such parts of the environmental impact statement as it considers necessary.<sup>258</sup> The notices must state that EPA has received an EIA statement on a proposed undertaking and that there are copies of the statement at the EPA library, the EPA Regional Office and the respective MMDA. The cost of the notices is to be borne by the applicant.<sup>259</sup> Any person who has a concern relating to any potential environmental impact of the proposed undertaking shall submit in writing such concerns to the EPA head office within 21 days from the date of publication of the notice <sup>260</sup>.

<sup>&</sup>lt;sup>254</sup> Regulation 15 of L.I. 1652

<sup>&</sup>lt;sup>255</sup> Regulation 15 of L.I. 1652

<sup>256</sup> Regulation 16 OF L.I 1652

<sup>&</sup>lt;sup>257</sup> The provision does not clearly indicate that it be done every day for of the 21 days. But the language suggests so and the practice point to it being done everyday of the 21 days.

<sup>&</sup>lt;sup>258</sup> Regulation 16 of L.I 1652

<sup>&</sup>lt;sup>259</sup> Regulation 4 of LI 1652.

<sup>&</sup>lt;sup>260</sup> Schedule 4 of L.I 1652

The law requires EPA to hold a public hearing in respect of an application where there is (i) great adverse public reaction<sup>261</sup> to the commencement of the proposed undertaking; (ii) the undertaking will involve the dislocation, relocation or resettlement of communities; and/or (iii) EPA considers that the undertaking could have extensive and far reaching effect on the environment<sup>262</sup>. For the public hearing, the EPA is to convene a panel of which at least a third of panel members must be residents of the geographical area of the proposed undertaking. The panel is also to reflect a representation of varying opinions, if any, on the subject of the hearing. The panel, after hearing submissions of concerned persons, is to make recommendations in writing to EPA.

EPA is required to publish in the gazette and mass media notice of every environmental permit issued by it within 3 months of the date of issue.<sup>263</sup> Lastly, the law gives EPA a broad duty to develop a comprehensive database on the environment and environmental protection for the information of the public.<sup>264</sup>

## Gaps

- 1. The absence of a legal duty on the EPA to make available copies of EIA statements in soft copy makes access for public scrutiny to information on the EIA undertaken difficult and cumbersome.
- 2. There is no obligation on the EPA to make the application for the environmental permit, screening reports, preliminary environmental reports, the environmental plan, the annual environmental report and minutes and recommendations from a public hearing available to the public, either in hard or soft copy.
- 3. Most of the significant agricultural and other undertakings are carried out in rural areas where illiteracy rates are still high. The requirement to publish a notice in the gazette is not effective in communicating the intended project to inhabitants who may be affected or have genuine concerns.
- 4. Though the law specifies that the EPA must hold a public hearing for applications that receive adverse public comments, the law does not specify a minimum notice period for such a hearing.<sup>265</sup>
- 5. The law fails to specify how "adverse public reaction" is to be determined and what objective criteria should be used to trigger the need for a public hearing.

<sup>&</sup>lt;sup>261</sup> The law does not define what "great adverse public reaction" is.

<sup>&</sup>lt;sup>262</sup> Regulation 17 of L.I 1652

<sup>263</sup> Regulation 8 of L.I 1652

<sup>264</sup> Section 2 of Act 490

<sup>&</sup>lt;sup>265</sup> While the consultant was unable to get official information on the number of public hearings that have been held, research cited from United Nations Environmental Program-Ghana indicates that the requirement for public hearings are not always complied with. For example, the research indicates that Between 1995-1997 a total of 72 EISs were conducted in Ghana and only eight of these were the subject of public hearing.

6. The law fails to make provisions to make the reports/ information accessible to persons with disability.

## Recommendations

The law should be amended to:

- Require EPA to make available on its website and its offices both hard and soft copies of
  the application for the environmental permit, screening reports, preliminary
  environmental reports, scoping opinions, EIA statements, the review opinion, the
  environmental plan, the annual environmental report and minutes and recommendations
  from a public hearing to the public to enhance transparency, public scrutiny, access to
  information and ultimately decision making.
- 2. Specify that notice of an application and notice for a public hearing should be broadcast at least on local radio stations or through a town crier in languages that inhabitants of the land can understand.
- 3. Include provisions that specify requirement for a notice of a public hearing and a minimum notice period before such a hearing.
- 4. Instead of a vague "adverse reactions" triggering a public hearing, specify an objective criterion such as: a petition signed by at least 100 citizens should suffice for the EPA to hold a public hearing in respect of an application for an environmental permit or in the alternative, make public consultation a compulsory part of all EA process.
- 5. Require that the hard copy of the documents made available to the public should include versions accessible to persons with disability.

# 6.4.7 Application of the Mitigation Hierarchy

# **Findings**

For the mitigation target of "avoid", the applicant for an environmental permit is to indicate in his application "a clear commitment to avoid any adverse environmental effects which can be avoided on the implementation of the undertaking"<sup>266</sup>. On the part of the EPA, the mandate to issue environmental permits and require EIA for activities with potential impact on the environment has the potential of a safeguard for "avoiding" potential damage to the environment<sup>267</sup> as potential threats are identified and avoided through a refusal of the application.

For the mitigation target of "minimize/mitigation", the applicant is also required to indicate in the application "a clear commitment to address unavoidable environmental and health

<sup>268</sup> Regulation 5(2)(b) of L.I 1652

<sup>&</sup>lt;sup>266</sup> Regulation 5(2)(b) of L.I. 1652

<sup>&</sup>lt;sup>267</sup> Section 12(1) of Act 490.

impacts and steps where necessary for their reduction." In addition, he must submit an EMP within 18 months of commencement. The environmental management plan must set out the steps intended to be taken to manage any significant environmental impact that may result from the operation of the undertaking.<sup>269</sup> Furthermore, the applicant is required to submit an annual environmental plan every 12 months.

On the regulator's part, the EPA in issuing the environmental permits may attach conditions to the grant. Failure to comply to the attached conditions or terms of the EMP is ground for suspending or revoking the permit. Furthermore, the EPA has a mandate to issue an enforcement notice requiring a person responsible for an undertaking which poses a serious threat to the environment, to stop immediately where necessary or take steps to reduce the impact of the damage. The draft terms of reference of the scoping report also requires provision to be made in the report for the applicant to consider alternatives to the undertaking being proposed, proposals to mitigate any impacts on the environment, and take contingency plans into consideration to address unpredicted negative environmental impacts for the EPA's assessment.

