

Climate Change Law in Ghana : Analysis of National Legal Frameworks for Climate Action and Development

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Environment, Natural Resources, and the Blue Economy Global Practice

Environment & International Law Practice Group, World Bank Legal Vice Presidency



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Acronyms and abbreviations

A60	Article 6 Office
A6B A6IMG	Article 6 Board Article 6 Inter-Ministerial Group
AGTC	Article 6 Technical Committee
AfD	Agence Francaise de Development (French Development Agency)
AFOLU	Agriculture, Forestry, and Other Land Use
AFRCD	Armed Forces Revolutionary Council Decree
AG	Attorney General
APA	Administrative Procedure Act
APR	Annual Progress Report
ATK	Aviation Turbine Kerosene
BAU	Business-as-Usual
BC	Black Carbon
BOST	Bulk Oil Storage and Transportation Company
BPA	Bui Power Authority
BTR	Biennial Transparency Report
BUR	Biennial Update Report
CBD	Convention on Biological Diversity
CCDR	Country Climate Development Report
CDM	Clean Development Mechanism
CFM	Community-based Forest Management
CHRAJ	Commission on Human Right and Administrative Justice
CLIMFINTRAC	Climate Finance Tracking Tool
COCOBOD	Ghana Cocoa Board
COP	Conference of Parties to the UNFCCC
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
COVID-19	Coronavirus Disease 2019
CPESDP	Coordinated Programme of Economic and Social Development Policies
CREMA CSIR	Community Resource Management Area Council for Scientific and Industrial Research
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
CTR	Common Table Report
CWSA	Community Water and Sanitation Agency
DACF	District Assembly Common Fund
DDF	District Development Facility
DPSP	Directive Principles of State Policy
DVLA	Driver and Vehicle Licensing Authority
EA	Environmental Assessment
ECG	Electricity Company of Ghana
ECT	Electronic Communication Tribunal
EFRP	Environmental Fiscal Reform Policy
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ERPA	Emission Reduction Payment Agreement
ESIA	Environment and Social Impact Assessment
ETF	Enhanced Transparency Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIP	Forest Investment Programme
FREL FWP	Forest Reference Emissions Level
	Forest and Wildlife Policy

GACL GCAA GCARP GCF GCFRP GCTA GDP GEF GFPP GFPS GGF GHA GHG GLSS GNPP GPRTU GRCL GRDA GRIDCO GRTCC GSA	Ghana Airports Company Limited Ghana Civil Aviation Authority Ghana Climate Ambitious Report Programme Green Climate Fund Ghana Cocoa Forest REDD+ Programme Ghana Cooperative Transport Association Gross Domestic Product Global Environment Facility Ghana Forest Plantation Programme Ghana Forest Plantation Strategy Ghana Green Fund Ghana Highways Authority Greenhouse Gas Ghana Living Standard Survey Ghana Nuclear Power Programme Ghana Private Road Transport Union Ghana Railway Company Limited Ghana Railway Development Authority Ghana Grid Company Limited Ghana Road Transport Coordination Council Global Alliance for Shea
GSLERP	Ghana Shea Landscape Emission Reduction Project
GWCL	Ghana Water Company Limited
HCFC HFC	Hydrochlorofluorocarbon Hydrofluorocarbon
НРМР	HFC Phase-out Management Plan
IGF	Internally Generated Fund
IKI	International Climate Initiative (Germany)
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Producer
ITMOS	Internationally Transferred Mitigation Outcomes
KIA	Kotoka International Airport
L.I.	Legislative Instrument
LCDS LEGEN	Low Carbon Development Strategy Environment and International Law Practice Group, World Bank Legal Vice
	Presidency
LNG	Liquified Natural Gas
LPG MDAs	Liquified Petroleum Gas Ministries, Departments, and Agencies
MDAS	Multilateral Development Bank
MESTI	Ministry of Environment, Science, Technology and Innovation
MMDAs	Metropolitan, Municipal, and District Assemblies
MMT	Metro Mass Transit Limited
MoF	Ministry of Finance
MoFA	Ministry of Food and Agriculture
MoRD	Ministry of Railways Development
MoRH	Ministry of Roads and Highways
МоТ	Ministry of Transport
MoU	Memorandum of Understanding
MPGs MRV	Modalities, Procedures, and Guidelines
Mtoe	Monitoring, Reporting, and Verification Mega Tons of Oil Equivalent
NADMO	National Disaster Management Organization
NAMA	Nationally Appropriate Mitigation Action
NAP	National Adaptation Plan

NatComm NCA NCCP NCCPF NDAA NDC NDPC NEDCO NEP NGMP NGO NIR NMT NMTDP NMTDPF NPA NMTDPF NPA NRCD NRS OASL PFM PNDCL PoA PFM PNDCL PoA PPP PROTOA PURC PV RAC RCC REDD REMP SDGS SLCP SRID TER TOR TUC	National Communication National Climate Change Master Plan National Climate Change Policy National Climate Change Policy Framework National Designated Article 6 Authority National Designated Article 6 Authority National Development Planning Commission Northern Electricity Distribution Company National Environment Policy National Environment Policy National Gas Master Plan Nongovernmental Organization National Greenhouse Gas Inventory Report Non-Motorized Transport National Medium-Term Development Programme National Medium-Term Development and Policy Framework National Medium-Term Development and Policy Framework National Redemption Council Decree National Redemption Council Decree National REDD+ Strategy Office of the Administrator of Stool Lands Public Financial Management Provisional National Defence Council Law Programme of Action Public-Private Partnership Progressive Transport Owners Association Public Utilities Regulatory Commission Photovoltaic Refrigeration and Air Conditioning Regional Co-ordinating Council Reducing Emissions from Deforestation and Forest Degradation Renewable Energy Master Plan Sustainable Development Goals Short-Lived Climate Pollutant Statistics Research and Information Directorate Technical Expert Review Tema Oil Refinery Timber Utilization Contract
TER	Technical Expert Review
	Timber Utilization Contract
UNCDF UNDP	United Nations Capital Development Fund United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC USAID	United Nations Framework Convention on Climate Change United States Agency for International Development
VRA	Volta River Authority
WBG	World Bank Group
WJP WRC	World Justice Project
WRU	Water Resource Commission

Executive summary

Purpose and scope

This legal analysis provides an assessment of Ghana's key legal and regulatory frameworks for the priorities highlighted in Ghana's Nationally Determined Contributions (NDCs) and Ghana's climate agenda more generally. The assessment includes an analysis of gaps or inconsistencies between the Government's stated climate plans and commitments and existing national policy and legislation, with a view to evaluating the ability of existing legal frameworks to support Ghana's delivery of its climate commitments and policy goals.

The analysis focuses on four key sectors: water; agriculture, forestry and other land use (AFOLU); energy; and transport. In addition, the legal analysis research team identified broader elements of the legal enabling environment in Ghana that are essential to the effective implementation of Ghana's NDC and the achievement of Ghana's climate policy goals; these elements include the country's constitution, law-making and rulemaking processes, administrative and judicial enforcement mechanisms, environmental and social impact assessment laws and regulations, and the legal frameworks to mobilize public and private finance.

The analysis proposes general and sector-specific recommendations to better align existing national policy and legislation with the Government's national and international climate change commitments.

The purpose, scope, and analytical framework for this legal analysis are presented in **Chapter 1** and **Annex I**.

Overview of Ghana's legal system

The foundation of Ghana's legal regime is a relatively strong constitutional democracy with a distinct rule of law system. Ghana has a unicameral legislature, which is constituted of 275 Members of Parliament from individual constituencies. The President, who is the head of the Executive branch, is the Head of State and of Government. Significant responsibility lies with the President regarding appointments to the leadership of State bodies and initiating and implementing policies, plans, and legislation. According to the Constitution, the State is required to maximize economic development of these natural resources while also protecting and safeguarding the environment, both domestically and internationally. Although the Constitution does not contain an explicit right to a clean and healthy environment, it does require both the State and its citizens to preserve the environment for future generations.

These foundations of Ghana's legal system, including its law-making processes and rule of law features, are presented in **Chapter 2**.

Overview of Ghana's climate change legal and policy regime

The Ghanaian climate change legal regime is deeply rooted in English common law. It has evolved over time but has not progressed to the point of being predominantly legislative. Ghana does not have a dedicated climate change law. Its climate legal regime is characterized primarily by a patchwork of climate policies rather than climate laws. The current policy-based framework, while flexible and in some ways conducive to innovation, impedes the pursuit of a comprehensive and wholly coherent climate change regime. The challenges of the current system include difficulties enforcing the Government's climate change priorities, lack of certainty, difficulty attracting significant capital to support policy aims, and policy directional changes coinciding with changes in government. Unlike policies, statutory provisions are generally legally binding and enforceable. A dedicated legal framework for climate action would provide coherence, comprehensiveness, and enforceability to the enabling regulatory environment. The certainty of a robust legal regime comprising statutes backed by

the State could play a decisive role in attracting public and private sector capital in support of Ghana's climate and development goals.

The overarching policy that governs climate change in Ghana is the National Climate Change Policy of 2013 (NCCP). The NCCP seeks to "ensure a climate-resilient and climate-compatible economy while achieving sustainable development through equitable low-carbon economic growth in Ghana." The NCCP stipulates that meeting this goal requires interventions in seven key areas: (a) governance and coordination; (b) capacity building; (c) science, technology, and innovation; (d) finance; (e) international cooperation; (f) information, communication, and education; and (g) monitoring and reporting. Essentially, this entails the development of key institutional frameworks, investment vehicles, funding structures, and fiscal tools that are formulated to facilitate access to climate finance. Subsequently, other policies and programs have been introduced in furtherance of the goals and objectives of the NCCP. These include the Low Carbon Development Strategy (2016), the National Climate Change Master Plan (2015-2020), and the 2016 and 2021 NDCs. Ghana submitted its Updated NDC to the UNFCCC in October 2021 (Updated NDC 2021). The NDC is ambitious and includes a broad range of commitments, signaling the Government's intention to transition to a climate-resilient and low-carbon economy. The Updated NDC 2021 comprises 47 'programmes of action' (PoAs), which are mitigation and adaptation measures grouped under 19 policy actions in 10 priority areas. Ghana intends to implement the PoAs across the 2020-2030 time frame at an estimated cost of US\$9.3-15.5 billion. In accordance with Ghana's national development strategy, the 19 policy actions are expected to maximize synergies between adaptation and some of the national development priorities, including economic diversification (industrialization), emergency preparedness, climate change, and job creation.

Climate considerations are also integrated into constitutionally mandated medium-term developmental plans which seek to address national developmental priorities, climate proof development gains, seize the opportunities presented by climate change, and support the transition toward a low carbon development pathway.

This governance structure, these climate change policies, and Ghana's international climate commitments are discussed in **Chapters 2 and 3**.

Sectoral and other laws and regulations

Although Ghana does not have a dedicated climate change law, legal provisions relevant to climate change are contained in the 1992 Constitution and across several sector-specific statutes and regulations. These sectoral laws create a good foundation to implement Ghana's NDC across its PoAs.

In the energy sector, they include the Renewable Energy (Amendment) Act, 2020 (Act 1045), which amended Renewable Energy Act, 2011 (Act 832) that brought a more targeted focus on renewable energy by mandating major private sector actors contributing to greenhouse gas (GHG) emissions to invest in renewable energy to offset their emissions and replacing the feed-in tariff system with a competitive regime for the procurement of electricity from renewable energy sources among other provisions. There is also the Petroleum Hub Development Corporation Act, 2020 (Act 1053), which aims to use revenues generated from indigenous oil and gas resources to finance the transition toward cleaner energy resources as well enforce a zero flaring policy and deploy carbon capture and storage systems to minimize petroleum activity impact on the environment; the Bui Power Authority (Amendment) Act, 2020 (Act 1046), which expanded the legal mandate of the State institution Bui Power Authority (BPA) to develop renewable energy and other forms of clean energy alternatives; and the Energy Sector Levies (Amendment) Act, 2021 (Act 1064), which imposed the sanitation and pollution levy on certain petroleum products to finance the proper construction and management of waste facilities and landfill sites, improve air pollution in urban areas, and reduce pollution.

The legal and regulatory framework for mobilizing finance that could support climate action includes the Local Government Act, 1993 (Act 462) and the Public Financial Management Act, 2016 (Act 921),

which authorize and empower subnational authorities to mobilize internally generated funds (IGFs) and borrow funds for financing activities approved in the budget, which lately includes activities with climate objectives. In addition, the Public Financial Management Regulations, 2019 Legislative Instrument (L.I.) 2378 established the Economic Policy Coordination Committee, whose mandate is to review macroeconomic policies in the real, fiscal, monetary, and external sectors and could provide strategic direction for using fiscal tools and policies to support the transition toward the low carbon economy. Relevant laws also include the recently enacted Public Private Partnership Act, 2020 (Act 1039) (PPP Act), which created the legal framework that could support joint private sector-government investments in low GHG emitting public infrastructure projects like the water sector PoA on promoting energy efficient and renewable energy powered public water facilities.

In the transport sector, the Customs (Amendment) Act, 2020 (Act 1014), which bans the importation of accident and salvaged motor vehicles and overage vehicles, will also help reduce emissions from old and used vehicles and, to some degree, support the nascent vehicle assembly industry that the Government is promoting.

In the AFOLU sector, the legal and regulatory framework was reformed several decades ago to incentivize private sector participation in the sustainable exploitation of the forest and promotion of reforestation. Statutory instruments like the Timber Resource Management Act, 1998 (Act 547), as amended by the Forestry Commission Act, 1999 (Act 571); the Timber Resources Management (Amendment) Act, 2002 (Act 617); the Timber Resources Management (Amendment) Act, 2002 (Act 617); the Timber Resources Management Fund Act, 2000 (Act 583), as amended by the Forest Plantation Development Fund Act, 2002 (Act 623); and the Timber Resources Management (Amendment) Regulations 2017 (L.I. 2254) provide greater environmental and social commitments and improved rights for farmers and landholders to align with international best practices, recognizing rights of the planter to planted trees and incentivizing private sector participation in forest plantation.

Similarly, in the water sector, the existing legal mandates of the relevant State institutions can support the water sector PoAs in the Updated NDC 2021, even though there have not been any laws purposely enacted to support climate action.

In addition, existing laws and regulations allow Ghana's State institutions to gather, compile, and report much of the information necessary to fulfill Ghana's monitoring, reporting, and verification (MRV) obligations under the UNFCCC and the Paris Agreement. Efforts are being made to upgrade the MRV infrastructure to meet the additional requirements of the Paris Agreement. Still, a dedicated national MRV regulation or strategic plan could avoid duplication, address gaps, and reduce institutional delays in reporting. Ghana also enjoys a relatively developed Environmental and Social Impact Assessment (ESIA) system that requires major public and private projects to consider environmental and social impacts before obtaining an environmental license. However, Ghana's ESIA regulations, which date from the 1990s, do not explicitly require consideration of climate change impacts and vulnerabilities.

Despite this good legal foundation, some important building blocks of a robust legal climate regime are missing. For example, there is currently no legal definition or classification for 'carbon' in the country's laws and policies, limiting Ghana's ability to monitor, regulate, and trade emissions and credits. Similarly, there is no regulation facilitating domestic carbon taxation or emissions trading. Moreover, where climate change laws and/or policies are already in place, effective enforcement and compliance remain a significant challenge.

Ghana's sector-specific laws and regulations and its ESIA system appear in **Chapter 4** and in **Annexes II–V**. The legal MRV framework is discussed in **Chapter 5**. The laws and regulations relevant to climate finance and carbon markets are discussed in **Chapter 6**.

Summary of recommendations

Achieving Ghana's NDC commitments and low-carbon, climate-resilient ambitions will require a multifaceted approach. Generally, this analysis recommends strengthening the domestic climate change legal and policy framework. Anchoring Ghana's NDC goals in enforceable and clear laws would provide Ghana with a comprehensive, coherent, and legally binding framework to mobilize public and private finance and achieve these objectives. This will require Ghana to codify and strengthen various aspects of its climate change policy framework and streamline some policies. This can be achieved in part through legislative and regulatory amendments to fill legislative and regulatory gaps in relevant sectors. It will also require the development of climate-specific laws and regulations and strengthening of the administrative rulemaking, enforcement authority, and capacity of relevant ministries and agencies. The pursuit of innovative financing mechanisms is also necessary to achieve Ghana's climate goals. Ghana could adopt a strategic and targeted focus on blended finance, mobilization of resources from the private sector and carbon markets, and the use of IGFs.

The legal and policy framework governing climate change could be further strengthened by clarifying institutional roles and interinstitutional coordination in laws and regulations; better integrating climate change considerations into sector development and planning strategies and fiscal and budgetary processes; and explicitly requiring climate change to be considered in ESIAs and project approvals.

	Findings		Key Recommendations	
	Overarching climate change legal framework			
•	The existing climate change legal regime in Ghana is predominantly policy based. Ghana does not have a dedicated climate change framework law. Generally, the existing provisions of the legal and regulatory framework can support Ghana's climate commitments.	•	In the short term, to support ongoing policy implementation and ensure comprehensiveness, insulation from changes in political leadership and priorities, and enforcement, the Government should undertake legal reforms to amend or supplement existing relevant legal provisions in the framework with climate-specific interventions. In the longer term, the Government should enact a dedicated framework law on climate change with specific subsidiary regulations to provide sector-specific rules and guidelines.	
	Rule of law and a	Iminist	trative state	
•	Ghana's climate commitments are now incorporated into the constitutionally mandated medium-term national development plan (Coordinated Programme of Economic and Social Development Policies [CPESDP]) and its framework—in effect, making its implementation binding on all the State institutions and the local governments' authorities. This effect does not extend to non-State actors unless the policies, plans, and programs are backed by statutory instruments. The CPESDP is not justiciable, and there is little appetite among decision-makers for legislating economic, social, environmental, and cultural rights to make them enforceable. Since the structure of Ghanaian administrative law is influenced by the UK model, agency rulemaking and adjudication are often subsumed under ministerial responsibility. Consequently, there is no Administrative Procedure Act (APA) in Ghana.	•	Ghana should consider taking steps to pass climate-specific laws to strengthen the legal and regulatory environment to support its climate goals and the transition toward a low carbon, climate-resilient development pathway. The introduction of an APA for agencies to be able to initiate subsidiary legislation independent of ministerial responsibility would be a progressive step. Public institutions charged with publishing and reporting laws and legal developments to the public should be resourced to clear the backlog, enhance public access to legal information, empower citizens to understand and enforce their legal rights, and fulfil their constitutional duty to protect and safeguard the environment.	
	Energy sector			
•	The legal and regulatory framework in the energy sector has many provisions that can, to some extent, support the implementation of Ghana's climate actions.	•	Legal interventions that are climate specific will make the framework more effective in supporting the successful implementation of the PoAs.	
•	The targets in the energy sector's PoAs are not codified in the existing energy sector legal and regulatory framework.	•	Legislative interventions would ensure that the targets in the NDC are clearly articulated and codified in law to make them binding.	
•	Key actors are subject to the laws and regulations of the sector and their legal obligations are clear, unambiguous, and compulsory.	•	The ongoing review of existing regulations on energy efficiency should cover the energy efficiency PoAs in the Updated NDC 2021, the review of energy efficiency standards to support the	

The main findings and recommendations are summarized below.

Findings

- Activities causing emissions within the sector are also covered the legal and regulatory framework.
- The relevant government authorities are also empowered to monitor and enforce compliance with laws and regulations.
- Some institutional arrangements in the energy sector laws can also facilitate coordination among the relevant State institutions to support the implementation of Ghana's climate commitments.
- However, a more concerted effort needs to be made to ensure effective coordination to achieve results.
- The relevant government authorities have the mandate and authority to issue the climate laws and regulations that will be necessary for the successful delivery of Ghana's climate commitments within the energy sector.
- There are gaps and inconsistencies in the legislative and regulatory framework, particularly in the scope of the statutory instruments regulating the import and energy efficiency of electronic appliances which will inhibit the effective implementation of Ghana's PoAs on promotion of energy efficiency including failure to regulate the import and sale of other high energy consuming appliances and prohibition of the import of the used parts of the regulated appliances.
- The absence of laws or policies on green taxation or a carbon tax is a significant gap in Ghana's existing law and policy framework.
- The current tariff regime governing the energy sector is also not reflective of costs. Legal interventions that are climatespecific will make the framework more effective in supporting the successful implementation of the PoAs.

Key Recommendations

uptake of newer innovations on energy efficiency, and also address the gaps in the regulatory system.

- The 2017 draft Environmental Fiscal Reform Policy (EFRP) should be reviewed, updated, and implemented by Government to strengthen the tax regime and encourage the adoption of clean energy.
- Amend the Energy Sector Levies Act, 2021 (Act 1064) to impose a carbon tax to incentivize a shift to cleaner fuels is a possible avenue to operationalize some of the key strategies in the draft EFRP.
- Reforming the tariff system to allow the energy sector to operate on a full cost-reflective tariff could also help reduce the sector's accumulating debts and facilitate the effective management and sustainability of the sector.

AFOLU sector

- AFOLU is the largest GHG emitting sector in the country.
- Emissions are largely driven by uncontrolled agricultural expansion and other land use activities.
- Reforms to implement a more collaborative management of forest resources and increase benefits to traditional authorities and local communities have failed to curb the high rate of deforestation.
- None of the quantitative targets of the forest sector PoAs are directly reflected in the forest sector's legal and regulatory framework.
- Provisions within the framework provide the relevant State bodies with the legal authority to support the implementation of the forest sector PoAs.
- The scope of the laws and regulations covers actors and activities responsible for emissions and building resilience from the forest sector.
- Statutory provisions provide prescriptive details about the legal obligations of actors and regulated entities under the law.
- Institutional structures for coordinating and implementing the Updated NDC 2021's forest sector PoAs are not reflected in the legal framework, raising concerns about shifting policies and priorities after a change in the political leadership.
- Conflicts in the forest code stem from the failure to amend or repeal old statutory provisions after the enactment of new statutes.
- Gaps in the legal and regulatory framework originate from the delay in enacting proposed legislation on the communitybased forest management (CFM) approach for new benefitsharing arrangements.
- Gaps in the legal and regulatory framework remain, particularly a lack of legal classification or definition of the carbon unit.

- There is a need to implement the recommendations from the Forest and Wildlife Policy 2012 for legislative and regulatory reforms to provide legal clarity on carbon ownership, vest key stakeholders with rights in the sustainable management of forest resources, and facilitate the flow of greater proportion of the benefits to the key actors.
- Priority reforms should include the following legislative measures:
 - Legislative proposals to reform tree tenure and benefitsharing arrangements in Ghana.
 - Anchoring into law the rights of relevant actors that play a critical role in sustainably managing Ghana's forest resources and the benefit-sharing arrangements that would incentivize them.
 - The passage of the Wildlife Resource Management Bill (2014) that will give legal backing to CREMAs.
 - Finalization of the work of the National REDD+1 Secretariat and Ministry of Environment, Science, Technology and Innovation (MESTI) on clarifying carbon rights and recommendations.
- Consideration should also be given to reflecting in law the institutional arrangements for the implementation of the forest-sector PoAs, especially since it includes ministerial-level structures.

¹ Reducing Emissions from Deforestation and Forest Degradation.

Findin	gs	Key Recommendations
based structures like commun	sing a draft bill on wildlife king to subnational community- ity resource management areas tical for the implementation of	
	Waters	sector
 water sector PoAs. The current legal framework in climate change, but the existin include actions that Ghana will water sector PoA and promote management of Ghana's wate The legal and regulatory frame mandate the use of renewable facilities. The main obstacle to the prom water facilities PoA is the lack The activities and actors most emissions and resilience are sregulations of the water sector. The terms of regulated entities specific and unambiguous. The institutional structures an that can support the implement the framework primarily throug governing boards of the State Commission (WRC). The relevant and regulations and monitor a laws that are essential for the climate commitments in the sector and a sector a	the implementation of Ghana's includes no specific reference to glanguage is broad enough to l undertake to implement the integrated water resource r resources. work does not constrain or e energy in the public water notion of renewable energy in of financing. relevant to the water sector's ubject to the laws and '.' ' legal obligations are generally d coordinating arrangements nting of the PoAs are included in gh the composition of the bodies like the Water Resource int State regulatory institutions mpowered to issue climate laws nd enforce compliance with successful delivery of Ghana's ector.	 As the State pursues the mainstreaming of climate considerations into the national development agenda, the legal and regulatory framework could be reviewed to assess how it could be strengthened to more concretely support the objectives of some of the water sector policies like the Riparian Buffer Zone Policy 2011 that will help strengthen resilience.
regulations.	Transpor	t contor
framework that can support th commitments in the PoA rema Effective sectoral institutional remains a major challenge bea	casting of future transport pollution. to reduce emissions through able transport infrastructure. the transport sector PoAs will nance and political will. amework is also not rigorous incentivize the use of lower articularly from the road not directly reflected in the k. regulatory framework are entation of the PoAs. relevant to the sector's ubject to the laws and their legal obligations are us, and compulsory. inating mechanisms in the legal e implementation of the in a challenge. coordination and collaboration cause of the wide range of es and agencies in the transport	 The following would contribute significantly to the greening of transport taxes and modes of transport: Prioritizing of legislative and policy reforms that could play a substantial role in the reduction of emissions in the transport sector, including amendments to the Energy Sector Levies (Amendment) Act, 2021 (Act 1064) to allow for the establishment of a carbon tax that could incentivize a shift to cleaner fuels and significantly reduce emissions and effectively enforce. The enforcement of the provisions of the Customs (Amendment) Act, 2020 that would prevent the importation of motorcycles and vehicles over 10 years of age with poorer fuel efficiency. The finalization of ongoing work on the formulation of a draft Electric Vehicle Policy that may provide fiscal incentives to import and use electric vehicles and its adoption by Cabinet. The passage of the draft legislative instrument setting vehicle emission standards. The adoption of the draft Environmental Fiscal Reform Policy (EFRP 2017).

	Findings	Key Recommendations
0	Lack of policy or regulations on use of electric vehicles;	
0	Lack of fiscal incentives for importing electric vehicles;	
0	The lack of political will to enforce the statutory ban on	
	importation of overage vehicles;	
0	The lack of limits on emissions from vehicles; and	
0	Failure of the current tax code to incentivize a shift to the use or demand for cleaner fuel or energy.	
	ESIA legal	framework
can cha • The usir mea	sting ESIA regulations offer a good foundation, and they be read to allow or require consideration of climate ange issues. ESIA system can be strengthened further by the EPA ng its statutory powers and through other legislative asures to expressly integrate climate change isiderations.	 Possible reforms to integrate climate considerations include the following: Issue a formal EPA legal opinion or interpretation clarifying that existing Environmental Assessment (EA) Regulations require consideration of climate change. Amend the EA Regulations to explicitly require applicants to assess, and EPA to consider, the proposed project's contribution and resilience to climate change, including cumulative impacts and the social dimensions of climate change. EPA could, through an amendment to the EPA Act, EA Regulations, or under existing authority, consider the extent to which proposed projects contribute to or hinder Ghana's ability to meet the goals stated in its NDC. Amend and develop new environmental assessment sector-specific guidelines that elaborate on the requirements to consider proposed projects' contributions and resilience to climate change, as well as illustrative measures for inclusion in Environmental Management Plans (EMPs). Develop training programs and manuals for EPA staff, the private sector, and civil society on how to consider proposed projects' contributions in Environmental Management Plans (EMPs). Increase accessibility of ESIA rules, documents, and guidance to private sector, affected communities, and other stakeholders, including by ensuring that the EPA
		website contains all sectoral guidance, a repository of proposed and approved projects, assessments, and licenses, as well as relevant training materials and resources.
	Monitoring, reporti	ng, and verification
 mo for refl The are sigr dat Tha Sta inter per Ref buil har pro fun Pro pre the Agr Onc able 	e institutional arrangements for coordinating the nitoring and reporting activities that provide information UNFCCC and Paris Agreement reporting are not currently ected in Ghana's legal and regulatory framework. ey are largely administrative arrangements, some of which set out in annual memorandums of understanding (MoUs) ned between the EPA and the lead institution for gathering a from the relevant sector. anks to these administrative arrangements, some of the te institutions involved in the gathering of data for ernational reporting can rely on existing authority to form MRV functions without needing to pass legislation. Forms, including institutional arrangements, capacity lding for experts and development of tools for data ndling, manuals, and climate indicators for national annual gress reporting, have been undertaken to improve the ctionality of the Ghana Climate Ambitious Report gramme (GCARP) and enhance the country's capacity to pare and communicate reports that meet requirements in U.N. Framework Convention on Climate Change, the Paris eement, and related decisions. ce these reforms are implemented, the GCARP should be e to meet the requirements of the Enhanced Transparency mework (ETF).	 Efforts must be made to anchor in law the institutional arrangements supporting the gathering and compilation of information, and the communication of the information to the Conference of Parties of the UNFCCC (COP) and the Paris Agreement to secure stricter adherence to timelines and certainty of delivery and continuity. Amendments should also be made to the legal framework to define the data required for international climate reporting and extend the legal mandate of all lead State institutions involved in information gathering to request and receive such information. The growing impacts of climate change to the economy and the well-being of Ghanaians along with the mainstreaming of climate considerations and actions in the national development framework provide strong justification for the establishment of a Parliamentary Committee that is exclusively dedicated to the issue to effectively operationalize Parliament's oversight mandate. Their mandate to propose legislation could result in legislative interventions which could support implementation of climate action. These changes would signal the Government's dedication toward pursuing the vision of the NCCP.
	mework (ETF). ere is no systematic oversight of the implementation of ana's climate actions and commitments.	

	Findings	Key Recommendations
•	Parliament is the key institution that must exercise this important oversight role under Article 103 of the Constitution.	
•	Currently, the Parliamentary Select Committee on Environment, Science, Technology is responsible for climate change issues.	
	Financing and (carbon markets
•	Most of Ghana's climate financing has come from donors, which is proving unsustainable. The Government is considering new and innovative financing from different sources, including the Article 6.2 mechanism under the Paris Agreement. The legal and regulatory framework includes mechanisms for raising IGFs to finance national development commitments. The legal and regulatory framework also contains some provisions that support the shifting of economic activity toward low carbon, climate resilient choices, particularly in the energy sectors. More transformational fiscal measures have been put forward in the draft EFRP 2017 that aims to shift the focus from conventional taxation to emphasize green taxation. Market mechanisms are one of new sources of climate finance that the State is pursuing to finance its climate commitments.	 Cabinet approval of the draft Article 6.2 Framework should provide guidance to interested Article 6.2 mechanism participants about the process for generating and acquiring mitigation outcomes. The EPA is expected to develop the provisions of the draft Article 6.2 Framework into guidelines under Section 2 (h) of Act 490 to preside over Article 6 transactions in the medium term. Long-term plans involve the passing of a new EPA Act to convert the EPA into an authority with an explicit mandate a dedicated focus on climate change and anchor the institutional framework and the entire Article 6 transaction process in law. Primary legislation will also be needed to define the nature of the carbon asset, legal title, or rights to manage or transact carbon.
•	Currently, there is no structured legal and regulatory framework governing Ghana's participation in carbon markets.	
•	Key issues, such as the legal definition or classification for carbon, and ownership and management rights, have not been addressed in Ghanaian law yet.	

These sectoral legislative and regulatory measures, combined with the enactment of dedicated climate change framework legislation, would signal a clear commitment by the Government of Ghana to address climate change issues and implement the policy aspirations detailed in Ghana's NCCP and related policies.

1. Introduction

1.1. Background on the CCDR and legal analysis

The Country Climate Development Report (CCDR) is one of the core country analytical tools utilized by the World Bank Group (WBG) to inform policy and other interventions in borrower countries. The CCDR aims to assess the needs around achieving development in the context of climate change risks and opportunities. The CCDR complements other WBG diagnostic tools to provide a comprehensive review of climate change interventions and their impact in borrower countries.

Set within the context of the goals and objectives of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, and the WBG's commitment to align its portfolio with those objectives, the CCDR aims to analyze how a country's development goals can be achieved in the context of adapting to and mitigating against climate change. These CCDRs reflect the country's climate commitments and identify ways to support their implementation through public and private sector solutions.

To support the CCDR for Ghana, this legal analysis provides an assessment of Ghana's domestic legal and regulatory frameworks in relation to its climate commitments. These frameworks will govern the implementation of Ghana's Nationally Determined Contributions (NDCs) and more generally its domestic climate actions, as well as commitments under other international instruments relevant to the goals of the UNFCCC and the Paris Agreement like the Convention on Biological Diversity (CBD) and the Kigali Amendment to the Montreal Protocol. This legal analysis forms part of the CCDR.

1.2. Objective and scope of the legal analysis

The objective of this legal analysis is to provide an assessment of Ghana's key legal and regulatory frameworks for the priorities highlighted in Ghana's NDC and climate action more generally. The assessment includes an analysis of gaps or inconsistencies between the Government's climate plans and commitments expressed in its Updated NDC 2021 and other policy documents on the one hand and existing national policy and legislation and their enforcement on the other hand, with a view to assessing the ability of existing legal frameworks to support Ghana's delivery of the stated policy commitments on mitigation and adaptation.

Key aspects of the analysis include, among other elements, whether Ghana's relevant laws and regulations in key sectors adequately integrate climate change considerations and whether relevant domestic institutions, including regulatory, administrative, and judicial bodies, have the capacity and are adequately equipped and empowered to issue and enforce climate laws and regulations. It further analyzes the adequacy of Ghana's legal framework to mobilize climate finance and facilitate participation in international carbon markets and considers whether Ghana's legal frameworks are adequate for the country to fulfil its communication and reporting obligations under the UNFCCC and the Paris Agreement.

In addition to considering the general constitutional and legal framework of Ghana, the legal analysis focuses on the following sectors and areas, which have been identified as 'deep dives': energy; agriculture, forestry, water, land; transport; and financing to achieve climate objectives.

1.3. Methodology and analytical framework

To achieve the goals of the legal analysis, namely assessing the alignment of Ghana's national legal and regulatory framework with its NDC goals, the analysis was structured and conducted as follows.

The legal analysis research team, in consultation with the Ghana CCDR team, identified the main elements of the legal ecosystem that needs to be in place for Ghana to meet its climate mitigation

and adaptation goals. This includes the laws and regulations in the selected 'deep dives'. In addition, the legal analysis research team identified broader elements that are not specific to one of these sectors but are equally essential to the effective implementation of Ghana's NDC and the achievement of Ghana's climate policy goals. These broader elements include the country's constitution, law-making and rulemaking processes, administrative and judicial enforcement mechanisms, and ESIA laws and regulations. The legal review examines each of these elements of the legal ecosystem through the questions presented in **Annex I**. Together, these questions should provide a basis to determine the strength and effectiveness of Ghana's legal framework on climate change, including its ability to allow Ghana to achieve its NDC and other climate policy objectives.

The legal analysis was conducted primarily through desk research. It was complemented by consultations with a limited number of Ghanaian government officials, primarily at the Environmental Protection Agency (EPA).

The legal analysis starts with the Ghanaian country context, including the legal system generally (**Chapter 2**) and an overview of Ghana's climate change policies and commitments (**Chapter 3**). It proceeds with an analysis of the legal framework of the selected 'deep dives' (**Chapter 4**) and the legal MRV framework (**Chapter 5**). It then turns to the legal framework for the generation of climate finance and Ghana's participation in international carbon markets (**Chapter 6**). It concludes with a summary of the main findings of the analysis and recommendations (**Chapter 7**).

2. Overview of country context - Governance and legal system

Ghana is a constitutional democracy with a unicameral legislature. The Constitution is the Supreme Law of Ghana or the highest form of statute law in Ghana and any law that conflicts or violates its provisions is null and void. Since becoming a Republic in 1960, the country has experienced the promulgation and abolition of three different Constitutions. The current Constitution of the Republic of Ghana (the 1992 Constitution) is the fourth one. The 1992 Constitution has been in force for almost three decades and is the longest standing Constitution.

The 1992 Constitution contains a number of key provisions that have some bearing on the implementation of the Government's commitments under the NDC. Article 36 (1) of the 1992 Constitution of Ghana stipulates that

"The State shall take all necessary action to ensure that the national economy is managed in such a manner as to maximize the rate of economic development and to secure the maximum welfare, freedom and happiness of every person in Ghana, and to provide adequate means of livelihood and suitable employment and public assistance to the needy."

Sub-article (2)(a) to (e) of Article 36 provide clarity on the steps that must be taken to realize sustainable and equitable development across the country. Additionally, Article 36 (9) stipulates that

"The State shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek cooperation with other states and bodies for purposes of protecting the wider international environment for mankind."

All these provisions and other related articles in the 1992 Constitution give a clear indication of the need for sustainable development and the protection of the environment. Although the Constitution has a whole chapter on fundamental human rights and freedoms, it does not include a right to a clean or healthy environment although this could be implied from Article 36 (9). The above and other articles in the 1992 Constitution enjoin the State to take appropriate actions to preserve the environment for future generations. These constitutional provisions set out the overarching basis for the implementation of the Government's commitments under the NDC. Further, Article 41 (k) puts the protection of the environment in the hands of every citizen. Specifically, Article 41 (k) provides that

"The exercise and enjoyment of rights and freedoms is separable from the performance of duties and obligations, and accordingly, it shall be the duty of every citizen to protect and safeguard the environment."

These and other provisions of the 1992 Constitution mandate the State to pursue development in a manner that is in harmony with the protection of the environment.

The 1992 Constitution also provides for the establishment of key institutions for the protection of the lands and environment of the country. Notable among these institutions are the Lands Commission (Article 258), the Office of the Administrator of Stools Lands (Article 267 (2)), a Minerals Commission (Article 269 (1)), a Forestry Commission (Article 269 (1)), and such other commissions as the Parliament of Ghana may determine (Article 269 (1)). These constitutionally established bodies and other government ministries, departments, agencies (MDAs) and institutions have introduced and implemented several far-reaching policies with the aim of integrating environmental protection and climate change issues in accordance with the Constitution.

2.1. Laws of Ghana

Article 11 of the 1992 Constitution provides that the laws of Ghana shall comprise

- i. The Constitution;
- ii. Enactments made by or under the authority of the Parliament established by the Constitution;
- iii. Orders, Rules and Regulations made by any person or authority under a power conferred under the Constitution;
- iv. The Existing Law; and
- v. The Common Law.

The common law as defined under Article 11 (2) of the Constitution includes rules of English common law as well as customary law. Customary law is defined under Article 11 (3) of the Constitution as the rules of law, which by custom are applicable to particular communities in Ghana. The Constitution thus raises customary law to a high pedestal, although in terms of hierarchy, customary law rules are subordinated to statutory enactments.

Article 295 of the 1992 Constitution defines an enactment to be an Act of Parliament, a Decree, Law, Constitutional Instrument, Statutory Instrument, or any provision respectively thereof. This constitutional definition is also repeated in Section 1 of the Interpretation Act, 2009 (Act 792). Article 295 of the 1992 Constitution further defines constitutional instruments as instruments made under a power conferred by the Constitution. Statutory instruments are defined in Section 1 of the Interpretation Act, 2009 (Act 792) to mean an instrument made, whether directly or indirectly, under a power conferred only by an Act of Parliament. This is a narrower definition of 'statutory instruments' than in the repealed Statutory Instrument Act, 1959 (Act 52),² which, under its Section 3, defined a 'statutory instrument' as an instrument made, whether directly or indirectly, under a power conferred by the broader term 'enactment'.

The definition of an 'instrument' is taken from Section 1 of Act 792 to include Notice, Rules, Regulations, By-Laws or a Proclamation, an Order, or a Warrant, other than an Order made, or a Warrant issued, by a Court. Thus, a statutory instrument may be 'regulations' made directly or indirectly under a power conferred by an Act of Parliament. Such regulations may be executive or legislative in character. Section 1 of Act 792 defines the term 'legislative instrument' as a statutory instrument that is legislative in character. It also characterizes statutory instruments which are administrative or executive in character as executive instruments but in practice most subsidiary legislations are identified as legislative instruments (L.I.s). Generally, an instrument is legislative in character if it determines or alters the law (that is, rulemaking) rather than if it is applied in a particular case (that is, adjudication). In addition, if it has direct or indirect effect on privilege or interest, imposing an obligation, creating a right, or varying or removing an obligation or right, then it is a legislative instrument.³

The 1992 Constitution classifies subsidiary legislation as part of the laws of Ghana. Article 11 (7) of the Constitution stipulates that any Order, Rule, or Regulation made by a person or authority under a power conferred by the Constitution or any other law shall be laid before Parliament, published in the Gazette and will come into force after 21 sitting days of Parliament, unless two-thirds or more members of Parliament vote to annul it. In summary, all the types of legal instruments that can make NDC implementation legally binding and enforceable will require the more laborious process of Parliamentary approval.

² As amended by the Official Publication Act, 1959; the Interpretation Act, 1960 (CA 4); and the Statutory Instruments (Amendment) Act, 1997 (Act 539). ³ Bennion, F. A. 1962. *The Constitutional Law of Ghana*. Butterworths.

Process for enacting/amending laws

Various organizations play major roles in law-making. These organizations or entities which include nongovernmental organizations, private citizens, public officers, sectors of the government, including the Office of the Attorney General (AG), Law Reform Commission, and sector ministries, have the ability to influence legislation at various stages in the process. Although these organizations or entities have distinct spheres of influence as well as varying levels of control, the power to actually construct and pass laws is distributed between Parliament (which passes the Bill) and the President (who assents to the respective Bill).⁴ The process for enacting and amending laws is detailed in Figure 1. This process is detailed further in Annex VI.

⁴ Article 106 (1) of the 1992 Constitution of the Republic of Ghana.

Figure 1: Process for enacting/amending laws



9. The ministry and the AG continue to review and revise the draft until the ministry is satisfied with the document. The ministry then sends the final draft, together with the Cabinet Memorandum and a brief resume of the bill, to Cabinet for consideration and approval for introduction in Parliament. Once sponsoring ministry and AGs have finalized draft bill, it is sent to Cabinet for approval and presentation to Parliament.

 The minister and his/her most senior
 civil servants of the ministry then discuss the proposal and, if deemed appropriate, produce a Cabinet
 Memorandum. The ministry prepares
 Cabinet Memorandum of purpose of proposed law including background information, financial, and policy implications.

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The Parliamentary Counsel (Legislative Drafters), under the advice of the AG, has the responsibility of drafting all legislative documents. Upon receipt of the drafting instructions and the Cabinet Memorandum, the Parliamentary Counsel begins the drafting process.



10. After Cabinet approval, the bill is sent to the Government printer, where copies are produced for Parliament and published in the Gazette. Cabinet approves and it is sent to Government printer to reproduce for Parliament and publication in the Gazette.



The Cabinet Memorandum has to include, among others, background information and financial and policy implications of the passing such a law. This memorandum serves as the chief subject matter for subsequent cabinet and committee discussion.

3.



 After receiving the Cabinet
 Memorandum and the drafting instructions and after completing any necessary research, the AG (Legislative Drafter) revises the bill.



1 The bill, as published in the Gazette, is then introduced in Parliament. The legislative process in Parliament can be grouped in four stages: first reading, second reading, committee or consideration stage, and third reading.



The Cabinet Memorandum is then submitted to Cabinet for decision and policy approval.



8. The AG sends a copy of the bill to the sector ministry which reviews/critiques it and returns it to the AG with relevant comments/inputs.



The first reading is the first time
 the bill appears before Parliament.
 The Speaker reads the long title of
 the bill, and the sponsoring
 Minister then rises and bows to the
 Speaker. The bill is then referred to
 the relevant committee.

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The Committee is responsible for 13. investigating and examining the bill. During the following deliberation, the Committee produces a report that forms the basis for the second reading. Bill is introduced to Parliament and referred to the relevant Parliamentary Committee who examine and prepare report to be considered in the second reading.



17.

In the third reading stage, Parliament continues to debate the principles and policies of the bill. If a Member of Parliament indicates that a clause was not properly reviewed, the bill is recommitted to the committee stage. If there are no objections, all present Parliamentarians vote for or against the bill's passage. Third reading: Parliament debates bill until all objections are addressed, even recommitting back to committee stage if a clause is not reviewed properly. The House then votes by majority present to pass or reject bill



If the President refuses to assent to the bill, 21. If the President related to the he/she must, within 14 days after the refusal, state in a memorandum to the Speaker any specific provisions of the bill which in his opinion should be reconsidered by Parliament, including his recommendations for amendments, if any.



At the second reading, Parliament debates the principles and policies of the bill. The sector minister delivers a speech explaining the implications of the bill and argues for its passage. At the second reading, Parliament debates the bill. Sponsoring minister explains implication of bill and makes case for passage to the House.



After the vote, the Clerk of Parliament examines the 18 votes of the proceedings to determine which amendments/comments have been made and incorporates them into the bill. The Clerk sends the final bill with all amendments to the Government printer, Clerk of Parliament prepares final version with all agreed amendments incorporated and sends to Government printer. Final version is sent to President for assent.



Upon receipt of the President's feedback, Parliament reviews the bill considering the President's comments. Subsequently, Parliament votes for or against passing the resolution. Parliament must review the bill, consider the President's comments, and vote for or against passing resolution.

In the committee stage, the bill is discussed clause by clause and all concerns are debated and voted upon. The Speaker states each clause of the bill and members note their questions and concerns. Finally,

changes or amendments are voted upon. Bill is referred to Parliamentary Committee to discuss each clause, hold public hearings for input from public, and proposed amendments to each clause voted upon. AG revises bill considering proposed amendments and comments.



bill, as finally printed by the Government printer, is a correct version with regard to the amendments made during the passage of the bill, the copies are the President to assent to the bill.

The AG's Department then takes the proposed amendments/comments and redrafts the bill.



When the Clerk is satisfied that the printed, and the Clerk sends them for

Per Article 106(10) of the 1992 Constitution. 23. where a bill reconsidered and passed by a

parliamentary resolution supported by the

votes of not less than two-thirds of all the

Members of Parliament, the President shall assent to it within 30 days after passing the The President does not have the resolution. Reconsidered bill passed by not power to refuse or refer the bill at less than two-thirds of all Members of Parliament shall override President's veto. So, it becomes law with President's obligatory assent.

16.



this point; the bill becomes law with the President's obligatory

Source: Friedrich Ebert Stiftung-Ghana. 2011. The Law-making Process in Ghana: Structures and Procedures. Friedrich Ebert Stiftung. https://rb.gy/jhgwme

assent.

2.2. Coordinated Programme of Economic and Social Development Policies

Currently, Ghana does not have a dedicated or targeted legal framework that deals with or addresses climate change. The legal provisions are dispersed in the 1992 Constitution and in other statutory instruments. These can be interpreted and sometimes even stretched, to address climate change issues. In the absence of dedicated or targeted laws dealing with climate change issues, State institutions resorted to issuing policies, plans, programs, and directives to address climate issues in their respective sectors or areas until the Executive began to include climate issues in the constitutionally mandated national short-to-medium-term development known as the Coordinated Programme of Economic and Social Development Policies (CPESDP).

The recent inclusion of climate issues and the NDC commitments in the CPESDP signifies the State's intention to mainstream climate considerations into the national development agenda. The CPESDP is a constitutionally mandated policy instrument that sets out the Government's vision, goals, and priorities for the country's development during its term of office. Under Article 36 (5) of the Constitution, each President is required to present a CPESDP to Parliament within the first two years of being elected. The CPESDP is not considered a statutory, constitutional, executive, or legislative instrument under the definitions provided for in Section 1 of the Interpretation Act, 2009 (Act 792) and Article 295 of the 1992 Constitution. It is considered a document that contains the vision and developmental goals and priorities that the electorate voted for and hence it is a policy document of the Executive that is in force during the term of the initiating government or until replaced by the CPESDP of a new President.

Once the CPESDP has been presented, the National Development Planning Commission (NDPC), the body created under Article 86 and 87 of the Constitution to manage the national development planning system, is mandated under Section 2 of National Development Planning (Systems) Act, 1994 (Act 840) to develop a National Medium-Term Development Policy Framework (NMTDPF) to operationalize the CPESDP. This NMTDPF will guide the implementation of the programs, activities, strategies, and specific initiatives initiated by the Government to achieve its vision, medium-term goals, and targets for national development as set out in the CPESDP. The Ministry of Finance and Economic Planning (MoF) also prepares the annual budget to finance the implementation of the NMTDPF. So once the NMTDPF has been approved, all government MDAs and metropolitan, municipal, and district assemblies (MMDAs) are legally required to prepare their development plans in accordance with the National Medium-Term Development Programme (NMTDP) criteria and planning guidelines issued by the NDPC, as mandated by the provisions of Act 840 and the National Development Planning (System) Regulations, 2016 (L.I. 2232) and the MoF's budgetary guidelines supported by provisions of the Public Financial Management Act 2016, Act 921 (PFM Act) and the Public Financial Management Regulation, 2019 (L.I. 2378), ensuring the NMTDP's implementation in all sectors of the economy and at all levels and regions of the country. Consequently policies, programs, and plans that State institutions will implement, that the annual national budget will finance must first be included in the CPESDP. So, in effect, to the State institutions and the more local government authorities, the implementation of the CPESDP and its NMTDPF is binding, providing the certainty that the State and its institutions will pursue the implementation of the climate commitments captured in them. This legal effect does not automatically extend to non-State actors unless the policies, plans, and programs are backed by the provisions of Acts of Parliament and regulations even though the CPESDP is constitutionally mandated by Article 36 (5).

Justiciability of the CPESDP

The issue of the justiciability of the Directive Principles of State Policy (DPSP) under Chapter 6 of the 1992 Constitution, which mandates the CPESDP, has been considered in cases decided at the Supreme Court. The DPSP has been interpreted to contain what is considered economic, social, and

cultural rights. Articles 36 and 41, which include provisions on the obligations of the State and citizenry to safeguard the environment, are also part of the DPSP. Whereas there the High Court is mandated to enforce Chapter 5 rights under Article 33 of the 1992 Constitution which contains other fundamental rights including civil and political rights, no such enforcement arrangements are made for the economic, social, and cultural rights under the DPSP chapter.

The absence of express provisions on the justiciability or otherwise of the DPSP has, over the years since the coming into force of the 1992 Constitution, led to differing views including doubts about its enforceability. In the case of *New Patriotic Party v Attorney-General ('31st December Case')*, the differing views on the Supreme Court panel that arose were that the 1992 Constitution is a justiciable document and that nowhere is it stated that Chapter 6 of the 1992 Constitution is not justiciable. The other view held is that the DPSPs are not justiciable because they are indicative of the spirit and conscience of the Constitution as well as legislative goals.⁵ In yet another case, *New Patriotic Party v Attorney-General ('CIBA Case')*,⁶ some of the Supreme Court Justices considered that the "DPSP had the effect of providing goals for legislative programmes and a guide for judicial interpretation but were not of and by themselves legally enforceable by any court." Other justiciable, and those which are 'standalone rights' and thus nonjusticiable.

These cases have resulted in uncertainty about the justiciability of the DPSP. Both the judicial decisions and scholarly writings view the DPSP as embodying some values of the Ghanaian legal system. One view is that the DPSP is Ghana's foundation charter for social justice, social order, and national development.⁷ Another view is that the DPSP is a guide for constitutional interpretation.⁸ Therefore, when it comes to its justiciability, there has been a tendency to distinguish between legal principles and public policy. A judge is likely to hold the DPSP as nonjusticiable where he/she sees it as only declaring public policy and as justiciable where he/she sees it as a principle of law.⁹

Notwithstanding the difference in opinion, Ghanaian courts have held, even in cases seeking to enforce specific environmental rights and policies, that these rights under the DPSP are justiciable.¹⁰ In the case of the *Centre for Public Interest Litigation v. Tema Oil Refinery (TOR)*,¹¹ the plaintiff initiated an action against Tema Oil Refinery (TOR) for, among others, a declaration that the rights, particularly of persons settled along the banks of the Chemu lagoon (where an oil spillage had occurred), to "a clean and healthy environment under the Constitution and under international law" had been violated. The court affirmed the view that "…from the purely Constitutional perspective, and in the light of the relevant rules of public international law, the Constitution, 1992 provides some substantive and procedural basis for dealing with environmental problems. The recognition of the rights to a wholesome environment as a fundamental right offers the plaintiff the advantage of a remedy which is cheap and expeditious for the redress of environmental grievances."¹²

The case of Ghana Lotto Operators Association v. National Lottery ('the Lotto case') [2007–2008, SCGLR, p. 1088] has provided a sound basis in favor of the argument for the justiciability of the DPSP. In delivering the judgment of the court, His Lordship, Date-Bah JSC, concurred with a view that had been held in the December 31 case, that an issue is justiciable if it is capable of being settled by a Court.¹³ The conclusion was that "Prima facie, everything in a Constitution should be justiciable. The

^{5 [1993-94] 2} GLR 35.