For the mitigation target of restore/rehabilitation, the environmental impact statement for mining and other extractive industries must include reclamation plans and the person/organization responsible for the undertaking is required to post a reclamation bond based on approved work plan for reclamation.<sup>272</sup>

The consultants found no provision in EA legislation for "offset".

#### Gaps

- 1. Legislation does not provide for measures towards compensation and offsetting for any residual, adverse impacts after full implementation of the other steps in the mitigation hierarchy.
- 2. Besides mining and extractive undertakings, the law does not provide for consideration of measures to be taken to improve/rehabilitate degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimized.
- 3. EMPs submitted to the EPA are also not published to allow public scrutiny.

## Recommendations

Legislation should be amended to provide for:

<sup>&</sup>lt;sup>269</sup> Regulation 24 of L.I 1652

<sup>&</sup>lt;sup>270</sup> Section 13 of Act 490.

 $<sup>^{\</sup>rm 271}$  Regulation 11 and 12 of L.I 1652

<sup>&</sup>lt;sup>272</sup> Regulation 23 of L.I 1652

- 1. The consideration of measures to improve/rehabilitate degraded or remove ecosystems following exposure to impacts that cannot be completely avoided or minimized.
- 2. The consideration of measures to offset or compensate for any residual, adverse impacts after full implementation of the other steps in the mitigation hierarchy.
- 3. A mandatory obligation on the EPA to publish the annual environmental report and environmental management plans they receive from holders of environmental permits on its website to allow public scrutiny, assessment and comments.

# 6.4.8 EA Quality Control

# **Findings**

Though there is no provision in law on methodological requirements in carrying out EIAs, EPA has published sector specific EIA guidelines to facilitate the conduct of EIAs in the following sectors: forestry and wood sector, tourism, energy, manufacturing industry, health, mining sector, transportation industry, agriculture and general construction. The guidelines for public consultation are still in draft form. L.I 1652 also prescribes, at a minimum, items to be included in the ToR for the scoping report for the EIA and the minimum areas to be investigated in an EIA.<sup>273</sup>

Also, pursuant to the mandate of the EPA board to appoint committees to assist with its functions<sup>274</sup>, the EPA has set up cross-sectoral EA technical review committees across the ten regions of Ghana to support the EPA offices in screening and reviewing of EIA applications and reports. In certain cases, the EPA requests for review support from external/international accredited EIA institutions in the review of EIA reports.

## Gaps

- 1. There is no detailed information available in legislation on the considerations/criteria on which the EIA approval or the environmental permit decision is based.
- 2. There is no grounding in law for the guidelines produced by EPA to guide the performance of EIAs and the regular review of these guidelines.
- 3. There are no requirements in law that provide for the qualifications, i.e. the experience and expertise, of persons who carry out EIAs, supervise EIAs and review EIAs.
- 4. Besides making the scoping report and hard copies of the EIA statements available in its libraries and offices, there is no obligation on EPA to make the application for the environmental permit, screening reports, preliminary environmental reports, the review opinion on the EIA statement, the environmental plan, the annual environmental report

<sup>&</sup>lt;sup>273</sup> Regulation 11, 12, 14 of L.I 1652

<sup>&</sup>lt;sup>274</sup> Section 9 of Act 490

and minutes and recommendations from a public hearing available to the public, either in hard or soft copy.

## Recommendations

The law should be amended to:

- Specify in explicit terms the considerations/criteria on which the EIA approval or which the
  environmental permit decision should be based. The criteria should include consideration
  of ecosystem services, sustainable land use, health of resident and migratory species,
  cultural values, climate change and biodiversity.
- 2. Specify in law the methodological requirements for carrying out an EIA with regard to best and current practices and provide a mechanism for its regular review.
- 3. Require EPA to make available on its website and its offices both hard and soft copies of the application for the environmental permit, screening reports, preliminary environmental reports, scoping opinions, EIA statements, the review opinion, the environmental plan, the annual environmental report and minutes and recommendations from a public hearing to the public into enhance transparency, public scrutiny, access to information and ultimately decision making.
- 4. Provide a registration, certification, licensing and code of ethics regime by EPA for persons and companies who undertake both EIAs and SEAs.
- 5. Provide provisions setting minimum qualifications for persons who supervise EIAs and those who review environmental permit applications and EIA.

## 6.4.9 Relation to Sectoral Regulation

## **Findings**

Pursuant to the mandate of the EPA Board to appoint committees to assist with its functions<sup>275</sup>, the EPA has set up cross-sectoral EA technical review committees across the ten regions of Ghana to support the EPA offices in screening and reviewing of the EA applications and reports.

Where the EPA issues a notice on a person responsible for an undertaking for an EIA to be performed, it must inform the organ or the government department responsible for the issuance of a licence, permit, an approval or a consent in connection with that undertaking that such a notice has been issued. That organ or department cannot then grant the license, permit, approval or consent unless with the prior approval - in writing – from the EPA after compliance with the notice.<sup>276</sup>

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<sup>&</sup>lt;sup>275</sup> Section 9 of Act 490

<sup>&</sup>lt;sup>276</sup> Section 12(2) of Act 490. The section does not provide any attached conditions.

An EIA is required to be done as part of the application for timber rights. It may be required for the grant of water rights and it must be done before mining or petroleum operations can commence. Technically, mining rights or a petroleum exploration/ production contract may be awarded before the EIA is done and an environmental permit is issued.

## Gaps

- 1. It appears there is inadequate consideration of impacts on the environment in the award of mineral rights and petroleum exploration contracts as both do not require submission of an approved EIA statement during the application process. The law only requires that an environmental permit should be acquired before the commencement of mining or petroleum activities.
- 2. There is lack of coordination among sector agencies and institutions in giving out approvals or licenses in respect of physical developments affecting the environment.

## Recommendations

The law should be amended to streamline permits, approvals, consents or licenses for every physical undertaking affecting the environment. Pursuant to EPA's mandate to co-ordinate the activities of other environmental agencies, all required permits, approvals, consents or licenses for various physical developments stated below should commence with an initial screening by the EPA to advise on the further activities that should be undertaken.

# 6.4.10 Sufficient Arrangements for Compliance and Enforcement

## **Findings**

The EPA has the duty to ensure compliance with any laid down EIA in the planning and execution of development projects, including compliance in respect of existing projects. In line with this mandate of enforcement, the EPA has appointed environment protection inspectors to ensure compliance with the provisions of the EPA Act. The inspectors have authority under the law to enter any premises at a reasonable time for the purpose of ensuring compliance with rules and regulations pertaining to the protection of the environment. The inspectors may request to inspect licenses or approvals of the person in charge of the premises.<sup>277</sup> Obstructing an environmental protection inspector in the performance of the above duty above is an offence with a penalty of a fine of 24,000 Ghana cedis or a term of imprisonment not exceeding 6 months or to both.<sup>278</sup>

EPA also relies on complaints from the public to complement its monitoring of compliance with the law. The annual environmental reports help EPA to review permit conditions. EPA also relies on the annual environmental reports submitted to review permit conditions.

<sup>&</sup>lt;sup>277</sup> Section 15 of Act 490

<sup>&</sup>lt;sup>278</sup> Section 15(3) of Act 490

It is an offence to start an undertaking that requires an environment permit without being in possession of a valid permit. The defaulter may be fined an amount not exceeding 12000 Ghana cedis and/ or imprisoned for a term not exceeding one year or both and a fine of 1200 Ghana cedis is meted for each day the offending activity continues after an enforcement notice has been issued.<sup>279</sup>

The Attorney General of Ghana initiates the prosecution of all offences in Ghana. State prosecutors assist the Attorney General and he can delegate some of his duties to other public officers such as Police officers and Environmental Inspectors to prosecute crimes on his behalf.

## Gaps

- 1. EPA is under resourced in terms of workforce and logistics<sup>280</sup>. This primarily affects the EPA's ability to undertake its core mandate and effectively monitor compliance.
- 2. The penalty for default in procuring an environmental permit when required (i.e. GHC 12000, or up to one-year imprisonment) is an inadequate deterrent compared to the potential commercial worth of such undertakings.

## Recommendations

- 1. Setting up of a special environmental court to try environmental offences.
- 2. A revision of the penalty for failing to obtain an environmental permit before commencing an undertaking when necessary to make it more punitive and in effect deter offenders.
- 3. Inclusion of a penalty of ten percent of the project cost to punishments for noncompliance with the law for an Environmental permit.
- 4. A mandate for the EPA to publish annually offenders and defaulters who have been successfully prosecuted after starting or undertaking a project without the necessary and correct permits, together with the details of the respective punishments meted out.
- 5. A requirement in law that mandates the EPA to publish the annual environmental report and environmental management plans they receive from holders of environmental permits on its website to allow public scrutiny, assessment and comments.
- 6. There should be clarity on making information available in good and sufficient time to the public on the duties or work being done by the EPA.
- 7. Adequate resourcing of the EPA to undertake effective compliance monitoring.
- 8. Workshops and regular training for police officers, judges, state prosecutors and similar officers who are non-environmental experts to build their capacity to understand and

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<sup>&</sup>lt;sup>279</sup> Regulation 29 of LI 1652.

<sup>&</sup>lt;sup>280</sup> In this context the reference to logistics include equipment and technology.

appreciate environmental issues, environmental management principles and environmental offences.

# 7 PART VII - CONCLUSION AND A WAY FORWARD

The primary aim of this study was to undertake a comprehensive legal audit and assessment of the legal framework for protected areas, agriculture and environmental assessment in Ghana. The consultants captured the institutional framework and requirements in law to address specific questions and reflected on laws, both local and international, and practices in the areas under review. It also captured the institutional arrangements for regulation of these areas and how these arrangements interrelate. The report also identified the gaps in legislation and looked at its application in practice. The report proposes recommendations, broken down into proposals for legislative change and changes in enforcement action. The steering groups, made up of practitioners mainly from the government sector, greatly enhanced the validity of the findings.

A process of prioritization for all these recommendations is necessary involving a wide array of stakeholders, but a number of immediate gaps and recommendations are worthy of highlight here.

The findings indicated the absence in law of a requirement for SEAs. This absence means that, inter alia, the cumulative and long-term effects of actions which affect the environment are not considered, the public is largely excluded from key decision-making and the degradation of Ghana's natural environment continues unchecked.

The study provided the opportunity to note the existence of many international commitments of Ghana yet many of these commitments have not been reduced into domestic legislation. The effect is to that such commitments are not effectively implemented and monitored in Ghana.

The study also revealed another very important issue. That all-important Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana does not have the force of law and depends on the political will of district officers and local officials to be effective. While this may have already affected the survival of freshwater bodies, the transformation of the policy into law will greatly correct the negative effects on water quality. The law on the riparian policy should particularly be applied within plantations and new agricultural developments.

As recommended in the section on EAs, the application for utilization of any natural resources should be streamlined to make the EPA the first point of call for the application for any permit/approval or licences to exploit any natural resource. EPA, on receiving any such application,

guided by the thresholds or criteria set out in law, may request for an EIA and consider whether to grant an environmental permit prior to the issuance of subsequent permits by other commissions.

The research also noted the existence of a number of policies, plans and programmes in Agriculture, Protected Areas and Environmental Assessment. These are indicative of government intentions and it will be very useful if these are translated into law for effective implementation and enforcement.

In the three areas discussed in the document, the issue of tenure rights related to tree and land come up. It is considered as highly important for the tenure system in the country to be addressed. Addressing tenure will have a positive impact on agriculture, protected areas and public ownership and involvement in environmental assessments.

Another key area coming out of the findings and gaps in the research is the absence of a legal framework to enhance community involvement in the protected areas. In all the areas it was recommended that legal backing be given to the Policy for Collaborative Community Based Wildlife Management for the establishment of Community Resource Management Areas (CREMAs) across Ghana.

The findings, gaps and recommendations provide a basis for future action and a basis to engage both Government and civil society to fashion ways to tighten the screws and improve administrative action for a more concerted approach to sustainable land use in Ghana.