^{6 [1996-97]} SCGLR 729.

⁷ Yeboah, K. A. 2011. The Alchemy of Social Justice. Combert Impressions Ltd. p. 16–17.

 ⁸ Bimpong-Buta, S. Y. 2005. The Role of the Supreme Court in the Development of Constitutional Law in Ghana. Advanced Legal Publication. p. 365.
 ⁹ Atupare, A. P. 2013. Constitutional Justice in Africa; An Examination of Constitutional Positivism, Fundamental Law and Rights in Ghana and Nigeria. LexisNexis. p. 147.

¹⁰ Sarpong, G. A. 2018. Ghanaian Environmental Law: International and National Perspectives. Wildy, Simmonds & Hill Publishing, London UK. p. 76.

¹¹ Suit No. E12/91/07, 20 September 2007, High Court, Tema.

¹² Sarpong 2018, 72-73.

¹³ Ibid, 75.

Constitution is a legal document containing the most important rules on political governance. The Courts have the responsibility of ensuring that these rules are complied with. Therefore, the starting point of analysis should be that all the provisions in the Constitution are justiciable, unless there are strong indications to the contrary in the text or context of the Constitution."¹⁴ It was further stated that "A presumption of justiciability in respect of Chapter 6 of the 1992 Constitution...would strengthen the legal status of economic, social and cultural rights...in the Ghanaian jurisdiction... However, it should be recognized that the enforceability of economic, social and cultural rights contained in Chapter 6 need not be implemented in the same way as the political and civil rights embodied in Chapter 5."¹⁵ Based on these cases, it can be concluded that the courts in Ghana "will enforce specific environmental rights and policies in so far as they are found under the DPSP."¹⁶

In light of the above, and in consideration of the fact that statutory provisions are more legally binding and enforceable than policies, Ghana will have to consider taking steps to pass climate-specific acts or laws to back climate commitments implementation with the force of law.

2.3. Ghanaian administrative state and administrative law

The 1992 Constitution defines the structure of the administrative state in Ghana. In this regard, the Constitution stipulates that there are three branches of the State: the Executive, the Legislature, and the Judiciary. The Constitution provides the detailed roles, responsibilities, and powers of each branch and prescribes the limits to the exercise of each organ's powers.

¹⁴ Ibid, 75-76.

¹⁵ 2 G&G 2737 at 2747-2748(2d).

¹⁶ Sarpong 2018 , 76.



Source: Schmermer, F. 2011. Political System of Ghana. https://rb.gy/lt5kly.

The Executive

Article 57 (1) of the Constitution vests executive authority in the President. The President is the 'Head of State and Head of Government and Commander-in-Chief of the Armed Forces'. Article 58 (1) provides that the executive authority shall extend to the execution and maintenance of the Constitution and all laws made under or which continue in force under the Constitution.

The Executive branch has a dual role in that it is both responsible for implementing and determining law. This is because, the Constitution, in Article 78 (1), enjoins the President to select the majority of the Ministers of State from Parliament. These Parliamentarians who are Ministers of State are the same ones who essentially determine and subsequently implement Government's policies. By virtue of this arrangement, some parts of the Legislature are placed under the direct control of an Executive President.

The President appoints several public officers, including those in the civil service, noncommercial public corporations, Constitution-created public services, and legislation-created public services. Three key appointments which the President makes are that of the Chief Justice, Inspector-General of Police, and the Auditor-General. These critical appointments are made in consultation with the Council of State and with the approval of Parliament.¹⁷ The President also appoints the other Supreme Court Justices, acting on the advice of the Judicial Council, in consultation with the Council of State and with the approval of Parliament. The President further appoints the Justices of the Court of Appeal and of the High Court and Chairmen of Regional Tribunals, acting on the advice of the Judicial Council. This power to appoint also entails the power to confirm appointments and to discipline and remove such persons from office.¹⁸

Three statutory advisory bodies, which act as intrinsic mechanisms for accountability, provide advice to the Executive: the Council of State, the National Security Council, and the NDPC. Although each body has a specific mandate, there is some convergence in their respective roles. Ultimately, they each seek to provide advice to the Executive, ensure accountability, inhibit abuse of power, and ensure that the Executive functions well in the constitutional democracy.

The Council of State is an advisory body of prominent citizens and respectable persons in society. It consists of prominent Ghanaians from a broad cross-section of society with diverse backgrounds who are often distinguished persons in their field of expertise. Article 89 (2)(a) of the Constitution states that "the Council of State shall consist of (a) the following persons appointed by the President in consultation with Parliament. (i) one person who has previously held the office of Chief Justice, (ii) one person who has previously held the office of Chief of Defence Staff of the Armed Forces of Ghana, (iii) one person who has previously held the office of Inspector-General of Police; (b) the President of the National House of Chiefs; (c) one representative from each region of Ghana elected, in accordance with regulations made by the Electoral Commission under article 51 of this Constitution, by an electoral college comprising two representatives from each of the districts in the region nominated by the District Assemblies in the region; and (d) eleven other members appointed by the President."

Its functions include counselling the President and various arms of government on all matters of national interest; considering nominations for appointments by the President to governing boards and other State institutions; considering and providing inputs into bills before Parliament; promoting links, coordination, and synergies among sector MDAs through advice to political and other heads of public sector institutions; examining and monitoring the implementation of policies and programs of government; and alerting relevant officials on weaknesses, threats, and opportunities for appropriate action to be taken.

¹⁷ Articles 70, 74, 86, 202, 207, 212, 232, 243, 183, 185, and 189 of the 1992 Constitution.

¹⁸ Article 297(a) of the 1992 Constitution.

The functions of the National Security Council include considering and taking appropriate measures to safeguard the internal and external security of Ghana and ensuring the collection of information relating to the security of Ghana and the integration of the domestic, foreign, and security policies relating to it, to enable the security services and other departments and agencies of government to cooperate more effectively in matters relating to national security.¹⁹

The NDPC advises the President on development policy and strategy. It shall, at the request of the President, Parliament, or on its own initiative, among other things, undertake strategic analyses of macroeconomic and structural reform options and make proposals for the protection of the natural and physical environment with a view to ensuring that development strategies and programs are in conformity with sound environmental principles.²⁰

The Cabinet

The Cabinet is part of the Executive branch of Government. The Cabinet assists the President in determining the general policy of the Government. Article 76 (1) of the Constitution enjoins the President to have a Cabinet, which shall consist of the President, Vice President, and no less than 10 and no more than 19 Ministers of State. With responsibility for the general direction and control of the Government, the Cabinet decides on legislative proposals. The Cabinet also has its own legislative committee.

Regional ministers

Although Ghana does not have a fully decentralized system of government, the President appoints regional ministers with Parliamentary approval. They represent the President in various regions of Ghana.

Attorney General

Article 88 (1) of the Constitution provides that the AG shall be a Minister of State and the principal legal adviser of the Government. The AG shall be responsible for the following: the initiation and conduct of all prosecutions of criminal offences and the institution and conduct of all civil cases on behalf of the State. All civil proceedings against the State shall be instituted against the AG as defendant. In circumstances where an offence is being prosecuted in the name of the Republic of Ghana, such offence shall be at the suit of the AG or any other person so authorized by the AG in accordance with law.

The AG has audience in all courts in Ghana and shall discharge such other duties of a legal nature as may be referred or assigned to him/her by the President or as imposed by the Constitution or any other law.

The Legislature

Parliament exercises oversight of the Executive and acts as a check and balance on executive power. In this regard, Parliament ensures that the implementation of public policy conforms to the approved developmental agenda of the State and any expenditures incurred is in accordance with Parliamentary approvals.

With regard to the making of Acts of Parliament, Parliament shares its law-making function with the President, who assents to legislative bills before they become law.²¹ The President has the power of veto. The President also has the power to refer a legislative bill to the Council of State for advice. They have one week to communicate their intention to the Speaker of Parliament in writing by stating that

¹⁹ Security and Intelligence Agencies Act (1996), Act 526.

²⁰ NDPC (National Development Planning Commission). n.d. Introduction to NDPC. https://ndpc.gov.gh/about/.

²¹ Article 106 (1) of the 1992 Constitution.

they veto the bill or portions of it or that they have referred the matter to the Council of State for consideration.²² Parliament is required to consider the President's comments or the Council of State's comments in reworking the bill, and it has power to pass the bill by resolution supported by a majority vote of at least two-thirds of all Members of Parliament. The bill is then presented a second time to the President, who does not have the power to veto it the second time. The President must assent to the bill within one month after Parliament has passed it by resolution.²³

The country has had two peaceful transfers of power between the two dominant political parties in a multiparty electoral system.²⁴ Over the years, the Executive has normally held the majority of seats in Ghana's Parliament and hence controlled law making.²⁵ However, the current 8th Parliament has turned out to be a 'hung parliament'²⁶ as no single political party has a clear majority of seats in Parliament.

The Judiciary

The Judiciary is the branch of government vested with the responsibility and authority to interpret, apply, and enforce the laws of Ghana.²⁷ The Constitution enshrines the independence of the Judiciary from the Executive and the Legislature.

The Judiciary consists of a two-tiered court structure with superior and lower courts. The superior courts comprise the High Court/Regional Tribunal, Court of Appeal, and the Supreme Court. The lower courts include the Circuit Courts, District Courts, Juvenile Courts, chieftaincy courts, administrative tribunals, and court-martials.²⁸ The relevant statutory framework is embodied in the Courts Act, 1993 (Act 459), as amended by Courts (Amendment) Act, 2002 (Act 620); Courts (Amendment) Act, 2004 (Act 674); and Courts (Amendment) Regulations, 2014 (L.I. 2211).

Ghana's pluralistic legal system is derived from Anglo-Saxon common law, statutory law, and other documents which were imposed by various military regimes. Article 11 (1) of the 1992 Constitution, which address the sources of law, provides a normative hierarchy²⁹ of Ghanaian positive laws with the 1992 Constitution at the pinnacle. Below the 1992 Constitution are Acts of Parliament and subsidiary legislation being Constitutional Instruments and Statutory Instruments.³⁰ Thus, the Constitution, Acts of Parliament, Constitutional Instruments, and Statutory Instruments are the key types of positive laws in Ghana. The Constitutional and Statutory Instruments, which are subsidiary legislation, take various forms. The legal system also consists of unwritten customary usages and practices that play a significant role in the modern legal system. In general, Ghana is deemed to have a common law system and defers many details to individualized adjudication rather than systematic and codified rulemaking.

Decisions of the superior courts are reported in law reports as sources of law in Ghana. But decisions of the lower courts are not so reported.³¹ An aggrieved party may challenge the decisions of the courts and tribunals through appellate or supervisory routes. Nonetheless, the courts are generally perceived as accessible and impartial.

²⁹ Kelsen, H. 1991. General Theory Of Norms. Clarendon Press. p. 123–125.

 $^{^{\}rm 22}$ Article 106 (7) and (8) of the 1992 Constitution.

 $^{^{\}rm 23}$ Article 106 (9) and (10) of the 1992 Constitution.

²⁴ Janssen, S. 2017. The World Almanac and Book of Facts 2018. Anniversary ed. World Almanac. p. 779-780.

²⁵ Article 78 (1) of the 1992 Constitution.

²⁶ UK Parliament. "What Is a Hung Parliament?" Accessed February 6, 2022. https://www.parliament.uk/about/how/elections-and-voting/general/hung-parliament/.

²⁷ Republic of Ghana, Judiciary. Summary. https://judicial.gov.gh/index.php/summary.

²⁸ Woodman, R., and H. M. Kritzer. 2002. Legal Systems of the World: A Political, Social and Cultural Encyclopedia. Vol II, ABC-CLIO, Inc. p. 594.

³⁰ Section 1 of the Interpretation Act, 2009 (Act 792) defines the term 'instrument' to include notices, rules, regulations, by-laws or proclamations, orders, and warrants. And it excludes court orders and court issued warrants from the definition of 'instrument'.

³¹ Bimbong-Buta, S. Y. 1983. Sources of Law in Ghana. 15 Review of Ghana Law 129.

One of the fundamental administrative law issues is with regard to policy discontinuity. Ghanaians have largely accepted democratic changes in government and have in the process also accepted an unwritten rule that a new President can dismiss heads of certain public institutions even though the Presidential (Transition) Act, 2012 (Act 845) has been passed to specifically address this issue. In the 2019 Supreme Court case of *Donkor v the Attorney-General*³² Section 14 of this Act 845, the court held that the President has limited authority in removing members of boards of public corporations. The changes in boards of public corporations have often meant changes in direction and policy.

Review of administrative actions

Three bodies are involved in reviewing administrative actions. These are the Commission on Human Rights and Administrative Justice (CHRAJ),³³ the High Court, and the Supreme Court. As its name suggests, CHRAJ is responsible for the protection of fundamental human rights and for administrative justice. CHRAJ's role is threefold and embodies the following: (a) a National Human Rights Institution; (b) an ombudsman, an agency which ensures administrative justice; and (c) an anticorruption agency for the public sector.

CHRAJ has the mandate, among other things, to "investigate complaints of violations of fundamental rights and freedoms, injustice, corruption, abuse of power and unfair treatment of any person by a public officer in the exercise of his/her official duties."

In accordance with Section 8 of the CHRAJ Act, 1993 (Act 456), CHRAJ has special powers to investigate, which include issuing subpoenas prosecuting contemptuous persons, questioning a person in respect of a subject matter under investigation before CHRAJ, and requiring a person to disclose truthfully and frankly information within the knowledge of that person relevant to an investigation by CHRAJ.

CHRAJ also has some limitations on its powers. For example, it cannot investigate any matter which is pending before a court or judicial tribunal or any matter involving the relations or dealings between the Government and any other government or an international organization or a matter relating to the exercise of the prerogative of mercy. CHRAJ has been extensively criticized for its inability to be truly independent and autonomous on some matters. This is often attributed to the fact that it is dependent on financial resources from the State for its operations.

The High Court also functions as the human rights court. By way of judicial review, the High Court supervises tribunals and adjudicative bodies of agencies under Article 141 of the Constitution. It in turn comes under the Supreme Court's supervision under Article 132 of the 1992 Constitution.

Unlike in the United States, where the federal Administrative Procedure Act (APA) drives judicial review,³⁴ the absence of an APA and manifest reliance on common law innovations cast Ghana's administrative law more in the mold of the UK administrative law, where judicial review is based on uncodified fair procedure principles.³⁵

Ghana's administrative state is organized at two levels: central and local governments. For example, under Article 190 (2) of the 1992 Constitution, the Civil Service of Ghana covers services at the central and local government levels. Services at the central government level are carried out in the MDAs. Likewise, the vehicles for executing local government services are Regional Co-ordinating Councils (RCCs) and the MMDAs. The country is held together in a unitary republic,³⁶ and as is

³² Theophilus Donkor v Attorney-General (Unreported SC decision of June 12, 2019) (Writ No J1/08/2017).

³³ CHRAJ. What We Do. https://chraj.gov.gh/what-we-do/.

³⁴ Custos, D. 2013. "United States." In Codification of Administrative Procedure, edited by J. B. Auby. Groupe Larcier.

³⁵ Galligan, D. J. 1996. Due Process and Fair Procedures: A Study of Administrative Procedures. Oxford University Press. p. 167–186.

 $^{^{\}rm 36}$ See Article 4 of the 1992 Constitution.

consistent with this type of system, powers are not generally decentralized.³⁷ For instance, MMDAs exercise deliberative, legislative, and executive powers but they enjoy limited fiscal autonomy.³⁸ Thus, even though MMDAs can borrow to finance projects in accordance with relevant laws,³⁹ they are required to submit their development plans to the NDPC at the national level through RCCs.⁴⁰

English and American administrative laws influences

This section examines the processes by which agencies in Ghana may issue legally binding rules and enforce them.

Ghana's 1992 Constitution is a hybrid of the US presidential model and the UK parliamentary model.⁴¹ Similarly, there are both English and American influences in the training and recruitment of judges in Ghana.⁴² The country's executive authority is similar to that of the United States but different from that of the United Kingdom, where the 'Crown'⁴³ is a substitute for 'executive'.⁴⁴ Again like the United States, the 1992 Constitution of Ghana guarantees administrative justice and due process, respectively, under its Articles 23 and 296. But the structure of Ghanaian administrative law tilts toward the UK model rather than the US model. For example, whereas US administrative law focuses more on administrative agencies, also referred to as 'the administrative state' or 'the fourth branch' of government,⁴⁵ Ghanaian administrative law, like that of the United Kingdom, is court centered. This is because Ghanaian public administration preserves the British tradition of civil service anonymity and ministerial responsibility⁴⁶ and is also based on English administrative law and institutions.⁴⁷ Agency rulemaking and adjudication are therefore often subsumed under ministerial responsibility. Consequently, there is no APA in Ghana. Previous attempts to introduce an APA in the country several decades ago were abandoned because of political instability at the time and the absence of the requisite institutions.⁴⁸ Even with the relative stability of the current constitutional rule, an APA has not yet been enacted. This could also be because an APA essentially promotes deference to agency rulemaking and adjudication, which is uncommon in Ghana. This lack of deference was illustrated in the Ghana Independent Broadcasters Association v National Communications Authority⁴⁹ case where the National Communication Authority (NCA) fined nine radio stations for various regulatory breaches. The radio stations successfully challenged the NCA's fines before the Electronic Communication Tribunal (ECT) which had been recently established under Sections 88–93 of the Electronic Communications Act, 2008 (Act 775) to hear appeals against decisions by the NCA or the Dispute Resolution Committee of the NCA. The ECT dismissed the charges and fines against eight of the radio stations as unlawful. It also dismissed the NCA's case

³⁷ Ahwoi, K. 2010. Local Government and Decentralization in Ghana. Unimax Macmillan Ltd.; Ahwoi, K. 2017. Decentralisation in Ghana: A Collection of Essays. Winmat Publishers Ltd.

³⁸ See Article 241 (3) of the 1992 Constitution and Sections 12 (2) and 124 of Local Governance Act, 2016 (Act 936).

³⁹ See Section 124 (5) of Local Governance Act, 2016.

⁴⁰ Section 86 (2) of Local Governance Act, 2016.

⁴¹ For example, Article 78 (1) of the 1992 Constitution requires the President to appoint majority of Ministers of State from among Members of Parliament.

⁴² Date-Bah, S. K. 2015. Reflections on the Supreme Court of Ghana. Wildy, Simmonds & Hill Publishing. p. 17-22.

⁴³ McLean, J. 2004. "The Crown In Contract And Administrative Law." Oxford Journal of Legal Studies 129: 24

⁴⁴ Daintith, T., and A. Page. 1999. The Executive in the Constitution: Structure, Autonomy, and Internal Control. Oxford University Press; Paul Craig, P., and A. Tomkins. 2006. "Introduction." In The Executive and Public Law: Power and Accountability in Comparative Perspective, edited by P. Craig and A. Tomkins. Oxford University Press.

⁴⁵ See for example Epstein, Richard A. 2020. The Dubious Morality of Modern Administrative Law. Rowman & Littlefield; Sunstein, Cass R., and Adrian Vermeule. 2020. Law and Leviathan: Redeeming the Administrative State. Harvard University Press; Rose-Ackerman, Susan. 1992. Rethinking the Progressive Agenda: The Reform of the American Regulatory State. The Free Press; Marini, John. 2019. Unmasking the Administrative State: The Crisis of American Politics in the Twenty-First Century. Encounter Books; Wallison, Peter J. 2018. Judicial Fortitude: The Last Chance to Rein in the Administrative State. Encounter Books; McGroarty, Emmett, Jane Robbins, and Erin Tuttle. 2017. Deconstructing the Administrative State: The Fight for Liberty. Liberty Hill Publishing; Hamburger, Philip. 2017. The Administrative Threat. Encounter Books; Ernst, Daniel R. 2014. Tocqueville's Nightmare: The Administrative State Emerges in America, 1900-1940. Oxford University Press; Epstein, Richard A. 2014. The Classical Liberal Constitution: The Uncertain Quest for Limited Government. Harvard University Press.

⁴⁶ Bennion, F.A. 1962. *The Constitutional Law of Ghana*. Butterworths. p. 180.

⁴⁷ Seidman, R. B. 1970. "Administrative Law and Legitimacy in Anglophonic Africa: A Problem in the Reception of Foreign Law." Law & Society Review 5: 161.

⁴⁸ Dickey, W., and F. S. Tsikata. 1972. "A Look at Administrative Law in Ghana." University of Ghana Law Journal 9: 135.

⁴⁹ Case no; ECT/APP/002/2017, (Unreported decision of June 18, 2018).

against one radio station because of procedural impropriety. Nonetheless, the NCA proceeded to shut down these radio stations, seemingly relying on this same decision of the ECT.⁵⁰

The difference between law and policy making in Ghana

As set out in Section 2.1, Section 1 of the Interpretation Act, 2009 (Act 792) defines the term 'instrument' to include Notices, Rules, Regulations, By-Laws or Proclamations, Orders, and Warrants. Court orders and court issued warrants do not qualify as an 'instrument'. Those involved in the making of these instruments are the Parliament, the Cabinet, Departmental Ministers, Administrative Officials, Parliamentary Counsel, and Commissions of Enquiry, notably the Law Reforms Commission,⁵¹ as well as others like traditional authorities.⁵²

The same set of institutions are involved in the making of subsidiary legislation. Thus, agency rulemaking is subsumed under ministerial responsibility. Ministers are able to initiate legislative proposals with research inputs from bureaucrats working under them. Formal agency rulemaking generally takes the form of subsidiary legislation by ministers.⁵³ Put differently, agencies' rulemaking is limited to gathering information, shaping policy, advising ministers, and instructing Parliamentary Counsel, who draft all the bills.⁵⁴ The legislature and executive control this ministerial rulemaking by building control mechanisms into the parent legislation. Article 11 (7) of the 1992 Constitution requires the laying of subsidiary legislation in Parliament for 21 Parliamentary sitting days before it becomes law.

The foregoing explains how rules are promulgated, perceived, and enforced⁵⁵ in Ghana. Thus, several agency measures characterized as policies lie outside the subsidiary legislative process so that policy rather than law largely drives the Ghanaian legal system.⁵⁶ For instance within the context of climate change, one notes that apart from the Renewable Energy Act, 2011 (Act 832), as amended by the Renewable Energy (Amendment) Act, 2020 (Act 1045), there is no climate-change-specific legislation in Ghana. Ghana's climate change framework is heavy on policy rather than law. Indeed, Ghana's policy measures for addressing climate change is embodied in some 33 mitigation actions in different sectors.⁵⁷ The structures for policy review are not fully operational and effective.⁵⁸

2.4. Enforcement of contracts

Under Ghanaian law, contracts can be concluded orally and in writing.⁵⁹ As in other Commonwealth countries, even though there are special laws for forming certain contracts, it is the ordinary contract law that governs both concluded public contracts and private contracts. Thus, statutes like the Public Private Partnership Act, 2020 (Act 1039); Government Contracts (Protection) Act, 1979 (AFRCD⁶⁰ 58); Public Procurement Act, 2003 (Act 663) as amended by the Public Procurement (Amendment) Act, 2016 (Act 914); Sale of Goods Act, 1962 (Act 137); and Hire Purchase Act, 1974 (NRCD⁶¹ 292) provide special procedural rules for forming contracts that fall under them. Nevertheless, all of these contracts are subject to the general law of contract under the Contracts Act, 1960 (Act 25) and

⁵⁰ National Communication Authority. n.d. NCA Is Shutting Down Unauthorized Radio Stations in Compliance with Ruling of ECT. Accessed May 8, 2022. https://rb.gy/2ivazc.

⁵¹ Ibid, 298-349.

⁵² Harvey, William Burnett. 1966. Law and Social Change in Ghana. Princeton University Press.

⁵³ Bennion, F. A. 1962. The Constitutional Law of Ghana. Butterworths. p. 262–269.

⁵⁴ Ibid, 332-339.

⁵⁵ Alston, E. et al. 2018. Institutional and Organizational Analysis : Concepts and Applications. Cambridge University Press. p. 57.

⁵⁶ For, as Hart (2012) tells us, law functions primarily as general directions and secondarily as official individuated face-to-face directions. (Hart, H. L. A. 2012. *The Concept Of Law*. 3rd ed. Oxford University Press. p. 21.

⁵⁷ NDPC (National Development Planning Commission). 2021. National Medium-Term Development Policy Framework 2022–2025. https://rb.gy/wbnf7t.

⁵⁸ New Climate Institute and Climate Analytics. 2021. CAT Climate Governance-Ghana. CAT Climate Governance Series, 2021. https://rb.gy/cdhpff.

⁵⁹ Dowuona-Hammond, C. 2011. *The Law of Contract in Ghana*. Frontiers Printing & Publishing Company.

⁶⁰ Armed Forces Revolutionary Council Decree.

⁶¹ National Redemption Council Decree.

common law. This means that unlike most civil law countries, the Government does not have any special right to terminate public contracts. And any such governmental termination of contracts attracts what has come to be known in the country as a 'judgment debt'.⁶²

Thus, all contractual disputes are litigated in the ordinary courts. In this case, a division of the High Court is designated as the Commercial Court, and its rules are captured under Order 58 of the High Court (Civil Procedure) Rules, 2004 (C.I. 47), as amended by High Court (Civil Procedure)(Amendment) Rules, 2020 (C.I. 133). Other laws for the enforcement of contracts include the Alternative Dispute Resolution Act, 2010 (Act 798) and the Electronic Transactions Act, 2008 (Act 772). Meanwhile, several procedural challenges including court delays hamper the effective enforcement of contracts in a Ghanaian court.⁶³

With regard to foreign direct investment, Section 37 of the Ghana Investment Promotion Centre Act, 2013 (Act 865) regulates the formation of technology transfer agreements. To protect foreign investments, Article 20 of the 1992 Constitution generally proscribes expropriation of property. It requires the prompt payment of fair and adequate compensation for any compulsory acquisition of property. Ghanaian law recognizes choice of law rules. Section 54 (1) of the Courts Act, 1993 (Act 459), as amended by Courts (Amendment) Act, 2002 (Act 620) and Courts (Amendment) Act, 2004 (Act 674), stipulates that an issue arising out of a transaction shall be determined according to the system of law intended by the parties. Similarly, one can enforce a foreign judgment under Section 81 of the Courts Act as amended where there is a substantial reciprocity of treatment between Ghana and the foreign country in question.

The State generally protects the sanctity of contracts and this was elucidated in the case of *Ansong*⁶⁴ *Vrs Gorman and Another (J4 37 of 2011) [2011] GHASC 37 (30 December 2011)* where the court stated that "any undue interference by the courts flies in the face of the sanctity attached to such documents." It is worth highlighting that despite the preservation of the sanctity of contracts, international legal agreements which pertain to climate change tend to have international arbitration as the dispute resolution mechanism as opposed to resorting to the local courts. This is primarily due to issues of confidentiality, privacy, and the speed of settlement offered by such mechanisms.⁶⁵

2.5. Environmental rule of law in Ghana

The rule of law is a fundamental legal concept,⁶⁶ which governments, civil society organizations (CSOs), citizens, and businesses around the world seek to protect and strengthen.⁶⁷ Per the United Nations definition, rule of law comprises three related components; laws should (a) be consistent with fundamental rights; (b) be inclusively developed and fairly effectuated; and (c) engender accountability, such that the laws become operative through widespread compliance.⁶⁸ Each component is necessary and interacts with the others. To have laws that are respected and observed by any community, they should be consistent with fundamental rights, promulgated with inclusivity as a key consideration and be "even-handedly and effectively implemented."

Environmental rule of law uses these components in the development and application of laws within the context of the environment. Environmental Rule of Law⁶⁹ therefore consists of

⁶² This is where the courts award judgment against the government for breach of contract.

⁶³ World Bank. 2010. Uses and Users of Justice in Africa: The Case of Ghana's Specialised Courts. https://rb.gy/whvhxr.

⁶⁴ https://ghalii.org/gh/judgment/supreme-court/2011/37.

⁶⁵ https://uk.practicallaw.thomsonreuters.com/6-610-7025?transitionType=Default&contextData=(sc.Default)&firstPage=true.

⁶⁶ Dicey, A. V. 1885. Introduction to the Study of the Law of the Constitution. Macmillan and Co. 167ff esp. 172, 177, 208.

⁶⁷ World Justice Project. 2021. Rule of Law Index 2021. p. 9. https://rb.gy/tj1vqk. p.9.

⁶⁸ UNEP (United Nations Environmental Programme). 2019. Environmental Rule of Law. First Global Report, United Nations Environmental Programme, Nairobi, p. 8. https://rb.gy/Oqncjo.

⁶⁹ UNEP Governing Council Dec. 27/9, Advancing Justice, Governance and Law for Environmental Sustainability, U.N. Doc. UNEP/GC.27/17 (March 12, 2013). https://wedocs.unep.org/bitstream/handle/20.500.11822/12221/Governing%20Council%20Decision%2027-2.pdf?sequence=1&isAllowed=y.

- The accountability and integrity of institutions and decision-makers through the active engagement of environmental auditing and enforcement realised by accessible, fair, impartial, timely, and responsive dispute resolution mechanisms;
- (ii) Innovative environmental procedures and remedies achieved through the recognition of the mutually reinforcing relationship between human rights and the environment; and
- (iii) Specific criteria for the interpretation of environmental law.

Environmental rule of law thus entails ensuring that laws are implemented by capable governmental institutions that are held accountable by an informed and engaged public.⁷⁰ All entities should be equally accountable to laws that have been promulgated, and the laws must be consistent with international best practices for the sustenance of the planet.⁷¹ When all these components are fully present, the laws, in turn, will be respected and observed by the community.⁷²

It is also worth noting that environmental rule of law provides an essential platform that underpins the four pillars of sustainable development: economic, social, environmental, and peace. It has become evident that development cannot be sustained where there is no environmental rule of law. In jurisdictions where environmental rule of law exists and clearly drafted laws have been implemented by government institutions, the resulting societal behaviors reflect an understanding of environmental and social values.

This section briefly describes environmental rights in Ghana, reviews the elements of environmental rule of law as applied in Ghana, and assesses the broad issue of adherence to the rule of law in Ghana in the context of environmental protection.

⁷⁰ UNEP. 2019. Environmental Rule of Law. First Global Report, United Nations Environmental Programme, Nairobi. https://rb.gy/Oqncjo.

71 Ibid, 8.

⁷² Ibid, 8.



Realizing environmental rights in Ghana

Generally, the 1992 Constitution, criminal law, and common law rules are the key legal resources for securing environmental rights in Ghana.⁷³

1992 Constitution

Though several rights have been expressly laid out in the 1992 Constitution, the right to a healthy environment has not been specifically provided for.⁷⁴ Rather, under Article 41 (k), the Constitution imposes "an obligation on the state and on every citizen to protect and safeguard the environment."⁷⁵

Notwithstanding the absence of direct provisions on this right, some of the rights, such as the right to property, life, fair trial, and information, form a "base[] for the assertion of a right to a healthy environment."⁷⁶ For example, in a situation where the environment is dangerously polluted as a result of the activities of a third party, invoking Article 13 of the 1992 Constitution (the right to life) in a matter brought before the Courts would be an appropriate course of action.⁷⁷

⁷³ Sarpong, G. A. 2000. "Environmental Justice in Ghana." *Review of Ghana Law* 20: 91.

⁷⁴ Sarpong, G. A. 2018. Ghanaian Environmental Law: International and National Perspectives. London, UK: Wildy, Simmonds & Hill Publishing, p. 66.

⁷⁵ Ibid, 63-64.

⁷⁶ Ibid, 66.

⁷⁷ Ibid, 66.
Ghana has also acceded to several international environmental treaties.⁷⁸ However, these do not form part of the sources of law in Ghana as listed under Article 11 (1) of the 1992 Constitution. Treaties are only considered to be a part of Ghana's laws under Article 11 (1)(b) when they are "promulgated into the domestic law of Ghana or become a customary rule of law (as part of the common law)."⁷⁹ The mere ratification of international law norms by Ghana is not enough to give it the force of law. The practice has been to transform them into domestic legislation.⁸⁰

Court system

The court system too can be used to support environmental protection. The 1992 Constitution vests the Judiciary with exclusive judicial power in all matters be they civil or criminal as well as matters that relate to the Constitution and any jurisdiction that Parliament may confer on it by law. Ghanaian courts, under the laws of Ghana, have the "power to adopt, develop and apply remedies from any system of law as appear to them to be efficacious and to meet the requirements of justice, equity and good conscience."⁸¹

Criminal law

The Criminal Offences Act, 1960 (Act 29) contains offences that "have implications for environmental preservation." Act 29 criminalizes acts that amount to "nuisance, trespass and damage to property."⁸² Section 287 of Act 29 criminalizes acts such as "carrying on noxious, offensive, or noisy business at any place; making, keeping or using any explosive matter or any collection of water or any other dangerous or destructive thing, building, excavation or other structure, work or place." Also, Section 296 of Act 29 criminalizes acts that affect health such as "placing filth, refuse or rubbish in any street, yard or open space and the committing acts of nuisance in any public or open space."⁸³

There are also offences under the Public Health Act, 2012 (Act 851) particularly sections 50–57 on 'Environmental Sanitation' which attract fines and terms of imprisonment ranging from three months to three years or both. The offences under relevant sections of Act 851 include "carrying on a business in noxious trade or offensive matter at a place, to impair or endanger the health of the public, or causing damage to the lands, crops cattle or goods of the public" and the "pollution or fouling of the water of a well, tank, spring, reservoir, or place used or intended to be used for the supply of water for human or animal consumption."⁸⁴

Though these laws should be sufficient for enforcing public health standards in the cities and urban areas of Ghana, the challenge has been the extent of their observation and nonenforcement. This has been attributed partly to the low penalties associated with their noncompliance.⁸⁵ These laws are also limited in scope and apply primarily to actions that have local impacts, rather than those with transnational or global impacts, which may impede their application to issues like climate change.

- ⁸³ Ibid, 84.
- ⁸⁴ Ibid, 85.

⁷⁸ Ibid, 58.

⁷⁹ Sarpong 2018, 61.

⁸⁰ Ibid, 62.

⁸¹ Ibid, 67.

⁸² Ibid, 66.

⁸⁵ Ibid, 86.

Common law

Some principal torts under the common law are focused on the protection of interests in property including land. Examples of such torts include nuisance, negligence, trespass, and the rule in Rylands v. Fletcher,⁸⁶ all of which may be used in matters concerning the protection of the environment.⁸⁷

Open government

Open government comprises the values of public participation, transparency, and accountability. These allow governments and the citizenry the opportunity to see the actual costs of environmental degradation, consider "alternative approaches for development" and "ensure that there is adequate oversight of government action."⁸⁸

Public participation

It has been noted that perhaps the "clearest expression of public participation in environmental decision making" in Ghana is found in the Environmental Assessment Regulations, 1999 (L.I. 1652).⁸⁹ Under these regulations, all "developmental activities that are likely to have an adverse impact on the environment must be subject to an Environmental Assessment." During this process, factors such as the concerns of the public and the concerns of the immediate residents must be considered.⁹⁰ Stakeholders must also be engaged, including through one-on-one consultations, scoping and other public meetings, mass media notices and advertisements of Environmental Impact Statement (EIS), EIS publications, and public hearings.⁹¹

Law making in Ghana also involves provisions for public participation. For instance, the process for passing statutes involves laying the bill before Parliament and subjecting it to Parliamentary scrutiny, as well as consultation, publication, and public inquiry before final Parliamentary consideration.⁹² Also, on citizen engagement, Article 125 (2) of the 1992 Constitution formally guarantees popular participation in justice delivery. Civic participation in the law-making process is also instituted at the central⁹³ and local governments levels.⁹⁴

Transparency

The empowerment of communities, individuals, and CSOs to participate in decision-making is vital for safeguarding the environment. Transparency involves policies that ensure access to justice and information as well as opportunities for public participation, as discussed above. These policies are considered essential for the improvement of environmental quality, a reduction in pollution, and law enforcement.⁹⁵

The following are considered the most important classes of environmental information: "(a) environmental impact assessment (EIA) reports; (b) air and water quality data; (c) permits, approvals and licenses for development projects and industrial facilities; (d) facility and project monitoring and

⁸⁶ Rylands v. Fletcher held that an occupier of a land who makes a non-natural use of his land and introduces something dangerous onto the land is strictly liable for any damage if the thing escapes. Rylands v Fletcher (1868) LR 3 HL 330.

⁸⁷ Ibid, 76-77.

⁸⁸https://www.opengovpartnership.org/policy-area/environment-climate.

⁸⁹ Environment and Climate. Open Government Partnership. London, UK: Wildy, Simmonds & Hill Publishing. p. 97. https://rb.gy/sjjlny.

⁹⁰ Ibid, 97.

⁹¹ Ibid, 98.

 $^{^{\}rm 92}$ Article 11 (7) of the 1992 Constitution.

⁹³ Parliament of Ghana. 2019. "Procedure for Petitioning Parliament." https://rb.gy/rmcgw7.

⁹⁴ Ministry of Local Government and Rural Development. 2016. "National Popular Participation Framework: Practitioners' Manual." http://imccod.gov.gh.

⁹⁵ The Access Initiative. 2011. "Environmental Transparency Participation and Justice." Transparency and Accountability Initiative. https://rb.gy/axrtqo.

compliance inspection reports; and (e) regular state of the environment reporting." The expectation is for governments to commit to these in the quest for environmental transparency.⁹⁶

In Ghana, the Environmental Assessment Regulations, 1999 (L.I. 1652) adequately cover some of these classes. The Right to Information Act, 2019 (Act 989) provides for informal hearings and trial-type evidentiary hearing in some civil cases, as it generally prescribes processes for adjudication and rulemaking. The mechanism for implementing this Act 989 has only recently been operationalized. But the exclusion of State secrets and information from disclosure under this law does not help effective legal transparency. Legal transparency is equally hampered by the fact that the decisions of lower courts and administrative agencies are unreported even though there are some attempts at reporting by CHRAJ⁹⁷ and the Public Procurement Authority.⁹⁸ Legal transparency has been further hindered by the discontinuation of publishing statute laws under the 24 "Titles," an administrative system that organized statutes by subject matter. Also, the inability of the AG to publish the Index to the Substantive Statutes of Ghana has made it difficult to track repealed or amended laws. To enhance the public's access to legal information and empower citizens to protect the environment, public institutions responsible for publication of legal information should be supported to facilitate regular publishing.

Enforcement and compliance

Several agency legislative measures take the form of policies. However, these policy interventions do little to address enforcement gaps⁹⁹ since there are other avenues to seek redress or what the World Justice Project (WJP) *Rule of Law Index 2021* described as 'informal justice'.¹⁰⁰ According to the WJP, informal justice are complex systems that are significant in jurisdictions where the "formal legal institutions are weak, remote or perceived as ineffective." They are considered "timely and effective", "impartial and free of improper influence," and "respects and protects fundamental human rights."¹⁰¹

In Ghana, the conduct of an environmental impact assessment (EIA) under the Environmental Assessment Regulation 1999 (L.I. 1652) is a major requirement that needs to be complied with in the carrying out of any activity that is likely to impact the environment in any manner.¹⁰²

The EPA is also mandated to serve an enforcement notice on persons carrying out activities that poses a threat or a risk to the environment or to public health.¹⁰³ The consequences for noncompliance with such notices are dire and could lead to either a fine or a term of imprisonment. In extreme cases, officers of the EPA as well as police officers may be authorized by the sector minister to use force to ensure compliance with the enforcement notice.¹⁰⁴

Seeking justice against persons who breach environmental laws as a means of implementing environmental rule of law is no longer considered adequate.¹⁰⁵ The ultimate goal in the implementation of Environmental Rule of Law is behavioral change. Behavioral change must lead to sustainability which is best achieved by "creating an expectation of compliance with environmental law coordinated between government, industry, and civil society."¹⁰⁶

⁹⁸ Public Procurement Authority. "Administrative Review & Reported Cases." Accessed February 6, 2022. https://ppa.gov.gh/procurementcentre/administrative-review-reported-cases/.

⁹⁶ Ibid.

⁹⁷ CHRAJ. 2001. "Decisions of the Commission on Human Rights and Administrative Justice (Ghana)" Ghana Publishing Corporation.

⁹⁹ Stone, D. 2012. Policy Paradox: The Art of Political Decision Making. 3rd ed. WW Norton & Company Inc. p. 14–15, 271–377.

¹⁰⁰ WJP (World Justice Project). 2021. Rule of Law Index 2021 (n 38). p. 16, 181. https://rb.gy/tj1vqk.

¹⁰¹ lbid, 16, 181.

 $^{^{\}rm 102}$ EPA. 2010. "Environmental Impact Assessment Guidelines for the Health Sector." p. 1.

¹⁰³ Sarpong, G. A. 2018. *Ghanaian Environmental Law: International and National Perspectives*. London, UK: Wildy, Simmonds & Hill Publishing. p. 100. ¹⁰⁴ Ibid, 100.

¹⁰⁵ UNEP. 2019. *Environmental Rule of Law*. First Global Report, United Nations Environmental Programme, Nairobi. p. 13. https://rb.gy/Oqncjo. ¹⁰⁶ Ibid.

2.6. Conclusion and recommendations

Ghana is a constitutional democracy. The 1992 Constitution contains some provisions that have a bearing on the Government's implementation of its climate commitments, especially in Chapter 6 of the 1992 Constitution. There is no express right to a clean and healthy environment in the Constitution, but the citizens and the State are mandated to take steps to protect the environment including through international cooperation. Climate commitments are now being integrated into the constitutionally mandated medium-term development plans, known as the CPESDP. While there are doubts about the justiciability of the provisions of Chapter 6 of the 1992 Constitution, which includes the CPESDP and the obligations of the State and citizenry to protect the environment, judgments in recent court cases suggest that the courts will enforce certain environmental rights and policies that are found in Chapter 6 of the Constitution.

Ghana's administrative law structure is similar to English practices. Agency rulemaking is subsumed under ministerial responsibility. Consequently, there is no APA in Ghana nor is there much deference to agency rulemaking and adjudication in the governance and legal system. Formal agency rulemaking is in the form of subsidiary legislation by ministers passed into law by Parliament. The elements of environmental rule of law are present in Ghana, even though the level of adherence to them is low and challenges remain with their enforcement.

It is recommended that public institutions previously involved in or charged with law reporting or publication of all categories of public legal information should be resourced to clear the backlog and publish regularly to enhance access to legal information and empower citizens to enforce their legal rights and fulfil their constitutional duty to protect and safeguard the environment.

Consequently, more effective and sustained efforts are required to achieve Ghana's climate goals. Because its climate regime is largely policy based and lacks enforceability, Ghana should take steps to pass climate-specific laws to achieve its climate goals and support the transition toward a low carbon development pathway.

3. Overview of country context - National-level climate change policy framework

3.1. National climate change policies and initiatives

Ghana is a lower-middle-income developing country that is also highly indebted. It has many overriding developmental priorities that it needs to address as it seeks to progress to middle-income status and meet the aspirations of a young and vibrant population. These include

- Job creation: high levels of under and unemployment;
- Debt servicing, including crippling energy sector debt;
- Macro-fiscal stability;
- More inclusive private sector development;
- Natural resources management; and
- Revenue mobilization.

Growing government prioritization of climate action reflects increasing concerns among decisionmakers about the observed effects and projected impacts from an increasing global average temperature on the Ghanaian economy and the development gains it has made.

Evolution of Government's approach to tackling climate change

Since Ghana ratified the UNFCCC in 1995, its climate response has evolved through a number of phases. It started with fulfilling its reporting and communication obligations to the Conference of Parties to the UNFCCC (COP) and then evolved to initiating sectoral programs and activities that addressed pressing sectoral challenges in the energy; health; and agriculture, forestry, and other land use (AFOLU) sectors, which produced mitigation co-benefits. These sectoral programs and projects covered the promotion of energy efficiency for household appliances, lighting, commercial buildings, the reduction of emissions from transportation, support for carbon enhancement activities in forestry, the promotion of energy generated from renewable sources, and the marketing and distribution of improved cookstoves.

Prevailing approach to climate change

The prevailing approach in Ghana to addressing climate change is through the development of national-level climate policies, the continued development of sectoral measures that address sectoral challenges and generate mitigation and adaptation co-benefits, and the integration of climate considerations into constitutionally mandated medium-term developmental plans that address national developmental priorities, climate proof development gains, exploit the opportunities from climate change, and support the transition toward a low carbon development pathway.

Following the National Climate Change Committee's publication of the Ghana Goes for Green Growth: National Engagement on Climate Change discussion document in 2010, the Government initiated and completed in that same year a multistakeholder consultation process to develop the National Climate Change Policy Framework (NCCPF) that sought to guide a comprehensive and coordinated multisectoral response to climate change. The development of the main policies in the existing policy framework followed this process.

The main national-level policies in the existing policy framework supporting climate action include the following:

National Environment Policy (2010)

The National Environmental Policy (NEP) is a policy framework for addressing environmental challenges in the country. Climate change has been stated in the NEP as an environmental challenge

which has assumed importance since the publication of the first environmental policy in 1995. The policy highlights the characteristics of climate change and sets out the Government interventions to tackle the challenge. The NEP served as a major reference material in the development of the National Climate Change Policy (NCCP) document.

National Climate Change Policy (2013)

This policy is a product of the NCCPF which was adopted in 2010. The vision of the NCCP is a climateresilient and compatible economy that sets Ghana on an equitable low carbon economy growth path while achieving sustainable development. The NCCP sets the tone for achieving an integrated and multifaceted approach to addressing climate change. The NCCP consists of three key phases: (a) an analysis of the status quo, (b) the development of a master plan with specific actions, and (c) the development of operational plans by sector ministries and MMDAs for mainstreaming.¹⁰⁷

The NCCP's multifaceted approach stipulates 10 policy areas of intervention.

- Develop climate-resilient agriculture and food security systems.
- Build climate-resilient infrastructure.
- Increase resilience of vulnerable communities to climate- related risks.
- Increase carbon sinks.
- Improve management and resilience of terrestrial, aquatic, and marine ecosystems.
- Address impacts of climate change on human health.
- Minimize impacts of climate change on access to water and sanitation.
- Address gender issues in climate change.
- Address climate change and migration.
- Minimize greenhouse gas (GHG) emissions.

The policy envisages that this would require the development of institutional frameworks, investment vehicles, and fund structures to facilitate access to climate finance and the exploration of fiscal tools to support this approach.

Low Carbon Development Strategy (2016)

The Low Carbon Development Strategy (LCDS) is essentially a program of action (PoA) that was developed to support the implementation of the NCCP. Its overarching objective is for the country's long-term economic transformation to be achieved along a low carbon pathway in the most economically efficient and cost-effective way.

National Climate Change Master Plan (2015–2020)

The National Climate Change Master Plan (NCCMP) translates the NCCP into implementable actions and programs that can be undertaken in the different sectors of the economy. It provides specific information on the actions and associated costs for each of the 10 policy areas of the NCCP.¹⁰⁸

Coordinated Programme of Economic and Social Development Policies (2017–2024)

The current Government's approach to tackling climate change is reflected in its CPESDP (2017–2024): An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All and its NMTDPF, the 2017–2021 and the 2022–2025 versions that are guiding the implementation of the CPESDP 2017–2024.

The current CPESDP (2017–2024) provides that in the eight-year period (2017–2024), the overriding national priorities will include economic transformation through industrialization and agricultural

¹⁰⁷ Ibid.

¹⁰⁸ OECDilibrary. 2020. "Approaches in Ghana to Increased Coherence in Climate Change Adaptation and Disaster Risk Reduction." https://rb.gy/kbwcoe.

transformation, digitization, job creation, curbing of illegal mining, urbanization, and infrastructure deficit. One of its four goals is safeguarding the natural environment and ensuring a resilient built environment. It also recognizes climate change as a national priority because of the threats it poses to the developmental gains that have been made and the impediments it is creating to Ghana's ability to meet the Sustainable Development Goals (SDGs). The CPESDP 2017–2024 affirmed the NCCP's (2013) strategic direction for achieving a climate-resilient and compatible economy that sets the country on a low carbon development pathway. The practical steps the Government commits to in pursuit of this goal are to implement the climate measures put forward as contributions in the 2016 NDC.

National Medium-Term Development and Policy Framework 2018–2021 and 2022– 2024

The current NMTDPF - An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All (2022–2025) is the policy framework that is guiding the implementation of the Government's vision, medium-term goals and targets for national development, and the strategies and specific initiatives to achieve them as set out in the CPESDP 2017–2024. The NMTDPF essentially takes the Government's vision or policy agenda as set out in the CPESDP and converts it into broad national policy objectives and strategies with clearly identified implementation responsibilities for MDAs and MMDAs.¹⁰⁹

National Action Plan to Mitigate Short-lived Climate Pollutants (2018)

Ghana's National Action Plan to Mitigate Short-lived Climate Pollutants to combat the emissions of short-lived climate pollutants (SLCPs) was developed after ratifying the Paris Agreement in 2015. The action plan outlines a set of comprehensive measures that build on existing national efforts to better local air quality and reduce GHG emissions. The National Action Plan to Mitigate Short-lived Climate Pollutants exercise led to the identification and prioritization of 16 SLCP mitigation measures across seven sectors. The implementation of the 16 measures are expected to reduce methane (CH₄), black carbon (BC), and carbon dioxide (CO₂) emissions and lead to substantial rapid health, agriculture, and climate benefits.

To reduce its contribution to climate change, Ghana does not need to choose to focus only on SLCPs or long-lived GHGs but that the same group of measures can have substantial benefits to both. Thus, in general, the national SLCP plan and Ghana's climate plans show an integrated strategy to tackle the country's contribution to climate change in the near and long term.¹¹⁰

3.2. Relevant international climate change commitments

United Nations Framework Convention on Climate Change

Ghana ratified the UNFCCC (Convention) in 1995, a year after the Convention entered into force. As a party not included in Annex 1 of the Convention, its mandatory obligations were limited to preparing and communicating to the UNFCCC the national GHG inventory and information about the status of its efforts to implement the Convention, as mandated under Articles 4 and 12 of the Convention. Since the turn of this century, it has been relatively punctual with its reporting and communication obligations when adequate financial support to prepare the National Communication (NatComm) has been received on time.

Ghana submitted its fourth NatComm in 2020, updating the third edition submitted in 2015 with new and additional information on significant policy changes and initiatives introduced since the previous

¹⁰⁹ NDPC (National Development Planning Commission). 2020. "Guidelines for Public Policy Formulation in Ghana." https://rb.gy/xnbx2y.

¹¹⁰ MESTI (Ministry of Environment, Science, Technology and Innovation). 2018. "National Action Plan to Mitigate Short-Lived Climate Pollutants (Ghana)." https://rb.gy/cp1pfj.

NatComm was submitted. Since 2015, it has also submitted three Biennial Update Reports (BURs) as mandated by paragraph 41 (a) Decision 2/CP17, again after receiving both technical and financial support to prepare the reports. Much of the support it receives to fulfil its reporting obligations under the Convention have come from the operating entities of the Financial Mechanism that serve the Convention, particularly the Global Environmental Facility (GEF); contributions from other initiatives, international organizations, and donor agencies; and in-kind support from the Ghanaian Government.

Preparation of Nationally Appropriate Mitigation Actions

As a non-Annex I country, Ghana's first efforts at drawing up mitigation activities that it would formally put forward for international consideration took the form of nationally appropriate mitigation actions (NAMAs) under the Bali Action Plan (2007).¹¹¹ Ghana officially submitted them in 2010 after associating with the 2009 Copenhagen Accord. The submission contained the 55 mitigation activities it planned to implement, some with its own resources and the rest in the context of international support. Quite a number of the proposed NAMAs—including the implementation of REDD+¹¹² and the sustainable management of forest, support for the growth of renewable energy, the promotion of energy efficiency in industry, liquified petroleum gas (LPG) as an alternative to wood fuel use, and the development of hydro dams—continue to form part of Ghana's contributions to the goals of the Paris Agreement.