# 8 APPENDICES

# 8.1 APPENDIX 1

# COLLATION OF LEGISLATION, REGULATION AND SUBSTANTIVE POLICY RELEVANT TO AGRICULTURE, PROTECTED AREAS AND ENVIRONMENTAL ASSESSMENT

SUBJECT AREA	TYPE OF REGIME		DOCUMENTS
AGRICULTURE	ACTS/DECREES	1	Agricultural Development Bank Act, 1965 (Act 286)
		2	Animals (Artificial Insemination) Act, 1955 (No.33)
		3	Animals (Control of Importation) Act, 1952 (No.36)
		4	Bast Fibres Development Board Act, 1970 (Act 326)
		5	Biosafety Act, 2011 (Act 831)
		6	Cocoa Industry (Regulations) Act, 1968 (N.L.C.D. 278)
		7	Cocoa Duty Act, 1974 (N.R.C.D. 265)
		8	Control and Prevention of Bush Fire Act 1990 (PNDCL
			229)
		9	Cotton Development Board Act, 1969 (N.L.C.D. 353)
		10	Diseases of Animals Act, 1961 (ACT 83)
		11	Economic Plants Protection Act, 1979 (A.F.R.C.D. 47)
		12	Environmental Protection Agency Act, 1994 (Act 490)
		14	Farmlands (Protection) Act, 1962 (Act 107)
		15	Fisheries Act,1991 (P.N.D.C.L 256) (PART 1)
		16	Fisheries Act, 2002 (ACT 625)
		17	Fisheries (Amendment) Act, 2014 (Act 880)
		18	Fruit Industry Act, 1969 (N.L.C.D. 356)
		19	Ghana Cocoa Board Act, 1984 (P.N.D.C.L. 81)
		20	Grains Development Board Act, 1970 (Act 324)
		21	Illegal Seizure of Ivorian And Ghanaian Farms
			(Abatement of Proceedings) Act, 1992 (P.N.D.C.L. 305)
		22	Irrigation Development Authority Act, 1987 (S.M.C.D. 85)
		23	Land Planning and Soil Conservation Act, 1953 (NO. 32)
		24	Land Use and Spatial Planning Act, 2016 (Act 925)
		25	Local Government Act, 2016(Act936)
		26	Meat Marketing Authority Act, 1972 (N.R.C.D. 42)
		27	National Development Planning (System) Act, 1994 (Act 480)
		28	National Development Planning Commission Act, 1994 (Act 479)
		29	Pesticides Control and Management Act, 1996 (Act 528)
		30	Plants and Fertilizer Act, 2010 (Act 803)
		31	Prevention and Control of Pests and Diseases of Plants
			Act, 1965 (Act 307)
		32	Prevention of Damage by Pests Act, 1968 (N.L.C.D. 245)
		33	Renewable Energy Act, 2011 (Act 832)
		34	Savannah Accelerated Development Authority Act, 2010 (Act 805)
		35	Seeds (Certification and Standards) Act, 1972 (N.R.C.D. 100)

	36	Statutory Corporations Act, 1964 (Act 232)
	37	Sugar Industry Authority Act, 1981 (Act 432)
	38	Timber Resources Management Act, 1998 (Act 547)
	39	Traditional Medicine Practice Act, 2000 (Act 575)
	40	Water Commission Act, 1996 (Act 522)
	•	, , , ,
SUBSIDIARY	1	Animals (Control of Importation) (Amendment)
LEGISLATION	•	Regulation, 1962 (LI211)
	2	Animals (Artificial Insemination) Ordinance, 1955 (No. 33
		Of 1957) (Ln 77)
	3	Cocoa Industry Regulations, 1968 (L.I. 598)
	4	Cocoa Industry (Amendment) Regulations, 1968 (L.I. 602)
	5	Cocoa Industry (Amendment) Regulation, 1971 (LI 713)
	6	Cocoa Industry (Regulation) (Consolidation) Decree,
		1968 (L.I. 598).
	7	Fisheries Regulations, 2007 (L.I. 1832)
	8	Fisheries Regulations, 2010 (L.I. 1968)
	9	Fisheries (Amendment) Regulations, 2015 (Act 2217)
	10	Fruit Industry (Bananas) Regulations, 1970 (L.I. 643).
	11	Fruit Industry (Confee) Regulations, 1970 (LI 644).
	12	Fruit Industry (Copra) Regulations, 1970 (L.I 645).
	13	Fruit Industry (Palm-Kernels) Regulations, 1970 (L.I. 646).
	14	Environmental Assessment Regulations, 1999 (L.I. 1652)
	15	Irrigation Development Authority Regulations, 1987 (L.I. 1350).
	16	Irrigation Development Authority (Amendment) Regulations, 2011 (L.I. 1995)
	17	Irrigation Development Authority (Irrigation Water Users Association) Regulations, 2016 (L.I. 2230)
	18	Local Government (Departments of District Assemblies) (Commencement) Instrument, 2009 (L.I. 1961)
	19	Local Government (Integration of Government and
		Decentralized Departments into The Fold of District
		Assemblies) Instrument, 2008 (L.I. 1931)
	20	Plant Fertilizer Regulations, 2012 (L.l. 2194)
	21	Plant Protection Regulations, 2012 (L.I. 2193)
	22	Prevention and Control of Pests and Diseases of Plants
		(Cassava Plant and Plant Products) (Prohibition of Importation) Regulation, 1974 (L.I. 882).
	23	Seeds (Certification and Standards) Regulations, 1973 (L.I. 802)
	24	Seed (Certification and Standards) (Amendment) Regulations, 1985 (L.I. 1311).
	25	Seeds (Certification and Standards) (Amendment) Regulations, 2001 (1677)
	26	State Farms Corporation Instrument, 1965 (L.I. 398).
	27	State Fishing Corporation Instrument, 1965 (L.I. 397).
	-/	State i Shing corporation histallicity 1903 (Elli 997).

	28	Timber Leases and Licenses (Amendment) Regulations, 1979 (L.I. 1215)
	29	Trees and Timber (Control of Export of Logs) Regulations, 1961 (L.I. 130).
		<u> </u>
NATIONAL POLICIES	1	Cocoa Sector Development Strategy (2011)
	2	Food and Agriculture Sector Development Policy (FASDEP II), 2008
	3	Ghana National Climate Change Policy, 2012
	4	Medium Term Agriculture Sector Investment Plan (METASIP) 2011 - 2015
	5	National Climate Change Adaptation Strategy, 2010 -2020
	6.	National Environmental Policy,2012
	7	National Irrigation Policy, Strategies and Regulatory Measures, 2011
	8	National Land Policy, 1999
	9	National Renewable Energy Policy
	10	National Plan to Combat Desertification
	11	Oil Palm Master Plan, 2012
	12	Ghana Strategic Investment Framework for Sustainable
		Land Management (GSIF)
	13	Riparian Buffer Zone Policy for
		Managing Freshwater Bodies in Ghana, 2011
	14	The Agricultural Sector Assessment Guidelines of the Environmental Protection Agency (2006);
	15	Tree Crops Policy, 2012
INTERNATIONAL TREATIES AND	1	Agreement for Establishment of the Global Crop Diversity Trust, 2004
AGREEMENTS	2	AU Declaration on land Use and Challenges in Africa.
	3	West African Agricultural Policy-ECOWAP
	4	World Trade Organization's Agreement on Agriculture, 1995
	5	UNCTAD International Cocoa Agreement, 2010
	6	UN International Coffee Agreement, 2007
	7	Constitution of the Food and Agriculture Organization, 1945
	8	Agreement establishing the International Fund for Agricultural Development, 1977
	9	Constitution of the International Rice Commission, 1948
	10	UNFCCC Kyoto Protocol, 1997
	11	UNFCCC Paris Agreement, 2015
	12	International Treaty on Plant Genetic Resources for Food and Agriculture, 2001
	13	International Plant Protection Convention, 1951
	14	Right of Association (Agriculture) Convention, 1921
	15	United Nations Convention to Combat Desertification
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SUBJECT	TYPE OF LAW		DOCUMENTS
AREA	1		
PROTECTED	ACTS/DECREES	1	Control and Prevention of Bush Fires Act, 1990 (PNDCL 229)
AREAS		2	Environmental Protection Agency Act, 1994 (Act 490)
		3	Forestry Commission Act, 1999 (Act 571)
		4	Forests Act, 1927 (CAP 157)
		5	Forest Protection Act, 1974 (N.R.C.D. 243)
		6	Forest Protection Amendment Act, 2002 (Act 624)
		7	Forest Plantation Development Fund Act, 2000 (Act 583)
		8	Land Planning and Soil Conservation Act, 1953
		9	National Development Planning (System) Act, 1994 (Act 480)
		10	National Development Planning Commission Act, 1994 (Act 479)
		11	Rivers Act, 1903 (Cap. 226)
		12	Timber Resources Management Act, 1998 (Act 547)
		13	Timber Resources Management (Amendment) Act, 2002 (Act 617)
		14	Trees and Timber Act, 1974 (N.R.C.D 273)
		15	Wild Animals Preservation Act, 1961 (Act 43)
		16	Water Resources Commission Act, 1996 (Act 522)
		17	Land Use and Spatial Planning Act, 2016 (Act 925)
		18	Lands Commission Act, 2008 (Act 767)
	SUBSSIDIARY	1	Water Use Regulations, 2001 (L.I 1692)
	LEGISLATION	2	Wildlife Conservation Regulations, 1971 (L.I 685)
		3	Wildlife Conservation (Amendment) Regulations, 1983 (L.I 1284)
		4	Wildlife Conservation (Amendment) Regulations, 1988 (L.I 1357)
		5	Wildlife Conservation (Amendment) Regulations, 1989 (L.I 1452)
		6	Wildlife Reserves Regulations, 1971 (L.I 710)
		7	Wildlife Reserves (Amendment) Regulations, 1974 (L.I 881)
		8	Wildlife Reserves (Amendment) Regulations, 1975 (L.I 1022)
		9	Wildlife Reserves (Amendment) (Declaration of Game
			Reserves) Regulations, 1976 (L.I 1085)
		10	Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105)
		11	Wildlife Reserves (Amendment) Regulations, 1983 (L.I 1283)
		12	Wildlife Reserves (Declaration of Game Reserves)
			(Amendment) Regulations, 1991 (L.I. 1525)
		13	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I. 1659)
		1	Ghana Forest and Wildlife Policy, 2012

NATIONAL		Chana National Climate Change Policy 2012
NATIONAL	2	Ghana National Climate Change Policy, 2012
POLICIES	3	Ghana National Climate Master Action Plan 2015-2020
	4	Ghana Shared Growth and Development Agenda (GSGDA) II, 2014-2017
	5	National Environmental Policy,2012
		National Biodiversity Strategy for Ghana, 2002
	5	
	O	National Action Programme To Combat Drought and Desertification, 2002
	7	National Land Policy, 1999
	8	Wildlife Division Policy for Collaborative Community Based Wildlife Management, 2000
INTERNATIONAL TREATIES AND	1	African Convention on the Conservation of Nature and Natural Resources, 2003
AGREEMENTS	2	Agreement on the Conservation of African-Eurasian Migratory Water Birds, 1995
	3	Cartagena Protocol on Biosafety, 2000
	4	Convention on Biological Diversity, 1992
	5	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1963
	6	Convention on The Conservation of Migratory Species of Wild Animals, 1979
	7	International Convention for the Conservation of Atlantic Tunas, 1984
	8	International Convention for the Regulation of Whaling, 1946
	9	United Nations Convention to Combat Desertification, 1944
	10	Memorandum of Understanding on The Conservation of Migratory Sharks, 2010
	11	Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of The Atlantic Coast of Africa, 2002
	12	Ramsar Convention, 1971
	13	The Voluntary Partnership Agreement (VPA) between the European Union and Ghana on Forest Law Enforcement, Governance and Trade
	14	World Heritage Convention, 1972

SUBJECT AREA	TYPE OF LAW		DOCUMENTS
ENVIRONMENTAL	ACT/DECREES	1	Biosafety Act, 2011 (Act 831)
ASSESSMENT		2	Fisheries Act, 2002 (Act 625)
		3	Environmental Protection Agency Act, 1994 (Act 490)
		4	Hazardous and Electronic Waste Control and Management Act, 2016 (Act 917)
		5	Lands Commission Act, 2008 (Act 767)
		6	Land Use and Spatial Planning Act, 2016 (Act 925)
		7	Minerals and Mining Act, 2006 (Act 703)
		8	Minerals Commission Act, 1993 (Act 450)
		9	Mining Rights, Licenses and Certificates (Imposition of Fees) (Consolidated Amendments) Act, 1993 (P.N.D.C.L. 67)
		10	Minerals and Mining Act, 2006 (Act 703)
		11	National Information Technology Act, 2008 (Act 771)
		12	National Development Planning (System) Act, 1994 (Act 480)
		13	National Development Planning Commission Act, 1994 (Act 479)
		14	Nuclear Regulatory Authority Act, 2015 (Act 895)
		15	Petroleum Commission Act, 2011 (Act 821)
			Petroleum Exploration and Production Law Act, 2016 (Act 919)
			Renewable Energy Act, 2011 (Act 832)
			Timber Resource Management Act, 1998 (Act 547)
		20	Water Commission Act, 1996 (Act 522)
		21	West African Gas Pipeline Act, 2004 (Act 681)
	SUBSIDIARY LEGISLATION	1	Community Water and Sanitation Agency Regulations, 2011 (L.I. 2007)
		2	Drilling Licence And Groundwater Development Regulations, 2006 (L.I. 1827)
		3	Driver and Vehicle Licensing Authority (Private Vehicle Testing Stations) Regulations, 2012 (L.I. 2192)
		4	Environmental Assessment Regulations 1999 (L.I. 1652)
		5	Environmental Assessment (Amendment) Regulations, 2002 (L.I. 1703)
		6	Fisheries Regulations, 2010 (L.I. 1968)