Paris Agreement

Under the Paris Agreement, which Ghana ratified in September 2016, and its recently completed Rulebook, all parties are required to prepare and communicate an NDC that represents a progression from the previous NDC every five years (Articles 4.2, 4.3, 4.9 of the Paris Agreement and paragraph 23 and 24 of Decision 1/CP.21). Ghana duly submitted its first NDC in 2015 and the Updated NDC in 2021.¹¹³

NDC (2016)

Ghana's first NDC (NDC 2016) was submitted as an intended nationally determined contribution (INDC) in 2015, later becoming its NDC in 2016 when it joined the Paris Agreement (§ 22 of Decision 1/CP.21). In the NDC 2016, Ghana put forward a total of 31 actions, 20 in mitigation and 11 in adaptation, to be implemented across seven priority economic sectors over 2020–2030. Ghana pledged to implement two of the mitigation actions with its own resources and mobilize 34 percent of the costs of the adaptation actions at the national level. The remaining actions it committed to undertake on the basis of the provision of support. In line with the position of the African Group of Parties to the UNFCCC and the Paris Agreement, addressing adaptation was considered the country's priority especially because Ghana accounted for 0.1 percent of global emissions in 2012. Implementing its conditional and unconditional mitigation actions was expected to reduce GHG emissions by 45 percent below business-as-usual (BAU) by 2030. In soliciting support, the Government has argued that investments in its NDC will also help decouple economic growth from the increase in GHG emissions and steer the country toward a climate-resilient low carbon future.

Updated NDC (2021)

Ghana's NDC was updated and submitted in October 2021 to the UNFCCC. The enhanced ambition of this NDC was also a response to the increasing pressure parties were facing from the findings of the synthesis reports of submitted NDCs and the Intergovernmental Panel on Climate Change (IPCC) Special Report on 1.5°C (2018), to align with science and the long-term goals of the Paris Agreement.

 $^{^{\}mbox{\scriptsize 111}}$ Decision 1/CP.13 (UNFCCC).

 $^{^{\}tt 112}\, \rm Reducing \, Emissions$ from Deforestation and Forest Degradation

¹¹³ The one-year delay in submitting the Updated NDC 2021 was caused by challenges emanating from the COVID-19 pandemic and the State's inability to prepare the NDC and pass it through the wide stakeholder consultations that are normally an important element of the preparation.

The aim of the Updated NDC 2021 is to meet Ghana's commitments under the Paris Agreement and generally serve as a blueprint for transitioning the economy into a climate-resilient low carbon economy. The contributions are expected to support Ghana's development efforts and enhance the well-being of the citizens without degrading the environment and its resources.

The Updated NDC 2021 contains 47 PoAs or measures in adaptation and mitigation, grouped under 19 policy actions in 10 priority areas. Ghana intends to implement the PoAs across the 2020–2030 time frame at an estimated cost of US\$9.3–15.5 billion. Of the 47 PoAs, 13 are adaptation measures. The remaining 34 are mitigation actions expected to yield emission reductions of 64 MtCO₂e (from both the conditional and unconditional actions). Sixteen of these PoAs will be financed with Ghana's own resources; it is not yet clear which PoAs those will be. Consistent with its national development strategy, the 19 policy actions are also expected to maximize synergies between adaptation and some of the national development priorities including economic diversification (industrialization), emergency preparedness, climate change, and job creation.

Kigali Amendment to the Montreal Protocol

Ghana became the 79th country to ratify the Kigali Amendment in August 2019, which paved the way to implement a national program to gradually phase out hydrofluorocarbons (HFCs) by introducing an alternative technology with the support of the private sector. The Kigali Amendment seeks to phase-down 19 identified hydrochlorofluorocarbon (HCFC) refrigerants found in refrigerators, air-conditioning, cold storage systems, and mortuaries. The new HFC alternative technologies can deliver the triple wins of (a) doing no harm to the ozone layer, (b) being climate friendly, and (c) improving energy efficiency. The EPA hosts the National Ozone Unit and leads in implementing the HFC Phase-out Management Plan (HPMP). The implementation of the HPMP is projected to save 0.64 kilotons of GHG emissions every year or potentially reduce emissions of 900 kilotons per year. The Government intends to achieve these HFC reductions in the Refrigeration and Air Conditioning (RAC) Sector by scaling up the market share of climate-friendly and energy-efficient conditioners to 70 percent by 2030.¹¹⁴ The legal framework governing Ghana's activities to achieve the goals of the Montreal Protocol is the Environmental Protection Act, 1994 (Act 490) and the Management of Ozone Depleting Substances and Products Regulations, 2005 (L.I. 1812).

United Nations Convention on Biological Diversity

The United Nations Convention on Biological Diversity (CBD) establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. It is now widely recognized that climate change and biodiversity are interconnected. Biodiversity is affected by climate change, with negative consequences for human well-being. But biodiversity, through the ecosystem services it supports, also makes an important contribution to both climate-change mitigation and adaptation. Consequently, conserving and sustainably managing biodiversity is critical to addressing climate change (CBD, 2002). Biodiversity in Ghana's fauna and flora is threatened by human activities, namely population growth, resource consumption, climate change, habitat conversion, urbanization, invasive alien species, overexploitation of natural resources, and environmental degradation.¹¹⁵ Ghana considers the maintenance of biodiversity as essential for the sustainable production of food and other agricultural products. With a majority of Ghanaians depending on agriculture for their livelihoods, it is an important issue. Ghana also considers biodiversity the basis of traditional medicine which the majority of Ghanaians rely on. Unsustainable harvesting of timber and clearing of land for farming, uncontrolled harvesting of wildlife or bushmeat, and overfishing have been designated as the main threats to biodiversity in Ghana. Ongoing initiatives to preserve Ghana's forests in the AFOLU sector

¹¹⁴ Republic of Ghana. 2020. Ghana's Fourth National Greenhouse Gas Inventory Report. p. 147.

 $https://unfccc.int/sites/default/files/resource/gh_nir4-1.pdf.$

¹¹⁵ MoFA (Ministry of Food and Agriculture). 2018. "Investing for Food and Jobs: An Agenda for Transforming Ghana's Agriculture (2018-2021)." National Agriculture Investment Plan. https://rb.gy/mfwwxz.

including the Updated NDC 2021's forest sector PoAs, more fully described and analyzed in Chapter 4.2, are expected to help achieve the goals of the CBD.¹¹⁶

3.3. Conclusions and recommendations

Ghana's efforts to curb its GHG emissions and build resilience to climate impacts are being undertaken within the context of addressing pressing developmental priorities and meeting the aspirations of a young and vibrant population. Its climate response has evolved from ratifying multilateral environmental treaties and fulfilling their reporting obligations to implementing sectorspecific programs and activities that address sectoral challenges and produce mitigation co-benefits. The prevailing approach to addressing climate change is through the development of national-level climate policies that has led to a predominantly policy-based framework to mainstream Ghana's international commitments into the national development framework. As a party to the major multilateral treaties fostering climate action including the UNFCCC, the Paris Agreement, the Kigali Amendment to the Montreal Protocol, and the CBD, it has and continues to meet its commitment under these treaties but largely on the basis of external support provided.

In the short term, the Government should undertake legal reforms to amend or supplement existing relevant legal provisions in the framework with climate-specific interventions. While this will support ongoing policy objectives and better insulate these frameworks from changes in political priorities, a dedicated framework law on climate change with specific subsidiary regulations is crucial in the long term to ensure a robust response to climate change. Enacting national climate change legislation will not only support implementation of the existing policies through ensuring better enforcement and compliance but will also fill gaps that are not currently addressed by the sector-specific laws discussed in the following sections.

¹¹⁶ MESTI (Ministry of Food, Science, Technology and Innovation). 2015. Convention on Biodiversity Fifth National Report - Ghana. https://rb.gy/zgudxf.

4. Analysis of existing legal, regulatory frameworks

4.1. Energy sector

General background and recent developments

Emissions from the energy sector account for approximately 35 percent of total emissions in Ghana.¹¹⁷ Therefore, any legislative and policy interventions designed to reduce emissions in the sector will have a significant impact on the overall reduction of emissions in Ghana.¹¹⁸

Since 2020, the energy mix has remained relatively stable with hydro contributing 29.9 percent of total installed capacity and conventional thermal plants contributing 69.0 percent of the total installed capacity.¹¹⁹



Source: Energy Commission, 2021 Energy Outlook.

Thermal has surpassed hydro as the most dominant source of electricity generation in Ghana since 2015,¹²⁰ accounting for 61 percent.¹²¹ Renewable energy remains the lowest contributor with a total contribution of just 1.1 percent.¹²² It is therefore not surprising that the Renewable Energy (Amendment) Act, 2020 (Act 1045), which amended the Renewable Energy Act, 2011 (Act 832), was passed in 2020 to bring a more targeted focus toward the potential for the development of renewable energy.

¹¹⁷ Cronin J., S. Bawakyilenuo, A. Obrumah Crentsil, S. Pye, and J. Watson. 2021. Greening the COVID-19 Recovery in Ghana: Electricity Investment Needs to Meet the GH-NDC Targets. https://rb.gy/jzzwq1.

 $^{^{\}tt 118}$ This section will not consider transport since it is being analyzed in another chapter.

¹¹⁹ 2021 Energy Outlook. Energy Commission. https://rb.gy/mslolq.

¹²⁰ Ibid.

¹²¹ Ghana Country Commercial Guide. US International Trade Administration website. https://rb.gy/0shsu6.

^{122 2021} Energy Outlook. Energy Commission. https://rb.gy/mslolq.

It is envisaged that by 2030 the national energy mix would have a comparatively less carbon-intensive outlook.¹²³ As per the projections in the National Energy Policy (2010), as affirmed in other policies, plans, and programs, the national strategy is to develop alternative and domestic energy sources that are dominated by natural gas, biomass, and nuclear and complemented by renewables and hydro.¹²⁴

The sector is plagued with a myriad of complex challenges including the following: (a) high transmission and distribution losses, (b) inadequate investment to improve existing infrastructure for transmission and distribution, (c) an overreliance on hydro and gas, (d) an inability of utilities to cover their costs and be financially sound, (e) tariffs that are not cost-reflective, (f) high cost of fuel for electricity generation, (g) inadequate regulatory capacity, (h) enforcement, (i) operational and management difficulties, and (j) vulnerability to climate change.¹²⁵ The Government has grappled with these challenges over the years and sought to put measures in place to address them.

Since the mid-1990s, legal and policy interventions in the sector have tended to be clustered and driven by significant crises in the sector. Laws are passed and policies approved in direct response, often, to a crisis in the sector. The development of the National Energy Policy, 2010 was largely driven by the discovery of oil in commercial quantities and the need to provide a framework for the development and utilization of oil and gas resources locally. The power crises of 2019 coupled with the onset of COVID-19 also resulted in major reforms in the sector, which have led to the promulgation of several legal interventions and policy responses.

Since the early 2000s, there have been significant reforms in the energy sector that seek to reduce GHG emissions from electricity generation, transmission, and distribution; scale up the production of energy from renewable energy sources; and mandate energy efficiency in the use of electrical appliances.

The regulatory framework for the energy sector is divided into the power sector and the petroleum sector. The Public Utilities Regulatory Commission (PURC) is the independent regulator of the power sector. Under the respective sectors, the following agencies fall within the direct oversight and responsibility of the Ministry of Energy:

Power sector

- Ghana Grid Company Limited (GRIDCo)
- Bui Power Authority (BPA)
- Energy Commission
- Volta River Authority (VRA)
- Electricity Company of Ghana (ECG)
- Northern Electricity Distribution Company (NEDCO)

Petroleum sector

- Bulk Oil Storage and Transportation Company (BOST)
- Petroleum Commission
- Ghana Cylinder Manufacturing Company
- Ghana National Petroleum Corporation
- National Petroleum Authority (NPA)
- Tema Oil Refinery (TOR)
- Ghana National Gas Company

¹²³ Republic of Ghana. 2020. Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change. p. 80. https://bit.ly/3l7kqGC

¹²⁴ Ministry of Energy. 2010. "National Energy Policy." p. 5. https://rb.gy/vtvjme

¹²⁵ Cobbold Y. E., and A. I. Bathure. 2019. "An Assessment of Ghana's Energy Sector, Challenges and Remedies." https://rb.gy/zq63he

In the power sector, the Energy Commission is the technical regulator of the sector and regulates the activities of the VRA and independent power producers (IPPs) and energy which is imported. GRIDCo transmits power to ECG, NEDCO, and bulk customers and ensures that power is transmitted for export to Togo and Benin. NEDCO is primarily responsible for distributing electricity in the northern part of the country although its operations extend to the Volta, Ashanti, and Western regions.¹²⁶ ECG distributes electricity to the southern zone.¹²⁷ Both ECG and NEDCO distribute power for residential, commercial, and industrial use.

In the petroleum sector, the Petroleum Commission¹²⁸ regulates the upstream activities of international oil companies, the Ghana National Petroleum Corporation, and the Ghana National Gas Company.

The NPA¹²⁹ is the statutory regulator for the downstream petroleum industry. They are responsible for regulation of the TOR,¹³⁰ BOST,¹³¹ and the Ghana Oil Company.¹³²

Relevance to climate change

Emissions from the energy sector have recorded a 60 percent increase between 1990 and 2016.¹³³ The projected upward trend is likely to continue up to 75 MtCO₂e in 2030 under a BAU scenario, which is a threefold increase over the 1990 levels.¹³⁴ Recognizing this negative trajectory, the Government has embarked on interventions designed to decouple the increase in the production of energy from GHG emissions and shift energy production toward a low carbon pathway. These interventions include the promotion of energy efficiency, increased education on energy efficiency, increased solar usage, increased use of indigenous local gas from the Ghana National Gas Company, import of liquified natural gas (LNG), and the development of a long-term low carbon growth approach to sustainable development. Ghana's Updated NDC 2021 provides evidence of a clear policy goal toward energy efficiency and increasing reliance on energy produced from renewable sources. Accordingly, in the Updated NDC 2021, the nation has confirmed its commitment to scaling up renewable energy penetration by 10 percent by 2030.¹³⁵

Some of the PoAs in the energy sector also focus on the use of energy-efficient appliances. This is because according to the Energy Commission reports a significant proportion of the electricity demand is driven by the use of old, obsolete, and inefficient appliances. In 2019, it was estimated that the residential electricity demand accounted for 46 percent of total electricity consumption in the country. If these energy-efficiency PoAs are successfully implemented, it could be of significant benefit to Ghana's low carbon growth agenda.¹³⁶

The existing legal and regulatory framework relevant to mitigation efforts in Ghana's energy sector is composed of the following laws and regulations, which are also summarized in Annex II:

- The Energy Commission Act, 1997 (Act 541)
- The Public Utilities Regulatory Commission Act, 1997 (Act 538)¹³⁷

¹³⁵ Republic of Ghana. 2021. "Updated Nationally Determined Contribution under the Paris Agreement (2020–2030)." https://rb.gy/hn4wa0.
 ¹³⁶ Wiel, S., C. Egan, and M. Cava. 2006. "Energy Efficiency Standards and Labels Provide a Solid Foundation for Economic Growth, Climate Change Mitigation, and Regional Trade." https://rb.gy/ztgq0b.

¹²⁶ Our Services. NEDCO. http://www.nedcogh.com/services.php.

¹²⁷ Profile of ECG. ECG. http://www.ecggh.com/index.php/about/profile.

¹²⁸ Frequently Asked Questions. Petroleum Commission (Ghana). https://www.petrocom.gov.gh/faq/.

¹²⁹ Homepage. NPA. http://www.npa.gov.gh.

¹³⁰ TOR. http://www.tor.com.gh.

¹³¹ BOSThttps://www.bost.com.gh.

¹³² Ghana Oil Company Ltd. https://goil.com.gh.

¹³³ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3l7kqGC.

¹³⁴ Ibid.

 $^{^{\}mbox{\scriptsize 137}}$ As amended by the PURC (Amendment) Act, 2010 (Act 800).

- The Bui Power Authority Act, 2007 (Act 740)
- The Renewable Energy Act, 2011 (Act 832) as amended by the Renewable Energy (Amendment) Act, 2020 (Act 1045)
- The Petroleum Commission Act, 2011 (Act 821)
- The Petroleum (Exploration and Production) Act, 2016 (Act 919)
- The Petroleum Hub Development Corporation Act, 2020 (Act 1053)
- The National Petroleum Authority Act, 2005 (Act 691)
- The Energy Sector Levies (Amendment) Act, 2021 (Act 1064), amends the Energy Sector Levies Act, 2015 (Act 899)
- The Energy Efficiency Standards and Labelling (Non-Ducted Air Conditioners and Self-Ballasted Fluorescent Lamps) Regulations, 2005 (L.I. 1815)
- The Energy Efficiency Regulations, 2008 (L.I. 1932)
- The Energy Efficiency Standards and Labelling (Household Refrigerating Appliances) Regulations, 2009 (L.I. 1958)
- The Energy Commission (Efficient Standards and Labelling) (Light Emitting Diode and Self-Ballasted Fluorescent Lamps) Regulations, 2017 (L.I. 2353)
- These acts, their amendments, and the legislative instruments play a critical role toward supporting Ghana's low carbon growth agenda.

Current strategy and climate commitments

The energy sector is significant in the implementation of the PoAs identified in the Updated NDC 2021. Out of the 19 policy actions and 47 PoAs contributions communicated by the Ghanaian Government in the Updated NDC of 2021, 9 policy actions and 5 unconditional and 17 conditional PoAs will be implemented in the energy sector. Table 1 sets out the policy actions and PoAs that will be implemented in the energy sector and the State institutions that will be responsible for implementing or playing a role in the implementation of the respective PoAs.

	Policy action	РоА	Target 2025	Target 2030	Status	Lead institution
1.	Decarbonization of oil and gas production	Minimize flaring in three oil and gas fields (minimize industry-wide flaring by 20% compared to 2019 levels in the oil and gas fields by 2030)	1.64% reduction of 2019 levels of oil and figures of 16.4 MMSCF/day	3.3% reduction of 2019 levels of oil and figures of 16.4 MMSCF/day	Conditional	EPA and Petroleum Commission
2.	Promotion of energy efficiency in homes, industry, and commerce	Promotion of energy-efficient refrigerators (residential)	853,229 efficient refrigerators (residential)	1,681,725 efficient refrigerators (residential)	Conditional	Energy Commission
		Promotion of energy-efficient air conditioners (public buildings and commercial)	12,500 efficient air conditioners in 2,500 public buildings	50,000 efficient air conditioners in 2,500 public buildings	Conditional	Energy Commission
		Promotion of energy-efficient light bulbs (residential)	2,907,394 light bulbs/lamps (homes)	4,340,581 light bulbs/lamps (homes)	Unconditional	Energy Commission
		Promotion of energy-efficient light bulbs (public buildings and commercial)	100,000 efficient light bulbs in 2,500 public buildings	400,000 efficient light bulbs in 2,500 public buildings	Conditional	Energy Commission
		Promotion of energy-efficient air	9,394 efficient air conditioners	17,673 efficient air conditioners	Conditional	Energy Commission

Table 1: PoAs/measures in energy sector

	Policy action	РоА	Target 2025	Target 2030	Status	Lead institution
		conditioners (residential)				
		Promotion of energy efficient and renewable energy powered public water facilities (Reduce energy intensity of water production and distribution by 38% from 0.94kWh/m ³)	0.81 kWh/m ³ of energy intensity of water production and distribution	0.68 kWh/m ³ of energy intensity of water production and distribution	Conditional	Ghana Water Company Limited (GWCL)
3.	Refrigeration and air conditioning (RAC)	Green cooling in air conditioners and domestic refrigerators	1.5 MtCO ₂ e	6.4 MtCO ₂ e	Conditional	National Ozone Unit, EPA
4.	Sustainable production in Industry	Promote energy efficiency in the steel industry	10% reduction of energy demand	20% reduction of energy demand	Conditional	EPA (Manufacturing Industry Department), and Ministry of Trade and Industry
5.	Low carbon electricity generation	Switch from fuel oil to gas in thermal plants (100% of installed operational thermal plant capacity run on gas as primary fuel)	78% of installed operational thermal plant capacity	100% of installed operational thermal plant capacity	Unconditional	VRA and IPPs
		Conversion of single cycle to combine cycle in thermal power plants	800 MW	1,020 MW	Unconditional	VRA and IPPs
		Ghana Nuclear Power Programme (GNPP) (Diversify the electricity generation mix by introducing clean nuclear technology into the national electricity generation mix by 2030)	Identify vendor country to commence construction of nuclear plant; Intensify capacity building in industry, human resources, and all identified sectors; commence ground preparation for construction of the nuclear plant to replace possible fossil fuel power plant	A minimum of 1,000 MW of electricity from nuclear energy connected to the grid to replace oil, gas, and coal source and transmission network improved to reduce transmission losses and reduce electricity wastage	Unconditional	Ministry of Energy
6.	Expand the adoption of market-based cleaner cooking solutions	Scale up the adoption of LPG use from 25% to 50% nationwide by 2030	35% of households	50% of households	Conditional	Ministry of Energy
		Scale up access and adoption of improved biomass stoves by 3 million households by 2030	2,000,000 households	3,000,000 households	Conditional	Ministry of Energy
7.	Promote sustainable charcoal production including youth and women entrepreneurs	Promotion of innovative and efficient kilns (70% all commercial charcoal production individuals using innovative and efficient wood carbonization kilns)	30% all commercial charcoal production individuals using innovative and efficient wood carbonization kilns	70% all commercial charcoal production individuals using innovative and efficient wood carbonization kilns	Conditional	Ministry of Energy

	Policy action	РоА	Target 2025	Target 2030	Status	Lead institution
		Support and promote the establishment of woodlots (establish 428,000 ha woodlots by 2030)	350,000 ha	428,000 ha	Conditional	Ministry of Energy, Energy Commission
8.	Promote clean rural household lighting	Increase solar lantern replacement in rural nonelectrified households to 2,000,000	932,500 solar lanterns	2,000,000 solar lanterns	Conditional	Ministry of Energy
9.	Achieve 10% of modern renewable energy in the generation mix by 2030	Install 300 MW distributed solar PV ^a	100 MW	300 MW	Conditional	Energy Commission
		Establish 300 solar mini-grids translating into 14.22 MW	50 mini-grids	300 mini-grids	Conditional	Ministry of Energy
		Attain utility-scale solar electricity installed capacity to 527.1 MW	240 MW	527.1 MW	Conditional	Energy Commission, PURC, NPA
		Increase installed hydro capacity from 1,580.045 MW to 1,730.45 MW	1,640.045 MW	1,730.045 MW	Unconditional	Ministry of Energy, PURC
		Increase utility- scale wind power capacity up to 375 MW	225 MW	375 MW	Conditional	Energy Commission

Note: PV = Photovoltaic.

Adequacy of integration of climate change considerations in laws and regulations

a. To what extent are the commitments and targets of the NDC reflected in the legal and regulatory framework in the sector?

Most of the targets of the energy sector PoAs are not reflected in the energy sector's legal and regulatory framework. But some of the activities are supported by statute while others are to some extent incorporated in the policy documents and plans that are said to be guiding the mitigation efforts in the country.¹³⁸ The policy documents and plans include the NEP 2010, the National Gas Master Plan (NGMP 2016), the Renewable Energy Master Plan (REMP 2019), the Sustainable Energy for All Country Action Plan (2012), the Mini-grid Electrification Policy (2015, revised in 2017), the Integrated Power System Master Plan, the National LPG Promotion Policy (2017), and the GNPP. To illustrate, on wind power, the target listed in the REMP of 325 MW by 2030 is marginally lower than the target identified in the PoA of 375 MW. Similarly, the target in the solar PV PoA, is also higher than what is in the REMP. The REMP makes reference to a target of 220 MW for standalone and distributed solar PV by 2030, whereas the PoA makes reference to 300 MW of solar PV. The biomass stoves PoA target is also duly reflected in the REMP, which has a goal of 300,000 stoves by 2030.

With regard to the PoAs supported by statute, the effective enforcement of the provisions of the Petroleum (Exploration and Production) Act, 2016 (Act 919) will be essential for supporting the PoAs for minimizing gas flaring from Ghana's three offshore oil fields, switching from fuel oil to gas in thermal plants by focusing on and encouraging the exploration and development of natural gas fields, and scaling up the adoption of LPG use from 25 percent to 50 percent nationwide by 2030 through

¹³⁸ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3l7kqGC.

the increase in the production of more natural gas. The act requires contractors to ensure that the design and construction of the facilities are done to avoid gas venting or flaring¹³⁹ and also prohibits the venting or flaring of petroleum, unless authorized by the Petroleum Commission after consultation with the EPA.¹⁴⁰ The gas is meant to be piped onshore and provide security of energy supply for the country. This is why NGMP 2016 was developed. It outlines a strategy for infrastructure development priorities that will contribute to the development of Ghana's natural gas resources and provides incentives to generate offtakes for the gas downstream. In that sense it is meant to work in tandem with Act 919.

There are also existing regulations that regulate the use of the electrical appliances covered by the PoAs of Policy Action No. 2¹⁴¹ and 3.¹⁴² These regulations are the Energy Efficiency Standards and Labelling (Non-Ducted Air Conditioners and Self-Ballasted Fluorescent Lamps) Regulations, 2005 (L.I. 1815); Energy Efficiency (Prohibition or Manufacture, Sale or Importation of Incandescent Filament Lamp, Used Refrigerator, Used Freezer and Used Air- Conditioner) Regulations, 2008 (L.I. 1932); Energy Commission (Efficient Standards and Labelling) (Light Emitting Diode and Self-Ballasted Fluorescent Lamps) Regulations, 2017 (L.I. 2353); and the Energy Efficiency Standards and Labelling (Household Refrigerating Appliances) Regulations, 2009 (L.I. 1958). At the time they were passed, they were instrumental in promoting appliances that were considered energy efficient. With newer innovations that are more energy efficient now in the market, these standards and regulations are increasingly outdated and in need of revision. The Ghanaian Government is currently undertaking a review of the existing regulations on energy efficiency with a view to amending them to cover the energy-efficiency PoAs in the Updated NDC 2021 and also because they are outdated and no longer address the key issues they sought to address. They are also in the process of developing new legislative instruments to promote greater energy efficiency.¹⁴³

In summary, while the targets of the energy sector PoAs are not directly reflected in the legal and regulatory framework, there are existing statutory provisions whose enforcement would be critical in helping achieve those targets, while for some of the other energy sector PoAs, passing or amending regulations to enforce a minimum standard for the appliance will be essential for successfully achieving the targets set out in those PoAs. But for others such as the wind and solar PV PoAs, where the critical factor for achieving the target is both public and private finance, it is debatable whether reflecting these in the legal and regulatory framework will make their attainment any more likely than otherwise, unless the purpose of reflecting them in law would be to provide incentives to attract private investment.

b. Are the activities and actors most relevant to the sector's emissions and resilience subject to the laws and regulations of that sector?

Generally, the activities and actors most relevant to the sector's emissions are subject to the laws and regulations of the sector. Of the 13,973.47 Gg of CO_2 emitted from the energy sector¹⁴⁴ during the inventory period of 1990–2016, approximately 99 percent of the emissions were from the following categories:

- Energy industries responsible for 5,098.01 Gg of CO₂ mostly from electricity generation
- Manufacturing industries and construction responsible for 1,065.70 Gg of CO₂

¹³⁹ Section 27 (6) of Act 919.

 $^{^{\}rm 140}$ Section 33 of Act 919.

¹⁴¹ Promotion of energy efficiency in homes, industry, and commerce.

¹⁴² Refrigeration and Air Conditioning (RAC).

¹⁴³ Interview with Dan Benefoh, Deputy Director - EPA Ghana, April 2022.

 $^{^{\}rm 144}$ CO_2 accounted for over 95 percent of the emissions from the energy sector.

 Transport¹⁴⁵ responsible for 6,918.61 Gg of CO₂ of which road transport accounts for 5,918.52 Gg of CO₂.

From the energy industry emissions subcategory, emissions from the electricity generation subcategory accounted for 4,785.57 Gg of the 5,098.01 Gg of CO₂.¹⁴⁶ In this subcategory, power supply is largely derived from hydroelectricity; thermal fuel from crude oil, natural gas, and diesel; solar; and some imports from Côte D'Ivoire.¹⁴⁷ The main actors involved in the electricity generation are the two State entities, the VRA and the BPA, and a handful of IPPs. The VRA and the BPA are also the lead institutions for implementing the Policy Action of Low Carbon Electricity Generation and its PoAs,¹⁴⁸ along with the Ministry of Energy which will advance the GNPP PoA.

Both the State entities and the IPPs are subject to the laws and regulations in the sector. As public utilities and wholesale suppliers, as defined under Sections 25 and 26 of the Energy Commission Act, 1997, the VRA, BPA, and IPPs are subject to the mandate and regulation of the Energy Commission. Section 25 of Act 541 authorizes the Energy Commission to grant public utilities a wholesale supply license to produce electricity to distribution companies and bulk customers. Section 57 defines a 'public utility' as "a person licensed under this Act to provide transmission and interconnection services for electricity or natural gas without discrimination throughout the country or a person licensed under this Act to distribute and sell electricity or natural gas without discrimination to consumers in an area or zone designated by the Commission," and 'wholesale supplier' as "a person licensed under this Act to install and operate facilities to procure or produce for sale to bulk customers or to a distribution company for distribution and sale to consumers." The rates they are permitted to charge for electricity produced from fossil fuels and renewable energy sources will also be set by the PURC as mandated by the Public Utilities Regulatory Commission Act, 1997 (Act 538) and the Renewable Energy Act, 2011 (Act 832). According to Section 26 (3) of Act 1045, since they also produce wholesale electricity supply from fossil fuels, they are required to invest in renewable energy projects to offset their GHG emissions.

They are also subject to the EPA's regulations under Regulation 25 (1) of the Environmental Assessment Regulations 1999 (L.I. 1652) for the submission of their annual environmental report, once they have secured the environmental permit and under Regulation 24, their Environmental Management Plans (EMPs) every three years.

With regard to the oil and gas sector, the development of a comprehensive regulatory framework commenced in the 1980s with a focus on attracting international oil companies with the technical capacity and financial resources to undertake petroleum exploration and development. After Ghana started producing oil in commercial quantities in 2010, the Government was compelled to make a number of legislative and regulatory changes that were designed to properly regulate and manage the utilization of petroleum resources. Since then, the legal regime for petroleum has evolved and resulted in the two clearly regulated subsectors: upstream and downstream. The subsectors cover activities which range from the exploration and production of petroleum through to the refining, storage, transportation, and marketing of petroleum products.

There are a number of key State actors in the oil and gas sector which include the regulated entities, State-owned corporations participating in commercial activities in the sector, and private oil and gas companies. There is the NPA which was established by an Act of Parliament (National Petroleum Authority Act 2005, [Act 691]) to regulate the downstream petroleum downstream industry. In so doing, the NPA, among others, monitors the ceilings on the price of petroleum products in compliance

¹⁴⁵ Transport is covered as a separate section in this analysis. It will not be considered here.

¹⁴⁶ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3l7kqGC

¹⁴⁷ Ministry of Energy (Ghana). n.d. "Sector Overview." https://www.energymin.gov.gh/sector-overview

¹⁴⁸ PoA #1: Switch from fuel oil to gas in thermal plants (100 percent of installed operational thermal plant capacity run on gas as primary fuel); PoA #2: The conversion of single cycle to combine cycle in thermal power plants; and PoA #3: Ghana Nuclear Power Programme (GNPP) (Diversify the electricity generation mix by introducing clean nuclear technology into the national electricity generation mix by 2030)

with the prescribed petroleum pricing formula; grants licenses to applicants; maintains a register and keeps records and data on licenses, petroleum products, and petroleum marketing service providers; provides guidelines for petroleum marketing operations; protects the interests of consumers and petroleum service providers; and monitors standards of performance and quality of the provision of petroleum services.

The Energy Commission also has the mandate to, among others, license private and public entities which operate in the electricity sector. In this regard, the Energy Commission, in consultation with the PURC, enforces performance standards in the electricity value chain and the downstream oil industry.

The State-owned Ghana National Petroleum Corporation, is the national oil company which represents the Government in oil transactions, while Ghana Gas Company plays the corresponding role for the Government's interest in gas exploration, sale, and transport. Other key actors in the sector include the private companies. International oil companies such as Mobil, Shell, Texaco, AgriPetco, Philips Petroleum, Amoco, Agip, Kosmos Energy, Tullow, Anadarko, Sabre Oil & Gas Holdings, Hess Corporation, Vitol Upstream, and Eni have all participated in the petroleum subsector and as private upstream operators are all subject to the laws and regulations affecting the oil and gas sector.

c. Are the terms of regulated entities' legal obligations specific, unambiguous, and compulsory?

The legal obligations of regulated entities under the existing laws and regulations relevant to the energy sector are compulsory, specific, and unambiguously laid out in the parent acts and the legislative instruments of the regulator entities, including the Energy Commission, the PURC, and the EPA.

Under sections 12 and 28 (2)(b) of the EPA Act, 1994 (Act 490) and Regulation 1 and Schedule 3 paragraph 13 of the Environmental Assessment Regulations 1999 (L.I. 1652), it is mandatory for any undertaking in power generation and transmission, including the construction of steam generated power stations, dams, and hydroelectric power schemes, combined cycle facilities in national parks, and nuclear-fueled power stations and the erection of power transmission lines, to acquire an environmental permit and to conduct an EIA as part of the application process for acquiring the permit. The process for acquiring the permits, the documentation requirements, the contents to be covered in those documents, and the legal obligation to produce annual environmental reports and EMPs every three years are also specified in L.I. 1652. Act 490 and L.I. 1652 also make clear the authority the EPA has to require any person or applicant to submit any information they consider necessary for performing their functions under the act or in assessing an application for an environmental permit.

The Renewable Energy Act, 2011 (Act 832) and the Energy Commission Act, 1997 (Act 541) also provide succinct but clearly set out information on the licensing regime that an entity must comply with to obtain a license to operate in the energy sector. Act 832 provides clear information about persons that must obtain a license to participate in a commercial activity in the renewable energy industry, the activities that constitute "a commercial activity in the renewable energy industry,"¹⁴⁹ the qualification for the license, the application process including grounds for rejecting the application, conditions of and special requirements relating to the license and the duration and renewal of the license, the powers of the board of the regulator entity, and the role of the PURC. Similarly Act 541 provides details for persons intending to "engage in any business or any commercial activity for (a) the transmission, wholesale supply, distribution or sale of electricity or natural gas; or (b) the refining, storage, bulk transportation, marketing or sale of petroleum products unless he is authorised to do so by a licence granted under this Act."¹⁵⁰

¹⁴⁹ Section 8 of Act 832.

¹⁵⁰ Section 11 of Act 541.

d. Does the legal framework include the necessary institutional structures and coordination arrangements for implementing those commitments?

Yes. The existing institutional arrangement overseeing activities in the energy sector can support coordination for implementation. To some extent, the legal framework also contains some provisions to facilitate coordination for implementing the commitments in the Updated NDC 2021. The Ministry of Energy is the primary government institution responsible for energy policy formulation, monitoring, and evaluation. The ministry's mandate is to oversee the activities of energy sector agencies and supervise State-owned utilities such as the VRA, ECG, GRIDCO, and BPA. It also has a coordination function. In carrying out its functions, the ministry liaises with the various entities in the energy value chain. These include the lead institutions that would be involved in the implementation of Updated NDC 2021 commitments in the energy sector: the regulator entities in the energy sector (Petroleum Commission, Energy Commission, and the BPA currently operating as the Renewable Energy Authority under Act 1045) and the State-owned entities involved in the generation, transmission, and distribution of electricity.

Figure 5: Energy sector institutional arrangement



The current institutional structure is to a large degree the result of past reforms to restructure the energy sector. Between 1961 and 1995, there have been eight World Bank-funded initiatives to restructure the energy sector.¹⁵¹ These reforms influenced the legal, policy, and institutional structures which govern the sector today. In the mid-1990s, in the quest to attain further assistance from the World Bank, the Government of Ghana undertook a number of reforms which were conditions for further assistance.¹⁵² The passage of the Public Utilities Regulatory Commission Act, 1997 (Act 538) and the Energy Commission Act, 1997 (Act 541) were significant in that they represented the beginning of the transition toward having legal and regulatory structures governing

¹⁵¹ Devarajan, Shantayanan, David R. Dollar, and Torgny Holmgren. 2001. Aid and Reform in Africa: Lessons from Ten Case Studies. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/13894.

¹⁵² Amoako-Tuffour, J., and J. Joe Asamoah. 2015. "African Centre For Economic Transformation, "Thinking Big" and Reforming Ghana's Energy Sector." https://rb.gy/smwdke.

the energy sector. Act 538 established the PURC to oversee and regulate the provision of utility services by public utilities, while the Energy Commission was also established in 1997 to act as the technical regulator of the sector.

There are also provisions in the parent acts of the regulator entities that can support effective coordination among the lead institutions for implementing the NDC commitments, if implementing those commitments are prioritized. With respect to the Energy Commission and Act 541, the commission comprises (a) the chairman, (b) one representative of the NDPC, (c) the Executive Secretary of the commission, and (d) four other persons with knowledge in matters relevant to the functions of the commission. Section 4 does not provide further details on who or which institutions should be represented except to say that they should have knowledge in matters relevant to the function of the commission. This provides an opportunity to appoint officers from the lead institutions that would be playing lead roles in implementing the NDC commitments to sit on the Board of the Energy Commission for enhancing coordination.

Act 538 also has a similar provision with respect to the composition of the PURC. In this regard, the act provides that the commission shall be composed of the following persons: (a) chairman, (b) one person nominated by the Trades Union Congress, (c) one person nominated by the Association of Ghana Industries, (d) one representative of domestic consumers, (e) the Executive Secretary, and (f) four other persons with knowledge in matters relevant to the functions of the commission.

The Petroleum Commission is also governed by a board as stipulated by Section 4 of the Petroleum Commission Act, Act 821. The Board of the Petroleum Commission comprises (a) a chairperson, (b) the Chief Executive Officer of the Petroleum Commission, (c) one representative of the EPA not below the rank of Director, (d) one representative of the Institution of Geo-scientists nominated by the institute, and (e) three other persons at least one of whom is a woman.

Section 7 of the Renewable Energy Act, 2011 (Act 832) obligates the relevant institutions whose functions intersect with activities in the development, promotion, management, and utilization of the renewable energy resources identified in Section 2 of the act to collaborate with the Energy Commission in the performance of their functions under the act. The relevant institutions listed in Section 7 (2) include the Standards Authority, Forestry Commission, Lands Commission, EPA, Ministry of Food and Agriculture (MoFA), MMDAs, NPA, PURC, Water Resource Commission (WRC), the Ghana Cocoa Board (COCOBOD), Ministry of Environment, Science, Technology and Innovation (MESTI), Ghana Revenue Authority, and any other institution the minister shall designate by publication in the Ghana Gazette.

e. Are there gaps, conflicts, or inconsistencies in the existing legal, policy, and regulatory framework that could impede the implementation of Ghana's commitments?

There are some gaps and conflicts in the legislative, and regulatory framework which could impede the implementation of Ghana's commitments. For example, at the policy formulation level, the EPA has a technical support role to play in the initiation of policies and legislative interventions which pertain to environmental governance and natural resources management to enhance national development. The NDPC also has a role in the coordination and preparation of policies. The ministry also has a role to play in the initiation of policies. These individual responsibilities have often meant that each entity believes that the other entity should take the lead on policy formulation and has often resulted in delays in developing policies and laws.

Another illustration of a gap in legal and regulatory framework is with respect to the Legislative Instrument on Energy Efficiency Standards and Labelling (Household Refrigerating Appliances) Regulations, 2009 (L.I. 1958) that prohibits the importation of used air conditioners and used refrigerators, refrigerator-freezers, and freezers. Although the prohibition is progressive, it did not envisage the fact that persons could circumvent the legislative instrument by importing used parts. The current prohibition does not cover component parts, especially compressor units which consume significant amounts of energy. As a result, persons are able to import and use these component parts to circumvent the objectives of the legislation.

In addition, some domestic appliances which consume high levels of electricity are not covered by any legislative instrument. For example, appliances such as washing machines, computers, microwaves, electric heaters, and solar panels are all absent from the scope of the existing energy efficiency legislative instruments.

Adequacy of legal authority and enforcement

a. Are the relevant governmental bodies in the sector legally empowered to issue climate laws and regulations that are essential for the successful delivery of Ghana's climate commitments in that sector?

Generally, the relevant government bodies are duly empowered to issue climate laws and regulations which are key for the successful delivery of Ghana's climate commitments in the sector. The Energy Commission, which is responsible for enforcing the standards of performance of public utilities has the mandate to establish such standards for any public utility which is involved in the transmission, wholesale supply distribution, and sale of electricity and natural gas. The Energy Commission has the power to develop regulations and codes pertaining to the electricity and natural gas supply industries. In regulating the technical operations in these industries, the commission develops technical rules which must be adhered to. For example, the commission developed the National Electricity distribution code seeks to make sure that the provision of electricity through the distribution network is fair, transparent, nondiscriminatory, safe, reliable, secure, and cost efficient.

Therefore, with regards to the policy action on the promotion of energy efficiency in homes, industry and commerce, the Energy Commission will play a central role in developing the standards to be applied under the various legislative instruments. The Energy Commission will also play a lead role in the development of new standards.

Under the Renewable Energy Act 2011, the PURC and the NPA,¹⁵³ are tasked with the responsibility of developing guidelines and regulations, which ensure that renewable energy is duly considered when it comes to the generation of electricity and the development of petroleum products. Therefore, in the PoA pertaining to attaining utility-scale solar electricity installed capacity to 527.1 MW, the PURC and the NPA will play a pivotal role in the determination of the guidelines and regulations that will guide the incorporation of renewable energy into electricity generation and the development of petroleum products.

b. Are the relevant governmental bodies in the sector legally empowered to monitor and enforce compliance with those laws and regulations, such as through oversight, fines, or other penalties?

The relevant government bodies in the sector are legally empowered to monitor and enforce compliance of laws and regulations through oversight, fines, or other penalties. For instance, the Renewable Energy Act, 2011 also provides for the imposition of fines where its provisions are breached. In this regard, the act provides that "A public utility shall not negotiate for a Power Purchase Agreement with a generator of electricity or contract power for electricity generated from a renewable energy source unless the contracted power has gone through an open competitive and transparent procurement process. (6) A public utility that contravenes subsection (5) commits an offence and is liable on summary conviction to a fine of not more than ten thousand penalty units."

¹⁵³ The NPA is the regulator of the downstream petroleum sector of Ghana.

Section 54 of the Energy Commission Act also gives the Energy Commission the authority to impose fines.

c. Are the enforcement mechanisms in statutes and regulations sufficient to ensure compliance?

The enforcement mechanisms in statutes and regulations are generally sufficient to enforce compliance. The Energy Commission under Section 2.2 (f) of the Energy Commission Act is given the mandate to "pursue and ensure strict compliance with the Act and its Regulations." Within this context, the Energy Commission has been enforcing statutes and regulations. For example, the Energy Commission reports that a total of 583 GWh of electricity and a total of 308.9 kilotons¹⁵⁴ of CO_2 eq have been saved¹⁵⁵ in 2020 as a result of the diligent enforcement of L.Is 1815, 1932, and 1958.¹⁵⁶

The PURC in consultation with the Energy Commission also has a strong and robust enforcement mandate. In this regard, the PURC and Energy Commission establish and enforce the requisite standards for public utilities involved in the transmission, wholesale supply, distribution, and sale of electricity and natural gas.

d. Is the level of experience/seniority of officials prescribed for key decision-making roles in State institutions adequate to ensure enforcement of climate laws and regulations?

The level of seniority of officials heading climate change units in the relevant State institutions is relatively high, and there is generally sufficient authority to ensure the enforcement of climate laws and regulations. Similarly, for key decision-making roles there is adequate authority to ensure enforcement of climate laws and regulations. The heads of climate change units and departments at MESTI, the Forestry Commission, MoFA, the MoF, the National Disaster Management Organisation (NADMO). and the Energy Commission are either directors or deputy directors. Consequently, they have sufficient authority because they are part of management or they report directly to the head of the institution. The Climate Change Unit at the EPA is also headed by a deputy director who reports directly to the deputy CEO.

At the board level, the Public Utilities Regulatory Commission Act, Petroleum Commission Act, and the Energy Commission Act, all do not prescribe a level of seniority for members of their boards. For example, the Board of the Petroleum Commission comprises the following persons: (a) a chairperson, (b) the CEO of the Petroleum Commission, (c) one representative of the EPA not below the rank of director, (d) one representative of the Institution of Geo-scientists nominated by the institute, and (e) three other persons at least one of whom is a woman. Although the CEO and the EPA representative are sufficiently senior, there is no stipulation on the rank or seniority of other members of the board.

The Energy Commission Act also provides for the establishment of a governing board. The commission's board comprises the following persons: (a) the chairman, (b) one representative of the NDPC, (c) the Executive Secretary of the commission appointed under Section 45, and (d) four other persons with knowledge in matters relevant to the functions of the commission. In the instance of the Board of the Energy Commission, no level of seniority is prescribed for the members of the board.

Conclusions and recommendations

The energy sector in Ghana comprises multifaceted policies, laws, and regulations. Together, these policies, laws, and regulations seek to create an energy sector regime that adequately responds to the changing energy needs of the country. It is within this context that most of the energy sector targets in the Updated NDC 2021 have been set. The Government has embarked on interventions designed to decouple the increase in the production of energy from GHG emissions and shift energy

¹⁵⁴ Energy Commission (Ghana), 2021. "Enforcement of Energy Efficiency Legislative Instruments (1815, 1932 and 1958) at Ports of Entry (With Relevant Indicators/Statistics)." https://rb.gy/ty5ld4_

¹⁵⁵ Ibid<u>.</u>

¹⁵⁶ Ibid.

production toward a low carbon pathway. Ghana's Updated NDC 2021 provides evidence of a clear policy goal toward energy efficiency and increasing reliance on energy produced from renewable sources. Accordingly, the nation has confirmed its commitment to scaling up renewable energy penetration by 10 percent by 2030.¹⁵⁷

The legal and regulatory framework in the energy sector has several provisions which support the implementation of Ghana's climate actions. Legal interventions will be necessary to strengthen it to support the suite of PoAs Ghana has put forward in the NDCs.

Noteworthy findings include the following:

- Although the energy sector policies, laws, and regulations address many critical issues, most of the energy sector targets in the Updated NDC 2021 are absent from the existing legal and regulatory framework. Although not explicit, in some instances, they can be said to be incorporated in policy documents and plans, which provide the basis for mitigation efforts locally. Legislative interventions are necessary to ensure that the targets in the regulations address many critical issues and most of the energy sector targets in the Updated NDC 2021 are clearly articulated and codified in law to make them binding. It is however debatable whether such legislative measures are necessary.
- Key actors within the sector are subject to the laws and regulations of the sector and their legal obligations are clear, unambiguous, and compulsory. The relevant government authorities are also empowered to monitor and enforce compliance with laws and regulations.
- In terms of law-making, the relevant government authorities generally have the mandate and authority to issue climate laws and regulations which are pivotal to the successful delivery of Ghana's climate agenda within the energy sector.
- Although, there are some gaps with regard to coordination toward the implementation of the commitments in the Updated NDC 2021, the existing structures can help facilitate coordination to implement the NDC. However, a more concerted effort needs to be made to ensure effective coordination to achieve results.
- Overall, there are gaps and inconsistencies in the legislative and regulatory framework particularly in the scope of the statutory instruments like the L.I. 1958—which prohibits the importation of used air conditioners and refrigerating appliances but excludes used refrigerating components and other high electricity consuming appliances—which will inhibit the effective implementation of Ghana's commitments under the Updated NDC 2021. Legal and regulatory interventions will be necessary to address these gaps and inconsistencies.
- There are existing regulations that address electronic appliances and light bulbs and could be amended to cover some of the energy efficiency PoAs. The Ghanaian Government is currently undertaking a review of the existing regulations on energy efficiency with a view to amending them to cover the energy efficiency PoAs in the Updated NDC 2021. They are also in the process of developing new legislative instruments to promote greater energy efficiency.¹⁵⁸
- The absence of laws or policies on green taxation or a carbon tax is a significant gap in Ghana's existing law and policy framework. The draft Environmental Fiscal Reform Policy 2017 (EFRP 2017) seeks to address this issue and restructure the environmental tax regime to create incentives toward the development of green businesses. The draft EFRP should be reviewed, updated, and implemented by the Government to strengthen the tax regime and thereby encourage the adoption of clean energy.

¹⁵⁷ Republic of Ghana. 2021. "Updated Nationally Determined Contribution under the Paris Agreement (2020-2030)." https://rb.gy/hn4wa0. ¹⁵⁸ Interview with Dan Benefoh, Deputy Director - EPA Ghana, April 2022.

- Amending the Energy Sector Levies (Amendment) Act, 2021 (Act 1064) to impose a carbon tax to incentivize a shift to cleaner fuels is a possible avenue to operationalising some of the key strategies in the draft EFRP.
- The current tariff regime governing the energy sector is also not reflective of costs. Reforming the tariff system would promote a sustainable and financially viable energy sector. Reform would allow the energy sector to operate on a fully cost-reflective tariff which could reduce the sector's accumulating debts and facilitate the effective management and sustainability of the sector.

4.2. Agriculture, forestry, and other land use (AFOLU)

General background and recent developments

The agriculture and forestry sectors are viewed as the backbone of the Ghanaian economy. Together, they account for 43 percent of Ghana's gross domestic product (GDP), 50 percent of export earnings, and 70 percent of total employment.¹⁵⁹ Agriculture contributes 19.7 percent of Ghana's current GDP and accounts for over 30 percent of export earnings, making it the second largest employer in the economy after the services sector and industry. Those employed in the agriculture sector are mostly involved in the cultivation of crops, livestock, fishing, and processing and marketing of agricultural products on a formal and informal basis.¹⁶⁰ The sector also serves as a major source of input to the country's manufacturing industry.¹⁶¹

Forestry as a subsector accounts for 6 percent of GDP, 11 percent of export earnings and employs a labor force of approximately 100,000 people.¹⁶² Forests also provide livelihoods for over 2.5 million people,¹⁶³ especially those in rural areas.

Forest cover in Ghana now stands at 5.5 million ha¹⁶⁴ using the national definition of forests,¹⁶⁵ a loss of over 2.7 million ha since 1950 with a current forest loss rate of 2 percent per year (135,000 ha/year). This has been attributed to the overexploitation of forest resources and the expansion of agricultural farms from the farming method of 'shifting cultivation', especially in off-reserve areas. In the past, the control and management of forest resources in both forest reserves and off-reserve areas had been highly centralized in the State. Timber rights were also vested in the State. The State sought to manage the forest resources and maximize the exploitation of it using policy and regulatory approaches founded on a collection of statutes that were enforced to varying degrees.¹⁶⁶ Legal provisions affecting rights, exploitation, and activity that have been enacted over the last century are scattered across various acts, regulations, and other legal instruments. They gave the State powers to create forest reserves and protected areas to promote conservation and set out enforcement regimes to curb illegal deforestation and degradation. In the 1990s and early 2000s, as forest reserves were being depleted, the State was compelled to implement reforms to incentivize private sector investment in forestry.

Policy in Ghana's forest sector has also evolved steadily over the past century. The Forest Policy approved in 1948 governed the sector for about 50 years before it was replaced by the Forest and Wildlife Policy of 1994 (FWP 1994). The focus of the 1948 Forest Policy was on the conservation and

160 MoFA (Ministry of Food and Agriculture). 2018. "National Agriculture Investment Plan: Investing for Food and Jobs." https://rb.gy/mfwwxz.

¹⁶¹ Oduro, K. A. 2016. Ghana's High Forests: Trends, Scenarios and Pathways for Future Developments. Wageningen University.

https://doi.org/10.18174/378343

¹⁵⁹ Ghana at a Glance. Food and Agriculture Organization of the United Nations (FAO) website. https://rb.gy/xuesga.

 $^{^{\}rm 162}$ Ghana at a Glance. FAO website. https://rb.gy/xuesga.

 $^{^{\}rm 163}$ Ghana at a Glance. FAO website. https://rb.gy/xuesga.

¹⁶⁴ Forestry Commission. 2021. "Ghana National Forest Reference Level (FRL) 2001-2015." https://rb.gy/guardm.