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	es Regulations, 2007 (L.I. 1832)
8 Fisheric	es Regulations, 2010 (L.I. 1968)
9 Fisheric	es (Amendment) Regulations, 2015 (Act 2217)
10 Minera 2173)	lls and Mining (General) Regulations, 2012 (L.I.
	ls and Mining (Support Services) Regulations, .l. 2174)
12 Minera	ls and Mining (Explosives) Regulations, 2012
13 Minera Resettl	lls and Mining (Compensation and lement) Regulations, 2012
	ls and Mining (Health, Safety and Technical tions, 2012) (L.I. 2182)
_	I Gas Pipeline Safety (Construction, Operation aintenance) Regulations, 2012 (L.I. 2189)
	Resources Management and Legality Licensing tions, 2017 (L.I. 2254)
17 Water	Use Regulations, 2001 (L.I 1692).
NATIONAL 1 Nation	al Environmental Action Plan, 1994 (NEAP)
	al Environmental Policy, 2012
3 United 1996	Nations Convention to Combat Desertification,
The state of the s	Nations Framework Convention on Climate 2,1994
Change	e, 1994 Convention for the Protection of the Ozone
Change 5 Vienna	e, 1994 Convention for the Protection of the Ozone

# 8.2 APPENDIX 2

# **LIST OF MEMBERS OF THE STEERING GROUP**

No.	Name	Position	Institution
1.	Eric Lartey	Executive Director	Ghana Wildlife Society
2.	Faisal Elias	Policy and Advocacy Officer	Ghana Wildlife Society
3.	Nana Tawiah Okyir	Consultant	TaylorCrabbe Innitiative
4.	Clement Akapame	Consultant	TaylorCrabbe Innitiative
5.	Dennis Martey	Consultant	TaylorCrabbe Innitiative
6.	James Dadson	Chief Lands Officer	Ministry of Lands and Natural Resources
7.	Dr. Stanislaus Adiaba	Principal Land Administration Officer, LC	Lands Commission
8.	Isaac Charles Acquah Jnr.	Principal Programme Officer, National Resource Secretariat	Environmental Protection Agency
9.	Anthony Appianti	Programme Officer	Environmental Protection Agency
10.	Kingsley K. Amoako	Deputy Director of Environment, Land and Water Management Unit, Directorate of Crop Services	Ministry of Food and Agriculture
11.	Gibrilla Ahmed	·	Ministry of Food and Agriculture
12.	Cornelia Danso	Acting Manager of Commercial Development Unit	Wildlife Division, FC
13.	Dipali Mukherjee		Birdlife International
14.	Andrew Callender	Head of Section, International Policy Programmes	RSPB
15.	Wenceslas Gatarabirwa	Partner Development Officer - Africa	RSPB
16.	Obed Owusu-Addai	Lead Consultant	Ecocare Ghana

# 8.3 APPENDIX 3

# LIST OF PROTECTED AREAS AND RAMSAR SITES IN GHANA

	NAME OF PROTECTED AREA	SIZE (km²)	TYPE OF VEGETATION	IUCN CLASSIFICATION	CREATING LEGISLATION/ ORIGINATION
	National Parks				
1	Kakum National Park	210.00	Moist Evergreen	Category II-National Park	Wildlife Reserves (Declaration of Game Reserves) (Amendment) Regulations, 1991 (L.I.1525)
2	Nini- Suhien National Park	160.00	Wet Evergreen	Category II-National Park	Wildlife Reserves (Amendment) (Declaration of Game Reserves) Regulations, 1976 (L.I. 1085)
3	Mole National Park	4,840.00	Dry Semi deciduous	Category II-National Park	Wildlife Reserves Regulations, 1971 (L.I.710)
4	Bia National Park	78.00	Wet Evergreen	Category II-National Park	Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105)
5	Bui National Park	1,820.00	Savanna	Category II-National Park	Wildlife Reserves Regulations, 1971 (L.I.710)
6	Kyabobo National Park	222.00	Dry Semi deciduous	Category II-National Park	Executive Instrument No 20 of 16/09/1993
7	Digya National Park	3,478.30	Dry Semi deciduous	Category II-National Park	Wildlife Reserves Regulations, 1971 (L.I.710)
	Resource Reserves				
8	Ankasa Resource Reserve	343.00	Wet Evergreen	Category IV - Habitat/Species Management Area	Wildlife Reserves (Amendment) (Declaration of Game Reserves) Regulations, 1976 (L.I. 1085)
9	Bia Resource Reserve	228.00	Wet Evergreen	Category IV - Habitat/Species Management Area	Wildlife Reserves (Amendment) Regulations, 1977 (L.I 1105)
10	Assin Attandanso Resource	150.00	Moist Evergreen	Category IV - Habitat/Species Management Area	Wildlife Reserves (Declaration of Game Reserves) (Amendment) Regulations, 1991 (L.I.1525)

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11	Shai Hill Resource	53.00	Dry Semi deciduous	Category IV - Habitat/Species	Wildlife Reserves Regulations, 1971 (L.I.710)
	Reserve			Management Area	
12	Kalakpa Resource Reserve	320.20	Dry Semi deciduous	Category IV - Habitat/Species Management Area	Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022).
13	Gbele Resource Reserve	565.40	Dry Semi deciduous	Category IV - Habitat/Species Management Area	Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022).
	Wildlife Sanctuaries <sup>281</sup>				
14	Owabi Wildlife Sanctuary <sup>282</sup>	13.10	Moist Semi deciduous	Category III — Natural Monument or Feature	Wildlife Reserves Regulations, 1971 (L.I.710)
15	Bomfobri Wildlife Sanctuary	53.10	Dry Semi deciduous	Category IV - Habitat/Species Management Area	Wildlife Reserves (Amendment) Regulations, 1975 (L.I. 1022).
16	Boabeng- Fiema Monkey Sanctuary	1.92	Forest-dry northern grassland transition zone	Category IV - Habitat/Species Management Area	Created by Religio-Cultural beliefs and practices.
17	Agumatsa Wildlife Sanctuary			Category III — Natural Monument or Feature	
	Strict Nature Reserves				
18	Kogyae Strict Nature Reserve	385.70	Dry Semi deciduous	Category Ia — Strict Nature Reserve	Wildlife Reserves Regulations, 1971 (L.I.710)
	Coastal Ramsar Sites				
19	Keta Lagoon Complex	1010.23	Coastal Wetlands	Category VI – Protected Area with sustainable use of natural resources	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)
20	Muni-Pomadze	94.61	Coastal Wetlands	Category VI – Protected Area with sustainable use of natural resources	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)