¹⁶⁵ The national definition of forest is what is used in the national inventory reports: 15 percent of forest canopy cover, minimum tree height of 5 metres, and across a minimum area of 1 ha.

¹⁶⁶ Kotey, E. N. A., J. Francois, J. G. K. Owusu, R. Yeboah, K. S. Amanor, and L. Antwi. 1998. *Falling into Place. Policy That Works for Forests and People Series No. 4.* London: International Institute for Environment and Development.

protection of forest reserves and the ecological functions they had, the management of it for sustainable exploitation, and the promotion of research in scientific forestry. Increasing concerns about the rapid loss of Ghana's forest cover, caused by decades of unsustainable exploitation of forests, led to a review of the policy that culminated in the development of the FWP 1994. The FWP 1994 brought reforms to the forestry sector that provided for a more collaborative management of the forest resources to improve and sustainably exploit the forest resource base of the country. The measures that were implemented sought to promote good governance through transparency, greater accountability, and increased participation of and benefit flow to local communities, farmers, and stakeholders. In spite of the reforms, degradation of the forest resource base continued with a national deforestation rate that vastly exceeded the official 2 million³ annual allowable cut by almost 100 percent. This remained significantly high for more than a decade.¹⁶⁷

Relevance to climate change

The AFOLU sector is the leading source of GHG emissions in Ghana. Total emissions from the sector in 2016 accounted for 54.4 percent of total emissions in the country and continues to show an upward trend under a BAU scenario.¹⁶⁸ Per the country's National Forest Reference Level submitted to the UNFCCC in 2017,169 the sector was an average annual net emitter by about 60 million tCO₂e.¹⁷⁰ The net emissions were primarily driven by the growth in emissions from the land category, especially from the activities of land converted to cropland, grassland, and forestland (forest remaining and land converted to forest).¹⁷¹ The high emissions associated with land conversions to cropland and grassland shows the impacts of the drivers of deforestation on growing emissions.¹⁷² Emissions and other land use activities in the AFOLU sector are largely driven by uncontrolled agricultural expansion using low-tech farming methods, namely 'slash and burn', logging, and wood fuel harvesting including charcoal production, population and development pressure, mining and mineral exploitation, and bush fires.¹⁷³ Climate action in agriculture is predominantly geared toward building adaptation because the sector is highly dependent on rainfall. The impact of climate change in the sector is likely to be on rainfall and temperature variability. Projections are that it will lead to a slight decrease in volume of rainfall by 11.5 percent. Dry season rainfall is expected to increase by 16-20 percent with high rainfall periods followed by droughts.¹⁷⁴ This will create threats to food security.

Current strategy and climate commitments

Forestry

Policy reform, beginning with the FWP 1994 to the current FWP 2012 have led to changes in approaches to forest management that are increasingly aligned with current international trends and provisions of international treaties that have been ratified by Ghana.¹⁷⁵ The current approach has been to move toward collaborative forest management with greater local stakeholder participation in the management of forest resources with the objective of enabling the conservation, sustainable

¹⁶⁸ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3l7kqGC.

172 EPA (Environmental Protection Agency). 2019. Ghana's Fourth National Greenhouse Gas Inventory Report. https://bit.ly/3mrIWD3.

¹⁶⁷ Ibid; FWP 2012; Forestry Commission. 2016. "National REDD+ Strategy."

¹⁶⁹ Forestry Commission. 2017. "Ghana's National Forest Reference Level." https://rb.gy/pdyuuj.

¹⁷⁰ Average annual emissions from the forest sector from 2001–2015 were 61,239,542 tCO₂e per year and the average annual removals were 569,344 tCO₂e per year. The emissions included in the National Forest Reference Level include those from deforestation, forest degradation from legal and illegal logging, forest degradation from fire, forest degradation from wood fuel collection, and carbon stocks enhancement from on-reserve forest plantation establishment.

¹⁷¹ EPA (Environmental Protection Agency). 2019. Ghana's Fourth National Greenhouse Gas Inventory Report. https://bit.ly/3mrIWD3.

¹⁷³ Forestry Commission. 2016. "Ghana Cocoa Forest REDD+ Programme (GCFRP)."; Forestry Commission. 2020. "Funding Proposal: Ghana Shea Landscape Emission Reduction Project." https://rb.gy/ukahku.

¹⁷⁴ MoFA (Ministry of Food and Agriculture), 2018. "National Agriculture Investment Plan: Investing for Food and Jobs." https://rb.gy/mfwwxz.

¹⁷⁵ Oduro, K. A. 2016. Ghana's High Forests: Trends, Scenarios and Pathways for Future Developments. Wageningen University. https://doi.org/10.18174/378343.

development, and exploitation of forest and wildlife resources for the benefit of present and future generations. The current approach also recognizes the value of the ecosystem services forests provide, including acting as sinks and sequestering carbon.

Agriculture

Climate-related impacts on the agriculture sector are expected to include water stress for crops with increasing dry spells, increased incidents of pest diseases, degradation and erosion of arable land (with compound effects across wider landscapes), and intermittent floods and the resulting damage to critical infrastructure.¹⁷⁶ The NCCP 2013 sets out strategies for building resilience in the agriculture sector and food systems, while increasing the resilience of vulnerable communities to climate-related risks.

The current government has made modernizing the agricultural sector one of the five key pillars for revitalizing the Ghanaian economy in the CPESDP 2017–2024 and has made efforts to increase budgetary allocations to the agriculture sector. The Government has been implementing a number of flagship projects to operationalize its vision for the sector, including initiatives to address post-harvest losses, fisheries, gender bias and support for youth and physically challenged farmers, and Climate Smart Agriculture.¹⁷⁷ These flagship projects, including Planting for Food and Jobs; Planting for Export and Rural Development; Rearing for Food and Jobs; One-District-One Factory; One-District- One-Warehouse, among others, are meant to implement subsidy programs for seeds, fertilizers, and agrochemicals that would stimulate food production and generate income for rural and agricultural communities. The projects will also increase the availability and efficient use of water in smallholder crop and livestock systems to counter growing trends of water stress, support the setting up of industrial enterprises across the country through public-private partnerships, support processing, add value, and reduce post-harvest losses. These projects were included in the CPESDP 2017–2024 and consequently incorporated in the NMTDP for 2018–2021. Consequently, the relevant MDAs and MMDA are expected to implement them.

The policy, legal, and regulatory frameworks and the sectoral plans that are guiding the State's climate activities in the AFOLU sector are listed below and their relevant provisions briefly summarized in Annex III.

Laws and regulations

- Concessions Act, 1962 (Act 124)
- Trees and Timber Act, 1974 (NRCD 273) as amended by the Trees and Timber (Amendment) Act, 1994 (Act 493)
- Forest Protection Decree 1974 (NRCD 243) and the Forest Protection (Amendment) Act, 2002 (Act 624)
- Control and Prevention of Bushfires Act, 1990 (PNDCL¹⁷⁸ 229)
- Economic Plants Protection Act, 1979 (AFRCD 47)
- Forestry Commission Act, 1999 (Act 571)
- Timber Resource Management Act, 1998 (Act 547), Act 547 as amended by the Forestry Commission Act, 1999 (Act 571) and Timber Resources Management (Amendment) Act, 2002 (Act 617)
- Timber Resources Management (Amendment) Act, 2002 (Act 617)
- Forest Plantation Development Fund Act, 2000 (Act 583) as amended by the Forest Plantation Development Fund (Amendment) Act, 2002 (Act 623)
- Timber Resources Management (Amendment) Regulations 2017 (L.I. 2254)

¹⁷⁶ MoFA (Ministry of Food and Agriculture), 2018. "National Agriculture Investment Plan: Investing for Food and Jobs." https://rb.gy/mfwwxz ¹⁷⁷ Ibid.

¹⁷⁸ Provisional National Defence Council Law.

Policies and plans

- Forest and Wildlife Policy 2012
- National REDD+ Strategy (2016)
- Ghana Forest Plantation Development Strategy 2016–2040
- National Agriculture Investment Plan: Investing for Jobs and Food (2018–2021)
- National Climate Smart Agriculture and Food Security Action Plan (2016–2020).

Ghana's PoAs in the AFOLU sector

In the Updated NDC 2021, the five mitigation PoAs from the NDC 2016 have been retained and a sixth PoA, 'Forest Conservation' (conditional) added to achieve two stated policy actions: (a) Build resilience and promote livelihood opportunities for the youth and women in climate vulnerable agriculture landscapes and food system (mitigation/adaptation), and (b) Promote gender-responsive sustainable forest management (mitigation/adaptation).

In the agriculture subsector, three adaptation PoAs were developed to achieve the policy action of 'Building resilience and promoting livelihood opportunities for the youth and women in climate-vulnerable agriculture landscapes and food systems'.

Table 2 shows the PoAs that would be implemented in the AFOLU sector, the targets, and the institutions that would be involved in the implementation.

PoA	Target 2025	Target 2030	Status	Institution
Cocoa Forest REDD+ Programme (GCFRP) (results-based emission reduction)	5 MtCO ₂	15 MtCO ₂	Mitigation, unconditional – funds from World Bank	REDD+ Secretariat, Forestry Commission
Shea REDD+ Programme (restoration of degraded woodlands)	150,000 ha	300,000 ha	Mitigation, unconditional – funds from GCF	REDD+ Secretariat, Forestry Commission
Forest Plantation Development Programme (25,000 ha per year) (Reforestation)	143,120.3 ha	268.120.3 ha	Conditional – Government has financial commitment	Forest Services Division Forestry Commission
Trees-on-farms	1,131,538.6 ha	1,881,538.6 ha	Unconditional, since aligns with Government's priorities and has financial commitment	Forest Services Division Forestry Commission
Wildlife Management in Transition and Savannah Zones (avoided forest burning)	90,000 ha	180,000 ha	Conditional	Resource Management Support Centre – Forestry Commission.
Promotion of forest conservation			Conditional	
 Secure and maintain 2,035 km of boundaries of Wildlife Protected Areas and Globally Significant Biodiversity Areas (GSBAs). 	2,035 km	2,035 km		Wildlife Division, Forest Commission
 Assist 30 communities and stakeholders to establish and sustain Community Resource Management Areas (CREMAs). 	15	15		Wildlife Division, Foresti Commission
 Establish and protect approximately 1.8 million ha western and eastern wildlife corridors. 	1,000,000 ha	800,000 ha 750,000		Wildlife Division, Foresti Commission
 Develop ecotourism potentials of 10 protected areas and Ramsar with 750,000 visitors. 	500,000	150,000		Wildlife Division, Forestr
 Implement avoided carbon/ biodiversity offset programs 855,600 ha of wildlife protected areas in transitional zone and 30 GSBAs. 	240,000 ha	615,000 ha		Commission

Table 2: PoAs/measures in AFOLU sector

РоА	Target 2025	Target 2030	Status	Institution
				Wildlife Division, Forestry Commission
Community-based climate-smart agriculture adopted in ⁴⁹ 1 district of Ghana	160 districts	242 districts	Unconditional	Crop Services Directorate, MoFA
Scale up deployment of climate-smart technologies to increase livestock and fisheries productivity by 10%	5% climate- smart technologies	10% climate- smart technologies	Conditional	Animal Production Directorate, MoFA, and Ministries of Fisheries and Aquaculture
Promote innovations in post-harvest storage and food processing and forest products in all districts of the country	74 districts	260 districts	Unconditional	MoFA

Adequacy of integration of climate change considerations in laws and regulations

a. To what extent are the commitments and targets of the NDC reflected in the legal and regulatory framework in the sector?

None of the quantitative targets of the forest sector PoAs are directly reflected in the legal and regulatory framework. But there are provisions within the forest legal framework that provide the relevant bodies with the legal authority to support the implementation of the NDC commitments.

The commitments in the Updated NDC 2021 PoAs to reduce emissions from deforestation and degradation, avoid forest or bush burning in the cocoa and shea/savannah landscapes, promote the conservation of forests, implement the development of forest plantations, and support trees-on-farms are all part of the existing objectives and functions of the Forestry Commission. In the case of the Forestry Commission, the mandate in Article 269 (1) of the Constitution and Section 2 (1) of the Forestry Commission Act, 1999 (Act 547) "the regulation of the utilisation of forest and wildlife resources, the conservation and management of those resources and the co-ordination of policies related to them" and the functions in Section 2b to e of the Forestry Commission Act, 1999 (Act 547) are essentially the activities that need to be performed for the PoAs targets to be achieved.¹⁷⁹

The Forest Plantation Development Fund Act, 2000 (Act 583), as amended by the Forest Plantation Development Fund (Amendment) Act, 2002 (Act 623), which provided for the development of a plantation scheme known as the Ghana Forest Plantation Programme (GFPP), provides the scheme through which the targets of Ghana's PoAs on forest plantations will be achieved. Launched in 2002 as a public-private joint initiative to develop a sustainable timber resource base for consumption, relieve pressure on natural forest, and increase forest cover,¹⁸⁰ the act and the fund¹⁸¹ it creates in Section 4 initially aimed to support the establishment of 200,000 hectares in the degraded forest reserves through the GFPP. This was for a period not less than 10 years and not more than 25 years.¹⁸² The GFPP now supports the implementation of the Ghana Forest Plantation Strategy (GFPS)

¹⁷⁹ "(b)....manage the nation's forest reserves and protected areas by (i) proper planning for the protection, harvesting and development of forest and wildlife resources; (iii) controlling the harvesting of forest and wildlife products; (iv) making recommendations to the Minister on the grant of timber rights and wildlife licences; (v) advising the Minister on FWP with particular regard to management practices that sustain resources and improve productivity; (c) assist the private sector and the other bodies with the implementation of forest and wildlife policies by (i) advising and the provision of technical services with regard to management and development and of market intelligence pertaining to the timber and wildlife industries; (ii) co-operating and liaising with national and international bodies and organisations on forestry and wildlife conservation and utilisation; (iii) supporting the development of forest plantations for the restoration of degraded forest reserves, the increased production of industrial timber and the expansion of the country's protected forest cover; (iv) the provision of training management and technical skills for related industries; (v) advising the appointing authority on matters concerning employment, discipline and training of staff; (d) undertake the development of forest plantations for the restoration of degraded forest cover and the increase in the production of industrial timber; and (e) undertake such other functions as are incidental to the foregoing, or as the Minister may direct."

¹⁸⁰ Republic of Ghana, 2021. Ghana's Third Biennial Update Report to the UNFCCC. https://rb.gy/xp4v6l

¹⁸¹ The Forest Plantation Development Fund is capitalized with funds from a variety of sources including proceeds from levies on timber exports, grants from international bodies, and funds provided by Parliament from the consolidated funds and any other source approved by the minister responsible for finance. It will support Ghana's NDC commitment for forest plantation, in a way supporting Ghana's pledge to finance the forest plantation PoA with its own resources.

¹⁸² Section 10 of The Forest Plantation Development Fund Act, 2000 (Act 583) as amended by the Forest Plantation Development Fund (Amendment) Act, 2002 (Act 623)

2016–2040. The GFPS aims to facilitate the establishment and management of 625,000 ha of forest plantations, the enrichment planting of 100,000 ha of poorly-stocked and degraded forest reserve compartments, and the incorporation of trees-on-farms covering an area of 3.75 million ha across the agricultural landscape. This far exceeds the Updated NDC 2021 PoA targets on forest plantations and the trees-on-farms. Similarly, the US\$50 million financed Forest Investment Programme (FIP) that is run by the Ministry of Lands and Natural Resources is also supporting the development of forest plantation, enrichment planting, trees-on-farm,¹⁸³ natural forest management, climate-smart agriculture and CREMA-related projects.¹⁸⁴

In addition, provisions in the Control and Prevention of Bushfires Act, 1990 (PNDCL 229) will support implementation of wildfire management in the transition and savannah dry lands PoA. Sections 1 to 3 of the Control and Prevention of Bushfires Act, 1990 (PNDCL 229), for instance, prohibits a person from starting a bushfire for any purpose on a farm, forest, or grassland, unless authorized by the Chief Conservator of Forests or Chief Game and Wildlife Officer within an established forest or wildlife conservation area for the purpose of (a) the management of the area or (b) the protection of the area against accidental fire. This law will support the commitment in wildfire management in the transition and savannah dry lands PoA to reduce the emissions of SLCPs (avoided forest burning), from deforestation, and improve conservation of biodiversity and degraded lands in the dry lands. The Wildlife Resources Management Bill which has been before Parliament since 2014 is said to contain several key provisions that are essential to the overall success of this PoA.¹⁸⁵

A couple of the PoAs are in legal agreements Ghana has executed with multilateral banks to implement. The GCFRP and the Ghana Shea Landscape Emission Reduction Project (GSLERP) PoAs are commitments Ghana has made in agreements with the Carbon Fund and the Green Climate Fund to achieve the targets in the Updated NDC 2021. The commitment to implement the GCFRP is part of the terms of the Emission Reduction Payment Agreement (ERPA) signed in 2019 between the Government of Ghana and the Carbon Fund. Under the terms of the ERPA, Ghana will receive ex post payments for 10 million MtCO₂ verified emission reductions by 2025, with an additional 3 million MtCO₂ to be held in a buffer as insurance for reversals. This should cover the 5 MtCO₂ emission reductions by 2025 target that Ghana has pledged to achieve from the GCFRP in its Updated NDC 2021 and put them on course to achieve the 15 MtCO₂ by 2030. This ERPA was ratified by Parliament in June 2021. In addition, as it is part of the NDCs the Government included in the CPESDP 2017–2024, it is expected to be implemented with the commitment that the current Government's priorities receive.

Similarly, the targets for the GSLERP are contained in the funding proposal Ghana submitted to the GCF, which was approved by the GCF Board in August 2020. Like the GCFRP, ex ante funding was secured on the basis that the project's objectives and targets were supported by existing plans and policies that create the enabling environment for the project's success.

b. Are the activities and actors most relevant to the sector's emissions and resilience subject to the laws and regulations of that sector?

Emissions and other land use activities in the AFOLU sector are largely driven by uncontrolled agricultural expansion using low-tech farming methods, namely 'slash and burn', logging including charcoal production, and wood fuel harvesting; population and development pressure; mining and mineral exploitation; and bush fires.¹⁸⁶ The key actors most relevant for these include a variety of stakeholders including farmers, local communities, women especially in the case of the GSLERP,

¹⁸³ Republic of Ghana. 2021. "Ghana's Third Biennial Update Report to the UNFCCC." https://rb.gy/xp4v6l.

¹⁸⁴ Republic of Ghana. 2016. "National REDD+ Strategy."

¹⁸⁵ Interview with Daniel Benefoh, Deputy Director, Environmental Protection Agency. April 2022.

¹⁸⁶ Forestry Commission. 2016. "Ghana Cocoa Forest REDD+ Programme (GCFRP)."; Forestry Commission. 2020. "Funding Proposal: Ghana Shea Landscape Emission Reduction Project." https://rb.gy/ukahku.

timber companies and chainsaw operators, mining companies and illegal miners, and other private sector companies operating in the agriculture and mining sectors.¹⁸⁷

Generally, the laws and regulations are drafted in a way that applies to any person engaged in or activities covered by the subject matter of the act or the regulation. For forests, Section 16 (4) of the Concessions Act, 1962 (Act 124) makes it clear that all rights to timber are vested in the President on behalf of the nation. Accordingly, anyone who wants to cut naturally occurring trees can do so only with a permit from the Forestry Commission. Current laws and regulations on the felling of timber including the Timber Resource Management Act, 1998 (Act 547), Act 547, as amended by the Forestry Commission Act, 1999 (Act 571) and Timber Resources Management (Amendment) Act, 2002 (Act 617), and the Timber Resource Management and Legality Licensing Regulations 2017 (L.I. 2254) apply generally to any person who wants to cut naturally occurring timber. The laws specifically mention incorporated companies, landowners, chainsaw operators, NGOs, rural community groups, and generally any person who wants to fell to export or to distribute for sale on domestic markets. Even harvesting of one or several trees for social and community purposes requires a permit.¹⁸⁸ Similarly, the Control and Prevention of Bushfires Act, 1990 (PNDCL 229) applies to every person, including anyone who fails to report a bushfire or a person who started it.¹⁸⁹

In reality the high incidence of illegal logging and 'slash and burn' agriculture show that the problem is not really an issue of the scope of the laws and regulations but one of ineffective law enforcement. Law enforcement in the AFOLU sector has always been a major indirect driver of deforestation and degradation in the AFOLU sector and the NRS 2016 confirms this. Reasons for weak enforcement have been generally attributed to corruption by officials, lack of adequate financial resources, and weak capacity to effectively monitor, enforce, or prosecute laws or monitor boundaries of forest estates. This is why the State has adopted a collaborative approach with the traditional authorities and local communities for REDD+. As is explained in NRS 2016, "...'soft' approaches to sustaining resources such as increasing benefits through tree tenure reforms and higher level community involvement in resource management would also be adopted since 'hard' law enforcement techniques are fraught with some limitations, and can only be successful if coupled with community engagement and co-monitoring."

c. Are the terms of regulated entities' legal obligations specific, unambiguous, and compulsory?

The laws and regulations are fairly prescriptive about the scope, the processes, and procedures to follow, the obligations of persons the acts and regulations apply to, the roles and responsibilities of public officials and bodies, and what will be an offence under the law and the penalties to be applied. Using the forest code for timber rights as an illustration, the Timber Resource Management Act, 1998 (Act 547), as amended by the Forestry Commission Act, 1999 (Act 571) and Timber Resources Management (Amendment) Act, 2002 (Act 617), and the Timber Resources Management (Amendment) Regulations 2017 (L.I. 2254) lay out detailed procedures for granting timber rights in a manner that will ensure the sustainable management of Ghana's forest and help bring the rate of harvesting to below the annual sustainable yield of the forest (Sections 1 to 4 and 6 of Act 547). It includes details on the process for identification of land suitable for the grant of timber rights (Section 1 of L.I. 2254), the rights of stool and private landowners (Section 8 (5) (L.I. 2254), the competitive bidding process and the terms and conditions of contract (Section 8 of Act 547 and Section 12 to 22 of L.I. 2254), provision for harvesting of timber for noncommercial purposes (Section 27 L.I. 2254), the legality licensing regime for legal timber (Sections 31, 38–51 of L.I. 2254), and the registration of chainsaws (Sections 31, 38–51 of L.I. 2254). There is generally little ambiguity about the processes

¹⁸⁷ Forestry Commission. 2016. "Ghana Cocoa Forest REDD+ Programme (GCFRP)."

¹⁸⁸ Section 27 of Timber Resource Management and Legality Licensing Regulations 2017 (L.I. 2254).

¹⁸⁹ Section 12, Ibid.

to be followed and what is required from a person who desires to acquire a Timber Utilization Contract (TUC) or permit.

Even for laws implemented at the district level like the Control and Prevention of Bushfires Act, 1990 (PNDCL 229) the obligations and consequences are clearly laid out. It is an offence under Section 1 for anyone to start a bushfire for any purpose other than the exceptions set out in Sections 3 and 4. Section 12 (1) clearly imposes a duty on anyone who knows someone who has started or caused a bushfire or is aware of the occurrence of a bushfire to report it. Section 12 (2) makes failure to do this, and other contraventions of the provisions of the law, an offence punishable by fines and/or imprisonment or community labor as stated under Section 11.

d. Does the legal framework include the necessary institutional structures and coordination arrangements for implementing those commitments?

The FWP 2012's Strategic Direction 5.2 directs the promotion of intersectoral collaboration among relevant MDAs concerned with sustainable management of forest ecosystems. It aims to achieve this by involving all stakeholders in forest management planning, policy formulation, and decision-making. Currently most of the institutional structures for coordinating and implementing the Updated NDC 2021 are not reflected in the legal framework. But they are well elaborated in NRS 2016 and the respective program documents and plans of the forest sector PoAs.



Figure 6: Institutional arrangement for the GCFRP, GSLERP, and the FIP

For instance, the GSLERP explains in paragraph 120 of the funding proposal it submitted to the GCF, that the relationships and arrangements to implement the project between the United Nations Development Programme (UNDP) as the Accredited Entity, the Forestry Commission (as Executing Entity), and the Global Alliance for Shea (GSA) who will work with private sector entities to deliver the outcomes of the GSLERP's activities, and the public-private partnerships between the GSA and NGOs will be formalized in various legal agreements and sub-agreements.¹⁹⁰

Source: Republic of Ghana, Forestry Commission (2016) GCFRP.

¹⁹⁰ Forestry Commission. 2020. "Funding Proposal: Ghana Shea Landscape Emission Reduction Project." https://rb.gy/ukahku.

Similarly, the institutional arrangements for the GCFRP, shown in Figure 6, which involves bodies with representation from the relevant government MDAs, private sector, civil society, local communities, and landowners/traditional authorities are described in the program proposal submitted to the Carbon Fund in 2016. They are not found in the legal framework.

There are provisions in the legal framework that create subsidiary bodies with functions that could support the implementation of the PoAs as is the case with the wildfire PoA. The Control and Prevention of Bushfires Act, 1990 (PNDCL 229) establishes Bushfire Control Sub-committees in Sections 5 and 6 to (a) draw up appropriate bylaws to ensure adequate prevention, control, and monitoring of bushfires; (b) specify the period or periods in the year, and thereafter yearly, within which the burning of farm slash, grass, herbage, and dead wood shall be prohibited; (c) draw up, where appropriate, a district early burning program and ensure that it is implemented under proper control and supervision; (d) set up town, area, and unit bushfire control committees which shall direct the activities of the town, area, or unit fire volunteer squads; (e) educate residents of the district on the hazards of uncontrolled fires; and (f) compile data on the bushfire outbreaks and offences within the district, which they submit to the public officials from other agencies, including the EPA (Section 6). Under Section 5 of the act the sub-committee is composed of elected members from the local government authority, that is, the district assembly and other agriculture and forest officers working in the district (Section 5).

e. Are there gaps, conflicts, or inconsistencies in the existing legal, policy, and regulatory framework that could impede the implementation of Ghana's commitments?

The challenges within the forest sector's legal and regulatory framework are well documented and also summarized in the NRS 2016. First, there are conflicts in the forest codes that are a result of failure to make consequential amendments after the enactment of new statutes. An example of this is the Timber Resources Management Act, 1997 (Act 547) as amended by the Timber Resources Management (Amendment) Act, 2002 (Act 617) that did not repeal or amend the Economic Plants Protection Act, 1979 (AFRCD 47) when it was passed. The consequence is a conflict between Act 547 which in Section 4 (2)(b) permits the harvesting of timber on farms with the written consent of the persons concerned and Section 4 and Schedule A of AFRCD 47 which prohibits the grant of felling rights on farms with cocoa growing on it except for horticultural husbandry. AFRCD 47 is said to have never been implemented even though it remains on the books.

There are also gaps in the current legal and regulatory framework from the delay in implementing the FWP 2012's Strategic Directive 4.1.1 (b) of enacting into legislation reforms to tree tenure and benefit-sharing arrangements that would allow a greater proportion of benefits from natural resource management to go to the individuals responsible or the community members. Currently, the benefit-sharing arrangement that is being used is the natural resource benefit-sharing formula in Article 267 (6) of the 1992 Constitution that only recognizes the Office of the Administrator of Stool Lands (OASL), the stools, traditional authorities, and the district assemblies where the resources are located as beneficiaries of revenue accruing from stool lands, in both forest reserves and off-reserves. It does not specifically cater to the land users or incentivize them in a more concrete way like the ERPA's benefit-sharing arrangement does, even though it is held that these land users benefit from the district assemblies' share of the revenue. Under the ERPA benefit-sharing arrangement, 69 percent of the Carbon Fund payment goes to the land users or de facto decision-makers of the forest resources—the farmers, farmer groups, and local communities, with the remainder being shared between the traditional authorities, the district assemblies, and the relevant government beneficiaries.

When these reforms are undertaken, care must be taken to avoid a conflict with the constitutional natural resource benefit-sharing formula.

The benefit-sharing plan agreed to in the ERPA the Government signed with the World Bank is more consistent with the Strategic Directive of the FWP 2012 and it incentivizes the land users in a more

concrete way. Even though Ghanaian law has yet to define carbon or the legal status of the carbon unit and clarify ownership rights, under the ERPA's benefit-sharing plan, 69 percent of the Carbon Fund payment goes to the land users or de facto decision-makers of the forest resources—the farmers, farmer groups, and local communities, while all the constitutional beneficiaries and the relevant government beneficiaries share the remainder of the payment.

Also, Ghanaian law has not yet clarified in law the definition of the carbon asset and its ownership rights or the right to manage or transact carbon. Consequently, ownership and marketing rights cannot be stated with any certainty. Strategic Directive 1.8.1 of the FWP 2012 states that conscious efforts will be made to enact legislation to guide the allocation of carbon rights and related matters. The approach in the ERPA suggests that the State will align carbon rights to those of actors who exercise effective de facto control over trees.¹⁹¹ Work to clarify carbon rights is said to have been conducted by the NRS and MESTI for Parliament's consideration, as part of the operationalization of the NCCP.¹⁹²

The failure of the Government to pass the Wildlife Resource Bill 2014 into law has meant that the Strategic Directive of the FWP 2012 that proposes that subnational level structures like the CREMA, which is considered a key vehicle through which groups of local communities are given the legal mandate to manage the natural wildlife and habitats in their locality and benefit from the accrued revenue, do not yet have legislative backing and remain a gap in the legal framework. As stated earlier CREMAs emerged from the policy reforms in the forest sector that begun in the 1990s with new CFM approaches that support greater and effective local stakeholder participation in the management of forest resources. On the whole, there still has not been any legislative or regulation support to facilitate the CFM approach as directed under the FWP 2012, even though this approach is being implemented by the State in its REDD+ programs. Similarly, the UNFCCC REDD+ safeguards agreed to at COP 16 (2010) whose reporting is essential for receiving results-based payment has not yet been given legal effect even though Ghana is adhering to it as is the World Bank's Strategic Environmental and Social Assessment in national implementation of REDD+.

Conclusions and recommendations

The AFOLU sector is the largest GHG emitting sector in the country. Emissions are largely driven by uncontrolled agricultural expansion and other land use activities. Reforms introduced several decades ago to incentivize private sector participation, improve governance, and allow for a more collaborate management of forest resources have failed to curb the high rate of deforestation.

Key findings and recommendations include the following:

- The analysis shows that none of the quantitative targets of the forest sector PoAs that seek to reduce emissions and the rate of deforestation and degradation are directly reflected in the forest sector's legal and regulatory framework. However, provisions within the framework provide the relevant State bodies with the legal authority to support the implementation of the forest sector PoAs.
- The analysis also finds that generally, the scope of the laws and regulations covers actors and activities responsible for emissions and building resilience from the forest sector. Also, the statutory provisions provide prescriptive details about the legal obligations of actors and regulated entities under the law.
- But the institutional structures for coordinating and implementing the Updated NDC 2021's forest sector PoAs are not reflected in the legal framework even though they are well elaborated in NRS 2016 and the respective program documents and plans. It would be

¹⁹¹ Asare, R. 2010. Implications of the Legal and Policy Framework for Tree and Forest Carbon in Ghana: REDD Opportunities Scoping Exercise. Washington, DC: Forest Tends.

¹⁹² Republic of Ghana, 2016. "Ghana REDD+ Strategy."

important to reflect these institutional arrangements in the legal framework to secure them from the vagaries of change in government and the attendant change in policies and priorities as well as to safeguard local community and non-State actors' participation in those arrangements.

- Incidence of illegal logging and 'slash and burn' agriculture remains high, and this has been largely attributed to ineffective law enforcement, a long-standing issue in the AFOLU sector.
- Other challenges in the forest sector's legal and regulatory framework that could affect the implementation of the forest sector PoAs include
 - Conflicts in the forest code from the failure to amend or repeal old statutory provisions after the enactment of new statutes;
 - Gaps in the legal and regulatory framework from the delay in enacting legislation on the new benefit-sharing arrangements that are underpinning the CFM approach the State is now using to manage forest resources;
 - \circ $\,$ Gaps in the legal and regulatory framework from the lack of legal classification or definition of carbon; and
 - Failure to pass the Wildlife Resource Bill 2014 into law to give legal backing to subnational structures like CREMAs that have proved critical to the implementation of the CFM approaches for engaging communities in the management of wildlife and natural resources and the sharing of benefit from it.
- The State's strategy to address emissions and the rate of deforestation and degradation from the forest sector has been to develop programmes that are based on the CFM approach and seek to increase benefits to traditional authorities and local communities.
- To operationalize the State's CFM approach and implement the recommendations from the FWP 2012, legislative and regulatory reforms that provide legal clarity on carbon ownership vest key stakeholders with rights in the sustainable management of forests resources and facilitate the flow of a greater proportion of the benefits to the key stakeholders. The reforms include the following proposed enactments:
 - Some work has been done on reforming tree tenure and benefit-sharing arrangements in Ghana. For example, one study under the FIP on legislative proposals to amend existing tree tenure and benefit-sharing arrangements in off-reserve time tree management also aims to make Ghana's forest code consistent with provisions of multilateral treaties and international best practices.¹⁹³ Anchoring into law the rights of key actors that play a critical role in sustainably managing Ghana's forest resources and the benefit-sharing arrangements will be an important part of efforts to implement the CFM approach that is critical to reduce the rate of deforestation and degradation. Care must be exercised over the potential risk of conflict between CFM benefit-sharing arrangements that seek to incentivize the key stakeholders directly and the natural resource benefit-sharing formula in the Constitution that recognizes the rights of the traditional authorities, the chiefs, and the district assemblies;
 - Legal analysis conducted on the UNFCCC REDD+ Cancun safeguards¹⁹⁴ has identified legislative and policy gaps should also be considered with a view to codifying them in the forest code, especially as Ghana is already adhering to it in its implementation of REDD+;
 - The formalization of CREMAs through the passage of the Wildlife Resource Management Bill (2014) will also be an important part of the State's efforts to entrench into the legal framework the CFM approach;

 ¹⁹³ Akapme, K. 2016. Development of Framework on Tree Tenure and Benefit-Sharing Scheme. Legal Reforms Proposals. Final Report.
 ¹⁹⁴ UNFCCC Decision 1/CP.16, Appendix I.

 Finalizing the NRS and MESTI's work on clarifying carbon rights pursuant to the proposals from the FWP 2012's Strategic Directives 1.8 to make activities to reduce emissions from the forest sector attractive to private investment.

4.3. Water sector

General background and recent developments

Ghana has ample water resources, including five major basins: the Densu River basin, Ankobra basin, Pra basin, Tano basin, and White Volta basin.¹⁹⁵ According to the United States Agency for International Development (USAID),¹⁹⁶ the country is not considered water stressed overall. The total volume of freshwater withdrawn by the major economic sectors amounts to 6.3 percent of the total resource endowment, which is lower than the water stress benchmark.¹⁹⁷ Total renewable water resources per person of 1,949 m³ is also above the Falkenmark Index threshold¹⁹⁸ for water stress. However, water availability across the country is influenced by management decisions and abstractions from upper-basin countries, as almost half of the freshwater originates outside the country.¹⁹⁹

In Ghana, the major uses of water resources are for domestic and industrial purposes, irrigation, and livestock watering. Domestic and industrial urban water supplies are derived almost entirely from surface water, either stored behind small dams or diverted by levees in rivers. The main nonconsumptive uses are hydropower generation, inland fisheries, and water navigation.

Relevance to climate change

While water supply is generally sufficient, Ghana currently suffers from low access to safe water.²⁰⁰ Most rural people rely on surface water sources, which frequently contain life-threatening parasites and high microbial content.²⁰¹ In some regions of the country, the water has significant discoloration and contains dangerous minerals. During the dry season, many areas suffer from water scarcity.²⁰² Lack of proper sanitation and hygiene frequently compound the contamination of existing water sources.²⁰³

Since the early 1990s, the water sector in Ghana has undergone several significant reforms.²⁰⁴ These reforms led to restructuring of the sector which is now positioned to improve service delivery for both rural and urban water supply. Institutional, legal, and regulatory structures and mechanisms have evolved over time and are now well established despite some implementation and enforcement challenges.

Authority over water resources is vested in the President for and on behalf of the people of Ghana.²⁰⁵ In this regard, there is no private ownership of water resources in Ghana. The water sector

¹⁹⁵ WRC (Water Resource Commission)., n.d. "Basins." WRC-Ghana website: https://www.wrc-gh.org/basins/.

¹⁹⁶ United States Agency for International Development's Sustainable Water Partnership. n.d. "Ghana Water Resources Profile Overview." USAID. https://pdf.usaid.gov/pdf_docs/PA00XV5W.pdf.

¹⁹⁷ Water stress benchmark defined in the Ghana Water Resources Profile Overview from USAID's Sustainable Water Partnership as "SDG 6.4.2 measures water stress as the percentage of freshwater withdrawals against total renewable freshwater resources. The water stress thresholds are: no stress <25%, low 25%-50%, medium 50%-75%, high 75%-100%, and critical >100%." (See https://pdf.usaid.gov/pdf_docs/PA00XV5W.pdf)

¹⁹⁸ Falkenmark Index threshold defined in the Ghana Water Resources Profile Overview from USAID's Sustainable Water Partnership as "The Falkenmark Water Stress Index measures water scarcity as the amount of renewable freshwater that is available for each person each year. A country is said to be experiencing water stress when water availability is below 1,700 m³ per person per year; below 1,000 m³ is considered water scarcity; and below 500 m³ is absolute or severe water scarcity." (See https://pdf.usaid.gov/pdf_docs/PA00XV5W.pdf)

¹⁹⁹ United States Agency for International Development's Sustainable Water Partnership. n.d. "Ghana Water Resources Profile Overview." USAID. https://pdf.usaid.gov/pdf_docs/PA00XV5W.pdf.

²⁰⁰Safe Water Network. n.d. "Our Work – Ghana." Safe Water Network. https://rb.gy/48ci4y.

²⁰¹ Ibid.

²⁰² Ibid.

²⁰³ Ibid.

²⁰⁴ GWCL (Ghana Water Company Limited). n.d. "History of Water Supply in Ghana." GWCL. https://rb.gy/ou53a6.

²⁰⁵ Article 257 (6) of the 1992 Constitution.
experiences many challenges which have a direct relationship with climate change. These include illegal mining and logging and the related contamination of municipal water sources with heavy pollutants from such activities. These activities also increase flood risks and related runoff, which are hazardous to clean water sources. The CPESDP (2017–2024) indicates that the percentage of the population with access to safe drinking water in urban areas increased from 55.9 percent in 2014 to 76 percent in 2015.²⁰⁶ This was primarily attributed to the expansion and rehabilitation of the water infrastructure. The percentage of the rural population with access to safe drinking water only increased by 1 percentage point, from 64 percent in 2014 to only 65 percent in 2015. The key challenges impeding greater access to safe drinking water in the sector include "…weak water resource management, pollution of water bodies, deforestation along river systems; general lack of maintenance of water systems, high maintenance cost of obsolete systems; inadequate funding and lack of investment, unreliable service delivery, high cost of maintenance of water systems, obsolete systems, high levels of wastage, inadequate distribution networks and lack of modern technologies to produce potable water."²⁰⁷

Poor urban planning,²⁰⁸ low enforcement of land use policies, and institutional challenges compound the problem. Institutional challenges which the sector faces include the lack of funding for the WRC; absence of technical capacity and insufficient staffing to implement water laws and policies; insufficient incorporation of key stakeholders in water sector processes, especially planning processes; challenges with coordination of the many stakeholders in the sector; and noncompliance with water standards and guidelines. Furthermore, water tariffs which are set by the PURC are not cost-reflective and are heavily subsidized by the Government. Therefore, they do not cover the operation and maintenance costs of the utility. This means funding critical for revitalizing existing water infrastructure, which could be generated by a cost-reflective tariff system, is not readily available.

The legal and regulatory framework that will govern the implementation of the PoAs in the water sector are composed of the following Acts of Parliament and legislative instruments whose relevant provisions are briefly summarized in Annex IV:

- Water Resources Commission Act, 1996 (Act 522)
- Community Water and Sanitation Agency Act, 1998 (Act 564)
- Public Utilities Regulatory Commission Act, 1997 (Act 538)
- Renewable Energy Act, 2011 (Act 832) as amended by the Renewable Energy (Amendment) Act, 2020 (Act 1045)
- Water Use Regulations, 2001 (L.I. 1692)
- Community Water and Sanitation Regulations, 2011 (L.I. 2007).

Current strategy and climate commitments

In the Updated NDC 2021, Ghana put forward an adaptation contribution policy action of 'integrated water resources management'. The country proceeded to offer one unconditional PoA to achieve this: a large-scale integrated water resources management program to promote integrated water resource management measures in the six water basins in the country—the Black and White Volta, Densu, Pra, Ankobra, and Tano basins—and implementation of integrated water resources management to cover four water basins by 2025 and the entire six basins by 2030.

²⁰⁶ Republic of Ghana. 2017. "Coordinated Programme of Economic and Social Development Policies 2017-2024. An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All." p. 44. https://rb.gy/scgtn1

 $^{^{\}rm 207}$ See Section 2.3.4 of CPESDP (2017–2024).

²⁰⁸ United States Agency for International Development. n.d. "Water, Sanitation, and Hygiene." https://rb.gy/kpxqil.

Table 3: PoAs/measures in water sector

Policy action	PoA	Implementing institution
Integrated water resources management	Promote integrated water resource management measures in the Black and White Volta, Densu, Pra, Ankobra, and Tano basins in Ghana	WRC
	Promote energy efficient and renewable energy powered public water facilities	GWCL (formerly Ghana Water and Sewage Corporation); Energy Commission

Adequacy of integration of climate change considerations in laws and regulations

a. To what extent are the commitments and targets of the NDC reflected in the legal and regulatory framework in the sector?

Although they are not explicit in law, the functions of the WRC in Act 522 viewed holistically can be considered as adopting an integrated water resources management approach. The Global Water Partnership defines integrated water resources management as a process which "promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems."²⁰⁹ In this regard, the relevant functions of the WRC are stipulated, among others, as follows: (a) regulating and managing the utilization of water resources and coordinating any policy in relation to them; (b) proposing comprehensive plans for the utilization, conservation, development, and improvement of water resources; (c) initiating, controlling, and coordinating activities connected with the development and utilization of water resources; (d) granting water rights; (e) collecting, collating, storing, and disseminating data or information on water resources in Ghana; (f) requiring water user agencies to undertake scientific investigations, experiments, or research into water resources in Ghana; (g) monitoring and evaluating programs for the operation and maintenance of water resources; (h) advising the Government on any matter likely to have an adverse effect on the water resources of Ghana; (i) advising pollution control agencies in Ghana on matters concerning the management and control of pollution of water resources; and (j) performing such other functions as are incidental to their respective function.

Regarding the PoA pertaining to the promotion of energy efficient and renewable energy powered public water facilities, while the legal and regulatory framework does not adequately capture the approach for using renewable energy in the water sector, the challenging issue is primarily one of financing. The machines at the GWCL facilities are said to be highly inefficient, consuming large amounts of power and therefore affecting the cost of water. There is enormous potential to reduce power usage and emissions and operate and supply water in more cost-effective ways by upgrading equipment with more modern and efficient machines and using renewable energy.²¹⁰ The Renewable Energy (Amendment) Act 2020 Section 53 makes provision for the minister to designate a public entity to execute renewable energy projects initiated by the State or in which the State has an interest. However, this is not specific to the water sector and the focus of the legislation is generally on the generation of electricity.

The Community Water and Sanitation Agency (CWSA)²¹¹ also adopts an integrated water resources management approach. The CWSA's mandate is focused on facilitating the provision of safe water and related sanitation services in rural communities and small towns only.²¹² Its mandate does not extend to urban areas. The functions of the Agency include the (a) providing support to district assemblies to promote the sustainability of safe water supply and related sanitation services in rural communities to encourage the active involvement of the communities, especially women, in the design, planning, construction, and community

²¹¹ Community Water and Sanitation Agency. n.d. "About Us." https://www.cwsa.gov.gh/about-us.

²⁰⁹ United Nations Department of Economic and Social Affairs. 2014. "Integrated Water Resources Management (IWRM)." UNDESA. https://rb.gy/yyvtrc. ²¹⁰ Interview with Dan Benefoh, Deputy Director - EPA Ghana, April 2022.

²¹² Section 2 (1) of CWSA Act 1998 (Act 564).

management of projects related to safe water supply and related sanitation services; (b) formulating strategies for the effective mobilization of resources for the execution of safe water development and related sanitation programs in rural communities and small towns; (c) encouraging private sector participation in the provision of safe water supply and related sanitation services; (d) providing district assemblies with technical assistance in planning and executing water development and sanitation projects in the districts; (e) assisting and coordinating with NGOs engaged in (i) the development of rural community and small town water supply and (ii) the provision of sanitation facilities and hygiene education in the country; (f) initiating and pursuing, in collaboration with the Ministries of Local Government, Environment, Health, and Education, formal and informal education programs for the creation of public awareness in rural communities and small towns on water-related health hazards; (g) prescribing standards and guidelines for safe water supply and the provision of related sanitation services; (h) charging reasonable fees for the services being provided; (i) collaborating with such international agencies as the CWSA considers necessary for the purposes of the Act 564; and (j) performing any other functions assigned to it under this act.²¹³

On climate considerations specifically, the Water Use Regulations²¹⁴ do not make explicit reference to climate impacts or climate resilience building in the water sector. But there are several provisions in the regulations which may create entry points for climate considerations. For example, Regulation 5 requires the commission to conduct an investigation when considering applications to ascertain whether the proposed use of the water (a) is in accordance with the established water use policies and plans and (b) will not cause irreparable damage to water resources, public health, or the environment.

Similarly, when considered whether to issue water permits, Regulation 7 requires the commission to be guided by the following: (a) the prevailing water policy, (b) domestic water use, and (c) any other water use which fulfils the goals of national socioeconomic development. Therefore, although there is no specific reference to climate change, the provision is sufficiently broad for climate change to be considered. Another example can be found in Regulation 13, which grants the commission the right to refuse an application for a water permit when the reasons are based on (a) technical data, (b) sustainability of the water resources, (c) national security, (d) public safety, or (e) other reasonable justification. Again, the provision which states 'other reasonable justification' could incorporate climate change considerations. Finally, it is worth noting that the Water Rights Application Form in Schedule A of the Regulations also provides a section for any other considerations, potentially including climate change, which the decision maker may need to be made aware of.

b. Are the activities and actors most relevant to the sector's emissions and resilience subject to the laws and regulations of that sector?

The activities and actors most relevant to the sector's emissions and resilience are subject to the laws and regulations of the water sector. The GWCL is responsible for urban water while the CWSA is responsible for rural water. These two entities are also subject to the regulation of the PURC which also regulates the provision of services in the water sector. The PURC is also responsible for setting water tariffs and the performance of the utility while enforcing standards of performance. In addition, the PURC sets water quality standards according to the requirements of the Ghana Standards Board.

c. Are the terms of regulated entities' legal obligations specific, unambiguous, and compulsory?

The terms of regulated entities' legal obligations are generally specific and unambiguous. In the water sector, the legislative and regulatory framework makes room for some discretion when authorities are

²¹³ Ibid.

²¹⁴ Water Use Regulations 2001 (L.I. 1692) made pursuant to the powers conferred on the WRC by Section 35 of the Water Resources Commission Act, 1996 (Act 522).

deliberating on a matter, and therefore there is some leeway in terms of whether an obligation is compulsory. For example, the WRC has some discretion when granting water rights.²¹⁵

Regulated entities operate under the Water Resources Commission Act, 1996 (Act 522); the Community Water and Sanitation Act, 1998 (Act 564); the Water Use Regulations 2001 (L.I. 1692) and the Community Water and Sanitation Regulations 2011 (L.I. 2007). The legal obligations within these laws and regulations are specific and unambiguous.

The content of the Water Resources Commission Act is somewhat comprehensive and prescriptive, although it leaves some discretion at the operational level. For example, the Water Resources Commission Act provides that the commission can refuse a water use permit based on technical data, sustainability of the water resources, national security, public safety, or other reasonable justification.²¹⁶ 'Other reasonable justification' in this context provides some discretion to the decision maker in the exercise of power to grant or refuse a permit.

d. Does the legal framework include the necessary institutional structures and coordination arrangements for implementing those commitments?

The necessary institutional structures and coordinating arrangements are included in the legal framework for implementing the commitments. This is achieved primarily through the composition of the governing body of the institutions.



At the apex of the institutional structure of the water sector is the Ministry of Sanitation and Water Resources, which is responsible for oversight of the sector. The ministry seeks "...to contribute to improvement in the living standards of Ghanaians through increased access to and use of safe water, sanitation and hygiene practices and sustainable management of water resources."²¹⁷ The ministry's mandate includes initiating and formulating water, environmental health, and sanitation policies; undertaking the development planning of the water and environment sanitation subsectors; and

²¹⁵ Section 13 of Water Use Regulations (L.I. 1692)

²¹⁶ Ibid.

²¹⁷ Ministry of Sanitation and Water Resources. n.d. "About Us." http://mswr.gov.gh/about-us/.

coordinating, monitoring, and evaluating the effectiveness of performance of the subsectors.²¹⁸ The Ministry of Sanitation and Water Resources²¹⁹ plays a lead role in coordinating arrangements.

The Water Resources Commission Act 1996 gives the WRC the mandate to regulate and manage Ghana's water resources and coordinate government policies in relation to them. The WRC falls under the supervision of the Ministry of Sanitation and Water Resources. The governing body of the commission is a board consisting of ex officio officials from key State institutions whose mandate or sector affects water resources.²²⁰ Under Section 3 of Act 522, the key institutions represented on the board include the GWCL, organizations producing potable water, the Hydrology Department of the Ministry of Works and Housing, the VRA, the Irrigation Development Authority, the Water Resources Research Institute, the Meteorological Service, the EPA, the Forestry Commission, and the Minerals Commission. The remaining persons on the board do not have affiliation restrictions, namely the Executive Secretary who is responsible for managing the day-to-day affairs of the WRC, one Chief, and two other persons, at least one of whom must be a woman.

The CWSA has a similar composition. It is also governed by a board which, per Section 4 of Act 564, consists of persons from relevant institutions, some of whom serve in ex officio capacities: (a) a chairman; (b) the Chief Executive of the CWSA; (c) a representative of the GWCL, not below the rank of a Deputy Managing Director; (d) a representative of the Ministry of Local Government and Rural Development not below the rank of a Director; (e) a representative of the Ministry of Works and Housing, not below the rank of a Director; (f) one representative of NGOs engaged in the rural water supply and sanitation sector; (g) a representative of the National House of chiefs; and (h) two other persons. Essentially, the board also has some representation of the key stakeholders in the water sector.

With respect to coordination arrangements for implementing the commitments, these are sufficiently included in the legal frameworks. For example, Section 2 (3) of the CWSA 1998 (Act 564) provides that "The agency shall in the performance of its functions under this Act, act in conjunction with, collaborate with and co-operate with the Water Resources Commission, the Environmental Protection Agency, the Ghana Water and Sewerage Corporation and other public and private bodies whose activities relate to the provision of safe water and related sanitation services in rural communities and small towns." Section 2 (4) of the CWSA Act also provides for coordination. The section provides, among other things, the following: "Without prejudice to subsection (3), the Agency shall in the discharge of its functions under this Act co-operate with all government departments, public and private institutions and any other agencies."

Section 6 (2) of the Water Use Regulation 2001 (L.I. 1692) also provides for coordination and collaboration. In this regard, the regulations state that for conducting a public hearing, the commission shall collaborate with the EPA, the traditional authorities of the community, and the relevant government institutions and agencies.

Adequacy of legal authority and enforcement

a. Are the relevant governmental bodies in the sector legally empowered to issue climate laws and regulations that are essential for the successful delivery of Ghana's climate commitments in that sector?

The relevant governmental bodies in the sector are legally empowered to issue climate laws and regulations that are essential for the successful delivery of Ghana's climate commitments in the sector. Section 35 of the Water Resources Commission Act 1996 grants the commission the power to submit laws and regulations to Parliament over a wide range of issues related to its general mandate

²¹⁸ Executive Instrument 28 (2017).

²¹⁹ Ministry of Sanitation and Water Resources. n.d. "About Us." http://mswr.gov.gh/about-us/.

²²⁰ Section 3 of Water Resources Commission Act, 1996 (Act 522).

of regulating and managing the utilization of water resources in Ghana. For example, the commission may, by legislative instrument, make regulations (a) for preserving existing uses of public water; (b) for controlling any change in the course, current, or cross current of any contained surface water to obtain the most beneficial use of the water; (c) relating to the declaration of water emergencies; (d) for regulating the use of contained water and groundwater; (e) for carrying out investigations in respect of a function of the commission;(f) for protecting watersheds; (g) for granting permits to discharge waste into water bodies; (h) for prescribing the acceptable levels of pollution (i) to regulate or prohibit an act by a person in a protected catchment area; (j) for levying charges under this act; and (k) generally for giving effect to the provisions of this act.

The CWSA Act 1998 also provides that the minister may on the advice of the board, by legislative instrument, make regulations (a) on detailed technical standards and acceptable code of practice to be adhered to by any operator in the rural water and sanitation sector, (b) for inspection of any equipment or appliances to be used for the supply of safe water and the provision of related sanitation services in the rural communities and small towns, and (c) generally for carrying into effect the provisions of the act.

b. Are the relevant governmental bodies in the sector legally empowered to monitor and enforce compliance with those laws and regulations such as through oversight, fines, or other penalties?

The relevant government bodies in the sector are legally empowered to monitor and enforce compliance with laws and regulations in the sector. Section 34 of the Water Resources Commission Act 1996 prescribes penalties for offences. In this regard, the act provides that "A person who (a) diverts, dams, stores, abstracts or uses water resources contrary to section 13 (1) (a), (b) constructs or maintains any works for the use of water resources contrary to section 13 (1) (b), (c) does not comply with a request made under section 29,(d) obstructs the Commission in the performance of its functions under section 30 (1), or (e) does not comply with the directives given by the Minister under section 33 (2), commits an offence and is liable, on conviction, to a fine not exceeding seven hundred and fifty penalty units or a term of imprisonment of three years or to both the fine and the imprisonment."

Section 28 gives the commission power to obtain information and states, "The Commission may for the proper and efficient performance of its functions request information from a person who shall, subject to any other law, comply with the request."

Section 29 of the act also provides the Commission with the power to inspect:

(1) The Commission may in consultation with the relevant District Assembly at a reasonable time enter on any land to inspect works constructed or under construction there and may ascertain or cause to be ascertained the amount of water abstracted or capable of being abstracted by means of the works.

(2) A person shall not obstruct the Commission in the performance of its functions under subsection (1).

(3) If in the opinion of the Board works have been constructed, maintained, or used or are being so constructed as to constitute a danger to life, health, property, or damage to the natural resources of the area, it may require a person for the time being enjoying the benefit of those works to demolish or change the use of the works in a manner that the Commission considers necessary.

(4) For the purpose of this section the Board may by notice in writing suspend a water right until it is satisfied that the requirements have been fulfilled.

Under Section 30 of the act, the commission also has the power to require the demolition of unlawful works. The commission may on the advice of a district assembly, by notice in writing, require a person (a) who has constructed or extended, or caused to be constructed or extended, any

works contrary to any of the conditions under which the person was required or authorized to effect the construction or extension or (b) whose water right in respect of which any works in existence have been terminated under the provisions of the act or has otherwise come to an end, to modify, demolish, or destroy the works within the period specified in the notice.

The CWSA Act 1998 also provides for offences and their related consequences. Section 24 stipulates the following: "A permit holder who interferes with or who permits a person to interfere with a controlling or measuring device so that the quantity of water abstracted, diverted or stored is not in accordance with the terms of the holder's permit or is not in accordance with the terms of an order of the commission commits an offence and is liable on summary conviction to a fine not exceeding two hundred and fifty penalty units or to a term of imprisonment not exceeding twelve months or to both."

e. Is the level of experience/seniority of officials prescribed for key decision-making roles in State institutions adequate to ensure enforcement of climate laws and regulations?

The level of experience and seniority of officials prescribed for key decision-making roles in State institutions is adequate to ensure enforcement of climate laws and regulations. The institutional structures provide for senior levels of authority for decision-making. For example, the Board of the CWSA includes a representative of the GWCL, not below the rank of a Deputy Managing Director; a representative of the Ministry of Local Government and Rural Development, not below the rank of a Director; and a representative of the Ministry of Works and Housing, not below the rank of a Director. These officials are senior enough to be able to take key decisions on enforcing compliance with statutory provisions in the water sector.

Conclusions and recommendations

The legal and regulatory framework governing the water sector is generally adequate to support the implementation of Ghana's water sector PoAs. Even though there are no specific references to climate change or the PoA's commitment to promote integrated water resource management of Ghana's water resources, language in the legal and regulatory framework is broad enough to include actions that Ghana will undertake to implement the PoA.

Noteworthy findings include the following:

- Generally, the activities and actors most relevant to the water sector's emissions and resilience are subject to the laws and regulations of the water sector. The two main actors responsible for urban and rural water supply, the GWCL and the CWSA, are also subject to the regulation of the WRC and the PURC, who also regulates the provision of services in the water sector.
- With regard to the PoA on promotion of energy efficient and renewable energy powered public water facilities, while the legal and regulatory framework does not constrain the approach of using renewable energy in the water sector, the primary obstacle to the promotion of renewable energy in water facilities PoA is the lack of financing.
- The terms of regulated entities' legal obligations are generally specific and unambiguous. However, in the water sector, the legislative and regulatory framework makes room for some discretion when authorities are deciding on a matter, and therefore there can be some leeway in terms of whether an obligation is compulsory.
- The necessary institutional structures and coordinating arrangements for implementing the commitments are included in the legal and regulatory framework primarily through the composition of the governing boards of the State bodies such as the WRC.
- The relevant State regulatory institutions in the sector are also legally empowered to issue climate laws and regulations that are essential for the successful delivery of Ghana's climate commitments in the sector and empowered to monitor and enforce compliance with laws and regulations in the sector. The level of experience and seniority of officials prescribed for key

decision-making roles in State institutions is also adequate to ensure enforcement of climate laws and regulations.

But as the State pursues the mainstreaming of climate considerations into the national development agenda, the legal and regulatory framework could be reviewed to assess how it could be reformed to better support the objectives of some water sector policies like the Riparian Buffer Zone Policy 2011 that can build resilience in the sector.

4.4. Transport sector

General background and recent developments



The transport sector in Ghana contributes significantly to Ghana's total GHG emissions. In fact, motorized transportation, which comprises roads, railways, air, maritime, and inland waterways, is the third largest contributor to the GHG emissions, making up 17 percent of the total emissions.²²¹ As a result, focusing on various interventions in this sector will play an important role in the country's emissions reduction agenda.

The use of the mass transit system, better vehicle technologies, and better traffic management will all contribute to reducing emissions. The absence of land use masterplans has compounded the situation in that there is no integrated land use, climate change, and transport planning. This means that planners are unable to adequately forecast the future transport demand. An integrated approach would have taken into account various factors and would limit the need for people to travel if there was adequate planning of the mixed and integrated development of the built environment. This will in turn reduce congestion and, by extension, air pollution.²²²

The Revised National Transport Policy 2020 is the overarching policy governing the sector. The goal of the Policy is to provide transport infrastructure and services without compromising the integrity of society, environment, health, and the climate. The objective of the Policy is to subject all transport infrastructure projects to safety, environment, social, and health impact assessments and audit at all stages of development and operations of the transport system.²²³

Various policies make a distinct reference to the transport sector. For example, the National Climate Change Policy, the National Climate Change Adaptation Strategy, the National Integrated Transport Plan, and Transport Sector Medium Term Plan all indicate the issues related to transport but do not

²²¹ Republic of Ghana. 2020. Ghana's Fourth National Greenhouse Gas Inventory Report. p. 147. https://rb.gy/mwak5e.

²²² Ministry of Transport, Ministry of Roads and Highways, Ministry of Railways Development, and Ministry of Aviation. "National Transport Policy." p. 26. https://rb.gy/tmxgpw.

sufficiently articulate the inextricable link with climate change and its impact. The issue of climate risk does not appear to be of sufficient priority and is not adequately detailed in these policies. Political changes in government have had a direct and significant impact on the policy direction in the sector. For example, since 1993, the sector has responded to the changing nuances of each political party and the oversight ministries have changed.²²⁴ Nevertheless, all transport sector institutions have four functions: policy formulation, regulation, asset management, and service provision.

Currently, four ministries have oversight over various aspects of the transport sector: the Ministry of Transport (MoT), the Ministry of Roads and Highways (MoRH), the Ministry of Railways Development (MoRD), and the Ministry of Aviation.

The MoT has the mandate for policy development; sector coordination; and oversight of railway, roads, aviation, and inland and maritime transport subsectors;²²⁵ and sector performance monitoring and evaluation.

The MoRH seeks to "formulate the requisite policies, monitor and evaluate programmes and projects to ensure the provision of affordable, integrated, safe, responsive and sustainable road transport network that will meet the economic, social and environmental needs as well as national and international standards."²²⁶ The ministry has oversight responsibility over the Department of Urban Roads, the Department of Feeder Roads, and the Ghana Highways Authority (GHA).

The MoRD is responsible for, among other things, developing and implementing integrated policy for railways and ensuring sustainable development in the railways sector. The MoRD has oversight responsibilities over the Ghana Railway Development Authority (GRDA), which regulates rail operators and manages the rail infrastructure assets, and the Ghana Railway Company Limited (GRCL), which seeks to provide safe, comfortable, and reliable rail transport services at competitive rates for profit.²²⁷

The Ministry of Aviation seeks to ensure the growth and development of Ghana's aviation industry through effective policy formulation, coordination, monitoring, and evaluation of the sector's performance.²²⁸ The Ministry of Aviation is responsible for the Ghana Civil Aviation Authority (GCAA) and the Ghana Airports Company Limited (GACL) is responsible for the management of airport infrastructure.

Although there are formal mechanisms for interinstitutional coordination, the number of ministries and agencies governing this sector has posed some challenges for effective collaboration and coordination. In addition, since each ministry is responsible for policy formulation, there are some overlaps with their respective mandates.

One of the greatest challenges in the sector is the tremendous demand for used vehicles. It is estimated that used vehicles constitute approximately 70 percent of vehicle imports in Ghana. This high demand for used vehicles is due to a number of factors including their affordability to the average Ghanaian, the high lending rates from banks and financial institutions which make it unaffordable for most Ghanaians to borrow to purchase new vehicles, population growth, and the push toward urban migration.²²⁹ Most of these vehicles are accident and salvaged vehicles which may have been disposed of in their country of origin. Such vehicles tend to have less efficient engines compared to vehicles that use newer technologies and as a result they pollute the environment more than the newer vehicles. Another challenge is that Ghana has a thriving spare car parts industry. The

²²⁴ Ibid, 26.

²²⁵ Ibid, 26.

²²⁶ Ministry of Roads and Highways. n.d. "Our Mandate, Mission and Vision Statement." https://mrh.gov.gh/.

²²⁷ Ghana Railways Company Limited. n.d. "About Us." http://grcl.gov.gh/about.php.

²²⁸ Ministry of Aviation. n.d. "Profile." https://moa.gov.gh/profile/.

²²⁹ Bukari, B. M. n.d. "Import Vehicle Policy-Related Initiatives of Ghana." https://rb.gy/4fijkl.

importation of spare parts of vehicles that are more than 15 years old and have high carbon emissions and high fuel consumption is commonplace. These spare parts no longer meet their manufacturer's standards. However, they are deemed to be locally affordable and as a result, are in high demand locally.

Relevance to climate change

The transport sector of the country has seen rising levels of fuel consumption, which naturally have a corresponding effect on the GHG emissions. Generally, GHG emissions have steadily increased by 409.6 percent, from 1.41 MtCO₂e in 1990 to 7.17 MtCO₂e in 2016, at a 6.7 percent annual growth rate.²³⁰ For 2012–2016, the emissions increased by 34.4 percent, from 6.68 MtCO₂e in the previous inventory year to 7.17 MtCO₂e in the latest inventory year. The 2016 emission levels are significant and amount to 47.7 percent of the total energy sector emissions. This represents 17 percent of the national GHG emissions.²³¹ The 2016 transportation emissions increased by 7 percent relative to the levels reported in 2012.²³²

The fuels most commonly used for transport in Ghana are gasoline, diesel, LPG, and aviation turbine kerosene (ATK). In 2016, the total fuel used to support transport services was 2.28 mega tons of oil equivalent (Mtoe), representing a 390 percent increase during the 26-year period.²³³ For 2012–2016, fuel consumption grew by 5 percent, which was principally driven by diesel and gasoline consumption.²³⁴ Since 1996, diesel has consistently been the dominant fuel in transport. In 2016, diesel, which is mostly used in road, railways, and inland navigation operations in heavy engines, alone constituted 55.7 percent of the total transport fuel consumption for the year. This was followed by gasoline (39 percent), LPG (4.5 percent), and ATK (0.8 percent).²³⁵

Regarding fuel consumption in the different transport modes, road transport was the biggest user of liquid fuels. In 2016, out of the total 2.28 Mtoe fuel consumed, road transport consumed the most at 85.8 percent, followed by railways (13.3 percent), aviation (0.83 percent), and inland navigation (0.02 percent).²³⁶ Within the road transport category, fuel consumption by passenger vehicles (private and commercial) is the highest. Over the 26 years (1990–2016), fuel consumption by passenger vehicles constitutes an average 52 percent of all total fuel usage in road transport, followed by heavy-duty vehicles and buses (28.6 percent), motorcycles (10 percent), and light-duty vehicles (8.8 percent).²³⁷

Current strategy and climate commitments

Recognizing the significant impact of vehicle pollutants, in 1998, the Government initially banned the importation of vehicles that were more than 10 years old. In 2002, however, the ban was lifted and replaced with a high importation penalty on vehicles that were older than 10 years. This penalty continued to increase with successive governments, until 2020 when the Government placed an outright ban²³⁸ on vehicles that are more 10 ten years old, to encourage the manufacture of vehicles locally. The Customs (Amendment) Act, 2020²³⁹ also bans the importation of accident and salvaged motor vehicles into the country.²⁴⁰ The Act amends the Customs Act, 2015 (Act 891) and provides

²³⁰ Republic of Ghana. 2020. Ghana's Fourth National Greenhouse Gas Inventory Report. p. 147. https://rb.gy/mwak5e.

²³¹ Ibid.

²³² Ibid, 31.

²³³ Ibid, 147.

²³⁴ Ibid, 147.

²³⁵ Republic of Ghana. 2020. Ghana's Fourth National Greenhouse Gas Inventory Report. p. 147. https://rb.gy/mwak5e.

²³⁶ Ibid, 148.

²³⁷ Ibid.

²³⁸ Uyttebroeck, B. 2020. "Ghana Bans Import of Old Cars to Attract Carmakers." Global Fleet, June 3, 2020. https://rb.gy/stdpgy.

²³⁹ Customs (Amendment) Act, 2020 (Act 1014).

²⁴⁰ BNN Bloomberg. 2020. "Ghana Bans Import of Cars Older Than 10 Years to Draw Automakers." *BNN Bloomberg*, May 29, 2020. https://www.bnnbloomberg.ca/ghana-bans-import-of-cars-older-than-10-years-to-draw-automakers-1.1442848.

import duty rebates for car manufacturers that assemble vehicles in Ghana. The Act provides incentives for automotive manufacturers and assemblers registered under the Ghana Automotive Manufacturing Development Programme and provides import exemptions for the security agencies and officers of the security agencies and for related matters.

Although the passage of the act may result in lost Government revenue of as much as US\$143 million from customs revenue for the first three years, it was a significant step toward emissions reductions. However, pressure from local spare parts dealers and others has resulted in the Government deciding against enforcing the law.²⁴¹

As of 2015, Ghana had a national road network of about 72,380.65 kms (out of which 39 percent is in good condition); one international airport; five domestic airports (Kumasi, Tamale, Sunyani, Takoradi, and Wa); a limited rail network in the southern half of the country, which has deteriorated considerably; and an underdeveloped inland water transport system.²⁴²

Urban passenger transport is a devolved responsibility falling to the relevant MMDAs covering the area in question. Currently, each local assembly issues its own licenses for the operation of commercial passenger transport services in its area.²⁴³ The validity of these licenses is also accepted in the territory of the neighboring assemblies. Licenses are issued on demand to any vehicle meeting the basic requirements of roadworthiness²⁴⁴ and having a properly qualified driver.

The country currently does not have a centralized bus routing and scheduling plan. The route network has developed over time on an ad hoc basis as demand has been identified. The Government, with the participation of other private sector players, introduced the Metro Mass Transit (MMT) Limited in 2003. The MMT provides urban mass bus services but this is typically unscheduled and often on demand-responsive routes. As a result, it is not dependable, and many people do not utilize its services.

To help augment the apparent failings of the MMT, in 2016, and as part of the World Bank, the Agence Francaise de Development (French Development Agency, AfD), the Government of Ghana, and the GEF Trust Fund Program-financed Urban Transport Project, the Ayalolo Bus Rapid Transit System was launched in Accra.²⁴⁵ This bus rapid transit system was the first of its kind in the country as it has dedicated lanes which allowed buses to move faster through traffic along their designated routes.

The railway subsector of the transportation sector has suffered several decades of neglect and underfunding. With the exception of some partial freight services on the western line and some passenger commuter rail services in Accra, most of the other rail networks are completely run down.²⁴⁶ In addition, signal and communication equipment are obsolete and inoperable while track infrastructure and rolling stock have deteriorated considerably. The current rail network is confined to the southern part of the country, forming a triangle connecting Accra, Kumasi, and Takoradi.²⁴⁷ There is also central line connecting Kotoku to Huni Valley. The track is mostly deteriorated, with only 13 percent of the 947 km network in operation.²⁴⁸

To revamp and breathe new life into railways, the Government published a Master Plan (discussed later in this chapter) for the strategic development of the subsector in 2013. The plan covers the construction of new and rehabilitation of existing railway networks including a 595 km railway line

 ²⁴¹ Classfmonline. 2020. 'Go Ahead with Old, Salvaged Car Imports' – GIFF, as Govt Suspends Ban. Ghanaweb. https://rb.gy/bmtetw.
 ²⁴² Republic of Ghana. 2017. "Coordinated Programme of Economic and Social Development Policies 2017-2024. An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All." p. 44. https://rb.gy/scgtn1.

 $^{^{\}rm 243}$ See Section 138 of the Local Government Act 2016, Act 936, discussed below.

 $^{^{\}rm 244}$ Which is the responsibility of the DVLA, discussed in Table 6.

 ²⁴⁵ Ayalolo Bus Rapid Transit was launched in September 2016. https://www.myjoyonline.com/ayalolo-bus-rapid-transit-takes-off-in-september/.
 ²⁴⁶ Ibid.

²⁴⁷ Republic of Ghana. 2017. "Coordinated Programme of Economic and Social Development Policies 2017-2024. An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All." p. 44. https://rb.gy/scgtn1.

²⁴⁸ Ibid.

from Kumasi to Paga (Central Spine) with a possible extension or branch line from Tamale to Yendi to facilitate the exploitation of iron ore deposits at Sheini, located to the southeast of Yendi. The Government is keen to restructure the railway sector to enable it to contribute more positively toward the country's development.

With respect to air travel, the country currently has one international airport, five regional airports, and a number of airstrips. Kotoka International Airport (KIA), the only international airport, has regular international and regional flights with 25 direct air destinations. Kotoka International Airport (KIA) is the most frequently used airport for both domestic and international travels, handling nearly 800,000 passengers and 50,000 tons of freight annually.²⁴⁹ Tamale and Kumasi have also been recently refurbished and upgraded to the status of international airports but not to the capacity of KIA, with full international operations yet to commence.²⁵⁰

The country's water transport infrastructure includes two seaports and inland water transport, mainly on Volta Lake. The two seaports are in Takoradi and Tema. Adjoining these two seaports are the Sekondi and Tema Fishing ports, respectively.²⁵¹ There is a major inland water transport on Volta Lake with main inland ports services at Akosombo, Yeji, and Buipe. Along the coast are various fishing ports serving the indigenous fishing communities.²⁵²

Walking is the most common and popular form of nonmotorized transport (NMT). The others are bicycles, push carts, wheelbarrows, and animal-drawn carts. Apart from dedicated footpaths in most areas, the country currently does not have dedicated bicycle, pushcart, and other NMT lanes in most areas. These dedicated lanes will be critical if the country is to realize its PoA of promoting NMT. NMT plays an important role in the economy, especially in the informal sector. It is estimated that less than 3 percent of urban dwellers in the south use NMT, but it is predominantly used in the north as a mode of transport.²⁵³

The policy, legal, and regulatory frameworks and the sectoral plans that are guiding the State's climate activities in the transport sector are listed below and their relevant provisions are briefly summarized in Annex V.

Laws and regulations

- Driver and Vehicle Licensing Authority (DVLA) Act, 1999 (Act 569)
- Railways Act, 2008 (Act 776)
- The Customs (Amendment) Act, 2020

Policies, programs, and plans

- The National Transportation Policy 2020
- Ghana Railway Master Plan 2013

Ghana's PoAs in the transport priority area

For the transport sector, the country listed only one policy action in the Updated NDC 2021: the expansion of inter- and intra-city transportation modes. This aligns with scaling up sustainable mass transportation, which was the policy action in the initial 2016 NDC. The 2021 updated policy action is to be implemented through five PoAs, which are listed and discussed in Table 4.

²⁴⁹ Ministry of Transport, Ministry of Roads and Highways, Ministry of Railways Development, and Ministry of Aviation. 2020. "National Transport Policy." p. 26. https://rb.gy/tmxgpw.

²⁵⁰ Ibid.

²⁵¹ Republic of Ghana. 2017. "Coordinated Programme of Economic and Social Development Policies 2017-2024. An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All." p. 44. https://rb.gy/scgtn1.

²⁵² Ibid.

²⁵³ Ministry of Transport, Ministry of Roads and Highways, Ministry of Railways Development, and Ministry of Aviation. 2020. "National Transport Policy." https://rb.gy/tmxgpw.

Ghana's Updated NDC and PoAs in the transport sector are a clear and deliberate statement of intent on the part of the Government toward a reduction of the GHG emission in the transport sector through the use of sustainable transport by expanding inter and intra city transport modes.

Table 4 lists the NDC and the PoAs as well as the relevant government agencies that will be responsible for or have a role to play in its implementation.

Policy action	РоА	Implementing institution/agency
Expansion of inter- and intra-city transportation modes	Railway transit system (shift road freight to rail)	MoRD GRDA
	Urban transit (fleet renewal, better maintenance and vehicle standards) – More efficient diesel vehicle	MoT Ministry of Local Government, Decentralization and Rural Development DVLA
	Restriction on importation of overage vehicles	MoT DVLA
	Electric vehicles	MoT Ministry of Energy Energy Commission
	Promotion of NMT (new bicycle lanes)	MoT Ministry of Local Government, Decentralization and Rural Development

Table 4: PoAs/measures in the transport sector

Adequacy of integration of climate change considerations in laws and regulations

a. To what extent are the commitments and targets of the NDC reflected in the legal and regulatory framework in the sector?

Overall, most of the commitments in the transport sector PoAs are not directly reflected in the legal and regulatory framework and they do not include any clearly defined targets. But the text found within the legal and regulatory framework is drafted in such a way that it can accommodate the implementation of the commitments in the PoAs. For example, with respect to the PoA regarding the shift from road freight to rail, the National Transport Policy states in Policy Goal 2.3 that it seeks to "Develop Multi-modal Transit Corridors to ensure efficient and effective flow of goods, services and information to meet customer requirement in line with international and sub- regional standards." Thus, this goal likely accommodates a shift from road freight to rail although it is not specifically stated in the policy.

With respect to the PoA pertaining to urban transit (fleet renewal, better maintenance and vehicle standards), policy goal 1.5 of the National Transport Policy reflects some aspects of the PoA in that it refers to the establishment of mass transportation systems in urban areas incorporating fleet renewal programs for quasi-government transport companies and transport sector operators. In this instance, again the policy does not directly reflect the commitment in the PoA; however, the commitment in the PoA likely falls within the rubric of the policy goals of the National Transport Policy.

The Customs (Amendment) Act, 2020 governs the restriction on the importation of used vehicles. In this regard, Section 58 (1)(c) prohibits the importation of motor cars and motor vehicles over 10 years of age which are designed for the transport of persons. In addition, motor vehicles not exceeding 5 tons which are designed for the transport of goods and are also over 10 years old are banned from importation. Therefore, the restriction on the importation of overage vehicles is directly reflected in law. It is important to highlight that vehicle over 5 tons are not captured by the ban on importation, a gap in the framework that should be reviewed.

There is no legislative and regulatory backing currently in Ghana for the use of electric vehicles. The legal and regulatory framework has not caught up with technological enhancements and changes to vehicles which have resulted in the proliferation of electric cars in many other countries. The Energy Commission has embarked on a Drive Electric Vehicle Initiative,²⁵⁴ which seeks to promote the use of electric vehicles in Ghana. One of the objectives of the initiative is to have at least 100 electric vehicles and a minimum of 10 public charging stations by 2020. There are also government plans to bring 1,500 electric buses into the country for public use by 2030, 1,300 buses by 2025, and another 200 by 2030.²⁵⁵ The Energy Commission, the PURC, and other stakeholders in the road transport and energy sectors have also been preparing an Electric Vehicle Policy for Cabinet's consideration. The new policy is expected to provide technical regulations and the policy framework that would address all the technical issues associated with mass use of electric vehicles in Ghana. The technical regulations are being developed by the Energy Commission while the PURC is concerned with the tariffs for electricity consumption from charging vehicles and the rates to be paid.²⁵⁶ Amendments will have to be made to the Customs Acts if the State waives import duty on the importation of electrical vehicles as indicated.²⁵⁷

b. Are the activities and actors most relevant to the sector's emissions and resilience subject to the laws and regulations of that sector?

The activities and actors most relevant to the sector's emissions and resilience are subject to the laws and regulations of the sector. Key stakeholders, who will have some impact on the implementation of the PoAs in the sector, can be segmented into four categories: owners, drivers, unions or associations, and authorities. The primary actors on issues pertaining to urban transport are the paratransit unions of drivers and associations. These unions have a significant voice in determining rules which apply to urban transport and have often put significant pressure on government to take certain actions, for example, with respect to petrol hikes, tariff imposition, and so on. The major unions and associations include the following:²⁵⁸

- The Trades Union Congress is the main umbrella organization for trade union activities in Ghana. The Trades Union Congress represents approximately 500,000 workers. It consists of 18 affiliated unions, including the Ghana Private Road Transport Union (GPRTU).
- Ghana Road Transport Coordination Council (GRTCC) is the umbrella body for all transport operators in Ghana. The GRTCC negotiates transport tariffs with the Government.
- The GPRTU is a national trade union which represents commercial drivers and commercial vehicle owners. It is reported to have a membership of over 120,000 members, comprising 90 percent of the trotro (often rickety mini-buses) and shared taxi operators. The GPRTU has local branches and regional clusters around the country.
- Ghana Cooperative Transport Association (GCTA) is a national association which is similar to the GPRTU but has fewer members.
- Progressive Transport Owners Association (PROTOA) is the only organization that focuses on the interests of transport owners.

The mandate of the Driver and Vehicle Licensing Authority is detailed in the DVLA Act, 1999 (Act 569) and covers all drivers of vehicles and riders of motorcycles and the testing and registration of all vehicles and motorcycles. Currently, Act 569 does not set limits on emissions from vehicles. But once

²⁵⁴ Energy Commission. n.d. "Drive Electric Initiative (DEI)." EC-Ghana. https://rb.gy/py3bfe.

²⁵⁵ Interview with Daniel Benefoh, Deputy Director Environmental Protection Agency, April 2022.

²⁵⁶ GBC Ghana Online. 2021. "Draft Policy on Use of Electric Vehicles in Ghana to be Ready by End of 2021." Ghana Broadcasting Corporation, June 5, 2021. https://www.gbcghanaonline.com/technology/draft-policy-on-use-of-electric-vehicles-in-ghana-to-be-ready-by-end-of-2021/2021/.
²⁵⁷ Ibid.

²⁵⁸ Brookins, D. 2019. "Transforming Urban Transport – The Role of Political Leadership TUT-POL Sub-Saharan Africa." https://rb.gy/8u68x4

the draft EPA L.I. setting vehicle standards is adopted, vehicle emissions will be monitored and can be regulated²⁵⁹ and would apply to all drivers and riders and vehicles and motorcycles.

The Ghana Railways Act (2008) (Act 779) provides for the establishment of the GRDA. The GRDA seeks to promote the development and management of suburban railway. In so doing, the authority implements and ensures compliance with the provisions of the Ghana Railways Act. The authority also promotes the development of railways and railway services; holds, administers, and improves railway assets; and grants licenses, concessions, and leases required for the operation of railways and railway services.

c. Are the terms of regulated entities' legal obligations specific, unambiguous, and compulsory?

The terms of regulated entities' legal obligations are generally specific, unambiguous, and compulsory. For example, in the rail sector, the mandate of the GRDA, as stated in Section 2 (1)(c) of the Act 779, is that the authority is to "promote the development and management of suburban railway." Section 2 (2)(a) states that to achieve its objectives, the authority shall implement and ensure compliance with the act. Section 2 (2) further states that the authority shall (a) hold, administer, and improve the railway assets; (b) grant licenses, concessions, and leases which are necessary for the operation of railways and railway services and perform other related functions including the keeping of a register of railway (i) operations, (ii) licensees, and (iii) sub-licensees; (c) exercise ownership rights over assets that are transferred to the authority from railway assets; (d) set and enforce safety and security standards for the construction and operation of railways in accordance with this act; (e) regulate and monitor the activities of licensees, concessionaires, and operators of railway; (f) initiate, conduct, promote, and encourage studies necessary for the growth and development of railways including the development of master plans in accordance with the schedule to this act and set standards; (g) oversee the administration of the Railway Development Fund and ensure that the Railway Development Fund is used for the purposes set out in Section 23; (h) ensure collaboration with other public, private, or international agencies necessary for the performance of its functions; (i) advise the Government on railway matters generally, subject to Section 98; (j) carry out any transitional function that is necessary for the growth and sustainability of the railways; (k) carry out other activities incidental to its functions; and (I) subject to ministerial directives, perform the functions of a railway regulator.

d. Does the legal framework include the necessary institutional structures and coordination arrangements for implementing those commitments?

There are existing institutional structures and coordinating mechanisms in the legal framework, composed of representatives from a range of State institutions and non-State actors that can support the implementation of the commitments in the PoA. For example, Section 4 (1) of the Railways Act provides that the governing Board of the Ghana Railway Authority shall consist of the following persons: (a) a chairperson; (b) one representative each of (i) the Ministry of Ports, Harbors and Railways, (ii) the Ministry of Road Transport, (iii) the Ministry of Finance and Economic Planning, (iv) the Ghana Ports and Harbours Authority, (v) the NDPC, (vi) the Ghana Chamber of Mines, and (vii) COCOBOD; (c) two persons appointed from the private sector or commerce taking gender balance into consideration; and (d) the Chief Executive Officer of the Ghana Railway Authority. Although this board composition does not reflect any climate considerations, the private sector members could be persons who have a climate background, but this is not explicitly stated in the law.

The Railways Act also established the Railway Development Fund. The Railway Development Fund is governed by a Fund Committee which reports to the board. The board is ultimately responsible for the management of the Fund. The Fund Committee consists of the following persons: one representative

²⁵⁹ Interview with Dan Benefoh, Deputy Director - EPA Ghana, April 2022.

of (a) the MoF; (b) the ministry responsible for railways; and (c) the Controller and Accountant-General, who shall not be below the rank of a Director.

The DVLA Act, 1999 (Act 569) is also governed by a board. The board is responsible for the effective implementation of the functions of the authority. Section 5 of the DVLA Act provides that the DVLA Board is constituted of the following persons: (a) a chairperson; (b) a representative of each of the following: (i) the ministry responsible for Roads and Transport; (ii) the National Road Safety Commission; (iii) the Motor Traffic and Transport Unit of the Police Service; (iv) the Ghana Armed Forces; (v) the Ghana National Association of Garages; (vi) registered motor vehicle and manufacturing companies; (vii) private road transport providers; (vii) the National Insurance Commission; (ix) registered driver training schools; (x) Customs, Excise and Preventive Service; (c) the Chief Executive of the DVLA; and (d) one road transport user nominated by the minister. The DVLA Act has prescribed a wide cross-section of stakeholders who work together to oversee the achievement of the DVLA's mandate.

Both the DVLA and Ghana Railways Authority have boards which have a wide cross-section of stakeholders, to achieve Ghana's PoAs. It is important that if climate considerations are to be at the fore of Ghana's transport sector agenda, then at least one member of the respective boards should have a climate background and focus.

Furthermore, the wide range of actors in the entire transport sector makes effective interinstitutional coordination across the various subsectors and entities a major challenge as there is no clear mechanism for key decision makers across various institutions to take key priority actions.

e. Are there gaps, conflicts, or inconsistencies in the existing legal, policy, and regulatory framework that could impede the implementation of Ghana's commitments?

There are some gaps, conflicts, and inconsistencies in the existing transport legal, policy, and regulatory framework. For example, one key omission is with regard to the move toward the use of electric vehicles. Considering the type of impact that interventions in transport could make to the overall reduction of emissions in Ghana, it is somewhat of a missed opportunity that the commitments in the PoA have not been codified in law. Although the Energy Commission has embarked on the Drive Electric initiative, this is not backed by any policy, legislation, or regulations.

Section 58 (1)(c) of the Customs (Amendment) Act, 2020 prohibits the importation of motor vehicles that are over 10 years of age. But the Government has stopped enforcing it due to concerns about public backlash. It is estimated that if this ban is enforced, some 26,000 vehicles will be affected.

The Customs (Amendment) Act, 2020 does not articulate that the importation of electric vehicles is encouraged. The Act also does not create a clear tax incentive for those importing electric vehicles. For example, the import duty for vehicles is 35 percent of the value of the vehicle whereas for the importation of component parts by car manufacturers, there is no import duty. The Act could have incorporated a lower import duty or provided zero import duty or an exemption for those importing electric vehicles into the country. The Electric Vehicle Policy that is being drafted and the possible waiver of import duties on electric vehicles incentives could address this.

In addition, while motor vehicles not exceeding 5 tons and over 10 years old are banned from importation, vehicles over 5 tons which may be 10 years old or more are not prohibited from importation. This defeats the purposes of the ban on the importation on overage vehicles.

The DVLA Act 1999 does not set limits on emissions from vehicles. But once the draft EPA L.I. setting vehicle standards is adopted, vehicle emissions will be monitored and can be regulated.²⁶⁰ This draft L.I. has been prepared under by the EPA and the DVLA under the authority of Section 26 (2)(e) of the DVLA Act, which is to set standards for testing motor vehicles, among other things. This draft L.I., if

²⁶⁰ Interview with Dan Benefoh, Deputy Director - EPA Ghana, April 2022.

passed, will support Ghana to achieve the commitments in the PoA to promote the use of more energy efficient vehicles.

Also, the current tax code—Energy Sector Levies (Amendment) Act, 2021 (Act 1064)—on fuels does not support a shift to the use or demand for cleaner fuel or energy. Much can be achieved if the proposals in the draft EFRP (2017) document on greening transport taxes and modes of transport are adopted by the Cabinet and implemented. The proposals advocate for incentives for using cleaner fuel, greening transport taxes/subsidies and modes of transport, revising existing vehicle import taxes, and introducing emission-based circulation taxes as well as introducing carbon offset schemes and corporate social responsibility (CSR) contributions of transport companies to the GGF to finance climate change policy and law implementation.

Conclusions and recommendations

The lack of integrated land use, climate change, and transport planning in Ghana has affected the adequate forecasting of future transport demand and planning to limit the need for people to travel and reduce congestion and, by extension, air pollution. But Ghana's transport sector PoAs set out the Government's plans to reduce GHG emission from the transport sector through mass sustainable transport by expanding inter and intra city transport modes.

While the transition to a greener sector targeted by the PoAs in the Updated NDC 2021 largely depends on the availability of finance and political will, the legal and regulatory framework should also be strengthened with supplementary regulations to curb emissions and incentivize the use of lower emitting modes of transport, particularly from the road subsector.

Noteworthy findings and recommendations include the following:

- The targets in the transport PoAs are not clearly defined, and most of the commitments in the PoAs are not directly reflected in the legal and regulatory framework. But the provisions in the legal and regulatory framework are drafted to support the implementation of the PoAs.
- The activities and actors most relevant to the sector's emissions and resilience are subject to the laws and regulations of the sector, including the mandate of the DVLA and the GRDA, and their legal obligations are generally specific, unambiguous, and compulsory.
- Even though there are both formal mechanisms for interinstitutional coordination and the structures and coordinating mechanisms in the legal framework can support the implementation of the commitments in the PoA, effective sectoral institutional coordination and collaboration remains a major challenge because of the wide range of actors and number of ministries and agencies in the transport sector.
- The gaps, conflicts, and inconsistencies in the legal, policy, and regulatory framework include the following: lack of policy or regulations on the use of electric vehicles, lack of fiscal incentives for importing electric vehicles, lack of political will to enforce the statutory ban on importation of overage vehicles, lack of limits on emissions from vehicles, and the failure of the current tax code to support a shift to the use or demand for cleaner fuel or energy.
- The political commitment to prioritize legislative and policy reforms could play a substantial role in the reduction of emissions in the transport sector. The following would contribute significantly to the greening of transport taxes and modes of transport:
 - Amendments to the Energy Sector Levies (Amendment) Act, 2021 (Act 1064), to allow for the establishment of a carbon tax that could incentivize a shift to cleaner fuels, significantly reduce emissions and incentivize further compliance.
 - The enforcement of Customs (Amendment) Act, 2020 could prevent the importation of motorcycles and vehicles over 10 years of age with poorer fuel efficiency.

- The passage of the draft L.I. setting vehicle emission standards.
- $\circ~$ The adoption of the draft EFRP (2017) document the passing of the draft legislation establishing the GGF.
- The finalization of ongoing work on the formulation of a draft Electric Vehicle Policy that may provide fiscal incentives to import and use electric vehicles and adoption of the policy by Cabinet.

4.5. Environmental and social impact assessment legal framework

Relevance of ESIA to climate change

This section examines Ghana's legal framework for national environmental and social impact assessment (ESIA) to determine whether it advances Ghana's climate commitments and addresses project and national vulnerabilities to climate change. An effective ESIA legal framework has the potential to contribute to these goals by considering a proposed project's GHG emissions and climate resilience as part of the environmental and social impact assessment and mitigation measures required by the ESIA system.²⁶¹ Drawing on the analytical framework in Annex I, this section reviews the main elements of Ghana's ESIA legal framework and considers the extent to which it integrates climate change considerations. It concludes with some recommendations. A comprehensive review of the strengths and weaknesses of Ghana's ESIA system, including the extent of adherence to the legal requirements described here, is outside the scope of this analysis.²⁶²

Overview of main ESIA requirements

Ghana has international obligations to assess the environmental and social impacts of certain projects.²⁶³ In addition, Ghana's Constitution imposes on the State and citizen obligations to protect and safeguard the natural environment as well as human rights protections for every person in Ghana.²⁶⁴ The primary source of law for ESIA is the EPA Act²⁶⁵ and the Environmental Assessment regulations (EA Regulations),²⁶⁶ which are implemented by the national EPA.

The EPA is empowered to issue environmental permits and pollution abatement notices as well as prescribe standards and guidelines relating to the pollution of water, air, land and "any other forms of environmental pollution."²⁶⁷ The EPA is also charged with ensuring compliance with EIA procedures with respect to the planning and execution of development projects, including monitoring for compliance, and issuing enforcement notices to prevent or stop noncompliant activities.²⁶⁸ The EPA has produced nonbinding guidelines to outline EIA processes and methods for specific sectors (environmental assessment sector-specific guidelines).²⁶⁹ Ghana does not [appear to] have a parallel

²⁶¹ The ESIA system can be defined as (a) the regulatory environment, (b) the capacity of organizations within that environment, and (c) the quality of a set of core functions necessary for effective ESIA. NCEA (Netherlands Commission for Environmental Assessment). 2017. "A Systems Approach to ESIA Effectiveness."; see *also* Chapman, Peter, Brian Kamau Ndirangu, and Remi Moncel. 2022. "Good Practices in National Systems for Environmental and Social Impact Assessments: A Literature Review." [hereinafter World Bank ESIA Study].

²⁶² For a broader overview, see, for example, Netherlands Commission for Environmental Assessment, Ghana ElA Profile (August. 20, 2019).

²⁶³ See, for example, Rio Declaration (Rio Declaration 1992, Principle 17), the Paris Agreement (Paris Agreement 2015, Article 7.9/c), the United Nations Convention on the Law of the Sea (Law of the Sea Convention 1982, Articles 204 - 206), and the Convention on Biological Diversity (Convention on Biological Diversity 1992, Article 14); see also Pulp Mills on the River Uruguay (Argentina v. Uruguay), International Court of Justice (Judgment), 2010, at 83 (confirming State obligation under customary international law to conduct an environmental impact assessment where a project may have significant adverse effect in a transboundary context).

²⁶⁴ See Ghana National Constitution (1992, last amended in 1996), Article 12 (2); Article 36 (9); Article 41 (k), discussed in Chapter 2, section 4 of this legal analysis.

 $^{^{\}rm 265}$ Environmental Protection Agency Act (1994), Act 490 (EPA Act).

²⁶⁶ Environmental Assessment Regulations (1999, last amended 2002), L.I. 1652 (EA Regulations).

²⁶⁷ EPA Act, Article 2.

 $^{^{268}}$ EPA Act, Articles 2(i), 12, and 13.

²⁶⁹ The EPA developed sector-specific EIA guidelines following the recommendations of participants in a five-year nationwide Environmental Assessment Capacity Development Programme (GEACaP), which was initiated with support from the Government of the Netherlands. See the introduction sections of environmental assessment sector-specific guidelines. To date, Ghana has issued environmental assessment sector-specific guidelines for the health, agriculture, tourism, energy, manufacturing, and general construction sectors. The GEACaP also recommended preparation of sector-specific Environmental Assessment Guidelines for the transportation and forestry and wildlife sectors, but these have not been published.

process for social impact assessments, but the EA Regulations call for consideration of social and cultural impacts as part of the EIA process, such as labor, health, safety, habits and customs, cultural heritage as well as "any other factors of relevance to the particular undertaking."²⁷⁰

The EIA process contains five main stages: (a) screening, (b) scoping and assessment, (c) stakeholder consultations, (d) decision and EMP, and (e) monitoring and compliance.

Screening, scoping, and assessment

The screening stage of the EIA process is meant to allow the EPA to determine what kind of environmental assessment project proponents must conduct before they may obtain an environmental license and the project may move forward. The EA Regulations require all projects "likely to have adverse effect on the environment or public health" to be registered with the EPA and obtain an environmental license.²⁷¹ Generally, project proponents must submit to the EPA an application for an environmental license that contains background information on the project and an initial assessment of its environmental, health, and safety impact. Based on this application, the EPA determines whether to require the proponent to prepare a preliminary environment report or a more detailed EIS before granting a license.²⁷² In a preliminary environment report, the proponent expands on the information in the application to state "the detailed effects" of the proposed project on the environment.²⁷³ Based on the preliminary environment report, the EPA may issue a license or require an EIS, which is an even more involved evaluation of the proposal and its effects, including its alternatives and mitigation and management measures.²⁷⁴ Certain projects always require an EIS.²⁷⁵ These include major activities related to industry, forestry, fisheries, housing, mining, infrastructure, power generation, and waste treatment and disposal.²⁷⁶

At the scoping and assessment stage, applicants required to prepare an EIS must first obtain the EPA's agreement on the scope of this EIS, including agreed terms of reference that address, among other issues, an analysis of the need for the project; alternatives; potential "positive and negative impacts" of the proposed project from the "environmental, social, economic and cultural aspect;" potential impact on the health of people; and proposals to mitigate such impacts, including a provisional EMP.²⁷⁷ The proponent then conducts the assessment and submits for the EPA's approval an EIS that considers the issues in the approved terms of reference and other "direct and indirect" impacts of the project, including air pollutant concentrations.²⁷⁸

Stakeholder consultations

Public consultations are required at various points in the process. Proponents required to prepare an EIS must advertise the proposed project in the national and local press and make copies of the scoping report available to the public.²⁷⁹ The EPA also holds a public hearing regarding projects with great potential impacts on the environment or communities.²⁸⁰

 $^{\rm 277}$ EA Regulations, Regulations 10–14.

 $^{^{\}rm 270}$ See, EA Regulations, Regulations 2, 5, 12, 14, 30.

 $^{^{\}rm 271}$ EA Regulations, Regulation 1–4.

 $^{^{\}rm 272}$ EA Regulations, Regulations 4–6.

²⁷³ EA Regulations, Regulation 9.

 $^{^{\}rm 274}$ EA Regulations, Regulations 9, 30.

²⁷⁵ EA Regulations, Regulation 3.

²⁷⁶ EA Regulations, Sch. 2.

 $^{^{\}rm 278}$ EA Regulations, Regulation 14.

²⁷⁹ EA Regulations, Regulation 15.

 $^{^{\}rm 280}$ EA Regulations, Regulation 17.

Decision and EMP

The EPA reviews the preliminary environment report or EIS to make a decision about the project and whether to grant or deny the license application.²⁸¹ If the application is approved, the EPA issues an environmental permit authorizing the start of the project. The project proponent then submits to EPA an EMP setting out intended steps to "manage any significant environmental impact that may result from the operation of the undertaking."²⁸²

Monitoring and compliance

The EPA monitors the project to ensure that it is carried out in accordance with the EIS and EMP by reviewing annual environmental reports from the proponent. The proponent must also obtain an 'environmental certificate' within two years of the start of activities, based on evidence or confirmation that all other applicable permits and approvals have been secured and the proponent is in compliance with the mitigation commitments contained in the preliminary environment report or EIS.²⁸³ Failure by the proponent to obtain required authorizations, abide by the regulations, conform to the conditions of the permit, or respect the mitigation commitments in the EIS, preliminary environment report, or EMP may result in suspension or revocation of the environmental license.²⁸⁴ Those who fail to complete the required environmental assessments or who otherwise contravene the EA Regulations face fines or imprisonment.²⁸⁵

Extent of consideration of climate change

Neither the EPA Act nor the EA Regulations refer explicitly to climate change or require consideration of climate change as part of the ESIA process. This contrasts with more recent ESIA regulatory regimes and the growing international good practice of making the consideration of climate change an explicit and central requirement of the ESIA system.²⁸⁶

Nevertheless, Ghana's existing ESIA legal regime could be read broadly to allow and even implicitly require climate change-related issues to be addressed in its ESIA process. Indeed, as noted above, the EA Regulations require consideration of a wide range of environmental and social impacts related to the proposed project, which could be understood to encompass climate change considerations. Relevant legal provisions include the following:

- The requirement for projects in certain sectors to always be subject to an EIS, including the main sectors of the PoAs in Ghana's NDC.²⁸⁷
- The power of the EPA to issue permits and regulations regarding air pollution and "any other forms of environmental pollution," which could be understood to include GHG emissions.²⁸⁸
- The requirement to consider, as part of the assessment process, positive and negative environmental aspects, including air pollutant concentrations, which could be understood to include activities contributing to or building resilience against climate change.²⁸⁹
- The requirement to consider, as part of the assessment process, a range of social and cultural dimensions, which could be read to include those related to climate change.²⁹⁰

²⁸¹ EA Regulations, at Regulations 18–19.

²⁸² EA Regulations, Regulation 24.

²⁸³ EA Regulations, Regulation 22.

²⁸⁴ EA Regulations, Regulation 26.

²⁸⁵ EA Regulations, Regulation 29; 2002 amendment to the EA Regulations, L.I. 1703.

²⁸⁶ World Bank ESIA Study, supra note 249, 52–53 (discussing, among other relevant examples, the practice in Kenya and the European Union [EU]).

²⁸⁷ EA Regulations, Sch. 2 (including industry, forestry, fisheries, housing, mining, infrastructure, power generation, and waste treatment and disposal).

²⁸⁸ EPA Act, Article 2.

²⁸⁹ EA Regulations, Regulations 9, 10-14.

 $^{^{\}rm 290}$ EA Regulations, Regulations 2, 5, 12, 14, 30.

- The requirement to consider, as part of the assessment process, "whether any area outside Ghana is likely to be affected by" the project, which could be read to include the contribution to global climate change of the project's GHG emissions.²⁹¹
- The requirement to develop and implement measures to mitigate the environmental and social impacts of the project, which could be read to include measures aimed to mitigating climate change or ensuring that the project builds or does not hinder the affected communities' resilience to climate change.²⁹²

The environmental assessment sector-specific guidelines also contain climate-relevant provisions. In addition to calling for the consideration of environmental impacts in broad terms like the EA Regulations, some of these guidelines explicitly call on applicants to consider climate change. These mentions are summarized in Table 5. But these guidelines are not binding. In addition, these references to climate change are sparse and general and do not reflect the full spectrum of mitigation and adaptation issues relevant to the sector.

Sector	Reference to climate change
Agriculture	Projects should describe "characteristics and significance of changes of important environmental component such as soil, water, climate, and eco-biological resources and humans." ²⁹³
	Consideration of livestock-related environmental impacts and mitigation measures should include the production of gas from livestock waste, including CO ₂ and CH ₄ . ²⁹⁴
	Consideration of livestock-related biodiversity impacts and mitigation measures should include "Production of greenhouse gases (CH ₄ , ozone and nitrous oxide), which can contribute to global warming." ²⁹⁵
Health	Proponents should consider the impact of landfills on air quality, including "Escape of CH ₄ into the atmosphere and implications on climate change." ²⁹⁶
	Assessments of air emissions from health care facilities should consider combustion products such as CH ₄ , CO_2 , and nitrous oxide. ²⁹⁷
Tourism	Collection of baseline information for a proposed project should include "Climate" and "Air quality." ²⁹⁸ Consideration of a project's impacts on air quality should include CO ₂ . ²⁹⁹
Energy	No explicit requirement to consider climate change as part of EIAs.
(Vol 1)	Strategic environmental assessments, which apply to "national policies, plans and programs" provide a framework within which "greenhouse gas policies" are taken into account. ³⁰⁰
Energy	The general EIA checklist for air quality includes CO_2 as an air pollutant. ³⁰¹
(Vol 2)	The EIA checklist for renewable energy plants includes an estimate of the total amount of GHG to be displaced by the renewable generation. ³⁰²
	The EIA checklist for oil and gas development includes consideration of "climate; precipitation patterns (amount, frequency, type), air quality, wind and storm patterns (direction, speed, frequency), temperature, climatic zone." ³⁰³

Table 5: References to climate change in environmental assessment sectoral guidelines

- ³⁰¹ Energy EA Guidelines (Vol. 2), 26.
- 302 Energy EA Guidelines (Vol. 2), 32.

 $^{^{\}rm 291}$ EA Regulations, Regulation 12(o).

²⁹² EA Regulations, Regulation 24.

²⁹³ Agriculture EA Guidelines, 15.

²⁹⁴ Agriculture EA Guidelines, 38.

²⁹⁵ Agriculture EA Guidelines, 39.

²⁹⁶ Health EA Guideline, 26.

²⁹⁷ Health EA Guideline, 67.

²⁹⁸ Tourism EA Guidelines at Appendix 1, 104 and Appendix V, 119.

 $^{^{\}rm 299}$ Tourism EA Guidelines at Appendix II, 107.

³⁰⁰ Energy EA Guidelines (Vol. 1), 7.

³⁰³ Energy EA Guidelines (Vol. 2), 40.