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<sup>&</sup>lt;sup>281</sup> The consultants found no legal source for two wildlife sanctuaries: Boabeng-Fiema Wildlife Sanctuary and Agumatsa Wildlife Sanctuary. These two were established by the communities in which they are found.

<sup>&</sup>lt;sup>282</sup> Owabi Wildlife Sanctuary has been designated as an in-land Ramsar site by the Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)

21	Sakumo	13.64	Coastal Wetlands	Category VI – Protected Area with sustainable use of natural resources	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)
22	Densu Delta	58.93	Coastal Wetlands	Category VI – Protected Area with sustainable use of natural resources	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)
23	Songor	511.13	Coastal Wetlands	Category VI – Protected Area with sustainable use of natural resources	Wetland Management (Ramsar Sites) Regulations, 1999 (L.I.1659)

# 8.4 APPENDIX 4

# LIST OF UNDERTAKINGS IN SCHEDULE 1 OF LI 1652 SHOWING UNDERTAKINGS THAT REQUIRE REGISTRATION AND ENVIRONMENTAL PERMIT

1 AGRICULTURAL AND Community Pastures (a) involving the clearing of land of greater than 40 area; or (b) involving the clearing of land located in an environment of land located in an environment.	
(b) involving the clearing of land located in an envisensitive area.  Fruit and other vegetable farms  Management areas (a) involving the clearing of land of greater than 40 area, or (b) involving the clearing of land located in an envisensitive area.  Fishing (a) fish or shellfish farming in salt water, brackish water, where the proposal includes the construction based facilities other than wharves; (b) permanent traps or weir fisheries, salt water.  Services incidental to fishing Fish or shellfish breeding and propagating services shellfish hatchery services, where the proposal construction of shore-based facilities other than what	vironmentally o hectares in vironmentally vater or fresh ion of shore- es, or fish or includes the

2	LOGGING AND FORESTRY.	<b>Logging</b> Management of forested land for the primary purpose of harvesting timber in a contract area.
3	FORESTRY SERVICES.	<ul><li>(a) application of pesticides;</li><li>(b) introduction of exotic species of animals, plants or microbial agents;</li><li>(c) establishment of forests in previously forested and unfrosted areas</li></ul>
4	MINING (INCLUDING MILLING), QUARRYING AND OIL WELLS	Mining (a) metal mines; (b) non-metal mines.  Crude Oil and Natural Gas (a) crude oil or petroleum production facilities; (b) natural gas production facilities.  Quarries and Sand Pits. (a) where the total area is greater than 10 hectares, or (b) where any portion is to be located within an environmentally sensitive area.  Sand and Gravel Pits (a) where the total area is greater than 10 hectares, or (b) where any portion is to be located within an environmentally sensitive area.

5	MANUFACTURING	Food
		(a) abattoirs;
		(b) meat, fat or oil processing facilities;
		(c) poultry processing facilities.
		Beverages
		<u> </u>
		(a) brewery products;
		(b) distillery products;
		(c) wines.
		(-)
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		Rubber Products
		(a) rubber hoses and beltings;
		(b) tires and tubes;
		(c) other rubber products.
		(c) other rubber products.
		Plastic Products
		(a) other plastic products.
		(b) foamed and expanded plastic products;
		(c) plastic pipes and pipe fittings;
		(d) plastic films and sheetings;
		Leather and Allied Products
		(a) Leather and allied products
		(b) Leather tanneries.

# **Primary Textiles**

- (a) broad knitted fabrics.
- (b) spun yarns and woven clothes;
- (c) man-made fibres and filament yarns;

## **Textile Products**

- (a) carpets, mats and rugs;
- (b) canvas and related products;
- (c) natural fibres processing and felt products;
- (d) other textile products.

## Wood

- (a) sawmill, planning mill and shingle mill products industries;
- (b) particle board or wafer board production.
- (c) veneers and plywood's;
- (d) wood preservation facilities which use hazardous chemicals or similar chemical processes;
- (e) other wood products;

# **Paper and Allied Products**

- (a) asphalt roofing;
- (b) other converted paper products.
- (c) pulp and paper;

# **Primary Metals**

## **Fabricated Metal Products**

## **Transportation Equipment**

Facilities engaged in building and repairing all types of ships above 4.000 tones displacement including marine production platforms for petroleum, natural gas or mineral resource extraction.

## **Non-Metallic Mineral Products**

# **Refined Petroleum Products**

## **Chemicals and Chemical Products**

- (a) agricultural chemicals;
- (b) industrial chemicals;
- (c) soaps and cleaning compounds;
- (d) paints and varnishes;
- (e) plastics and synthetic resins;
- (f) other chemical products.

6	OTHER MANUFACTURING	Scientific and Professional Equipment  (a) floor tiles, linoleums and coated fabrics manufacturing;  (b) other manufactured products.  (c) photographic films and plates manufacturing;
7	CONSTRUCTION	Industrial construction (other than building)  (a) construction of pipelines for the transmission of oil, natural gas and other related products from the source to the point of distribution, where—  (i) any portion of the pipeline is to be located at a distance greater than 500 metres from an existing right-of-way; or (ii) any portion of the pipeline is to be located in an environmentally sensitive area;  (b) diesel electric power generating plants having a capacity greater than 1 megawatt;  (c) gas turbine electric power generating plants having a capacity greater than 1 megawatt;  (d) nuclear electric power generating plants.
8	HIGHWAYS AND HEAVY CONSTRUCTION	<ul> <li>(a) roads</li> <li>(b) waterworks and sewage system— <ul> <li>(i) construction of trunk pipelines for transmission of water from the source to the point of distribution;</li> <li>(ii) construction of trunk sewer pipelines;</li> <li>(ii) construction of trunk sewer pipeline outfalls.</li> </ul> </li> <li>(c) hydroelectric power plants and related structures— <ul> <li>(i) construction of dams and associated reservoirs;</li> <li>(ii) inter- or intra-basin water transfers;</li> <li>(iii) construction of hydroelectric power developments</li> </ul> </li> </ul>
9	UTILITIES	<ul><li>(a) establishment of waste disposal sites;</li><li>(b) establishment of facilities for the collection, storage or disposal of hazardous waste materials.</li></ul>
10	WHOLESALE TRADE	Petroleum Products Establishment of petroleum products storage facilities  Other Products, Wholesale Establishment of facilities for the purpose of assembling, breaking up, sorting or wholesale trading of scrap, junk or waste material of any type.
11	SERVICES	Economic Services Administration (a) resource conservation and management programmes involving introductions of exotic species of animals or plants for any purpose;

		<ul> <li>(b) designation of land for cottage development or other recreational development.</li> <li>(c) resource conservation and management programs involving introductions of native species of animals or plants into areas where those species do not occur at the time of the proposed introduction;</li> </ul>
12	ACCOMMODATION, FOOD AND BEVERAGE SERVICES	Accommodation Services Establishment of recreation and vacation camps.  Amusement and Recreational Services (a) establishment of horse racetrack operations; (b) establishment of racetrack operations for motorized vehicles sports and recreation clubs and services; (c) establishment of facilities, including trails; (d) establishment of outdoor firearm ranges; (e) establishment of marina operations; (f) establishment of facilities, including trails, for motorized recreational vehicles; (g) other amusement and recreational services.

## 8.5 APPENDIX 5

LIST OF UNDERTAKINGS IN SCHEDULE 2 OF LI 1652 SHOWING UNDERTAKINGS FOR WHICH ENVIRONMENTAL IMPACT ASSESSMENT (EIA) IS MANDATORY BEFORE THE GRANT OF AN ENVIRONMENTAL PERMIT

# **Agriculture:** (a) land development for agriculture purposes not less than 40 hectares; (b) agricultural programs necessitating the resettlement of 20 families or more. Airport: 2. (a) Construction of all airports or airstrips as well as the enlargement of existing airports or airstrips. **Drainage and Irrigation:** 3. (a) construction of dams and man-made lakes; (b) drainage of wetland; (c) irrigation schemes. **Land Reclamation:** 4. (a) coastal land reclamation; (b) dredging of bars, estuaries. **Fisheries:** 5. (a) construction of fishing harbors; (b) harbor expansion; (c) land-based aquaculture undertaking. 6. Forestry: (a) conversion of hill forest land to other land use; (b) logging or conversion of forest land to other land use within catchment area of reservoirs used for water supply, irrigation or hydro-power generation or in areas adjacent to forest, wildlife reserves; (c) conversion of wetlands for industrial, housing or agricultural use. **Housing:** 7. (a) human settlement development undertaking; (b) housing development.

## 8. Industry:

- (a) chemical—where production capacity of each product or combined products is greater than 100 tones/day;
- (b) petrochemicals—all sizes or raw materials requirements of 100 tones/day or greater;
- (c) non-ferrous—smelting—
  - (i) aluminum—all sizes;
  - (ii) copper—all sizes;
  - (iii) others—producing 50 tones/day and above product;
- (d) Non-metallic—cement—lime—10 tones/day and above burnt lime rotary kiln or 50 tones/day and above vertical kiln.
- (e) iron and steel;
- (f) shipyards;
- (g) pulp and paper.

# 9. Infrastructure:

- (a) construction of hospitals;
- (b) industrial estate development;
- (c) construction of roads and highways;
- (d) construction of new townships;
- (e) construction of railways.

## 10. Ports:

- (a) construction of ports;
- (b) port expansion involving an increase of 25 per cent or more in handling capacity per annum.

# 11. Mining:

- (a) mining and processing of minerals in areas where the mining lease covers a total area in excess of 10 hectares;
- (b) quarries—

Proposed quarrying of aggregate, limestone, silica, quartzite, sandstone, marble and decorative building stone within 3 kilometers radius of any existing village, residential, commercial or industrial areas, or any area earmarked for residential, commercial or industrial development;

(c) sand dredging.

## 12. Petroleum:

- (a) oil and gas fields development;
- (b) construction of off-shore and on-shore pipelines;
- (c) construction of oil and gas separation, processing, handling, and storage facilities.
- (d) construction of oil refineries;
- (e) construction of product depots for the storage of petrol, gas or diesel which are located within 3 kilometers of any commercial, industrial or residential areas.

# 13 Power Generation and Transmission:

- (a) construction of steam generated power stations;
- (b) dams and hydroelectric power schemes;
- (c) construction of combined cycle power stations;
- (d) construction of nuclear-fueled power stations;
- (e) erection of power transmission lines.

# 14 Resort and Recreational Development:

- (a) construction of coastal resort facilities or hotels with more than 40 rooms;
- (b) hill top resort or hotel development;
- (c) development of tourist or recreational facilities in national parks;
- (d) development of tourist or recreational facilities on islands in surrounding waters.

# 15 Waste Treatment and Disposal:

- (a) toxic and hazardous waste—
  - (i) construction of incineration plant;
  - (ii) construction of recovery plant (off-site);
  - (iii) construction of waste water treatment plant (off-site);
  - (iv) construction of secure landfills facility;
  - (v) construction of storage facility (off-site).
- (b) municipal solid waste—
  - (i) construction of incineration plant;
  - (ii) construction of composting plant;
  - (iii) construction of recovery/recycling plant;
  - (iv) construction of municipal solid waste landfill facility;
  - (v) construction of waste depots.
- (c) municipal sewage—
  - (i) construction of wastewater treatment plant;
  - (ii) construction of marine outfall;
  - (iii) night soil treatment.

# 16 Water Supply:

- (a) construction of dams impounding reservoirs;
- (b) groundwater development for industrial, agricultural or urban water supply.

# 17 Environmental Conservation and Management:

- (a) activity to remove "designated" status from an area designated for wildlife conservation and management;
- (b) activities relating to—
  - (i) Wildlife conservation and management;
  - (ii) Forest conservation and management;
  - (iii) Watershed conservation and management;
  - (iv) Commercial exploitation of fauna and flora.