Sector	Reference to climate change
	When considering mitigation measures for fossil fuel-fired thermal powerplants, ³⁰⁴ oil and natural gas production, ³⁰⁵ refineries, ³⁰⁶ landfill gas capture, ³⁰⁷ and biomass and wood fuels, ³⁰⁸ potential negative impacts include the emission of GHGs.
	When considering mitigation measures for hydroelectric dams ³⁰⁹ and sea power, ³¹⁰ potential negative impacts include changes in microclimate.
Manufacturing	Potential environmental impacts from manufacturing include CO_2 from fossil fuel, cement, and metal production, as well as deforestation. They also include dinitrogen oxide and CH_4 . ³¹¹
	Resource consumption should be considered as well, including energy efficiency to reduce emissions of GHGs. ³¹²
General Construction and Services	Projects should consider the impacts of "climate change scenarios" and climate conditions on manufacturing facilities. ³¹³
	All siting and design "should be based on ecologically sustainable principles" and avoid and recognize the risks of sea level rise due to climate change. ³¹⁴
	Use of solar and wind power should be encouraged. ³¹⁵
	Environmental attributes to consider as potential project effects include GHGs. ³¹⁶ Highway projects and waste disposal facilities in particular should consider the GHG emissions associated with the project. ³¹⁷
Mining Operations	When preparing an environmental baseline, subject areas to be covered may include the "Ambient Environment - air quality, meteorological details, climate, etc." ³¹⁸
	Preparation of an environmental management plan includes a description of the existing environment, which should consider "climate and meteorology," including records of rainfall measurements, storm events, temperature extremes, wind speed and direction, and so on. ³¹⁹
	An environmental action plan for existing mining operations must include consideration of environmental issues including a requirement to "List all emissions to air and (if possible) characterize the quality and quantity of each emission." ³²⁰
Transport	No explicit requirement to consider climate change as part of EIAs.
	An EIS for the air transport subsector, should contain recommended mitigation measures that may include employment of "technology that lessens gaseous emissions of pollutants by aircrafts." ³²¹

Conclusions and recommendations

While the existing ESIA regulations are a good foundation, and they can be read to allow or require consideration of climate change issues, the EPA and Ghanaian lawmakers could further strengthen the ESIA system by expressly integrating climate change considerations. Possible reforms include the following:

- Issuing a formal EPA legal opinion or interpretation clarifying that existing EA Regulations require consideration of climate change.
- Amending the EA Regulations to explicitly require applicants to assess, and EPA to consider, the proposed project's contribution and resilience to climate change, including cumulative impacts and the social dimensions of climate change.

 $^{^{\}rm 304}$ Energy EA Guidelines (Vol. 2), $\,$ 40.

 $^{^{\}rm 305}$ Energy EA Guidelines (Vol. 2), $\,$ 51.

³⁰⁶ Energy EA Guidelines (Vol. 2), 51.

³⁰⁷ Energy EA Guidelines (Vol. 2), 46.

³⁰⁸ Energy EA Guidelines (Vol. 2), 46.

³⁰⁹ Energy EA Guidelines (Vol. 2), 44.

 $^{^{\}rm 310}$ Energy EA Guidelines (Vol. 2), $\,$ 46.

³¹¹ Manufacturing EA Guidelines, 21.

 $^{^{\}rm 312}$ Manufacturing EA Guidelines, 32.

³¹³ General Construction EA Guidelines, 48, 70.

 ³¹⁴ General Construction EA Guidelines, 123.
 ³¹⁵ General Construction EA Guidelines, 101, 123.

³¹⁶ General Construction EA Guidelines, 55.

³¹⁷ General Construction EA Guidelines, 55.

³¹⁸ Mining Sector EA Guidelines, 23.

³¹⁹ Mining Sector EA Guidelines, 36.

³²⁰ Mining Sector EA Guidelines, 28.

³²¹ Transport Sector EA Guidelines, 22.

- EPA could—through an amendment to the EPA Act, EA Regulations, or under existing authority—consider the extent to which proposed projects contribute to or hinder Ghana's ability to meet the goals stated in its NDC.
- Amending and developing new environmental assessment sector-specific guidelines that elaborate on the requirements to consider the proposed project's contributions and resilience to climate change, as well as illustrative measures for inclusion in EMPs.
- Developing training programs and manuals for EPA staff, the private sector, and civil society on how to consider the proposed project's contributions and resilience to climate change and develop corresponding measures for inclusion in EMPs.
- Increasing accessibility of ESIA rules, documents, and guidance, including by ensuring that the EPA website contains all sectoral guidance, a repository of proposed and approved projects, assessments, and licenses as well as relevant training materials and resources.

5. Capacity to gather sector-specific data on climate change

5.1. Ghana's reporting obligations under the UNFCCC

As a non-Annex I party to the UNFCCC (Convention) and the Paris Agreement, Ghana has a number of reporting obligations it is required to fulfil. This section reviews the nature of those obligations and also analyzes Ghana's national monitoring and reporting system for international reporting.

UNFCCC

Under Article 4 and 12 of the Convention, Ghana is obligated to periodically prepare and communicate to the COP a NatComm and a National Greenhouse Gas Inventory Report (NIR). The BUR which was mandated by COP Decision 1/CP.16 §60(c) has now been replaced by the Paris Agreement's Biennial Transparency Report (BTR) (Decision 1/CP.24 §41).

The guidelines adopted at COP 8 in New Delhi in 2002 for preparing the NatComm required parties to provide information covering their national circumstances, institutional arrangements for preparing the NatComm, steps taken to implement the Convention including mitigation and adaptation measures, capacity needs and constraints, and other information relevant for achieving the objectives of the Convention and for calculating global emission trends. The NIR was to be prepared using the Revised 1996 IPCC Guidelines for national GHG inventories. The preparation of these two reports is required to be supported by developed countries with finance and technical expertise where needed pursuant to Article 4.3 of the Convention and Decision 1/CP.16 §60(b) and (c).

In addition to the mandatory reports, there are other reports which a party may submit to the UNFCCC if it so decides. Ghana periodically submits information about its activities on adaptation through the Adaptation Communication and the National Adaptation Plans (NAPs) and on REDD+, the voluntary incentive-based sectoral mechanism that rewards developing countries for reducing their emissions from the forest sector. Since REDD+ activities are one of Ghana's conditional PoAs under the Updated NDC 2021, Ghana will have to meet the reporting requirements for REDD+ results-based payment for it to be eligible to sell those emission reductions. The requirements post-COP 21 (Paris Agreement) include submitting information on verified results in tCO_2 per year for each relevant period, forest reference emissions level (FREL), the latest summary of information on how the REDD+ safeguards are being addressed and respected, the REDD+ national strategy or action plan, and information on the national forest monitoring system as a technical annex to the BTR to be technically analyzed by the Technical Expert Review (TER) when the BTR is reviewed (Decision 1/CP.24, §39 45–46).

Paris Agreement

As is the case for all other parties to the UNFCCC, Ghana is required to undertake two additional mandatory reporting commitments under the Paris Agreement in addition to those under the Convention. These are the NDCs and the BTR. The NDCs must contain information on the actions parties intend to take to contribute to meeting the goals of the Paris Agreement and information necessary to understand and essentially track national progress toward the achievement of the NDC targets.³²² Unlike commitments under the Kyoto Protocol, parties are not obligated to meet their NDC targets unless they choose to transpose them into national law, thereby making them legally binding. As explained earlier, Ghana has not yet enshrined its NDC targets into law but has so far honored its commitment to implement its unconditional NDCs with its own resources.

³²² Articles 3, 4.2, and 4.8, Decision 1/CP.21 § 27, Decision 4/CMA.1, Annex I and 6/CMA.3 provide guidance about what other information the NDCs should contain and the time frame.

The BTR, which replaces the BUR, is the instrument to be used for reporting to the Enhanced Transparency Framework (ETF), the reporting mechanism established by Article 13 of the Paris Agreement. The BTR must provide the information necessary to track progress made by the party in implementing and achieving its NDC,³²³ including the indicators the party selected in its NDC.³²⁴ It must also include the national GHG inventory³²⁵ that must be prepared using the new Modalities Procedures, and Guidelines (MPGs) adopted at the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement' 18 in 2019,³²⁶ the 2006 IPCC Guidelines for national GHG inventories that previously only developed countries were required to use, and the common table reports (CTRs) that were adopted at COP 26 in Glasgow.³²⁷ The national GHG inventories can be part of the BTR as a standalone report or a section of the BTR.³²⁸ There is also the long-term strategies to reach net zero by mid-century which the parties were requested to submit to the UNFCCC secretariat before COP 27.³²⁹

Adaptation reporting under the Paris Agreement is not mandatory.³³⁰ However, since adapting to climate change is viewed by African countries as the overriding priority, most of them are submitting information on their adaptation actions. They also periodically update the information in their Adaptation Communication. Parties that choose to submit Adaptation Communications should also include information on their national priorities, implementation and support needs, plans, and actions. The Adaptation Communication can be submitted as a component of the NAPs, the NDCs, or the NatComms³³¹ and can also be included in the BTR.³³² So, there is flexibility in the choice of reporting vehicle to use for reporting on adaptation.

Parties participating in the Article 6 mechanism must meet specified reporting requirements. For the Article 6.2 voluntary cooperation mechanism which Ghana has already started engaging in, Decision 2/CMA.3 and its annex specify the reports participating parties must submit, the timeline and frequency of those submissions, and the information to be provided. In short, in Chapter IV of the Annex to Decision 2/CMA.3, participating parties are required to submit an initial report with the next BTR, an annual report in electronic format no later than April 15 of the following year, and biennial reports included as an annex to the BTRs submitted no later than the end of the relevant year.

In summary, the new and additional reporting requirements under the Paris Agreement mean that developing country parties are facing more onerous reporting requirements than the reporting obligations under the Convention. Reports with larger scope and more in-depth coverage, guidelines with more comprehensive methods for compiling inventories to comply with, and more complex tables and formats to use, are expected to require enhanced institutional and technical capacities to support the preparation of BTRs.

A number of constraints have already been identified, which will affect Ghana's ability to meet these new reporting requirements. They include poor data systems, missing datasets, and incomplete or poor-quality data requiring the use of wide assumptions.³³³ Also, the focus of the domestic MRV system, known as the Ghana Climate Ambitious Report Programme (GCARP), has been limited to GHGs. The GCARP needs to be upgraded to also include non-GHG and to cover MRV of support,

³³¹ Article 7.11 of the Paris Agreement.

³²³ Article 13.7(b) of the Paris Agreement.

³²⁴ Decision 18/CMA.1, §64.

³²⁵ Article 13.7(a).

³²⁶ Decision 18/CMA.1.

³²⁷ Decision 5/CMA.3.

³²⁸ Decision 18/CMA.1, annex §91.

³²⁹ Decision 1/CMA.3, §32.

³³⁰ Article 7.10.

³³² Decision 9/CMA.1, §4.

³³³ Benefoh, Daniel. T., and Antwi-Boasiako Amoah. 2017. "Status of Monitoring Reporting Verification Scheme in Ghana. Prepared under The Initiative for Climate Action Transparency (ICAT) in Ghana."

actions, and the tracking of NDC goals.³³⁴ Other capacity limitations identified in the Fourth NatComm (2020) include

- Inadequate funding to meet UNFCCC reporting and communication requirements;
- Lack of financial support for the transition to ETF by 2024 and additional data work and refinement;
- Assistance with data management needed; will aim to enable automation and integration for continuous data management;
- Challenges in using the 2006 IPCC Guidelines related to the coordination of data collection by institutions and decentralizing of MRV functions that are allocated to a single department;
- Slow pace of institutionalization of BUR into the governmental system; and
- Capacity building or training of experts and institutions to raise visibility and awareness of national reporting.

Description of national monitoring and reporting system for international reporting

The GCARP is an integrated climate data management system that was launched in 2013. It seeks to support the compilation of data for the GHG inventory, on climate action (mitigation) and any related support received, to facilitate preparation of national and international reporting.



Source: Republic of Ghana (2020), Fourth National Communication.

The MRV component of the GCARP has four parts essential to supporting Ghana's reporting commitments to the UNFCCC:

- (i) Institutional arrangements
- (ii) Data handling
- (iii) Methods, tools, and protocols
- (iv) Skills development.

³³⁴ Ibid.

Institutional arrangements

The institutional arrangements for climate change, which were previously organized on an ad hoc basis, have now been streamlined and the institutional roles and responsibilities clarified in a way that should prevent duplication of activities and allow for a more sustainable arrangement. The structure has been decentralized with the line ministries now being given the primary responsibility to compile GHG data for their respective sectors. These arrangements are not reflected in the legal framework. But they have been formalized in memorandums of understanding (MoUs) that are renewed annually between the EPA as the coordinating institution and the relevant State institutions serving as the lead institution for data collection in that sector.³³⁵

The two main institutions coordinating activities in the reorganized institutional structure are MESTI and the EPA. In other MDAs, special climate change units or desks have been set up to handle climate change issues in their sector. Where there is no specialized unit or desk for a particular NDC sector, a contact person playing the role of data provider is appointed and tasked with gathering relevant information on the climate actions undertaken in their sector using the web-based standard mitigation template developed by the EPA.³³⁶

Data handling

The data handling part of the MRV component of the GCARP provides details on the sources of data, the template to be filled, and the various databases that will provide the data. As part of the reforms, the entire data management structure and the methods and frequency for data collection are being revised. The EPA has developed a web-based automated standard mitigation template for capturing information on climate action that is accessible to the target users, replacing the previous approach of sending out questionnaires to government institutions, CSOs, and academic and research institutions. As part of the IT overhaul, a climate change database has been established that serves as a data hub for Ghana's climate reporting, providing information on Ghana's climate action.

Institution	Data platforms	Supporting legal instruments
NDPC	Annual Progress Reports (APRs) and the SDGs report	1992 Constitution (Article 86 and 87) National Development Planning Commission Act, 1994 (Act 479) National Development Planning (Systems) Act, 1994 (Act 840) National Development Planning (System) Regulations, 2016 (L.I. 2232)
EPA	Climate Data Hub and Carbon Registry System, their annual climate change report, the BUR, NatComm, and Akobenn and Environmental Impact Assessment reporting	EPA Act, 1994 (Act 490) Environmental Assessment Regulations 1999 (L.I. 1652)
MoF	Climate Finance Tracking Tool (CLIMFINTRAC) for tracking financial support inflows for climate-related activities from all domestic and international sources	Public Financial Management Act, 2016, Act 921 Public Financial Management Regulations, 2019 (L.I. 2378)
MoFA	Statistics Research and Information Directorate (SRID) publishes the Agricultural Fact and Figures and the Food Livestock Data publications	Civil Service Law (PNDC Law 135)
Energy Commission (Strategic Planning and Policy Division)	Annual National Energy Statistics, Energy Outlook, and Energy information database and their periodic updates	Energy Commission Act, 1997 (Act 541)
Forestry Commission	Forest Inventory and REDD+ registry that includes information from the safeguard information system and the National Forest Monitoring System	Forestry Commission Act, 1999 (Act 571) Forest Plantation Fund Act, 2000 (Act 623)

Table 6: Data platforms for international climate reporting.

³³⁵ Interview with Daniel Benefoh, Deputy Director, Environmental Protection Agency. April 2022.

³³⁶ MESTI (Ministry of Environment, Science, Technology and Innovation). 2019. National Measurement, Reporting and Verification (MRV) System Assessment Report. https://rb.gy/dimoau.

Institution	Data platforms	Supporting legal instruments
Ghana Statistical Service	Ghana Living Standard Survey (GLSS) and Population census	Statistical Services Act, 2019 (Act 1003)
Driver and Vehicle Licensing Authority (DVLA)	DVLA's database on annual vehicle import, registration, and road-worthy certification	DVLA Act, 1999 (Act 569)

There are recommendations for these databases to be evaluated with a view to integrating them into a single database,³³⁷ potentially into the NDPC's existing monitoring and evaluation framework.³³⁸

Legal provisions supporting information gathering

Ghana's MRV framework for preparing reports and communications to the UNFCCC and the Paris Agreement ought to be supported by a well-coordinated institutional arrangement and effective information sharing arrangements involving institutions with the legal mandate to obtain and compile relevant data. A number of State institutions have the legal authority to obtain information from public institutions and private entities in the NDC sectors. They compile some of the information while performing their statutory functions, which they then report on the data platforms they manage. A number of them are also empowered by statutory provisions and regulations that give them the authority and discretion to request additional information for fulfilling their functions or furthering the objectives of the parent statute. These provide them with sufficient basis to request information relevant for Ghana's international climate reporting.

Below are some of the State institutions and a brief review of the legal provisions supporting their monitoring, data collection, and reporting functions.

NDPC

The NDPC has the constitutional mandate of advising the President on development planning policy and strategy (Article 87 (1) and Article 87 (2)) on the monitoring, evaluation, and coordination of development policies, programs, and projects. As the coordinating body responsible for the decentralized development planning system in the country (Section 1 of Act 480), it also has the legal mandate under Section 2 of Act 479 to monitor, evaluate, and coordinate the implementation of government development policies, programs, and projects.³³⁹ Various statutory provisions supporting the operations of the National Planning System require entities covered by the system, namely MDAs and MMDAs, to first develop monitoring and evaluation plans based on criteria established by the NDPC (S18 National Development Planning (System) Regulations, 2016 (L.I. 2232)) and then submit periodic monitoring and evaluation reports on the implementation of their development plans to the NDPC.³⁴⁰ The reports are to be prepared in accordance with the format set out in the Schedules to L.I. 2232. NDPC uses these reports to prepare the APR.

³³⁷ Benefoh, Daniel T., and Antwi-Boasiako Amoah. 2017. "Status of Monitoring Reporting Verification Scheme in Ghana. Prepared under The Initiative for Climate Action Transparency (ICAT) in Ghana."

³³⁸ MESTI (Ministry of Environment, Science, Technology and Innovation). 2019. National Measurement, Reporting and Verification (MRV) System Assessment Report. https://rb.gy/dimoau.

³³⁹ Section 2 (a) study and make strategic analyses of macro-economic and structural reform options; (b) make proposals for the development of multiyear rolling plans taking into consideration the resource potential and comparative advantage of the different districts of Ghana; (c) make proposals for the protection of the natural and physical environment with a view to ensuring that development strategies and programmes are in conformity with second environmental principles; (d) make proposals for ensuring the even development of the districts of Ghana by the effective utilisation of available resources; (e) monitor, evaluate and co-ordinate development policies, programmes and projects; (f) undertake studies' and make recommendations on development and socio-economic issues; (g) formulate comprehensive national development planning strategies and ensure that the strategies including consequential policies and programmes are effectively carried out; (h) prepare broad national development plans; (i) keep under constant review national development plans in the light of prevailing domestic and international economic, social and political conditions and make recommendations for the revision of existing policies and programmes where necessary; and (j) perform such other functions relating to development planning as the President may direct.

³⁴⁰ Regulation 8 and 19 L.I. 2232.

The NDPC also has the legal authority to request data and information from any of the covered entities³⁴¹ that are obliged to comply,³⁴² giving it the authority to request additional information that would be needed to meet the new information requirements under the ETF of the Paris Agreement.

Ministry of Finance

The MoF uses its statutory powers for preparing the national budget to require covered entities to mainstream climate change into their budgets; monitor and assess the implementation of the annual budget;³⁴³ and report their performance on the implementation of their activities, programs, and budget for the preceding financial year to the Minister of Finance under Sections 27 and 30 (3) of Act 921. Since the budget is also prepared to finance the implementation of the NMTDPF, which in the current framework includes the implementation of the NDCs, it is expected that these NDC actions will be implemented in the relevant sectors and at the various levels. Consequently, updates on their implementation should feature in the annual performance reports the covered entities send to the Minister of Finance and Parliament per Section 27 of Act 921.

Also, the current budgetary guidelines which the Minister of Finance is mandated to develop for Cabinet approval under Section 20 (1) of Act 921 and Regulation 20 (3) of L.I. 2378 require MDAs to mainstream climate change policies, operations, programs, and activities into their budgets, using key words from the revised Climate Change Manual (*Integrated Monitoring, Reporting and Verification Climate of Change Finance for Ghana*) to describe those activities.³⁴⁴ All covered entities, principal account holders, spending officers, and members of budget committees are obliged to ensure strict compliance with the guidelines when preparing their budgets as per Section 1 §3 of the 2022–2025 Budget Preparation Guidelines.

The provisions of Act 921 and L.I. 2378 empower the MoF to request information from any covered entity or any other person receiving grants, advances, loans, guarantees, or indemnities from the Government under Section 5 (1) and under Section 20 (2)(k) any other information required from a covered entity to enable the minister to prepare the annual budget in accordance with the requirements of Section 21 of the PFM Act. Under Section 98 of the PFM Act, anyone who refuses or fails to produce that information commits an offence and could face a fine and/or imprisonment.

EPA

The EPA was established by the Environmental Protection Agency Act, 1994 (Act 490) with the mandate of regulating the environment and ensuring the implementation of government policies on the environment. In pursuing this mandate, the EPA is required under Section 2 of Act 490 to perform a number of statutory functions that require the gathering and compilation of information, to effectively perform those functions. These functions include advisory responsibilities; prescribing of standards and guidelines and their enforcement; issuing of environmental permits and the power to compel the undertaking of an Environmental Impact Assessment; conduct of studies, research, surveys, and analysis; development of databases on the environment; imposing and collection of levies; and the regulation of the use of chemicals and the release of substances and pollutants into the environment.

The EPA has discretionary authority under Act 490 and its enabling regulation, the Environmental Assessment Regulations, 1999 (L.I. 1652), as amended by the Environmental Assessment

³⁴¹ 'Covered entities' defined in Section 102 of the Public Financial Management Regulation, 2019 (L.I. 2378) to include (a) the Executive, Legislature, and Judiciary; (b) constitutional bodies; (c) MDAs and local government authorities; (d) the public service; (e) autonomous agencies; and (f) statutory bodies, while 'Principal Account Holder' refers to the sector minister or the political head of a covered entity.

³⁴² Regulation 23 L.I. 2232.

 $^{^{\}rm 343}$ Section 4 of the PFM Act.

³⁴⁴ MoF (Ministry of Finance). 2020. Integrated Monitoring, Reporting and Verification Climate Change Finance for Ghana. https://mofep.gov.gh/sites/default/files/news/Intergrated-MRV.pdf

(Amendment) Regulations, 2002 (L.I. 1703), to request information from the proponent of any activity that is likely to have an adverse impact on the environment.³⁴⁵

The EPA's main avenue for obtaining information is in the process for acquiring an environmental permit, as set out in L.I. 1652. Under Regulations 1 and 2, activities related to those listed in the Schedules to L.I. 1652 or those that, in the opinion of the EPA, are likely to have an adverse impact on the environment and public health are required to be registered with the EPA. An environmental permit must be acquired before the commencement of that activity. The EPA has wide discretionary powers to determine what information it requires from the proponents of the activity when they apply for an environmental permit. The application form for the environmental permit is designed by the EPA, giving it the power to amend the form to include information on GHG emissions or impacts on climate resilience. In addition, there are several other opportunities during the application process where the EPA can request information that is new and additional to what the proponent/applicant previously submitted. The EPA can request such information when necessary for screening and assessing the activity.³⁴⁶ Regulations 11 and 12 give guidance on what is considered essential information which ought to be included in the EIS. An indicative list of what should be covered is also included in Regulation 14 of L.I. 1652. Although the list of issues to be covered in the EIS is broadly framed, there is reference to "concentrations of pollutants in environmental media including air. water and land" that could be interpreted to include GHGs³⁴⁷ even though information requested in the regulation appears targeted toward impacts in the locality where the activity will be undertaken. The activity proponents must also submit the annual environmental report to the EPA after they have been granted the environmental permit.³⁴⁸ Regulation 25 (2) gives the EPA unfettered discretion in determining the form and content of the annual environmental report and thereby the information the project proponents must provide.

Finally, there is also the omnibus clause under Section 27 of Act 490 that gives the EPA the authority to require any person to provide any information it considers reasonably necessary to achieve the purposes of Act 490.

In summary, the general framing of Act 490 and L.I. 1652 affords the EPA discretion in requesting information that is relevant to environmental regulation and protection without needing to amend or adopt a new statute. On climate change, the EPA has exercised this discretion by incorporating climate change indicators into environmental reporting by industrial facilities.³⁴⁹ Therefore, the EPA has the authority under existing statute to request information on GHG emissions and climate resilience from anyone or activity proponent.

Ghana Statistical Service

The Ghana Statistical Service has the legal mandate under the Statistical Services Act, 2019 (Act 1003) to collect and disseminate statistical information and coordinate the national statistical system. This Act 1003 has a fairly wide scope, listing persons legally obliged to provide the Ghana Statistical Service with information and the topics under which it can request information. Section 4 (b) of Act 1003 specifically requires the Ghana Statistical Service to collect, compile, analyze, abstract, publish, and disseminate statistical information related to the commercial, industrial, financial, social, demographic, and economic activities and conditions in the country through the conduct of surveys and national censuses. Section 32 mandates it to gather information related to the comprehensive listing of topics in the First Schedule of Act 1003. Public institutions and their officials are legally mandated to collaborate with the Service in performance of their functions when

³⁴⁵ Section 12 of Act 490.

³⁴⁶ Regulation 4.2, 9–12 of L.I. 1652.

³⁴⁷ Regulation 14 (a) of L.I. 1652.

³⁴⁸ Regulation 25 (1) of L.I. 1652.

³⁴⁹ Interview with Daniel Benefoh, Deputy Director Environmental Protection Agency. April 2022.

requested.³⁵⁰ The Service can also request information related to the comprehensive list of topics listed in the First Schedule from anyone.³⁵¹

Driver and Vehicle Licensing Authority

The DVLA's functions under Section 3 (k) of the DVLA Act, 1999 (Act 569) include a mandate to maintain registers containing the particulars of licensed motor vehicles, instructors, schools, and drivers of motor vehicles. The DVLA is also required to produce an annual report of its activities and operations along with such other information as the governing board of the Authority may consider necessary (Section 25), a provision which could be used to get it to report on emissions from road transport.

Water Resources Commission

The WRC's functions under the Water Resources Commission 1996 (Act 522) include gathering scientific and technical data that could be relevant for climate resilience and reporting. Section 2 (d) requires the WRC to collect, collate, store, and disseminate data or information on water resources in Ghana and Section 2 (e) requires water user agencies to undertake scientific investigations, experiments, or research on water resources in Ghana. Other reporting functions include the annual report that the WRC is required to send to the Minister for Sanitation and Water Resources and then to Parliament on its operations and activities or on such other information that the minister may require (Section 27 (1) and (1b)). In addition, Section 28 provides it with the authority to request information from anyone for the proper and efficient performance of its functions (subject to any other law), which the person shall provide.

Community Water and Sanitation Agency

The CWSA, like other statutory agencies, produces annual reports on its finances, activities, and operations which are sent to the Minister for Sanitation and Water Resources and then to Parliament.³⁵² Under Section 17 (4) of the Community Water and Sanitation Agency Act, 1998 (Act 564), the minister may write to request such other reports from the board as the CWSA may require, which could include a request for information on climate resilience and for reporting to the UNFCCC. Section 18 (1)(iii) also provides the minister and the board with the authority to make regulations generally for carrying into effect the provisions of Act 564, another potential avenue to prescribe rules and guidelines to support the CWSA's monitoring and reporting functions. Section 19 gives the CWSA the power to enter any property to perform its functions under the act.

Methods, tools, and protocols

Reforms that have been undertaken for this component of the MRV system included the identification of guidelines and development of manuals that will be used to prepare Ghana's GHG inventory. This has led to development of the GHG inventory manual and the review process that the EPA has developed to ensure use of quality data and an inventory plan for compiling the NIR.

Skills development

Reforms that are already instituted under this component of the MRV system have sought to develop the capacity of Ghana's experts through continuous training and 'learning by doing'. National experts have been attending training programs to build their capacity for reporting under the Convention while new experts are learning by working with the experienced ones.³⁵³

³⁵⁰ Section 23 (1), 29, 49, and 3 of Act 1003.

 $^{^{\}rm 351}$ Section 25 (1) and 27 of Act 1003.

 $^{^{\}rm 352}$ (Section 17) Community Water and Sanitation Agency Act, 1998 (Act 564).

³⁵³ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3I7kqGC.

Conclusions and recommendations

Key findings from this analysis include the following:

- The institutional arrangements for coordinating the monitoring and reporting activities that provide information for reporting to the UNFCCC and the Paris Agreement are not currently reflected in Ghana's legal and regulatory framework. They are largely administrative arrangements, some of which are captured in MoUs signed between the EPA and the lead institution for gathering data from that NDC sector that are renewed annually.
- Several State institutions have existing legal authority to extract data from both State and non-State bodies and persons. Some State institutions like the EPA, NDPC, Ghana Statistical Service, MoFA, the Energy Commission, the MoF, WRC, and CWSA can rely on existing authority to perform MRV functions without needing to pass legislation. But not all State institutions have the legal authority to perform MRV functions in their sectors.
- Since the Paris Agreement is partly built on the pillars of transparency, reporting and the tracking of progress, it is important that both the institutional MRV framework supporting international reporting and the mandates of all lead State institutions gathering relevant information are codified in the legal framework. This will make legally enforceable reporting requirements and rules and provide certainty to regulated entities as well as lessen the burden on State institutions gathering information.
- While some of the State institutions are legally mandated to submit annual reports to
 Parliament for its consideration, there is no real or effective oversight of the implementation
 of Ghana's climate actions and commitments. Parliament is the key institution that should be
 exercising this important oversight role. Article 103 of the Constitution stipulates that
 "Committees of Parliament shall be charged with such functions, including the investigation
 and inquiry into the activities and administration of ministries and departments as Parliament
 may determine, and such investigation and enquiries may extend to proposals for legislation."
 Currently the Parliamentary Committee that is responsible for environment, science, and
 technology covers issues pertaining to climate change.³⁵⁴
- There should be a Parliamentary Committee that is exclusively dedicated to climate change. The growing impacts of climate change to the economy and the well-being of Ghanaians together with the expansion of government climate action provide strong justification for a climate committee. Parliamentary oversight would require State institutions to submit periodic reports to it to review the implementation of activities of the Government and progress toward the goals and targets of the climate policies, plans, and strategies.³⁵⁵ Such a committee would signal the Government's dedication toward pursuing the vision of the NCCP, which is developing a climate-resilient and compatible economy that sets Ghana on an equitable low carbon economic growth path while achieving sustainable development. Furthermore, the mandate of the Parliamentary Committee to propose legislation could result in legislative interventions which could help Ghana achieve its targets in the NDC.
- Reforms have been undertaken to improve the GCARP's functionality and enhance the country's capacity to prepare and communicate reports that meet both the content requirements and time frames for submission stipulated in the Convention, the Paris Agreement, and related decisions. The reforms involve streamlining and consolidating the GCARP's coordination among the relevant institutions, entrenching institutional roles, developing tools to strengthen the data handling system, revising the inventory cycle, assigning specific roles and reporting lines at each stage of the cycle to institutional and

³⁵⁴ Parliament of Ghana., n.d. "Environment, Science and Technology Committee." https://www.parliament.gh/committees?com=18.

³⁵⁵ World Bank. 2020. World Bank Reference Guide to Climate Change Framework Legislation. Equitable Growth, Finance and Institutions Insight - Governance. Washington, DC: World Bank.

national experts, providing specialized training of experts, and adopting a country-specific GHG manual and QA/QC guidelines.

• The reforms also include the expansion of the scope of what the GCARP monitors and reports to cover data relevant for reporting to the ETF. This was achieved by the development of climate indicators for tracking NDC progress and achievements and a data collection tool for gathering information on NDC implementation. This ensured that climate indicators were integrated into the existing APR system managed by the NDPC, which is going to be used as the main vehicle for monitoring the implementation of Ghana's climate actions, their GHG impacts, and co-benefits.³⁵⁶

It is expected that once these reforms have been fully implemented, the GCARP will be able to meet the requirements of the ETF.

³⁵⁶ EPA, (2021). "Ghana Assessment Report Card: Initial Assessment of the Status of Institutions involved in Ghana's Climate Ambitious Reporting Programme (GCARP) Using Scale Defined in The GEF Programming Document." Unpublished.

6. Financing to achieve climate objectives

6.1. General background and recent developments

Adequate climate financing will be essential to the success of Ghana's climate change and mitigation efforts. Climate financing underpins every aspect of implementation and plays a pivotal role in ensuring climate targets are met. Therefore, the successful implementation of Ghana's PoAs in the priority sectors cannot be attained without an effective and supportive climate financing strategy, policy regime, and the necessary legal and institutional structures to achieve the Government's objectives.

Ghana has typically attained funding for its climate interventions through multifaceted approaches and sources, which include (a) the national budget, (b) CSR initiatives, (c) bilateral sources, (d) multilateral sources, (e) multilateral development banks (MDBs), (f) climate trust funds, (g) private capital investment, and (h) foundations.

The third BUR describes the percentage of distribution of the funding commitment to climate change interventions for 2015–2020 as follows:

- 41 percent of the total financial commitment came from bilateral sources.
- 33 percent of the total financial commitment came from multilateral sources.
- 20 percent of the total financial commitment came from climate trust funds.
- 6 percent of the total financial commitment came from MDBs.
- Less than 1 percent came from foundations.

Essentially, the bulk of financing to address climate initiatives has been from donor financing. It is important to understand these sources of funding to identify finance opportunities and also to develop adequate legal and policy interventions which respond to the goals and climate targets of the Government of Ghana.

Access to donor funds is constrained, and there has been some recent recognition by the Government that the current approach to financing is overreliant on grant financing and is not sustainable.³⁵⁷ Therefore, new and innovative financing mechanisms need to be considered and introduced such as blended finance approaches, leveraging public funding to attract private sector investments, developing local projects which can be easily scaled up and replicated within the local context, and using traditional sources of funding to leverage other types of funding. These new approaches will require an enabling environment which allows them to operate effectively. A successful climate financing regime which can mobilize financing from various sources will also require cohesion between law, policy, regulations, and the requisite institutional arrangements which will support it.

Bilateral agreements

Historically, bilateral agreements constitute the bulk of the financing available to Ghana to address issues highlighted in its NDC. As is typical with bilateral arrangements, each country has its own requirements, operating principles, rules, and obligations which Ghana must fulfil to access funding. This means that Ghana's legal regime must adequately respond to these various arrangements to access the requisite funding. Examples of bilateral funding include the US's USAID, the Netherlands' SNV Netherlands Development Organisation, Denmark's Danish International Development Cooperation (DANIDA), Germany's German Agency for International Cooperation GmbH (GIZ),

^{357 2020.} Ghana NDC Implementation Plan: Financing Strategy Report (Section 2 - Appendices) (Draft). p. 23.

International Climate Initiative (IKI),³⁵⁸ the Global Affairs Canada and Environment and Climate Change Canada Facility, and the EU's Global Climate Change Alliance.³⁵⁹

Multilateral agreements

The second most significant source of financing has been from multilateral funds. As a party to the Paris Agreement, Ghana can access funding from the operating entity of the UNFCCC's financial mechanism (the Global Environment Facility) and the Climate Investment Funds. Other sources of financing have included the Green Climate Fund, the Adaptation Fund, the Special Climate Fund, the World Bank-administered Carbon Fund and Forest Carbon Partnership Facility, and the UN REDD Programme. To date, GEF has financed 38 national projects in Ghana totaling US\$126,782,953 and 57 regional/global projects that Ghana is involved in with an amount of US\$729,754,596.³⁶⁰

National budget

Although the financing of climate initiatives is heavily dependent on donor funds, the Government also allocates a portion of its annual budget to fund climate change related projects. The Updated NDC 2021 states "At the national level, the government allocates public funds in the national budget to finance mitigation investments in forest plantation development, fleet renewal, natural gas infrastructure, sustainable energy, and waste management." This is in line with the objectives of the NCCP and Ghana's decentralized government system. This decentralized approach creates opportunities for Ghana to mainstream climate change adaptation into MMDAs. With the assistance of the United Nations Capital Development Fund (UNCDF), Ghana is embarking on initiatives designed to mainstream climate change adaptation into the budget systems of its MMDAs.³⁶¹

Carbon markets

Both the NDC 2016 and the Updated NDC 2021 express Ghana's intention to use carbon markets to finance some of its PoAs. Despite its ambitions, there are some key factors which need to be addressed to strategically position Ghana to capitalize on its full potential in the international carbon markets. The factors include, but are not limited to, the following: (a) lack of technical expertise, (b) absence of a legal and regulatory framework that directly addresses issues pertaining to carbon emissions,³⁶² (c) significant issues such as carbon ownership and exploitation rights that are not explicitly addressed in law,³⁶³ (d) inadequate demand from private actors, (e) the lack of a robust regulatory and enforcement system, and (f) private investor preference for emission reduction units generated from economies with more formalized and developed economic sectors.

One initiative which is seeking to address these factors is the recently concluded bilateral agreement Ghana entered into with Switzerland and the MoU it signed with Sweden³⁶⁴ as part of the Article 6 early mover or piloting initiative. The MoU executed between Ghana and Switzerland envisaged that this cooperation will help Ghana "operationalize integrated climate data and carbon registry platform for managing and reporting transactions involving Internationally Transferred Mitigation Outcomes (ITMOs) under the cooperative approaches under Article 6 of the Paris Agreement consistent with UNFCCC Decision 18/CMA.1 and to advocate adopting appropriate carbon pricing measures,

³⁵⁸ International Climate Initiative, German Federal Ministry For Economic Affairs and Climate Action. n.d. "Global Distribution of IKI projects." ICI. Accessed January 15, 2022. https://rb.gy/fzzzi1. The website currently shows 43 projects in Ghana.

³⁵⁹ See Paragraph 3.11.2 on page 42 in Ghana Climate Public Expenditure and Institutional Review (2021).

³⁶⁰ Global Environmental Facility. n.d. "Ghana: Country-At-A-Glance." GEF. https://rb.gy/yym2hb.

³⁶¹ Ntumy, E. 2021. "Mainstreaming Climate Change Adaptation in District Medium Term Development Plans." United Nations Capital Development Fund. https://rb.gy/3svcai.

³⁶² Dzivenu, M. G. 2021. "Carbon Pricing: Achieving SDGs and Supporting Economic Growth." B&FT Online. https://rb.gy/ojtnme.

³⁶³ Republic of Ghana. 2021. "Updated Nationally Determined Contribution under the Paris Agreement (2020-2030)." https://rb.gy/hn4wa0.

³⁶⁴ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3l7kqGC.

including the operationalization of Article 6 and other international carbon market instruments to support green businesses, create jobs and facilitate technology transfer."³⁶⁵

Ability of the legal framework to mobilize climate finance

a. Does the legal and regulatory framework include instruments/mechanisms for raising internally generated funds to support Ghana's climate commitments?

The legal and regulatory framework does include instruments/mechanisms for raising internally generated funds (IGFs). Although not specific to climate change, the regime exists for utilizing IGFs to finance various development commitments which may include Ghana's climate commitments.

Article 240 (c) and 240 (d) of the 1992 Constitution of the Republic of Ghana provide the legal basis for IGF. These articles stipulate the following: "(c) there shall be established for each local government unit a sound financial base with adequate and reliable sources of revenue; and (d) as far as practicable, persons in the service of local government shall be subject to the effective control of local authorities."

Section 10 of the Local Government Act, 1993, Act 462, states, among others, that the district assembly (D/A) "shall formulate and execute plans, programmes and strategies for the effective mobilisation of the resources necessary for the overall development of the district." District assemblies obtain resources primarily from internal and external sources. Internal sources include revenue they generate from property rates, fees, levies, toll, fines, and licenses. These are referred to as IGFs. External sources, however, entail revenue from the District Assembly Common Fund (DACF), funds from central government, the District Development Facility (DDF), and donor assistance. Although MMDAs can raise funds internally, the reality is that they have not been able to do so effectively³⁶⁶ as a result of a number of impediments including but not exclusive to "inadequate logistics, under-declaring of revenues by revenue collectors, poor supervision and monitoring, and poor compliance by those residents who are liable for local taxes, rates and charges."

With respect to the utilization of IGFs, Section 5 of the Ministries, Departments and Agencies (Retention of Funds) Act, 2007 (Act 735) provides that "(a) internally generated funds can only be utilised when the activities on which the expenditure will be incurred have been programmed and approved in that Ministry's, Department's and Agency's expenditure budget by Parliament; (b) Ministries, Departments and Agencies which have approval to retain and utilise internally generated funds can only incur expenditure funded by internally generated funds for a particular month if the records of collection for the previous month, bank lodgements, and expenditure returns for the previous month have been submitted to the Ministry of Finance." Therefore, approval must be attained before expending IGF which may be targeted toward climate initiatives. In addition to IGF, there are other mechanisms for raising financing.

Of key importance to the discussion on climate change is that in addition to IGFs, the MMDAs can borrow to meet climate change objectives. A key principle underpinning the PFM Act, 2016 (Act 921) is the sustainable management of debt. In this regard, the Minister of Finance consults with the Minister of Local Government to set limits on borrowing for local government authorities. In circumstances where a local government authority wants to borrow beyond the stipulated limit, it must obtain approval from the Minister of Finance.³⁶⁸ Act 921 also promotes decentralization by permitting local government authorities to borrow funds and be liable for their own debts, except in

³⁶⁵ Republic of Ghana. 2021. "Updated Nationally Determined Contribution under the Paris Agreement (2020-2030)." https://rb.gy/hn4wa0. ³⁶⁶ Puopiel, F., and M. Chimsi. 2016. "Mobilising Internally Generated Funds to Finance Development Projects in Ghana's Northern Region."

Commonwealth Journal of Local Governance 18: 147–160. https://doi.org/10.5130/cjlg.v0i18.4848. https://epress.lib.uts.edu.au/journals/index.php/cjlg/article/view/4848/5214

³⁶⁷ Armah, A. A. 2014. "Assessing the Contribution of Internally Generated Funds to Community Development in the Ga East Municipal Assembly: A Case Study of Abokobi.".

³⁶⁸ Section 74 (2) of Act 921.
circumstances where such debt is guaranteed explicitly by central government.³⁶⁹ Borrowing is defined as raising funds through loans, advances by overdrafts, and debt securities. It is important to highlight that borrowing is only from local sources.

MMDAs are assessed yearly through the Functional Organisational Assessment Tool, which requires that at least 5 percent of their programs and/or projects in their action plans address climate change. At least 75 percent of these programs and projects must be implemented.

But the State's expectation is that Ghana's climate financing will come from both internal and external sources and public and private. Official communications indicate that external financing, both public and private, will remain important sources of climate finance for Ghana. The Updated NDC 2021 also indicates that appropriate carbon pricing measures, including the operationalization of Article 6 and other international carbon market instruments, will be considered to support green businesses, create jobs, and facilitate technology transfer. Consequently, the Updated NDC 2021 also states that "The Ministry of Finance (MOF) will continue to mobilise and track inflows from the Government, development partners, and the private sector to implement nationally determined contributions." It further states that "the National Development Planning Commission (NDPC) will continue to facilitate the mainstreaming of the nationally determined contribution into the sector and district plans and annual progress report to monitor the nationally determined contribution."

The legal and regulatory framework also provides some framework to support the fiscal framework that supports the participation of external sources of financing and the private sector as well. The Public Financial Management Regulations, 2019 (L.I. 2378), although not specific to climate change or any aspects of the international carbon markets, established the Economic Policy Coordination Committee in Section 7 (1) which has the mandate, among others, to review macroeconomic policies in the real, fiscal, monetary, and external sectors that could provide strategic direction for using fiscal tools and policies to support the transition toward a low carbon economy. The Public Private Partnership Act, 2020 (Act 1039) (PPP Act) is a key statute that provides the legal framework for government to partner with interested private sector actors to finance the low carbon public infrastructure PoAs in the Updated NDC 2021. But it has some provisions that might prove challenging for foreign investors. First, the PPP Act requires public-private agreements to be governed by Ghanaian law. The challenge with this is that most international entities/players do not want their agreements governed by local Ghanaian law. This could be an impediment to entry into the carbon market through a PPP arrangement. Also, the PPP Act creates a regime whereby there are appraisals from appraisal authorities. For example, the Public Investment Unit of the MoF is an appraisal authority. This may be a disincentive for investors if they have to undergo the bureaucracy of local approvals before participating in carbon markets as it makes the process somewhat procedurally cumbersome.

The PPP Act also provides for a seven-member panel to handle disputes regarding the bidding process for any PPP project.

Also, Parliamentary approval is required for projects that bind the Government beyond one year. One year is a short period for investment, so investors need to be prepared to go through a parliamentary process before their PPP project is approved.

b. Does the legal framework generate tax and other financial incentives to shift economic activity toward low carbon, climate resilient choices?

The legal framework has some mechanisms for shifting economic activity toward low carbon, climate resilient choices. The preeminent statutory instrument is the Renewable Energy (Amendment) Act 2020, described above. This act includes provisions detailing a competitive regime for procurement of electricity from renewable energy sources, the establishment of the Renewable Energy Fund, and

³⁶⁹ Section 73-74 of Act 921.

the requirement for energy companies producing energy from fossil fuels or those contributing to GHG emissions to invest in nonutility-scale renewable energy to offset their GHG emissions and mitigate climate change.

There are also provisions in the Energy Sector Levies (Amendment) Act, 2021 (Act 1064) for collecting pollution taxes. The act imposes a sanitation and pollution levy on taxes on petrol and diesel, seeking to, among other things, do the following: (a) improve the air quality in urban areas and (b) fund the design, construct, and re-engineer solid and liquid waste treatment and disposal facilities including compost production facilities, recycling facilities, landfill sites, and other specialized waste treatment facilities. Act 899 therefore penalizes the use of petrol and gasoline while also directing the use of the accrued revenue to address waste management, which should help address emissions from a sector that generates 7.5 percent of Ghana's GHG emissions for the inventory period of 1990–2016.³⁷⁰

The Energy Sector Strategy and Development Plan 2010 advocates for the provision of tax incentives for all equipment imported for the development of renewable energy projects. In so doing, the plan seeks to promote Ghana's low carbon, climate resilient development agenda.

More transformational fiscal measures have also been put forward in the draft EFRP 2017 prepared by MESTI, the MoF, and the EPA with the participation of stakeholders from other MDAs, CSOs, the private sector, research institutions, the media, development partners, and Ghana and foreign-based intergovernmental and international organizations, and the Parliament of Ghana. The draft EFRP 2017 aims to shift the focus from conventional taxation to emphasize green taxation to finance measures to address environmental problems in Ghana including climate change issues. It has the three objectives of (a) reforming tax policies, public budgeting, and expenditure systems to support sustainable development; (b) strengthening the implementation of the polluter pays, the user pays, and the prevention and the precautionary principles; and (c) promoting green technological innovation for inclusive growth and climate resilient development. In the energy sector, the strategies and actions the draft EFRP proposes include developing and implementing a CO_{2 tax}; developing legislation on carbon tax and legislation related to energy taxes, subsidies, and tax shifts, in line with national and international standards; promoting climate change mitigation and adaptation investments; and implementing the legislation on energy taxes, subsidies, and tax shifts.

Similarly, in the transport sector, the draft EFRP 2017 proposes providing incentives for the use of cleaner fuel, greening transport taxes/subsidies and modes of transport, revising existing vehicle import taxes and introducing emission-based circulation taxes, introducing carbon offset schemes as well as CSR contributions of transport companies to the Ghana Green Fund (GGF), and promoting investments leading to decreased environmental and social impacts from transport. The draft EFRP 2017 is yet to be approved by Cabinet.

The Government has also initiated efforts to establish a GGF that aims to facilitate and channel green investments toward the financing of climate policy and law implementation. This process began in 2015 and is being managed by the SDG Advisory Unit at the Presidency. The MoF has already developed draft legislation for the GGF in partial fulfilment of one of the strategies in the draft EFRP for the development of a legal framework to support the operationalizing of the GGF.³⁷¹ Funding is expected to come from the State, a carbon tax, green bonds, private sector, and international donors.³⁷²

³⁷⁰ Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3I7kqGC

³⁷¹ MoF (Ministry of Finance). 2017. "Draft Environmental Fiscal Reform Policy." Unpublished.

³⁷² Ibid; see also Republic of Ghana. 2020. "Ghana's Fourth National Communication to the United Nations Framework Convention on Climate Change." https://bit.ly/3I7kqGC

6.2. Participation in carbon markets: Essential elements for Ghana's participation in international carbon trading and the legal framework

General background and recent developments

The PoAs in the Updated NDC 2021 illustrate Ghana's potential to fully participate in large-scale interventions in the international carbon markets. In this regard, the PoA pertaining to Article 6 of the Paris Agreement states that "Ghana intends to use voluntary cooperation under Article 6.2 of the Paris Agreement to achieve up to 55 percent (which is about 24 million tons of emission reductions) of its conditional absolute emissions reductions."

As explained above, despite its ambition, Ghana has not been able to effectively harness this potential to date. This may be attributed to a number of factors including, but not limited to, the following: (a) absence of a legal and regulatory framework that directly addresses issues pertaining to carbon emissions;³⁷³ (b) issues such as ownership and exploitation rights are not explicitly addressed in law;³⁷⁴ (c) the absence of demand from private actors to purchase emission reduction units; (d) lack of a robust regulatory and enforcement system; and (e) a small industrial footprint or lack of formal and developed sectors of the economy to generate emission reduction units.

Since the 2000s, Ghana has been involved in the Clean Development Mechanism (CDM) and the voluntary markets through project-based approaches. In recent times, there has been some momentum toward participation in the international carbon markets through sectoral and national approaches including REDD+ with the World Bank's Forest Carbon Partnership Facility and the Article 6.2 cooperation with Switzerland, Sweden, and Singapore.³⁷⁵

The rules in the international carbon market are complex and constantly changing,³⁷⁶ which make it challenging for developing countries like Ghana to develop adequate policy instruments to respond to the changing legal requirements.³⁷⁷ Therefore, it is not surprising that currently most of the local policies, laws, and regulations do not directly address the issues pertaining to the international carbon markets.

Essential elements

Regarding participation in international market mechanisms, Article 6 in particular requires a domestic governance framework to facilitate the transactions, especially under Article 6.2 and 6.4.³⁷⁸ Although there are some differences between the cooperative approaches under the Article 6.2 mechanism and the centrally governed Article 6.4 crediting mechanism, there are certain basic elements that the host country must have in place to be able to participate in these mechanisms. This governance framework must cover a number of elements including clarification of carbon ownership rights and the host country government's ability to transfer legal title to the internationally transferred mitigation outcomes (ITMOS) free of interest from third parties and all other encumbrances, institutional arrangements, processes, and rules that provide for the approval of Article 6 activities that generate transferable mitigation outcomes, authorization for international transfers and the application of corresponding adjustment along with measures to fulfil the criteria for sustainable development, transparency, and environmental integrity.

Ghana has formulated a draft Article 6.2 Policy Framework ('6.2 Framework') that sets out the national process for engaging in the Article 6.2 mechanism. It is intended to provide clarity to

³⁷⁴ Republic of Ghana. 2021. "Updated Nationally Determined Contribution under the Paris Agreement (2020-2030)." https://rb.gy/hn4wa0.
 ³⁷⁵ Ghana is in negotiations with Singapore on a similar bilateral agreement.

³⁷³ Dzivenu, M. G. 2021. "Carbon Pricing: Achieving SDGs and Supporting Economic Growth." B&FT Online. https://rb.gy/ojtnme.

³⁷⁶ Di Leva, C. E., and S. Vaughan. 2021. "The Paris Agreement's New Article 6 Rules." International Institute for Sustainable Development. https://rb.gy/gq0i6a.

³⁷⁷ Ministry of Environment, Science, Technology and Innovation. 2013. "Ghana National Climate Change Policy." https://rb.gy/hcw8nx.

³⁷⁸ The requirements for participation in the Article 6.2 mechanism are set out in §3–5, Chapter II of the Annex to Decision 2/CMA.3.

potential market participants, including investors, project developers, and buyers, on how they can engage in Ghana's mitigation investments. The draft Article 6.2 Framework document is currently before Cabinet. Once it is approved by the Cabinet, the EPA will develop it into guidelines using its statutory powers under Section 2 (h) of Act 490 so that portions will become regulations through L.I. 1652. The long-term plan is to include the elements of the Article 6.2 Framework in the new act that would establish the EPA as an authority.³⁷⁹

Main elements for participation in international carbon markets

The main elements that are necessary for participation in Article 6 transactions are³⁸⁰

- Institutional arrangements,
- Modalities and processes for Article 6 transactions,
- National carbon registry,
- National MRV system, and
- Grievance and redress mechanism

Institutional arrangements

The 6.2 Framework describes the governance structure for managing the entire transaction process. It sets out the key actors in the structure and the hierarchy of decision-making and assigns the operational roles and responsibilities.

In line with their institutional mandates, the EPA and MESTI will have a central role in managing Ghana's engagements in international carbon markets. MESTI, which already has responsibility for the overall direction of climate change issues in Ghana, will serve as the Authorization Entity for the overall coordinating body for Article 6 transactions in Ghana. The Minister of Environment will facilitate bilateral engagements with prospective Article 6.2 participating entities and will have the responsibility of granting authorizations and approving participation in Article 6.2 projects. EPA and MESTI will also provide regular updates to the Cabinet on Article 6 operations in Ghana. The EPA, using its existing statutory mandate for performing technical and regulatory functions for the environment, will host the Article 6 Office (A6O) at its Climate Change Unit and will provide implementation support and coordinate technical matters on Article 6. The A6O will serve as the National Designated Article 6 Authority (NDAA).

The MoF could also play significant roles in supporting the development of the Article 6 regime by monitoring the inflows of finance and the determination of taxes or tax incentives to attract private investment.

³⁷⁹ Interview with Daniel Benefoh, Deputy Director, Environmental Protection Agency, April 2022.

³⁸⁰ This section of the analysis was prepared following the review of the findings of the World Bank's Mitigation Action Assessment Protocol – International Transfer Readiness (MAAP-ITR) for Ghana and a discussion with Dr. Winston Asante, a member of the World Bank CCDR team who conducted the MAAP analysis.



Figure 10: Host country Article 6 bodies and their roles in Ghana's draft Article 6.2 Framework

1. The Article 6 Inter-Ministerial Group (A6IMG) will provide high-level oversight and coordination of Article 6.2 engagement across government institutions. It will be composed of the Ministers of NDC sectors with mitigation commitments (Energy, Sanitation and Water Resources, Lands and Natural Resources, Food and Agriculture, Transport and Trade and Industry) MoF, NDPC, and the Advisor on SDGs. It will be convened and co-chaired by MESTI and supported by the A60.

2. The Article 6 Board (A6B) is the executive body that will develop and approve rules based on the mandate assigned to them by the Minister of Environment. Its functions will include approval of recommendations from the Article 6 Technical Committee (A6TC) on the list of pre-selected technologies, independent verifiers, issuance of mitigation outcomes, methodologies, guidelines and standards. It will consist of mid- to senior-level officials from MESTI, EPA, Energy Commission, Ministry of Energy, Business Association, Council for Scientific and Industrial Research (CSIR), and CSOs. It will report to the A6IMG through the MESTI. The A6B will be supported by the A6O.

3. The A6TC will have a technical advisory function but report to the Executive Director of the EPA. It will provide advice and serve the A6B with recommendations for decision-making, provide technical advice to the A6O, and provide technical advice and input to the A6IMG. Its responsibilities will include the review of international methodologies, technical guidelines, and default factors; development or overseeing of the development of new methodologies and guidelines; and analysis of the impacts of potential projects/transfers on NDCs' compliance. It will also be supported by the A6O.

4. A60: The EPA's Climate Change Unit will host the A60 which will act as the designated National Authority for Ghana's Article 6 operations. It will have the responsibility for implementing decisions of the A6B, policies, rules, and guidance for Article 6.2 transactions including managing the processes for registration, accounting, validation or verification, issuance, authorizations, transfer of, and reporting of Article 6 activity mitigation outcomes. It will facilitate the work of the Article 6 governance bodies by serving their needs and providing Secretariat support.

Modalities and processes for Article 6 transactions

National arrangements that set out the steps, requirements, and processes for registration, accounting for, validation or verification, issuance, authorization and transfer of, and including the criteria or conditions for approval of Article 6 transactions have been outlined in the draft Article 6.2 Framework that is being considered by Cabinet.

A national carbon registry

A registry that will contain all the components essential for international transactions must be in place to participate in Article 6 transactions and international carbon markets in general. The registry ought to have the legal mandate for issuance, tracing, and recording of transactions and link to other registries. For Article 6, it ought to meet the specific requirements for transfer of ITMOS including recording and reporting of first transfer, cancellation, and use toward NDC; authorization for use toward other mitigation purposes; and recording of the application of any corresponding adjustment. The registry and the MRV system must also provide the EPA with inputs that meet the reporting requirements in Chapter IV of the Annex to Decision 2/CMA.3 for reporting to the UNFCCC on Article 6.2 activities and for the Article 6 Technical Expert Review.

The Ghana Carbon Registry has been established to fulfil these functions. It is also expected to meet monitoring and evaluation requirements for the implementation of NDC actions in the long term. There is currently no legal mandate related to registry functions (that is, to designate the registry for carrying out these functions or to appoint an authority for managing the registry). This could be addressed when the draft Article 6.2 Framework has been approved by Cabinet and developed into statutory guidelines by the EPA powers under Section 2 (h) of Act 490.

National MRV system

An MRV infrastructure for tracking Article 6 cooperation and transfer of ITMOS is also important for ensuring environmental integrity by ensuring the avoidance of double counting and making certain that emission reductions are real, permanent, and additional. The draft Article 6.2 Framework states that the proposed structure for monitoring and reporting is limited to Article 6.2 transactions only, not Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). There are no details yet about how to ensure environmental integrity. The system will support annual reporting to the UNFCCC of quantitative net information on ITMOS transferred for recording in an Article 6 database, including the first report in the BTR and any corresponding adjustment.

Grievance and redress mechanism

There is a lack of clarity in the draft Article 6.2 Framework about Ghana's mechanism and procedures for grievance and redress. The draft Article 6.2 Framework confirms that there will be an appeals subcommittee operating as a standing sub-committee of the A6IMG which will hear and decide appeals from activity participants from the decisions of MESTI or the other A6 bodies. The process for appeals, the terms of reference for the sub-committee, and other modalities are yet to be decided. The draft Article 6.2 framework also states that the Minister of Environment may receive petitions for redress against decisions and acts of the A6B and the A6O and constitute an independent body to settle the matter. It is unclear if the appeals sub-committee will operate as the grievance and redress body or whether it will be the independent body MESTI will constitute.

Conclusions and recommendations

Currently, most of Ghana's climate financing comes from donors. Recognition of the country's overreliance on grant finance and its unsustainability has led the Government to consider new and innovative financing from different sources, including the Article 6.2 mechanism.

Key findings and recommendations include the following:

- Ghana's legal and regulatory framework includes mechanisms for raising IGFs to finance various national and subnational development commitments, which may include climate commitments.
- It also has some provisions that support the shifting of economic activity toward climate resilience including the Renewable Energy (Amendment) Act 2020 and the Energy Sector Levies (Amendment) Act, 2021 (Act 1064). More transformational fiscal measures have been put forward in the draft EFRP 2017 that aim to shift the focus from conventional taxation to emphasis green taxation to address environmental problems including climate change issues.
- Market mechanisms are one of the new sources of climate finance that Ghana is pursuing to finance its climate commitments as stated in the Updated NDC 2021. Currently, there is no structured legal and regulatory framework governing Ghana's participation in carbon markets. As a result, key issues such as the legal definition or classification for carbon and ownership and management rights are not addressed in law. Primary legislation is needed to define the nature of the carbon asset, legal title, and rights to manage or transact carbon and set out through regulations the modalities and procedures for issuance and transfer of mitigation outcomes that are in accordance with the rules of Article 6, CORSIA, and other international market mechanisms.
- The draft Article 6.2 Framework has been prepared and submitted for Cabinet approval. The framework document includes details about the (a) institutional arrangements; (b) steps, requirements, and processes for issuance; (c) authorization, tracking, accounting, reporting, and transfers of mitigation outcomes; and (d) development and approval of methodologies. However, more significantly, the draft framework does not provide details on legal rights or

title to the mitigation outcomes or the carbon unit in general. Once the Cabinet approves the framework document, the EPA is expected to develop its provisions into guidelines under Section 2 (h) of Act 490 to preside over Article 6.2 transactions in the medium term.

• In the long term, there are plans to enact a new act to convert the EPA into an authority. The EPA intends to use this new statute to anchor the institutional framework and the entire Article 6 transaction process in law.³⁸¹ This will be critical in providing certainty to the market, highlighting credible evidence of the Government's commitment to its climate goal, codifying institutional arrangements, and ensuring proper oversight and accountability.³⁸²

³⁸¹ Interview with Daniel Benefoh, Deputy Director Environmental Protection Agency, April 2022.

³⁸² World Bank. 2020. World Bank Reference Guide to Climate Change Framework Legislation. Equitable Growth, Finance and Institutions Insight - Governance. Washington, DC: World Bank.

7. Conclusions and recommendations

Set within the context of an ever-changing international climate regime, Ghana has been steadily integrating climate considerations into its development agenda. Recognizing the seminal importance of climate to its developmental agenda, successive governments have sought to establish the legal, policy, and regulatory structures necessary to adequately deal with climate change issues. The Updated NDC 2021 documents Ghana's most ambitious climate targets to date, with 47 PoAs, categorized under 19 policy actions in 10 priority areas.

Ghana's legal, policy, and regulatory framework for climate change is characterized primarily by a patchwork of policies, plans, and programs and various enactments and statutory provisions dispersed across sectoral laws and regulations and adopted ad hoc, which together support the implementation of the Updated NDC 2021. Such a policy-oriented framework is consistent with the legal system's English common law foundations. However, the policy-based nature of the regime creates intrinsic complexities which inhibit Ghana's progress toward achieving its ambitious climate objectives. Some key challenges include the shifting policy focus of successive governments, insufficient enforcement capacity, difficulty ensuring compliance particularly among non-State actors, limited ability to address climate change issues directly, and insufficient interinstitutional coordination.

Although the policy-based approach is fraught with challenges, it also has its benefits. In several instances, the fact that the regime is not prescriptive but relatively flexible means that climate considerations can be more easily addressed. First, it is easier to formulate and approve a policy than it is to draft a bill and take it through the Parliamentary process required for passing statutory instruments. Therefore, the mainstreaming of climate issues and the inclusion of NDC actions are effected through the CPESDP, the constitutionally mandated policy instrument. The CPESDP and the NMTDP only require Executive approval before they become binding for the MDAs and MMDAs to implement. In the Ghanaian context, policy instruments like the CPESDP offer the Government a relatively easy way to implement its development agenda. Such policy instruments are only binding on State institutions; they are not justiciable and hence the State cannot be sued by the citizenry for an order of the court to implement the instruments, nor can the order be enforced against non-State entities. Non-State entities can only be incentivized or encouraged to align their investments and activities with the CPESDP. The CPESDP and related instruments would need to be reflected in a legislative instrument approved by the Parliament to be binding on non-State entities. Second, the flexibility of Ghana's policy-dominant framework allows the Government to promptly respond to new and emerging climate change issues as they arise. If the framework were primarily codified in law, this could require various legislative amendments and the lengthy process they entail, to respond to constantly changing climate issues. In Ghana's case, what has worked to its benefit is the wording of relevant provisions in the legal and regulatory framework, which are broadly framed to include a wide range of factors including climate, again ensuring that existing legal provisions can support Ghana's climate commitments to an extent.

7.1. General findings

This paper's analysis of the legal and regulatory framework for the deep-dive areas (energy; agriculture, forestry, water and land; transport; and financing to achieve climate objectives) shows that generally the legal and regulatory framework can support Ghana's climate commitments. But legal interventions that are climate prescriptive are necessary for the framework to effectively support the implementation of the country's climate commitments and the attainment of the quantitative targets.

First, most of the PoA targets in the deep-dive areas are not explicitly enshrined in the legal and regulatory framework. Nevertheless, in several deep-dive areas, language in existing statutes and regulations is sufficiently broad to support the implementation of the activities necessary to achieve

the PoAs. This is the case in the water sector, for example, where there is no explicit reference to integrated water resources management measures but the wording of the functions of the WRC in the Water Resources Commission Act, 1996 (Act 522); the CWSA in the Community Water and Sanitation Agency Act, 1998 (Act 564); and other provisions of the Water Use Regulations, 2001 (L.I. 1692) shows that the two bodies will be using the integrated water resources management approach to achieve the objectives of the acts. Provisions in the AFOLU sector laws and regulations are similarly broad to potentially support the implementation of the PoA activities that must be implemented to achieve the targets that come under the functions of the Forestry Commission under the Forestry Commission Act 547; the goals and objectives of the Forest Plantation Development Fund Act, 2000 (Act 583) which is supporting the GFPS 2016–2024; and the provisions of the GSLERP are programs under which Ghana has executed legal agreements with multilateral funds to implement.

The situation is similar in the transport and energy sectors. There have been some legal and regulatory reforms designed to meet the country's climate objectives especially in the energy sector. However, they have not been sufficient to create a robust legal and regulatory framework that addresses climate change issues. The legal and regulatory regime is relatively nascent with very few climate-specific laws and regulations. The Renewable Energy Act (Amendment), 2020 (Act 1045), which was passed in 2020, is a significant step in the right direction. The act places emphasis on the development of renewable energy as a primary source of energy and develops a competitive procurement scheme and net metering scheme that seek to provide competitive tariffs and cheaper end-user tariffs for consumers. Even more significant is the requirement for energy companies producing energy to offset their GHG emissions and mitigate climate change. If the act is effectively implemented, this could generate domestic financing for Ghana's PoAs. That said, if there is an opportunity to make the relevant statutes and regulations more prescriptive and explicitly refer to climate change and related issues, then it should be supported. Such clarity will reduce the scope for varied interpretations of the ambit of the law or the powers of the relevant State institution.

The analysis also found that generally, the legal obligations of the regulated entities in the deep-dive areas were specific, unambiguous, and compulsory for activities that were covered by the act or regulation as is the case with the Environmental Assessment Regulations 1999 (L.I. 1652). The powers of State institutions to issue and enforce compliance with climate laws and regulations were also considered adequate. In the AFOLU sector, it was quite apparent that the high incidence of illegal deforestation was not because of deficiencies in the legal and regulatory framework per se but more of an issue of ineffective law enforcement and insufficient collaboration with local actors and stakeholders. In the water sector, the failure to implement the PoA on renewable energy was due to lack of financing.

Existing institutional arrangements in the deep-dive areas are mainly organized through administrative arrangements that are set out in policies, plans, and program documents. They are not enshrined in the legal and regulatory framework. This can make coordination of the State's implementation of the PoAs or its climate commitments challenging, especially at the ministerial level when the political leadership and priorities changes. There are some provisions in the statutes regarding the composition of the boards of some of the key State institutions or the commissions that guarantee representation by senior officials from relevant State institutions and key actors operating in the sector that can support implementation of the PoAs if climate goals are considered a key issue when the boards are being constituted.

None of the institutional arrangements for coordinating the monitoring and reporting activities for international reporting are currently reflected in the legal and regulatory framework. Instead, the EPA annually renews an MoU with State institutions that have legal authorization for gathering information to compile the data for reporting to the UNFCCC and the Paris Agreement. The legal authority and discretion they have to request additional information necessary to fulfil their mandates gives them

an adequate basis to retrieve climate-relevant data for reporting. But here also, more explicit reference to the data or information relevant for national and international climate commitments would be helpful.

One of the greatest impediments to the achievement of Ghana's climate targets is the lack of funding. Funding is pivotal to the success of the climate change regime and is key for every sector to thrive. The Updated NDC 2021 has a number of conditional PoAs ready for implementation. Without funding, these PoAs will not be implemented. Traditionally, funding has been secured primarily from bilateral and multilateral sources. The changing landscape and pressure for donor resources have exposed the stark reality that climate financing approaches require a more targeted, strategic, and innovative approach to financing. The Government recognizes this.

The draft EFRP (2017) contains specific strategies that aim to shift the focus from conventional taxation to the emphasis on green taxation and generate finance to address environmental problems. It is yet to be approved by Cabinet. The Updated NDC 2021 also considers carbon pricing tools such as participation in international market mechanism, including the Article 6.2 mechanism, as a way to support the implementation of Ghana's PoAs. Options such as blended finance, crowd funding, targeted private sector focused financing, and IGFs for projects, plans, and programs could all be viable methods for financing. The legal and regulatory framework does not yet have the elements necessary to enable the generation of finance from these various sources.

A significant gap in the legal and regulatory framework is the absence of a legal status for a carbon unit. Issues such as the determination of the ownership, transfer, and management rights for carbon, as they pertain to the international carbon markets, are not addressed in the law.

There are other gaps, inconsistencies, overlapping mandates, and conflicting laws in the legal and regulatory framework, including, for example, the conflict between the establishment of Ghana as a petroleum hub per the objectives of the Petroleum Hub Development Act, 2020 (Act 1053) and Ghana's low carbon growth development strategy or the inconsistencies between subsidies on some fossil fuels with a policy direction to move toward a low carbon economy.

Against the backdrop of changing policy direction and institutional reforms, it is not surprising that Ghana's policy, legal, and regulatory regime has a number of inconsistencies, overlapping mandates, conflicting laws, and gaps. The legal and regulatory framework could benefit from legislative reform and the passage of new and comprehensive laws designed to address these gaps and new and emerging climate change issues.

7.2. Recommendations

To address the rapidly changing issues of climate change, it is important that the legal and regulatory framework adequately responds to the local needs and the requirements of international regimes. Several recommendations are made throughout this paper. The most important long-term goal is the enactment of a climate change framework law in Ghana. New climate legislation should clearly define the nature of the carbon asset, legal title, or rights to manage or transact the carbon unit and articulate Ghana's climate targets and how they will be achieved, thereby making policy and additional expectations mandatory. The development of a climate change law could ensure that all regulated entities and other stakeholders operate in a manner consistent with Ghana's climate targets that new and emerging areas relevant to climate change are adequately addressed and given the necessary legislative backing with the force of law, for example, developments in international carbon markets and new fields such as the digital economy.

However, recognizing the time it can take for a new law to be passed, in the short to medium term, certain climate-specific legislative amendments can be prioritized. This analysis recommends the following actions:

- Finalize and implement the draft EFRP 2017 and the draft legislation establishing the GGF The absence of laws or policies on green taxation or a carbon tax is a significant gap in Ghana's existing law and policy framework. The draft EFRP seeks to address this issue and restructure the environmental tax regime to create incentives toward the development of green businesses. The draft EFRP 2017 should be updated, approved, and implemented by the Government to strengthen the tax regime and thereby encourage the adoption of clean energy.
- A focus on legislative amendments in the transport sector could play a substantial role in the reduction of emissions:
 - Enact the draft L.I. setting vehicle emissions standards.
 - Amend the Energy Sector Levies (Amendment) Act, 2021 (Act 1064) to impose a carbon tax to incentivize a shift to cleaner fuels as a possible avenue to operationalizing some of the key strategies in the draft EFRP and reduce emissions from the road transport sector.
 - Complete the work on the development of the Electric Vehicle Policy that should provide fiscal incentives to encourage the import and use of electric vehicles.
 - Prioritize effective enforcement of key laws in high emissions sectors. For example, if enforced effectively, the Customs (Amendment) Act, 2020 could prevent the importation of motorcycles and vehicles over 10 years of age with poorer fuel efficiency and the amendment of existing regulations on energy efficiency and electronic appliances to include appliances under the Updated NDC 2021 energy efficiency PoAs and address other gaps in the regulation's scope.
 - Reform the tariff regime governing the energy sector so it is reflective of costs. Such reform would promote a sustainable and financially viable energy sector. Reform would allow the energy sector to operate on a fully cost-reflective tariff which could reduce the sector's accumulating debts and facilitate the effective management and sustainability of the sector.
- Implementing the Strategic Directives of the FWP 2012 on legislative reforms to tree tenure and benefit-sharing arrangements, finalizing the NRS and MESTI's work on clarifying carbon rights, and passing the Wildlife Resource Bill (2014) to give legal backing to CREMAs will have significant impact on efforts to increase climate resilience and reduce emissions in the AFOLU sector.
- The Cabinet should approve the draft Article 6.2 Framework which provides details about the institutional arrangements, roles and responsibilities, and procedures for Article 6.2 transactions in Ghana and convert the framework into guidelines under Section 2 (h) of Act 490.
- In the long term, enact the draft EPA bill, which proposes to turn the EPA into an authority
 with an explicit mandate and dedicated focus on climate change and codify the Article 6.2
 arrangements into law. The draft EPA bill could be integrated with the climate change
 framework law proposed above.
- Clarify ESIAs, through a formal EPA legal option or an amendment to the Environmental Assessment regulations, to leave no doubt that applicants are required to assess, and the EPA must consider proposed projects' contributions and resilience to climate change, including cumulative impacts and the social dimensions of climate change.
- The legal and regulatory framework for the water sector should be strengthened to support the objectives of some of the water sector policies like the Riparian Buffer Zone Policy 2011.
- Reflect in legal and regulatory framework the institutional arrangements for MRV and the gathering of data relevant for international reporting. Also ensure that all relevant institutions have the legal mandate to request the information.

- Form a Parliamentary Select Committee specifically focused on climate change to strengthen oversight of the implementation of Ghana's climate actions.
- To enhance the public's access to legal information and empower citizens to protect the environment, public institutions responsible for or previously involved in the publication of legal information should be supported to publish regularly.

Such legislative measures, combined with the enactment of dedicated climate change framework legislation, would signal a clear commitment by the Government of Ghana to address climate change issues, implement the policy aspirations detailed in the NCCP, and fulfil its international commitments.

Annexes

Annex I: Analytical framework for the legal analysis³⁸³

- Adequacy of overarching climate change legal framework³⁸⁴
 - Does Ghana have national framework legislation dedicated to climate change, and is that framework capable of giving the country's Paris Agreement NDCs the force of law as and where needed for its successful implementation?
 - Does the legal framework require the periodic completion of national and sectoral climate risk and vulnerability assessments?
 - Does the legal framework require the preparation of decarbonization and adaptation strategies and plans?
 - Does the legal framework assign to one or more governmental institutions the responsibility of coordinating the Government's response to climate change?
 - Are there gaps, conflicts, or inconsistencies in the existing legal, policy, and regulatory framework that could impede the implementation of Ghana's commitments?
 - Is the national climate change architecture overly reliant on policy measures that are not legally enforceable?
- Adequacy of integration of climate change considerations in sectoral laws and regulations
 - To what extent are the commitments and targets of the NDC adequately reflected in the sector's legal and regulatory framework?
 - Are the activities and actors most relevant to the sector's GHG emissions and climate resilience subject to the laws and regulations of that sector?
 - Are the legal obligations of the sector's regulated entities specific, unambiguous, and compulsory?
 - Does the legal framework include the necessary institutional structures and coordination arrangements for implementing those commitments?
 - Is the sectoral regulatory architecture relating to climate change overly reliant on policy measures that are not legally enforceable?
- Adequacy of accountability and enforcement system
 - Are relevant governmental bodies legally empowered to issue climate change regulations, or other sub-legislative legal measures, that are essential for the successful delivery of Ghana's climate commitments in that sector?
 - Are relevant governmental bodies legally empowered to monitor and enforce compliance with climate laws and regulations, such as through oversight, fines, or other penalties?
 - Are the enforcement mechanisms in statutes and regulations sufficient to ensure compliance?
 - Are the institutional coordination mechanisms well structured to provide effective support for implementation?

³⁸³ These questions are illustrative and not meant to be comprehensive.

³⁸⁴ The questions on the 'overarching climate change legal framework' in particular are informed by and build on World Bank. 2020. *World Bank Reference Guide to Climate Change Framework Legislation*. EFI Insight-Governance. Washington, DC: World Bank.

- Are there legal mechanisms in place for holding governmental bodies accountable for not properly discharging their duties under the relevant laws, for example, through judicial challenges by citizens to government inaction or error or through independent and transparent government performance oversight and auditing? Do these mechanisms ensure adequate means of redress for project-affected communities?
- Adequacy of ESIA system
 - Does Ghana's legal framework require each major public and private project to undergo an ESIA?
 - Does Ghana's legal framework require screening for potential environmental and social impacts of proposed plans, policies, and programs and, depending on the result of said screening, the carrying out of environmental and social assessment?
 - Do Ghana's ESIA laws and regulations mandate consideration of the impacts of the proposed activity on climate change, of the project's resilience to climate change, and of the project's alignment with Ghana's NDC and climate change laws and policies?
 - Does Ghana's ESIA laws and regulations condition major public or private project approval and licensing on compliance with climate-related mitigation and adaptation measures?
 - \circ Are Ghana's ESIA laws and regulations, including licenses, adequately enforced?
- Adequacy of system for monitoring and reporting on climate change
 - Do laws and regulations require relevant entities in key sectors to report information about GHG emissions and climate resilience to government authorities and the public?
 - Do laws and regulations encourage or require regulated entities to communicate their financial, technical, and other support needs to meet the policy and legal climate goals in the sector?
 - Does the legal framework require public dissemination of industry and government data, reports, and plans related to climate change? Is the public's right to know such information enforceable?
 - Are the reporting requirements comprehensive, frequent, and aligned with the reporting requirements and guidelines of the UNFCCC and Paris Agreement? Is the Government's failure to meet these reporting obligations enforceable through citizen action?
 - a. Do the supervising institutions/agencies have adequate legal authority to develop and enforce these reporting and review requirements?
 - What are the legal constraints to meeting Ghana's reporting obligations under UNFCCC and Paris Agreement?
- Ability of the legal framework to mobilize climate finance and enable participation in international carbon markets
 - Does the legal and regulatory framework include instruments/mechanisms for raising both internally and externally generated funds to support Ghana's climate commitments?
 - Does the legal framework include a carbon pricing³⁸⁵ regime?
 - Does the legal framework generate tax and other financial incentives to shift economic activity toward low-carbon and/or climate-resilient choices?

³⁸⁵ Carbon pricing, as used in this analysis, includes taxes, fees, or other fiscal incentives for reducing carbon emissions.

- Does the legal framework contain the main elements necessary for Ghana to participate in international carbon trading and other potential market and nonmarket measures under Article 6 of Paris Agreement and other international trading schemes?
- Adequacy of transparency and monitoring
 - Does the legal framework establish a coherent and comprehensive national monitoring, evaluation, and verification system to help Ghana meet its reporting obligations under the UNFCCC and Paris Agreement?
 - Does the legal framework require periodic assessments of the State and adequacy of Ghana's laws and policies related to climate change?
 - Does the legal framework require public dissemination of industry and government data, reports, and plans related to climate change?
 - Does the legal framework require public consultation on government plans, including draft policies and laws, related to climate change?
- Strength of rule of law
 - o Does the country have a strong rule of law tradition?
 - Is the law of lawmaking, particularly as it relates to climate change, clearly spelled out in the Constitution and other laws?
 - Is the law of rulemaking (administrative law), particularly as it relates to climate change, well developed and spelled out in the Constitution and other laws?
 - Are Ghanaian laws and regulations, particularly those related to climate change, generally complied with and fairly and evenly enforced?
 - Does Ghana's legal system ensure the ability of stakeholders to participate in climate law and policy decisions and access justice in climate-related matters?
 - Is the Ghanaian Judiciary legally empowered and sufficiently informed to enforce climaterelated laws and regulations?
 - Does the Ghanaian Judiciary operate in a transparent, accessible, efficient, and impartial manner?

Is the level of experience and education of officials prescribed for key decision-making roles in State institutions adequate to ensure enforcement of climate laws and regulations?

Annex II: Energy sector tables

Table 7: Relevant energy sector laws and regulations

Laws	Overview of the law	Link to applicable climate commitment or PoA
Energy Sector Levies Act, 2015 (Act 899) amended by the Energy Sector Levies (Amendment) Act, 2021 (Act	The amendment institutes an energy sector recovery levy of 20 pesewas per liter on petrol and diesel and 18 pesewas per kilogram on LPG and a sanitation and pollution levy of 10 pesewas per liter on petrol and diesel.	The act penalizes pollution and provides a revenue stream to finance activities that will reduce emissions from the waste sector.
1064)	 The act also provides for the minister to open an energy sector recovery account in which revenue shall be used to pay for capacity charges in the energy sector and energy sector bills, including support for feedstock. 	
	 The amendment also provides for a sanitation and pollution levy which seeks to, among other things, do the following: improve the air quality in urban areas; to design, construct, and reengineer solid and liquid waste treatment and disposal facilities including compost production facilities, recycling facilities, landfill sites, and other specialized waste treatment facilities. 	
Renewable Energy Act, 2011 (Act 832), as amended by Renewable Energy (Amendment) Act, 2020 (Act	 This act was passed to provide for the development, management, and utilization of renewable energy sources for the production of heat and power in an environmentally sustainable manner. The objective of the act includes the following: 	This act is by far one of the most important legislative instruments in the renewable energy space in Ghana. Its mandate and objectives make it relevant for achieving the following:
1045)	 Provision of a framework to support the development of and utilization of renewable energy 	Promotion of energy-efficient refrigerators (residential)
	 sources Creation of an enabling environment to attract investment in renewable energy sources 	 Promotion of energy-efficient air conditioners (public and commercial buildings)
	• Promotion of the use of renewable energy	Promotion of energy-efficient light bulbs (residential)
	 Improvement in access to electricity through the use of renewable energy sources Regulation of the production and supply of woodfuel and biofuel. 	 Promotion of energy-efficient light bulbs (public and commercial buildings)
	The act sets out licensing requirement for any person who wishes to engage in a commercial	Promotion of energy-efficient air conditioners (residential)
	 activity in the renewable energy industry. The act establishes the renewable energy fund with the aim of providing financial support for the promotion, development, sustainable management, and utilization of renewable energy sources. The act mandates the PURC and the NPA to ensure relevant renewable energy sources are considered in developing guidelines and regulations in the generation of electricity and development of petroleum products. It empowers the Energy Commission to issue guidelines for the development, efficient management, and utilization of renewable energy sources and connection of electricity generated from renewable energy sources to transmission or distribution systems. It establishes a competitive procurement scheme and a net metering scheme in respect of electricity generated from renewable energy source. 	 Promotion of energy-efficient and renewable energy-powered public water facilities
		 Green cooling in air conditioners and domestic refrigerators
		 Switch from fuel oil to gas in thermal plants
		 Establishment of 300 solar mini-grids, translating into 14.22 MW
		Attainment of utility-scale solar electricity installed capacity to 527.1 MW
		Increase of installed hydro capacity from 15,80.045 MW to 17,30.45 MW
	• Section 26 (3) of Act 1045 mandates fossil fuel-based wholesale electricity suppliers, fossil fuel	Increase of utility-scale wind power capacity up to 375 MW
	producers, and a private company that contribute to GHG emissions to invest in nonutility scale renewable energy to offset their GHG emissions and mitigate climate change.	Installation of 300 MW distributed solar PV
		Increase solar lantern replacement in rural non-electrified households to 2 million

Laws	Overview of the law	Link to applicable climate commitment or PoA
Petroleum (Exploration and Production) Act, 2016 (Act 919)	 Act 919 was passed in 2016 to provide for and ensure "safe, secure, sustainable and efficient petroleum activities in order to achieve optimal long-term petroleum resource exploitation and utilization for the benefit and welfare of the people of Ghana."³⁸⁶ The act has extensive provisions on the exploration, development, operations, and decommissioning of petroleum resources and petroleum facilities. Of particular importance to Ghana's climate change commitments is Section 27 (3), which requires the approval of an environmental report in relation to an application for the development of a potential petroleum field. The act requires contractors to ensure that the design and construction of the facilities are done to avoid gas venting or flaring of petroleum unless authorized by the Petroleum Commission after consultation with the EPA.³⁸⁶ 	 Scale up access and adoption of improved biomass stoves by 3 million households by 2030 Promote innovative and efficient kilns (70% all commercial charcoal production individuals using innovative and efficient wood carbonization kilns) Support and promote the establishment of woodlots (establish 428,000 ha woodlots by 2030). This act's mandate and objectives make it relevant for achieving the following: Minimizing flaring in three oil and gas fields, in collaboration with the EPA Switching from fuel oil to gas in thermal plants by focusing on and encouraging the exploration and development of natural gas fields Scaling up the adoption of LPG use from 25% to 50% nationwide by 2030 through the increase in the production of more natural gas.
Energy Efficiency Standards and Labelling (Household Refrigerating Appliances) Regulations, 2009 (L.I. 1958)	 This L.I. was passed in 2017 to provide for the enforcement of standards for self-ballasted fluorescent lamps and light emitting diode lamps prescribed in the regulations and Ghana standards.³⁸⁹ The regulations also require the labelling of lamps.³⁹⁰ The regulations apply to lamps manufactured or imported into the country.³⁹¹ The regulations empower enforcement authorities to demand technical documentations,³⁹² enter and inspect the premises,³⁹³ seize documents or lamps,³⁹⁴ and test lamps.³⁹⁵ 	 This regulation was passed by the Energy Commission to promote the use of energy-efficient lamps Promotion of energy-efficient light bulbs (residential) Promotion of energy-efficient light bulbs (public buildings and commercial)

³⁸⁶ Section 2 of Act 919.
387 Section 27 (6) of Act 919.
³⁸⁸ Section 33 of Act 919.
³⁸⁹ Regulation 1 (a)(i)(ii) of L.I. 2353.
³⁹⁰ Regulation 1 (b) of L.I. 2353.
³⁹¹ Regulation 2 of L.I. 2353.

³⁹² Regulation 19 of L.I. 2353.

³⁹³ Regulation 20 of L.I. 2353.

³⁹⁴ Regulation 21 of L.I. 2353.

³⁹⁵ Regulation 22 of L.I. 2353.

Laws	Overview of the law	Link to applicable climate commitment or PoA
	 The regulations prescribe sanctions of fines or prison term or both on individuals and corporate bodies that fail to comply.³⁹⁶ 	
Energy Efficiency (Prohibition of Manufacture, Sale or Importation of Incandescent Filament Lamp, Used Refrigerator, Used Freezer and Used Air- Conditioner) Regulations, 2008 (L.I. 1932)	 This regulation was passed in 2008 by the Minister of Energy to, among others, Prohibit the importation or manufacture of incandescent filament lamp; Prohibit the importation of used air conditioners; and Prohibit the importation of and sale of used refrigerator, refrigerator-freezer, and freezer. The L.I. grants an inspector or custom's officer powers of entry to premises and seizure where s/he has reason to believe that an incandescent filament lamp is manufactured, stored, being offered for sale, or being distributed.³⁹⁷ The L.I. prescribes sanctions, including fines and imprisonment, for anyone that contravenes the regulations.³⁹⁸ 	 This regulation was passed by the Energy Commission to promote the use of energy-efficient lamps. Promotion of energy-efficient light bulbs (residential) Promotion of energy-efficient light bulbs (public buildings and commercial). This L.I. is key for the implementation of the Government's commitments to promote energy-efficient refrigerators, air conditioners, and light bulbs. It will affect the following PoAs: Promotion of energy-efficient light bulbs (residential) Promotion of energy-efficient light bulbs (residential) Promotion of energy-efficient light bulbs (public buildings and commercial) Promotion of energy-efficient refrigerators (residential) Green cooling in air conditioners and domestic refrigerators Promotion of energy-efficient air conditioners (public buildings and commercial).

³⁹⁸ Regulation 6 of L.I. 1932.

³⁹⁶ Regulations 31 and 32 of L.I. 2353.

³⁹⁷ Regulation 4 of L.I. 1932.

Policy, program, or plan	Brief overview of the policy, program, or plan	Link to climate commitment or PoA
Renewable Energy Master Plan (REMP) 2019	 Approved in 2019 for the following Address the attendant effects of such short-term planning of the overall development of the renewable energy sector. Provide investment-focused framework for the promotion and development of the country's rich renewable energy resources for sustainable economic growth, contribute to improved social life, and reduce adverse climate change effects. Increase the proportion of renewable energy in the national energy generation mix from 42.5 MW in 2015 to 1,363.63 MW (with grid connected systems totaling 1,094.63 MW) by 2030. Reduce the dependence on biomass as main fuel for thermal energy applications by 2030. Provide renewable energy-based decentralized electrification options in 1,000 off-grid communities by 2030. Propose exemption of materials, components, equipment, and machinery (that cannot be obtained locally) for manufacturing or assembling, from import duty and value added tax (VAT), up to 2025. In line with the Renewable Energy Act, 2011 (Act 832), the Ministry of Energy will implement the plan through the REMP Coordinating Unit. The REMP- Coordinating Unit shall be responsible for overall procurement and fiscal management, coordination with key REMP components implementation entities and beneficiaries, and reporting obligation. 	 The successful implementation of this master plan will be critical to Ghana in Switching from fuel oil to gas in thermal plants; Establishing 300 solar mini-grids, translating into 14.22 MW; Attaining utility-scale solar electricity installed capacity to 527.1 MW; Increasing installed hydro capacity from 1,580.045 MW to 1,730.45 MW; and Increasing utility-scale wind power capacity up to 375 MW.
National Energy Policy (NEP) 2010	 Even though this was approved before the Paris Agreement, the NEP is the overarching policy governing the sector. It deals with renewable energy deployment, waste-to-energy management, and energy efficiency. It proposes a renewal policy action to focus on Improving production and promoting the efficient use of biomass in the short term, while increasing regeneration; Switching from the use of biomass to alternative sources of energy; Engaging Ghanaian engineers and scientists to cooperate with international experts to bring down the cost of solar and wind energy technologies; and Creating fiscal and pricing incentives to enhance the development and use of renewable energy. It places more emphasis on biofuel generation projects. It provides substantial potential for power generation, and increased government support for the national solar manufacturing sector will form part of the NEP. 	 This policy, even though passed before the Paris Agreement, is still relevant for the following PoAs: Promoting the use of energy-efficient appliances Promoting generation and deployment of renewable energy including biomass, mini-hydro, solar, and wind resources.
Gas Master Plan (GMP) 2016	 The GMP was developed by the Ministry of Energy in 2016 following the discovery of significant associated and nonassociated natural gas reserves in Ghana. These reserves are concentrated in three large offshore gas fields: the Jubilee field with associated gas reserves estimated at 490 billion cubic feet (Bcf), the fields with associated gas reserves of 363 Bcf in Tweneboa, Enyenra and Ntomme, and the Sankofa field with nonassociated gas reserves of 1,107 Bcf.³⁹⁹ The primary objective of the GMP is to develop a strategy for infrastructure development priorities that will contribute to the development of Ghana's natural gas resources and security of energy supply. The GMP delves into alternate scenarios, covering the following areas: 	The GMP is one of the most important plans necessary for carrying out the Government's commitments of switching from fuel oil to gas in thermal plants as well as scaling up the adoption of LNG use from 25% to 50% nationwide by 2030.

³⁹⁹ Ministry of Petroleum. 2016. "Gas Master Plan." MoP-Ghana. https://rb.gy/31bnta.

 Estimates of the demand for gas in Ghana up to 2040 on the basis of a power dispatch model and netback prices for the most likely non-power off-takers⁴⁰⁰ Calculations of the national annual gas supply and demand balance in Ghana as well as the regional balances⁴⁰¹ The weighted average cost of gas resulting from the supply mix⁴⁰² Determination of the location, capacity, costs, and timing of new infrastructure: transmission pipelines and LNG terminals⁴⁰³ The economic value of different gas utilization scenarios.⁴⁰⁴ Further, the GMP requires any investment decision to consider environmental and social impacts on the development of the country. The GMP also contains recommendation for a suitable gas pricing policy, which is aimed at ensuring upstream contained to find the country. 	
Strategy and	trategy and Development Plan is crucial for realizing or
Development Plan	nenting most of the country's commitments of PoAs in the
2010 its energy demands, considering the country's climate change obligations or commitments. The plan stipulates	ation and use of renewable energy. More specifically, it
the vision for the energy sector "to ensure availability of and universal access to energy services and for export by	ns useful plans and strategies for the implementation of the
2020." implem	ng PoAs:
generat	nstalling 300 MW distributed solar PV
2010 • To this end, the plan proposes ways of increasing access to electricity from improved and modernized electricity	Establishing 300 solar mini-grids, translating into 14.22 MW
distribution infrastructure so as to reduce system losses from 25% to 18% by 2015. The sector strategies and	Attaining utility-scale solar electricity installed capacity to 527.1
plans are grouped under the following subsectors; power (electricity), petroleum, and renewable energy. • Im • For wind, solar, and mini-hydro technologies, the plan proposes that the Government of Ghana focuses on	MW
• Promoting the exploitation and use of mini hydro, solar, and wind energy resources;	ncreasing installed hydro capacity from 1,580.045 MW to
• Supporting indigenous research and development aimed at reducing the cost of renewable energy	L,730.45 MW
technologies;	ncreasing utility-scale wind power capacity up to 375 MW
• Providing tax incentives for all equipment imported for the development of renewable energy projects; and	ncreasing solar lantern replacement in rural nonelectrified
• Supporting the use of decentralized off-grid alternative technologies (such as solar PV and wind) where they • Im	nouseholds to 2 million.

⁴⁰⁰ Ibid, 65–74. ⁴⁰¹ Ibid, 74–86.

402 Ibid, 103-110.

403 Ibid, 191-194.

404 Ibid, 194-237.

405 Ibid, 128.

Institution	Institution, general mandate, and relevant provisions of their functions/mandate	Link with the PoA
Ministry of Energy	 The Ministry of Energy exercises overall responsibility for the energy sector. It is responsible for National and sectoral energy policy formulation, implementation, and monitoring and evaluation and Supervision and coordination of the activities of State agencies operating in the energy sector including the Energy Commission, PURC, Petroleum Commission, VRA, and BPA. 	The ministry is responsible for ensuring that the country, through the various sector agencies, meets its commitments and PoAs in the energy priority area.
Environmental Protection Agency (EPA)	 The EPA was established by the Environmental Protection Act, 1994 (Act 490) to, among others, coordinate and manage all activities likely to affect the environment.⁴⁰⁶ The act allows this mandate to be carried out with assistance of various committees appointed by the EPA itself.⁴⁰⁷ The agency has a duty to ensure that any EIAs required by law are performed and permits are issued for all undertakings in schedules 1 and 2 of the Environmental Assessment Regulations, 1999 (L.I. 1652) before the commencement of any activity.⁴⁰⁸ Apart from the specified activities in Act 490, the EPA decides whether or not an EIA is required for any undertaking.⁴⁰⁹ Where an EIA is required, the EPA notifies the other relevant regulators of the proposed undertaking that they cannot issue any approval, permit, or license for the undertaking unless the EIA has been performed and the EPA has given its approval.⁴¹⁰ 	 This agency is instrumental in the implementation of the Government's general climate change goals and environmental PoAs. Particularly, the EPA shall be responsible or lead the implementation of the following PoAs: Minimizing of flaring in three oil and gas fields Green cooling in air conditioners and domestic refrigerators Promotion of energy efficiency in the steel industry.
Energy Commission	 Established by the Energy Commission Act, 1997 (Act 541) to regulate and manage the utilization of energy resources in Ghana and to coordinate policies in relation to them.⁴¹¹ Technical adviser to the Minister of Energy on energy matters. Technical regulator of Ghana's electricity, natural gas, and renewable energy industries.⁴¹² Act 541 also mandates the commission to, in consultation with PURC, Establish and enforce standards of performance for public utilities engaged in the transmission, wholesale supply distribution, and sale of electricity and natural gas⁴¹³ and Perform any other function assigned under this act or any other act.⁴¹⁴ Further to this, the Renewable Energy Act, 2011 (Act 832) also mandates the commission to, among others, Advise the Minister of Energy on renewable energy matters;⁴¹⁵ 	 The Energy Commission is one of the key energy sector agencies in the implementation of Ghana's climate change aspirations or PoAs. Its functions are broad enough to provide them with the legal mandate to spearhead the implementation of the Updated NDC 2021 energy sector PoAs. In particular, the Energy Commission has the lead role in implementing the following PoAs: Promotion of energy-efficient refrigerators (residential) Promotion of energy-efficient air conditioners (public and commercial buildings) Promotion of energy-efficient air conditioners (residential)

Table 9: Brief description of general mandates of energy sector institutions and their functions relevant for PoA implementation

409 Section 12 of Act 490.

⁴¹⁰ Section 12 of Act 490.

⁴¹¹ Section 2 (1) of the Energy Commission Act, 1997 (Act 541).

412 Section 2 (2) of Act 541.

413 Section 2 (2)(f) of Act 541.

414 Section 2 (2)(m) of Act 541.

415 Section 4 (a) Act 541.

⁴⁰⁶ Environmental Protection Agency Act, 1994 (Act 490).

 $^{^{\}rm 407}$ Sections 9 and 10 of Act 490.

 $^{^{\}rm 408}$ Regulations 3 and 4 of L.I. 1652.

Institution	Institution, general mandate, and relevant provisions of their functions/mandate	Link with the PoA
	 Create a platform for collaboration between the Government and private sector and civil society for the promotion of renewable energy sources;⁴¹⁶ 	Green cooling in air conditioners and domestic refrigerators
	 In consultation with PURC, recommend financial incentives necessary for the development, production, and utilization of renewable energy sources;⁴¹⁷ 	 Promotion of energy efficiency in the steel industry Switching from fuel oil to gas in thermal plants
	 Promote the benefits of renewable energy to facilitate utilization;⁴¹⁸ and In consultation with relevant stakeholders, set targets for the development and utilization of renewable energy 	• Scaling up of the adoption of LPG usage from 25% to 50%, nationwide by 2030
	sources. ⁴¹⁹ Section 4 of Act 832 on the composition of the governing body of the commission states: (1) The governing body of the commission is a board consisting of	 Promotion of innovative and efficient kilns Increase in solar lantern replacement in rural nonelectrified households to 2 million.
	(a) The chairman;(b) One representative of the NDPC;	Support to and promotion of the establishment of woodlots
	 (c) The Executive Secretary of the commission appointed under Section 45; and (d) Four other persons with knowledge in matters relevant to the functions of the commission. (2) The members of the commission shall be appointed by the President in accordance with Article 70 of the Constitution. 	 Installation of 300 MW distributed solar PV Increase in utility-scale wind power capacity up to 375 MW.
	(2) The members of the commission shall be appointed by the resident in decondance with rates root are constitution.(3) The President shall, in making appointments, under this section consider the knowledge, expertise, and experience of the persons, particularly their knowledge in matters relevant to the functions of the commission.	
	The commission shall also	
	 Have sole responsibility for licensing persons interested in engaging in commercial activities in the renewable energy industry⁴²⁰ and 	
	 Issue guidelines for the development, efficient management, and utilization of renewable energy sources and connection of electricity generated from renewable energy sources to transmission or distribution systems.⁴²¹ 	
Public Utilities Regulatory Commission	 Established by the Public Utilities Regulatory Commission Act, 1997 (Act 538) as an independent regulatory agency responsible for overseeing the provision of utility services by public utilities and provision for related matters.⁴²² 	The PURC, through its tariff determination mandate, will be important in incentivizing private investment in renewable
(PURC)	 Per the act, the PURC's mandate and functions include the following: Approving rates chargeable for the provision of utility services⁴²³ 	 energy. It will be relevant for achieving the following PoAs: Promotion of the use of energy-efficient appliances
	 In consultation with the Energy Commission, establishing and enforcing standards of performance for public utilities engaged in the transmission, wholesale supply distribution, and sale of electricity and natural gas⁴²⁴ 	Promotion of energy efficiency in the steel industrySwitching from fuel oil to gas in thermal plants
	 Ensuring relevant renewable energy sources are considered in the generation of electricity.⁴²⁵ 	

416 Section 4 (b) Act 541.

417 Section 4 (e) Act 541.

418 Section 4 (h) Act 541.

419 Section 4 (i) Act 541.

⁴²⁰ Sections 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24 of Act 832.

421 Section 49 of Act 832.

⁴²² Public Utilities Regulatory Commission Act, 1997 (Act 538).

⁴²³ Section 3 of Act 538.

424 Section 2 (2)(f) of Act 541.

425 Section 46 of Act 832.

Institution	Institution, general mandate, and relevant provisions of their functions/mandate	Link with the PoA
	 In consultation with the Energy Commission, recommend financial incentives necessary for the development, production, and utilization of renewable energy sources.⁴²⁶ Under the Renewable Energy Act, 2011 (Act 832) as amended by the Renewable Energy (Amendment) Act, 2020 (Act 1045), the PURC's legal mandate is primarily related to its core competence of approving rates and charges for procuring electricity from renewable energy sources.⁴²⁷ The commission comprises the following persons appointed by the President in consultation with the Council of State: A chairman One person nominated by the Trades Union Congress 	 Conversion of single cycle to combined cycle in thermal power plants Attaining of utility-scale solar electricity installed capacity to 527.1 MW Increase in installed hydro capacity from 1,580.045 MW to 1,730.45 MW Increase in utility-scale wind power capacity up to 375 MW.
	 One person nominated by the Association of Ghana Industries One representative of domestic consumers The Executive Secretary appointed under Section 33 of this act Four other persons with knowledge in matters relevant to the functions of the commission. 	
The Petroleum Commission	 Established by the Petroleum Commission Act, 2011 (Act 821) to regulate and manage the utilization of petroleum resources and coordinate policies in the upstream petroleum sector.⁴²⁸ Relevant functions include the following: Promoting planned, well-executed, sustainable, and cost-efficient petroleum activities to achieve optimal levels of resource exploitation for the overall benefit and welfare of the citizens⁴²⁹ Ensuring compliance with health, safety, and environmental standards in petroleum activities, in accordance with applicable laws, regulations, and agreements⁴³⁰ Recommending to the minister national policies related to petroleum activities Regulating the venting or flaring of natural gas in oil fields, after consultation with the EPA.⁴³¹ The Petroleum Commission has the responsibility for ensuring that petroleum resources are explored and exploited in a safe and environmental-friendly manner.⁴³² 	 The Petroleum Commission, as the regulator of the upstream petroleum subsector, will be responsible for facilitating or leading the Minimizing of flaring in three oil and gas fields, in collaboration with the EPA; Switching from fuel oil to gas in thermal plants by focusing on and encouraging the exploration and development of natural gas fields; Scaling up of the adoption of LPG use from 25% to 50% nationwide by 2030 through the increase in the production of more natural gas; and Decarbonization of oil and gas production.
Volta River Authority (VRA)	 Established pursuant to the Volta River Development Act, 1961 (Act 46) with the mandate of generating, transmitting, and distributing electricity across the country.⁴³³ Section 10 of the act spells out the functions of the authority to include the following: Planning, execution, and management of the Volta River development which comprises the generation of electrical power for general industrial, commercial, and domestic uses, by the means determined by the 	 The VRA, through its mandate and operations, is instrumental in the implementation and realization of following PoAs: Converting single cycle to combined cycle in thermal power plants

⁴²⁶ Section 4 (e) Act 541

⁴²⁷ See Section 5 (a-c) of Act 832 and Sections 25 (3-4) and 36 (2) of Act 1045 for further details of those functions.

429 Section 3 (a) of Act 821.

⁴³⁰ Section 3 (d)(i) of Act 821.

⁴³¹ Section 33 of Act 919.

432 Section 73 of Act 919.

⁴³³ Section 1 of the Volta River Development Act, 1961 (Act 46). Following the promulgation of a major amendment to the act within the context of the Ghana Government Power Sector Reforms in 2005, the VRA's mandate has now been largely restricted to generation of electricity. This amendment has created an enabling environment to attract IPPs into the Ghana energy market. The amendment also resulted in the transfer of VRA's transmission to a separate entity— GRIDCo—while the distribution agency, the Northern Electricity Department, established in April 1987, also evolved into NEDCo, a wholly owned standalone subsidiary of the VRA. (VRA website: https://www.vra.com/about_us/profile.php)

⁴²⁸ Section 2 of the Petroleum Commission Act, 2011 (Act 821).

Institution	Institution, general mandate, and relevant provisions of their functions/mandate	Link with the PoA
	 authority, and in particular in the first instance, by the construction and operation of a dam and hydroelectric generating station Supply of electrical power generated by the authority to Distribution companies; Bulk customers; Township of Akosombo and Kpong, and Any other consumer in Ghana or elsewhere under an arrangement agreed upon between the Government and the authority. Section 17 empowers the authority to carry on an activity which is reasonably requisite or convenient for or in connection with the performance of its functions under this act. As part of the effort to encourage private sector participation in the energy sector, the Volta River Development (Amendment) Act, 2005 (Act 692) was passed to carve out the transmission aspect of the authority's mandate and entrusted the same to the newly established national grid company (GRIDCo). VRA is now a purely power generation company with a diversified power generation portfolio that consists mainly of hydro and natural gas, liquefied petroleum products, and renewables. 	 Switching from fuel oil to gas in thermal plants Establishing 300 solar mini-grids, translating into 14.22 MW Attaining utility-scale solar electricity installed capacity to 527.1 MW Increasing installed hydro capacity from 1,580.045 MW to 1,730.45 MW Increasing utility-scale wind power capacity up to 375 MW. Pursuant to the Government's directive, the authority formulated a renewable energy policy to develop and operate renewable energy plants in an efficient, cost-effective, and environmentally sustainable manner.⁴³⁴ In line with the policy, the authority has undertaken various renewable energy projects, including the development of 14.5 MW of solar PV and 150 MW of wind energy The Kaleo and Lawra solar projects will be expanded from a total of 19.5 MW to 35 MW under a similar financing arrangement between the Government of Ghana, KfW Development Bank, and the authority. Works commenced in 2021.⁴³⁵
Bui Power Authority (BPA)	 Established by the Bui Power Authority Act, 2007 (Act 740) with the mandate of planning, executing, and managing the 404 MW Bui Hydroelectric Project, now the Bui Generating Station,⁴³⁶ which has been in service since it was commissioned in 2013. Under the direction of the Ministry of Energy, since 2017, BPA has undertaken several activities on behalf of the State, especially in the area of renewable energy.⁴³⁷ This directive has been crystalized into law in the Bui Power Authority (Amendment) Act, 2020 (Act 1046).⁴³⁸ The amendment has enabled the BPA to perform some of the functions of the proposed Renewable Energy Authority and any function assigned by the minister responsible for energy in the area of renewable energy. These new functions are contained in Section 11 of Act 1046, and they include Executing renewable energy projects on behalf of the State; Undertaking its own renewable energy activities; and Undertaking clean energy alternatives in the country. 	 Pursuant to its mandate under Act 740 and Act 1046, the BPA is the government agency that is currently carrying out the functions of the proposed Renewable Energy Authority and has the authority to execute renewable energy projects on behalf of the State, manage assets in the renewable energy sector on behalf of the State, and undertake renewable energy activities and other clean energy activities for the generating electric power. Its role will be critical for the implementation and realization of the following PoAs: Establishing 300 solar mini-grids, translating into 14.22 MW Attaining utility-scale solar electricity installed capacity to 527.1 MW

⁴³⁴ Ibid.

435 Ibid.

 $^{\rm 436}$ Section 11 of the Bui Power Authority Act, 2007 (Act 740).

⁴³⁷ BPA. n.d. "About Us." Bui Power Authority-Ghana. https://buipower.com/our-clients/.

⁴³⁸ Section 11 of Act 1046 mandates BPA to, in accordance with the Renewable Energy Act, 2011 (Act 832), execute, on behalf of the State, renewable energy projects assigned to it by the minister, manage on behalf of the State the assets in the renewable energy sector assigned to it by the State, and undertake renewable energy activities for generating electric power.

Institution	Institution, general mandate, and relevant provisions of their functions/mandate	Link with the PoA
		 Increasing installed hydro capacity from 1,580.045 MW to 1,730.45 MW Increasing utility-scale wind power capacity up to 375 MW Converting single cycle to combined cycle in thermal power plants Switching from fuel oil to gas in thermal plants. The authority is currently exploring renewable energy projects in line with the Government of Ghana's target of increasing renewable energy in the country's energy mix by 10% by 2030 to achieve the Sustainable Development Goals of the United Nations.⁴³⁹
Petroleum Hub Development Corporation (PHDC)	 The Petroleum Hub Development Corporation Act, 2020 (Act 1053) establishes the PHDC, which seeks to promote and develop a petroleum and petrochemicals hub in Ghana. The act seeks to use revenues generated from indigenous oil and gas resources to finance the transition toward cleaner energy resources. The Government also seeks to enforce a zero flaring policy and "carbon capture utilization and storage technology to ensure that petroleum activities do not adversely impact the environment."⁴⁴⁰ 	 Once it is constituted and operational, the PHDC, as a State parastatal operating in the upstream petroleum subsector, will contribute to the fulfilment of the State's commitment on Minimizing of flaring in three oil and gas fields; Switching from fuel oil to gas in thermal plants by focusing on and encouraging the exploration and development of natural gas fields; Scaling up of the adoption of liquefied petroleum gas use from 25% to 50% nationwide by 2030 through the increase in the production of more natural gas; and Decarbonization of oil and gas production.
The National Petroleum Authority (NPA)	 The NPA, which was established by the National Petroleum Authority Act, 2005 (Act 691), regulates the downstream petroleum downstream industry. The NPA, among others, Monitors the ceilings on the price of petroleum products in compliance with the prescribed petroleum pricing formula; Grants licenses to applicants; maintains a register; and keeps records and data on licenses, petroleum products, and petroleum marketing service providers; Provides guidelines for petroleum marketing operations; and Protects the interests of consumers and petroleum service providers and monitors standards of performance and quality of the provision of petroleum services. 	 The NPA's role is significant in supporting Ghana's climate commitments because it has instituted stringent measures to reduce emissions through various interventions. For example, the NPA is directly responsible for reducing the sulfur content of diesel entering the country. Imported diesel now has a sulfur content of 50 parts per million (ppm), a significant reduction from 3,000 ppm. The NPA has also put in place a standing committee for implementation, monitoring, and enforcement.

⁴³⁹ Ibid.

⁴⁴⁰ Tena, N. 2022. "Ghana Ready for Renewable Energy Transition Says Deputy Minister." ESI Africa. https://rb.gy/m8vrtw.

Annex III: AFOLU sector tables

Table 10: Relevant AFOLU sector laws and regulations

Key laws and regulations	Relevant provisions	Link to climate commitment or PoA
Concessions Act, 1962 (Act 124)	Section 16 vests right to trees or timber in the President in trust for the nation.	 Forest reserves and naturally occurring trees remain under the control of the State, now the Forestry Commission. Legal authority includes controlling rights to harvesting naturally grown timber and entry into and control of activities within the forest reserves The State therefore holds primary responsibility for reducing emissions from the forestry sector. It is incumbent on the State, through its agencies, to manage Ghana's forest resources to meet its climate commitments.
The Forest Protection Act, 1974 (NRCD 243) and the Forest Protection (Amendment) Act, 2002 (Act 624) Economic Plants Protection Act,	 This act was passed to provide for the duties and powers of forest officers and identifies a number of offences related to forest reserves. Section 1 of NRCD 243 makes it an offence for a person who without written authority of the competent forest authority engages in the listed activities that in effect clears, alters, or damages the flora. This act prohibits the destruction of specified plants of economic value and provides for related 	 Provisions of this act form part of enforcement regime to protect forest reserves. If effectively enforced, should also help conserve remaining natural forests and potentially support natural regeneration in the forest reserves. This act is still in force and is part of enforcement regime,
1979 (AFRCD 47)	 matters. It is an offence to fell or destroy plants listed in the schedule (a) without the written authority of the minister or (b) for purposes other than horticultural husbandry. A person convicted under this act is required to pay compensation for the value of the plant destroyed in addition to any punishment imposed for that offence. 	 particularly in relation to naturally occurring trees. It could be used for the protection of cocoa and shea trees if those trees are added to the list in Schedule A.
Trees and Timber Decree, 1974 (NRCD 273) as amended by the Trees and Timber (Amendment) Act, 1994 (Act 493)	 Commissioner (or minister) responsible for lands may by executive instrument declare an area containing standing trees or timber outside of a forest reserve to be a protected area for a time specified in the instrument (Section 12). Section 14 makes it an offence to carry out activities that will lead to felling or damage to trees or in effect change land use of area without consent of commissioner or rights under a concession. Export levy on processed timber (Section 15). 	 This decree can also be used to promote forest conservation in areas with forest resources that are under threat from land use change activities. Portion of export levy imposed by Section 15 goes into Forest Plantation Development Fund to support forest plantation development.
Timber Resource Management Act, 1997 (Act 547) as amended by the Forestry Commission Act, 1999 (Act 571) and Timber Resources Management (Amendment) Act, 2002 (Act 617)	 This act was passed with the objective of ensuring the sustainable management and utilization of timber resources in Ghana and prohibiting harvesting of timber on certain types of lands (specified in Section 4) without a TUC. The State can no longer grant timber rights to trees on farms without the written consent of individuals, groups, or owners concerned (Section 4.2). The State is prohibited from granting timber rights on land with private forest plantation or land with timber planted or owned by an individual or group of individuals (Section 4.3). TUC to include undertaking by owner to execute reforestation plan during period of contract (Section 8). 	 Provisions of this act are designed to incentivize private sector investment in development of forest plantation. Plantation growers are entitled to keep 90% of revenue earned from harvesting the timber, significantly higher than TUC holders. Requirements of TUCs, that is, stronger environmental and social commitments and improved landholder and farmer rights over trees over previous systems, are better aligned with international environmental and social safeguards.

Key laws and regulations	Relevant provisions	Link to climate commitment or PoA
	• Section 14 provides range of benefits and incentives for forest plantation investors including applicable incentives in the Internal Revenue Act, 2000 (Act 692) and under Chapters 82, 84, 85, and 98 of the Customs Harmonized Commodity and Tariff Code scheduled to the Customs, Excise and Preventive Service Law, 1993 (PNDCL 330); import duty exemptions; additional specific incentives that may be negotiated; and dispute resolution methods determined by investor to attract private investors.	
Forest Plantation Development Fund Act, 2000 (Act 583) as amended by the Forest Plantation Development Fund (Amendment) Act, 2002 (Act 623)	 Fund established to provide financial, research, and technical assistance to persons including forest plantation growers and forestry firms involved in forest plantations on land suitable for timber cultivation. Provides for establishment of forest plantation development scheme covering 200,000 ha for a period of not less than 10 years and not more than 25 years (Section 10). Sources of fund include proceeds from timber export levies, grants and loans from international donors, those provided from the consolidated fund; and other sources approved by Minister of Finance (Section 4). 	Part of package of measures and incentivizes to promote forest plantation
Timber Resources Management (Amendment) Regulations 2017 (L.I. 2254)	 Licensing Regulations 2017 (L.I. 2254) applies generally to anyone who wants to fell naturally occurring timber. The laws specifically mention incorporated companies, landowners, chainsaw operators, nongovernmental organizations, rural community groups, and generally any person who wants to fell to export or to distribute for sale on domestic markets. Harvesting of one or several trees for social and community purposes also requires a permit.⁴⁴¹ The L.I. lays out the detailed process for a TUC or permit. (Sections 1 to 4 and 6 of Act 547). It includes details on the following: Process for identification of land suitable for the grant of timber rights (Section 1 of L.I. 2254) and the rights of stool and private landowners (Section 8 (5) (L.I. 2254)) Competitive bidding process and the terms and conditions of contract (Section 8 of Act 547 and Sections 12 to 22 of L.I. 2254) Requirement for harvesting of timber for noncommercial purposes (Section 27 L.I. 2254) The legality licensing regime for legal timber (Sections 31, 38–51 of L.I. 2254). 	 Provisions in the L.I. aim to ensure the sustainable management of Ghana's forest and help bring the rate of harvesting to below the annual sustainable yield of the forest. Also helps the forest code meet the requirements of the EU's Forest Law Enforcement Governance and Trade Initiative and its Voluntary Partnership Agreements.

⁴⁴¹ Section 27 of Timber Resource Management and Legality Licensing Regulations 2017 (L.I. 2254).

Table 11: Relevant AFOLU sector policies, plans, and programs

Key policy, programs, and plans	Overview of the policies, programs, and plans	Link to climate commitment or PoA
Forest and Wildlife Policy (FWP) 2012	 Prevailing policy document governing the forest and wildlife sectors. The overarching objective of this policy is the conservation and sustainable development of forest and wildlife resources. Specifically mentions climate change as an increasing threat to livelihoods and social and economic development. Also includes, as a specific objective of the policy, the management and enhancement of the ecological integrity of Ghana's terrestrial ecosystems to enhance carbon stocks. Policy further outlines strategic direction for addressing climate change (Section 5.1.4) that includes policy strategy of enacting necessary legislation to guide the allocation of carbon rights and related matters (Strategic Direction 1.8). Other strategic directions to provide for transparent governance of forest and wildlife resources include the enactment of legislation and regulations to Facilitate and enhance local community participation and control of forestry operations (Strategic Direction 4.1); Allocate greater proportion of benefits from the resource management to members of the local communities (Strategic Direction 4.1); and Reform property rights including land and tree tenure to incentivize key stakeholders (Strategic Direction 4.1). Number of bills including the Wildlife Resource Bill which will give legislative backing to subnational level structures (CREMAs) involved in implementing REDD+ have been prepared in pursuance of objectives of FWP 2012. It is yet to be considered by Parliament. Several draft amendments to existing statutes have also been prepared following the legislative recommendations for reforms to tree tenure as part of the FIP. 	 The FWP 2012 offers policy objectives and strategic directions that are aligned with Ghana's existing international climate commitments. Successful implementation of these strategic directions will enhance the State's ability to support the implementation of the PoAs. The passing of legislation clarifying carbon rights, reforming land and tree tenure, and improving local community participation in management of forests will form an important component of a legal framework that is aligned with the REDD+ Cancun safeguards and support the trading of compliance grade REDD+ emission reduction units under the Article 6 mechanisms.
National REDD+ Strategy (NRS) 2016	 The NRS was approved in 2016 and submitted to the UNFCCC (LimaHub) as part of eligibility requirements for results-based payments. The NRS proposes interventions and measures designed to address drivers of deforestation and forest degradation that are linked to the production and supply of major commodities between 2016 and 2035. The key provisions or goals of the NRS are as follows: Significantly reduce emissions from deforestation and forest degradation and enhance carbon stocks. Preserve and enhance ecological functions of Ghana's forests. Transform Ghana's major agricultural commodities and nontimber forestry products into climate-smart production systems and landscapes. Expand platforms for cross-sector and public-private collaboration and sustainable economic development. Generate innovative, substantial, and sustainable economic and noneconomic incentives and benefits to improve livelihoods across all regions of Ghana. 	 The NRS 2016 basically outlines the PoAs or measures that Ghana has pledged to implement in support of the goals of the Paris Agreement. Their implementation is conditional on the provision of support. The Cocoa and Shea REDD+ programs have already received some level of funding, while the Program for Policy and Legislative Reform on Tree Tenure and Carbon Rights has been developed and is awaiting implementation.

Key policy, programs, and plans	Overview of the policies, programs, and plans	Link to climate commitment or PoA
	 The NRS uses national and subnational level programs and a phased programmatic approach to reduce emissions from Ghana's forestry sector. The national level program, the REDD+ Programme for Policy and Legislative Reform on Tree Tenure and Carbon Rights, is primarily geared toward addressing tree tenure and carbon rights and related issues. 	
	• The subnational level programs are composed of five emission reduction programs that are being implemented along ecological zones and landscape: cocoa forest zone, shea savannah woodland, transitional forest landscape, coastal mangroves, and mountainous Togo plateau zone.	
Ghana Forest Plantation Strategy (GFPS) 2016- 2040	 The goal of the GFPS is to achieve sustainable supply of planted forest goods and services to deliver a range of economic, social, and environmental benefits. This is to be achieved by optimizing the productivity of planted forests through identification of suitable tree species and improving their propagation, management, utilization, and marketing. The document sets out five strategic objectives which will be crucial for the successful implementation or otherwise of the strategy. These five strategic objectives form the key levers for change and any proposed action must be in line with them. Strategic Objective 1: To provide a sustainable supply of timber and nontimber forest products and environmental services through the (a) establishment and management of 625,000 ha of forest plantations and enrichment planting of 100,000 ha through the application of best practice principles, by 2040; (b) provision of support for the incorporation of trees-on-farms within 3.75 million ha of agricultural landscapes, by 2040; and (c) maintenance and rehabilitation of an estimated 235,000 ha of existing forest plantations through the application of best practice principles. Strategic Objective 2: To promote investments in the establishment and management of small, medium, and large-scale forest plantations. Strategic Objective 3: To create employment opportunities and sustainable livelihoods in rural communities through forest plantation development. Strategic Objective 4: To increase investments in research and development, extension, training, and capacity building for forest plantation development, timber utilization, and marketing. Strategic Objective 5: To improve governance in the regulation and management of forest plantations. 	 This document is critical for achieving the following PoAs: Management of 413,000 ha of fragile, ecologically sensitive, and culturally significant sites in twenty-two (22) districts Governance reform for utilization of forest resources for sustainable energy use and biodiversity business Promotion of forest conservation Promotion of innovations in post-harvest storage and food processing and forest products in all districts of the country.
National Climate Smart Agriculture and Food Security Action Plan (2016-2020)	 This policy seeks to provide the implementation framework for an effective development of climate-smart agriculture in the ground. It formulates specific strategies that will contribute toward developing climate-resilient agriculture and food systems for all agro-ecological zones as well as the human resource capacity required for a climate-resilient agriculture promotion in Ghana. The action plan can be described as an effort by the country to translate to the ground level the broad national goals and objectives in climate-smart agriculture. It was developed with the active engagement of various public and private institutions and organizations in Ghana. The overarching objectives of the policy can be summarized as follows: Develop climate-resilient agriculture and food systems for all agro-ecological zones. Develop human resource capacity for climate-resilient agriculture. 	This policy will support the implementation of PoAs in the agriculture sector, including the promotion of community-based climate-smart agriculture in all districts of Ghana.

Key policy, programs, and plans	Overview of the policies, programs, and plans	Link to climate commitment or PoA
	 Elaborate on the implementation framework and the specific climate-smart agriculture activities to be carried out at the respective levels of governance. 	
Coordinated Programme of Economic and Social Development Policies (CPESDP) (2017-2024)	 The CPESDP 2017-2024 contains strategies aimed at the following: Ensuring food security Reorganizing the National Food Buffer Stock Agency to be more efficient and market oriented; Improving access to safe water by establishing small town water systems, Developing the agricultural sector to ensure production efficiency and post-harvest management. Supporting agro-processing by giving out selected agricultural products such as tomato, cassava, cocca, soya beans, maize, oil palm, cashew, cotton, shea nut, selected fruits, groundnuts, and rice for cultivation Ensuring sustainable fisheries management through marine conservation and protection Implementing environmental protection programs such as waste management, protected areas, forest conservation, biodiversity conservation, sustainable use of mineral resources, coastal zone management, deforestation, desertification, soil erosion, flood, green economy, climate change, disaster management, water resources management, renewable energy resources, energy efficiency, drainage, land use planning, and land reforms. Climate change mitigation and adaptation measures will be taken against the impacts in the fields of agriculture, water, coastal areas, health, energy, and cities and infrastructure. The implementation of this policy will be monitored directly by the Office of the President through the Minister of Monitoring and Evaluation. 	 List of current Government's flagship developmental projects that have adaptation co-benefits. Planting for Food and Jobs (PFJ) Sustainable Land and Water Management Project Ghana Agriculture Sector Improvement Project (GASIP) Climate Change Component Savanna Agriculture Productivity Improvement Project (SAPIP) Planting for Export and Rural Development (PERD) Rearing for Food and Jobs One Village One Dam (1V1D) Savannah Investment Project One District One warehouse (1D1W).
Food and Agriculture Sector Development Policy (FASDEP II) 2007	 This policy document sought to guide development and interventions in the agriculture sector. It spells out the national vision for the food and agriculture sector as a modernized agriculture that would structurally transform the economy and ensure food security, employment opportunities, and reduced poverty. The specific objectives for agriculture, as listed in Chapter 3 of the policy, are as follows: Food security and emergency preparedness Improved growth in incomes Increased competitiveness and enhanced integration into domestic and international markets Sustainable management of land and environment Science and technology applied in food and agriculture development Improved institutional coordination. 	 Policy remains relevant for meeting the Government's climate-smart agriculture or conservation agriculture commitment. Policy sets the tone for the various interventions of the current government in the AFOLU sector.

Key institutions	General mandate and relevant provisions of their functions/mandate	Link to climate commitment or PoA
Ministry of Food and Agriculture (MoFA)	 The MoFA is the lead government entity responsible for the food and agriculture sectors of the country. It is responsible for the formulation of policies, implementation, monitoring, and evaluation, as well as the supervision and coordination of the activities of State agencies operating in the food and agriculture space.⁴⁴² It is also charged with the development and growth of food and agriculture in the country, with the exception of the Cocoa-Coffee and Forestry sector.⁴⁴³ Its mandate makes it a key partner in the implementation of Ghana's NDC as it can help develop agro-practice that is resilient to climate change. It is responsible for supervising the Crop Services and Animal Production Directorates.⁴⁴⁴ It supervises the activities of the sector agencies including the COCOBOD. 	 The MoFA has the overarching mandate of developing laws and policies for the food and agriculture sector. It is also responsible for supervising or coordinating the activities of the various sector agencies in the food and agriculture sector of the economy. It has the mandate of ensuring that the country meets its climate commitments and PoAs in the agricultural priority area.
Ministry of Lands and Natural Resources (MLNR)	 The MLNR is the lead government agency for the land and natural resources sector of the economy. It is tasked with the responsibility of developing and implementing laws and policies for ensuring the sustainable management and development of Ghana's land and natural resources, including forests.⁴⁴⁵ The mandate of this ministry and its agencies are key to the implementation of Ghana's commitments under the NDC, as well as REDD+. With respect to REDD+, key relevant agencies under the ministry are the Forestry Commission, Lands Commission, and the Minerals Commission. This ministry is responsible for supervising the Forestry Commission (the government agency responsible for hosting the REDD+ Secretariat) as well as the Lands Commission.⁴⁴⁶ 	 The MLNR has the overarching mandate of developing laws and policies as well as supervising or coordinating the activities of the various sector agencies in the lands and natural resources sector of the country. It has the mandate of ensuring that the country meets its commitments and PoAs in the forestry and land use priority areas
Ministry of Environment, Science, Technology and Innovation (MESTI)	 The MESTI is the lead government agency responsible for managing the environment, science, and technology. It is responsible for developing laws and policies for the promotion and regulation of the environment, science, and technology. It has the key responsibility of ensuring the protection of the environment, among others.⁴⁴⁷ 	• The MESTI has the overarching mandate of passing laws and policies as well as supervising and coordinating the activities of the various sector agencies to ensure that the country meets its climate change obligations, in general, and PoAs.

Table 12: Brief description of general mandates of AFOLU sector institutions and their functions relevant for PoA implementation

⁴⁴² Ministry of Food and Agriculture. n.d. "About Us." MoFA-Ghana. http://mofa.gov.gh/site/about-us/about-the-ministry. 443 Ibid.

⁴⁴⁴ Ibid.

⁴⁴⁵ Ministry of Lands and Natural Resources. n.d. "About Us". MLNR-Ghana. http://mlnr.gov.gh/index.php/the-ministry.

⁴⁴⁶ Ministry of Lands and Natural Resources. n.d. "About Us". MLNR-Ghana. http://mlnr.gov.gh/index.php/the-ministry.

⁴⁴⁷ Ministry of Environment, Science, Technology. n.d. "About Us." MESTI Ghana. https://mesti.gov.gh/about-us/.

Key institutions	General mandate and relevant provisions of their functions/mandate	Link to climate commitment or PoA
	 It plays an important role in national climate change agenda development and has been the leading ministry in negotiations as well as reporting to UNFCC.⁴⁴⁸ 	
	 It has oversight responsibilities over the EPA, Ghana Atomic Energy Commission, Land and Spatial Planning Authority, and National Biosafety Authority, among others.⁴⁴⁹ 	
Forestry Commission	 The Forestry Commission was established by the Forestry Commission Act, 1999 (Act 571) to, among others, regulate utilization of forest and wildlife resources, the conservation and management of same, and the coordination of policies related to them.⁴⁵⁰ 	The Forestry Commission is instrumental in the implementation of most of the country's forestry related PoAs. Specifically, it is responsible for leading or facilitating the implementation of the following PoAs
	• The functions of the commission include the following:	Wildlife management in transition and savannah zones
	o Monitoring the harvesting and marketing of forest and wildlife products and related	• Forest Plantation Development Program (25,000 per ha per year)
	matters ⁴⁵¹	Tree-on-farm/enrichment planting
	 Managing the nation's forest reserves and protected areas⁴⁵² 	Promotion of forest conservation
	 Assisting the private sector and any other bodies to implement forest and wildlife policies⁴⁵³ 	 Promotion of innovations in post-harvest storage and food processing and forest products in all districts of the country
	 Undertaking development of forest plantations for the restoration of degraded forest areas and expansion of the country's forest cover.⁴⁵⁴ 	Shea Landscape Emission Reduction Program (restoration of degraded
	 The commission embodies the various public bodies and agencies that are individually implementing the functions of protection, management, and the regulation of forest and wildlife resources.⁴⁵⁵ 	 Cocoa Forest REDD+ Program (result-based emission reduction)
	These agencies currently form the divisions of the commission:	
	• Forest Services Division	
	o Wildlife Division	
	 Timber Industry Development Division 	
	 Forestry Commission Training Center 	
	 Resource Management Support Center.⁴⁵⁶ 	
	 The commission aims to be a corporate body of excellence in the sustainable development, management, and utilization of Ghana's forest and wildlife resources, meeting both national and global standards for forest and wildlife resource conservation and development.⁴⁵⁷ 	

448 Ibid.

449 Ibid.

⁴⁵⁰ Section 2 (1) of the Forestry Commission Act, 1999 (Act 571).

⁴⁵¹ Section 2 (2)(a)(iii) of Act 571.

452 Section 2 (2)(b) of Act 571.

453 Section 2 (2)(c) of Act 571.

⁴⁵⁴ Section 2 (2)(d) of Act 571.

⁴⁵⁵ Forestry Commission. n.d. "Home." Ghana Forestry Commission. https://fcghana.org/.

456 Ibid.

 $^{\rm 457}$ Forestry Commission. n.d. "Home." Ghana Forestry Commission. https://fcghana.org/.

Key institutions	General mandate and relevant provisions of their functions/mandate	Link to climate commitment or PoA
	Its mandate and functions place the Forestry Commission at the center of the implementation of Ghana's forestry NDC commitments or PoAs.	
	 Further, it is the lead government agency tasked with the responsibility of ensuring the smooth and effective implementation of REDD+ in Ghana.⁴⁵⁸ 	
	 As technical advisers to the Minister of Lands and Natural Resources, the Forestry Commission is strategically placed to influence policy formulation in the implementation of Ghana's commitments, in respect of wildlife and utilization of forest resources.⁴⁵⁹ 	
Ghana Cocoa Board (COCOBOD)	 The COCOBOD was established by the Ghana Cocoa Board Law, 1984 (PNDCL 81) to replace the existing Ghana Cocoa Marketing Board immediately before the commencement of the PNDCL 81.⁴⁶⁰ The objectives of the COCOBOD include the following: 	 Per its mandate, COCOBOD is critical to the following commitments: Cocoa Forest REDD+ program Shea REDD+ program PoAs.
	• To encourage the production of cocoa, coffee, and shea nuts ⁴⁶¹	
	• To undertake the cultivation of cocoa, coffee, and shea nuts ⁴⁶²	
	 To assist in the development of the cocoa, coffee, and shea nuts industries of Ghana⁴⁶³ 	
	 To promote the general welfare of cocoa, coffee, and shea nuts farmers in Ghana⁴⁶⁴ 	
	• To promote the general welfare of cocoa, coffee, and shea nuts farmers in Ghana.	
	 The board is currently implementing a Rehabilitation of Cocoa Swollen Shoot Virus Disease and Moribund Farms. The rehabilitation program involves replacement of overage trees with new plantings of disease tolerant and early bearing characteristics.⁴⁶⁵ 	

458 Ibid.

459 Act 571.

⁴⁶⁰ Section 1 (1) of the Ghana Cocoa Board, 1984 (PNDCL 81).

⁴⁶¹ Section 2 (a) of PNDCL 81.

⁴⁶² Section 2 (b) of PNDCL 81.

⁴⁶³ Section 2 (k) of PNDCL 81.

⁴⁶⁴ Section 2 (I) of PNDCL 81.

⁴⁶⁵ Ghana Cocoa Board. n.d. https://cocobod.gh/.

Annex IV: Water sector tables

Laws	Relevant provisions of regulation	Link to climate commitment or PoA
Water Resource Commission Act, 1996 (Act 522)	 This act established the WRC and set out its mandate and functions as the regulator entity that regulates and manages water resources in the country. Act 522 is further discussed in the profile of the WRC in Table 15. 	 The mandate and functions of the WRC provide it with the legal basis to fulfil the roles and perform the activities that must be undertaken to implement the large-scale integrated water resources management program to improve access to water supply for 20% of the population living in climate risk/water stressed locations of the country water sector PoA. The WRC's functions also give it the authority to encourage or make mandatory the use of energy-efficient equipment and renewable energy to power public water facilities.
Community Water and Sanitation Agency Act, 1998 (Act 564)	 Act 564 also established the CWSA and made it responsible for promoting and providing safe and sustainable drinking water and related sanitation services to rural areas. Its relevant functions include the provision of support to district assemblies to Promote the sustainability of safe water supply and related sanitation services in rural communities and small towns and to enable the assemblies to encourage the active involvement of the communities, especially women, in the design, planning, construction, and community management of projects related to safe water supply and related sanitation services; Formulate strategies for the effective mobilization of resources for the execution of safe water development and related sanitation programs in rural communities and small towns; Encourage private sector participation in the provision of safe water supply and related sanitation services; Provide district assemblies with technical assistance in the planning and execution of water development and sanitation projects in the districts; Assist and coordinate with NGOs engaged in the development of rural community and small town water supply, Prescribe standards and guidelines for safe water supply and the provision of related sanitation services; 	The CWSA adopts an integrated water resources management approach that forms the water sector PoA. Since it operates in rural areas, it will be instrumental to reaching the majority of the target communities that are living in water stressed areas.
Water Use Regulations, 2001 (L.I. 1692)	 This L.I. was passed by the WRC in 2001 to regulate the process for obtaining permits for domestic water use, commercial water use, municipal water use, industrial water use, agricultural water use, power generation water use, water transportation water use, fisheries (aquaculture) water use, environmental water use, recreational water use, and underwater (wood) harvesting.⁴⁶⁶ 	 This L.I. can support the promotion of energy efficient and renewable energy powered public water facilities PoA by, for example, including the requirements for obtaining a permit for extracting water for large-scale or commercial uses and the requirement to produce and supply the water with electricity generated from renewable sources.

⁴⁶⁶ Regulation 1 of L.I. 1692.

Table 14: Relevant water sector policies, plans, and programs

Key policy, programs, and plans	Overview of the policies, programs, and plans	Link to climate commitment or PoA	
Water Sector Strategic Development Plan (WSSDP), 2012–2025	 The WSSDP was prepared by the Government of Ghana in 2014 to guide both State and non-State actors in the planning, development, and management of the nation's water resources and in the delivery of sustainable water and water-related sanitation services. The document stipulates the Government's vision for the water sector as 'sustainable water and 	This national-level developmental plan is relevant for implementing the PoAs for the water sector.	
	basic sanitation for all by 2025'.		
	The overall goal of the plan is to improve living standards of Ghanaians through increased access and use of safe water, sanitation, and hygiene and sustainable management of water resources.		
Riparian Buffer Zone Policy 2011	• The main aim of the Riparian Buffer Zone Policy is to ensure that all designated buffer zones along rivers, stream, lakes, reservoirs, and other water bodies will be sustainably managed for all.	This policy is also relevant for implementing the Government's commitment of achieving large-scale integrated water resources management program to improve access to water supply for 20% of the second	
	The policy lists, among others, the following as its objectives:	the population living in climate risk/water stressed locations.	
	 Protecting, restoring, and maintaining the ecological and livelihood support functions of the buffer zone 		
	 Ensuring equitable and sustainable utilization and management of buffer zone conservation areas 		
	 Coordinating and harmonizing policies and laws in the area of buffer zones among the various government agencies. 		
	The policy also aims to encourage the development and management of buffer zones in urban and peri-urban areas by integrating natural systems into development planning.		
National Water Policy, 2007	This policy was passed in 2007 to provide a framework for the sustainable development of Ghana's water resources.	• Even though this policy was passed before the Paris Agreement, it has useful information and strategies that can help the Government	
	 It is targeted at all water users, water managers and practitioners, investors, decision-makers, and policy makers within the central governmental and decentralized (district assemblies) structures, nongovernmental organizations, and international agencies. 	achieve the water sector PoAs.	
	The policy also recognizes the various cross-sectoral issues related to water use and the links to other relevant sectoral policies such as those on sanitation, agriculture, transport, energy, and so on.		
	• The policy is underpinned by the principles enunciated in the Ghana Poverty Reduction Strategy (GPRS), the Millennium Development Goals (MDGs), and the 'Africa Water Vision' of the New Partnership for Africa's Development (NEPAD). ⁴⁶⁷		

⁴⁶⁷ Ministry of Water Resources, Works and Housing. 2007. "National Water Policy." http://www.gwcl.com.gh/national_water_policy.pdf.

Institution	General mandate and relevant provisions of their functions/mandate	Link to climate change commitment or the PoA
The Ministry of Sanitation and Water Resources (MSWR)	 The ministry exercises overall responsibility for the sanitation and water sectors.⁴⁶⁸ It derives its core mandate from Article 190 of the 1992 Constitution; the Civil Service Act, 1993 (PNDCL 327); and the Civil Service (Ministry) Instrument, 2017 (E.I. 28). Essentially, the mandate of the ministry includes the following: Initiating and formulating policies for water, environmental health, and sanitation. Undertaking development planning of water and environmental sanitation subsectors, in consultation with the NDPC. Coordinating, monitoring, and evaluating the efficiency and effectiveness of the performance of the sanitation and water subsectors. 	 The MSWR has the overarching mandate of developing laws and policies for the water and sanitation sector. It is also responsible for supervising or coordinating the activities of the various sector agencies in the water and sanitation sector of the economy. It has the mandate of ensuring that the country meets its commitments and PoAs in the water priority area.
Water Resources Commission (WRC)	 The WRC was established by the Water Resource Commission Act, 1996 (Act 522) as the body responsible for the regulation and management of the utilization of water resources and for the coordination of any policy in relation to them.⁴⁶⁹ It is the regulator of the water sector of Ghana. The functions of the WRC include the following: Proposing comprehensive plans for the utilization, conservation, development, and improvement of water resources Granting water rights and gathering and disseminating data or information on water resources in Ghana⁴⁷⁰ Monitoring and evaluating programs for the operation and maintenance of water resources.⁴⁷¹ The commission is also mandated to advise the Government on any matter likely to have an adverse effect on the water resources of Ghana.⁴⁷² 	As the regulator of the water sector, this commission is responsible for ensuring that the country achieves the water sector PoAs.
Ghana Water Company Limited (GWCL)	 The Ghana Water Company was established by the Ghana Water and Sewerage Corporation Act, 1965 (Act 310). The company was originally called Ghana Water and Sewerage Corporation. The objective of the company is the provision, distribution, and conservation of the supply of water in Ghana for public, domestic and industrial purposes and the establishment, operation, and control of sewerage systems of such purposes.⁴⁷³ Pursuant to the Statutory Corporations (Conversion to Companies) Act 461 of 1993 as amended by L.I. 1648, Ghana Water and Sewerage Corporation was, on July 1, 1999, converted into a 100% State-owned limited liability company, Ghana Water Company Limited and given the mandate for urban water supply only.⁴⁷⁴ 	 The fully State-owned company has the responsibility of ensuring that the country meets its commitment of promoting energy- efficient and renewable energy powered public water facilities.
Community Water and Sanitation Agency (CWSA)	Profiled above in Table 13	

Table 15: Brief description of general mandates of water sector institutions and their functions relevant for PoA implementation

⁴⁶⁸ Ministry of Sanitation and Water Resources. n.d. "About Us." MSWR. http://mswr.gov.gh/about-us/.

⁴⁶⁹ Section 2 of Act 522.

⁴⁷⁰ Section 2 (b) of Act 522.

⁴⁷¹ Section 2 (f) of Act 522.

⁴⁷² Section 2 (g) of Act 522.

⁴⁷³ Section 1 of Act 310.

⁴⁷⁴ Ghana Water Company Limited. n.d. "Company Profile." GWCL. https://www.gwcl.com.gh/company-profile/.

Annex V: Transport sector tables

Table 16: Relevant transport sector laws and regulations

Laws	Overview of the law	Link to applicable climate change commitment or PoA
Local Governance Act, 2016 (Act 936)	 Act 936 was passed in 2016 to provide for local governance in accordance with the Constitution. It repealed and replaced the Local Government Act, 1993 (Act 462); the District Assemblies Common Fund Act, 1993 (Act 455); the Local Government Services Act, 2003 (Act 656);⁴⁷⁵ and Sections 2 to 9 of the National Development Planning System Act (Act 480).⁴⁷⁶ Among others, the act provides for the creation of The MMDAs⁴⁷⁷; and The local governance service⁴⁷⁸ The district assembly is responsible for exercising political and administrative authority in the district.⁴⁷⁹ The district assembly is also empowered to take the steps and measures that are necessary and expedient to execute approved development plans for the district.⁴⁸⁰ The act empowers the district assemblies to license certain types of vehicles to operate in the districts.⁴⁸¹ Section 232 (1) empowers the minister, responsible for local government, to make regulations to give effect to the act. 	 The MMDAs established pursuant to this act, through their district planning and development mandate, will be instrumental in Making urban transit more efficient; Promoting NMTs; and Expanding the inter- and intra-city transportation modes. The district assemblies can use their district vehicle licensing mandate to ensure that urban transit (fleet renewal, better maintenance, and vehicle standards) is more diesel efficient.
Customs Act, 2015 (Act 891) and the Customs (Amendment) Act, 2020 (Act 1014)	 Act 891 was passed in 2015 to provide for the imposition, collection, and accounting of customs duty, tax, and for related matters. The act imposes duties and taxes on various goods imported into and exported from the country.⁴⁸² Sections 55 to 61 deal with the importation of motor vehicles into the country. Specifically, Section 57 prescribes pecuniary penalties on the importation of overage (10 years or above) vehicles. This act was amended by the Customs (Amendment) Act, 2020 (Act 1014) which provided, among others, Incentives for automotive manufacturers and assemblers registered in the country⁴⁸³ and A ban on salvaged vehicles and vehicles over the age of 10 years, subject to subsections (3) and (4) of Section 154.⁴⁸⁴ The implementation of Act 1014 was suspended by the Government after a number of stakeholders raised issues and voiced their disapproval with the provisions of the act. 	This act and its amendment are critical to the Government's quest to restrict the importation of overage vehicles, have more fuel-efficient vehicles on the road, and reduce emissions from the road transport sector.

475 Section 235 of Act 936.

⁴⁷⁶ Section 233, Fourteenth Schedule of Act 936.

 $^{\rm 477}$ Section 3 of Act 936.

⁴⁷⁸ Section 49 of Act 936.

479 Section 12 of Act 936.

⁴⁸⁰ Section 12 (4)(a) of Act 936.

⁴⁸¹ Section 138 of Act 936.

⁴⁸² Section 1 of Act 891.

⁴⁸³ Section 1 of Act 1014.

⁴⁸⁴ Section 2 of Act 1014.

Policies, plans, and programs	Overview of the policies, plans, and programs	Link to applicable climate change commitment or PoA
National Transport Policy (2020)	The National Transport Policy was passed in 2020 to replace the National Transport Policy of 2008.	This is the overarching policy for the transport sector in the country.
	 Its vision is to create an integrated, efficient, cost-effective, and sustainable transportation system responsive to the needs of society, maintaining Ghana as a transportation hub of West Africa. 	Its proper implementation will help the country realize all its climate goals and aspirations in the transport sector.
	 Among others, the policy has a goal of providing transport infrastructure and services without compromising the integrity of society, environment, health, and the climate.⁴⁸⁵ 	
	 The policy sets out various objectives including adopting and implementing international treaties, protocols, and agreement to ensure minimal effects on climate change due to transport operation. 	
	The strategies for implementing these objectives include the following:	
	o Implementing Ghana's commitments under the Paris Agreement on Climate Change (2015)	
	 Mainstreaming green infrastructure, climate change, and sustainability issues into the transport sector activities 	
	 Ensuring that regulations are adequate and enforced to meet international environmental, health and safety standards, and codes of practice. 	
	 The policy also aims to establish mass transportation systems in urban areas with intermodal facilities and interchanges. To this end, the policy proposes the promotion of road-based mass transportation system, including extending bus rapid transit corridors.⁴⁸⁶ 	
	 The policy also proposes the development of the rail and inland water transport to play a lead role in the transportation of bulk goods in Ghana and beyond.⁴⁸⁷ 	
Integrated Transport Plan (2011–2015)	• The Integrated Transport Plan (2011–2015) was the first in Ghana to utilize an integrated economic and transport planning methodology to identify investment priorities based on the future demand for transport.	This plan contains useful strategies and action plans that will help attract private sector investment into the transport sector.
	• The plan provided strategies and actions for all modes of transport in the country over 2011–2015.	It focuses more on infrastructure and is therefore relevant for the
	 The objectives of the plan are to create a well-regulated market for the provision of transport and infrastructure services that is fair, efficient, orderly, and noncorrupt; meet the needs of customers; safeguard the interests of the users and private sector operators. 	Government's aspiration of shifting road freight to rail and developing transportation systems that will help the country fight climate change and reduce its carbon footprint.
	 On climate change, the plan acknowledges the effect of climate change on road infrastructure and articulates actions to build capacity of staff in the design of transport infrastructure. 	
	• The strategic objectives of the plan include the development of transportation systems capable of withstanding changes resulting from climate change and able to reduce the carbon footprint of transport systems.	
Railway Master Plan of Ghana (2013)	• The Railway Master Plan was developed for the GRDA in 2013.	• This is the key government plan for the railway subsector.

Table 17: Relevant transport sector policies, plans, and programs

⁴⁸⁵ Policy Goal 4.2.3 at page 50 of the National Transport Policy of 2020.

⁴⁸⁶ Policy Goal 4.2.5 at page 44 of the National Transport Policy of 2020.

⁴⁸⁷ Policy Goal 4.2.6 at page 44 of the National Transport Policy of 2020.

Policies, plans, and programs	Overview of the policies, plans, and programs	Link to applicable climate change commitment or PoA
	 Even though there is no reference to climate change or climate resilience in the plan, it recommends establishing an efficient instrument to monitor the course of development. It also recommends the establishment of long-term monitoring interventions and periodic revision of the Railway Master Plan (2013) to update it with the requirements that may arise. Although there is no climate change indicator, the recommendations provide entry points for integrating climate change concerns into the plan. 	 It focuses more on infrastructure and is therefore relevant for the Government's aspiration to develop the rail sector and shift road freight to rail.
Ghana Urban Transport Policy, 2008	 The Ghana Urban Transport Policy was passed in 2008 to help the Government achieve its urban transport objectives and urban transport development goals. The policy recognizes that mass transport systems for moving large numbers of people at low cost need special attention to reduce traffic congestion and improve mobility in urban areas. The policy sets a target of moving at least 80% of passengers using higher occupancy buses. The main objective of the policy is to improve mobility through a combination of traffic engineering measure, management improvements, and regulation of the public transport industry and implementation of a bus rapid transit system. The policy paved the way for the establishment of the Ghana urban bus transport project. The key objective of the project was promoting a shift toward more environmentally sustainable transport modes and lower transport-related GHG emissions along the pilot bus rapid transit corridor. The major components of the project are as follows: Develop and operate a pilot bus rapid transit system Regulate urban passenger transport in the participating assemblies Ensure traffic engineering, management, and safety including the development of an area-wide traffic signal control system in Accra and Kumasi Integrate urban development and transport planning in developmental projects. 	 Even though the policy was passed before the Paris Accord and other climate change commitments of the country, this document is still relevant in urban transport development. Its objectives make it more suitable for achieving the Government's plan of expanding inter- and intra-city transport modes and making urban transit fleet more efficient. This policy formed the basis for the establishment of the bus rapid transit system.

Institution/Agency	Institution, general mandate, and relevant provisions of their functions/mandate	Link to the climate commitment or PoA
Ministry of Transport (MoT)	 The MoT exercises overall responsibility over the transport sector. It is responsible for National and sectoral transport policy formulation, implementation, and monitoring and evaluation; Supervision and coordination of the activities of State agencies operating in the transport sector, including the Ghana Maritime Authority and DVLA. Creation of an enabling environment for transport investment and the development of an efficient transport system. 	 The MoT has the overarching mandate of developing laws and policies for the transport sector. It is also responsible for supervising and coordinating the activities of the various sector agencies in the transport sector of the country. Its mandate and functions make it critical for ensuring that the country meets its climate commitments and PoAs in the transport priority area.
Ministry of Roads and Highways (MoRH)	 The MoRH was established by the Civil Service Act, 1993 (PNDC Law 327) to formulate policies, coordinate sector performance, monitor and evaluate road infrastructure development and maintenance, and finance road maintenance.⁴⁸⁸ The ministry is responsible for supervising and coordinating the activities of State agencies operating in the transport sector including the Department of Urban Roads, the Department of Feeder Roads, and the Ghana Highways Authority. 	 The MoRH has the overarching mandate of developing laws and policies for the roads and highways sector. It is also responsible for supervising or coordinating the activities of the various sector agencies in the roads and highways sector of the economy. Its mandate and functions make it critical for developing the road infrastructure necessary for helping the country meet its climate commitments and PoAs that are connected to the roads and highways.
Ministry of Railway Development (MoRD)	 The MoRD exercises overall responsibility for the railway sector. It is responsible for National and sectoral railway policy formulation, implementation, and monitoring and evaluation; and Supervision and coordination of the activities of State agencies operating in the railway sector, including the GRDA and Ghana Railway Company Limited.⁴⁸⁹ It also has the core responsibility of ensuring that there is infrastructural growth and service delivery in Ghana's railway sector so as to help ease pressure on the other means of transport. 	 The MoRD has the overarching mandate of developing laws and policies for the railways sector. It is also responsible for supervising or coordinating the activities of the various sector agencies in the railways sector of the economy. Its mandate and functions make it critical for developing the infrastructure needed to ensure that the country meets its climate commitments and PoAs that are connected to the railways - railway transit system (shift road freight to rail.)
Ministry of Local Government, Decentralization and Rural Development (MLGDRD)	 The MLGDRD and its departments and agencies belong to the central management agencies category of government machinery. It is mandated to, among others, ensure good governance and balanced development of MMDAs in line with the Civil Service Act, 1993 (PNDCL 327).⁴⁹⁰ The functions of the ministry are as follows: Initiate and formulate governance, decentralization, and rural and urban development. Coordinate, monitor, and evaluate the implementation of local government sector policies and programs. 	 The MLGDRD has the overarching mandate of developing laws and policies for the local government aspect of the country. It is also responsible for supervising or coordinating the activities of all the MMDAs. Its mandate and functions make it critical for promoting development at the district level and can thus ensure that the MMDAs play their respective roles in helping the country meet its climate-related district-level commitments.

Table 18: Brief description of general mandates of transport sector institutions and their functions relevant for PoA implementation

⁴⁸⁸ Ministry of Roads and Highways. n.d. "Our Mandate, Mission and Vision Statement." MRH. https://mrh.gov.gh/.

⁴⁸⁹ Ministry of Railway Development. n.d. "Home." MRD. https://www.mrd.gov.gh/.

⁴⁹⁰ Ministry of Local Government, Decentralization and Rural Development. n.d. "About Us." MLGDRD. https://rb.gy/602xud.

Institution/Agency	Institution, general mandate, and relevant provisions of their functions/mandate	Link to the climate commitment or PoA
	• The ministry is responsible for supervising and coordinating the activities of State agencies operating in its sector including the Department of Parks and Gardens and Office of the Administrator of DACFs.	 The ministry and the MMDAs will be critical to promoting NMTs at the district level through sensitization and various activities.
Ghana Railway Development Authority (GRDA)	 The GRDA is a statutory body established by the Railways Act, 2008 (Act 779). The authority's functions include the following: Promoting the development of the railways and railway systems, both national and suburban in Ghana⁴⁹¹ Holding, administering, and improving the railway assets of the country;⁴⁹² The authority is also empowered to set and enforce safety and security standards for the construction and operation of railways.⁴⁹³ The authority has been given the mandate to issue licenses for the construction, operation, and management of railways.⁴⁹⁴ Section 106 grants the minister, responsible for railways, the power to make regulations to, among others, give effect to the act. 	The mandate and functions of the GRDA make it relevant to developing the railway transit system in the country.
Driver and Vehicle Licensing Authority (DVLA)	 The DVLA was established in 1999 by the Driver and Vehicle Licensing Authority Act, 1999 (Act 569). The objective of the authority is to promote good driving standards in the country and ensure the use of roadworthy vehicles on the roads and in other public places.⁴⁹⁵ Section 3 lists the functions of the authority to include the following: Inspect, test, and register motor vehicles.⁴⁹⁶ Issue vehicle registration and examination certificates.⁴⁹⁷ Advise the minister on policy formulation and development strategy for the achievement of the objective of the authority.⁴⁹⁸ Carry out such other functions as are incidental to the attainment of the objective of the authority.⁴⁹⁹ The DVLA issues roadworthy certificates to every vehicle in the country. These certificates are required to be renewed annually after passing various tests at a DVLA-designated test center. Section 26 (1) empowers the minister to, on the recommendation of the Board (the governing body of the Authority) by legislative instrument, make regulations relating to driving and use of motor vehicles and for giving effect to this act. 	 The DVLA, through its roadworthy certificate issuance function, testing and registration mandate, and working closely with the customs agency, can help the country restrict the importation of overage vehicles by setting stringent emission targets for licensing certain overage and other vehicles. The DVLA through its roadworthy certificate issuance function testing and registration mandate, and working closely with the MMDAs, can help the country make urban transit more efficient by setting stringent emission targets for licensing urban transit and other vehicles.

⁴⁹¹ Section 2 (1)(a) of Act 779.
⁴⁹² Section 2 (1)(b) of Act 779.
⁴⁹³ Section 2 (d) of Act 779.
⁴⁹⁴ Section 38 (2) of Act 779.
⁴⁹⁵ Section 2 of Act 569.
⁴⁹⁶ Section 3 (1)(g) od Act 569.
⁴⁹⁷ Section 3 (1)(h) and (i) of Act 569.
⁴⁹⁸ Section 3 (1)(l) of Act 569.
⁴⁹⁹ Section 3 (1)(n) of Act 569.

Annex VI: Detailed process for enacting and amending laws

The below information elaborates on the content summarized in Error! Reference source not found..

The process for enacting and amending laws involves the Cabinet. Article 76 (1) of the Constitution stipulates that "There shall be a Cabinet which shall consist of the President, the Vice-President and not less than ten and not more than nineteen ministers of state." Article 76 (2) states that "The Cabinet shall assist the President in the determination of the general policy of the Government." The process starts with the production of a Cabinet Memorandum by the relevant sector ministry which is presented to the Cabinet.

The Cabinet Memorandum is required to spell out the following:

- Purpose of the memorandum
- Background information, the necessity for addressing the identified issues, and the resultant financial and policy implications
- Issues for consideration by the Cabinet
- Interdepartmental or ministerial consultation that has been held by the relevant State agencies and stakeholders
- Recommended action/s to be taken by the Cabinet.

In accordance with the Constitution, all bills that go before Parliament must include an 'explanatory memorandum' specifically detailing the "policy and principles of the Bill, the defects of existing law, remedies proposed to deal with same, and the necessity for its introduction."⁵⁰⁰ The contents of the Cabinet Memorandum are then deliberated at subsequent Cabinet and committee discussion.

The Cabinet Memorandum then goes before the Cabinet for a decision and policy approval. Once the Cabinet Memorandum has been approved by the Cabinet, the Secretary to Cabinet informs the relevant sector ministry. The Chief Director of the sector ministry then produces a set of drafting instructions which are delivered to the AG's Department.

Upon receipt of the drafting instructions and Cabinet Memorandum, the Parliamentary Counsel begins the drafting process in close collaboration with the AG's Legislative Drafting Unit and relevant sector ministry. After receiving the Cabinet Memorandum and drafting instructions, and after completing any necessary research, the AG finalizes the bill.

The AG sends a copy of the bill to the sector ministry which critiques it and returns it to the AG with relevant notations. The relevant ministry and the AG continue to review and revise the draft until the sector ministry is satisfied with the final draft. When a consensus is reached, the sector ministry sends the final draft, together with the Cabinet Memorandum and a brief resume of the bill, to the Cabinet for consideration and approval for introduction in Parliament. Upon Cabinet approval, the bill is sent to the Government printer, where copies are produced for Parliament and published in the Gazette.

Article 106, clause (2), of the 1992 Constitution provides that "No bill, other than such a bill as referred to in paragraph (a) of Article 108 of this Constitution, shall be introduced in Parliament unless it has been published in the Gazette at least 14 days before the date of its introduction in Parliament." The bill, as published in the Gazette, is then introduced in Parliament, and goes through four stages: first reading, second reading, committee or consideration stage, and third reading.

In the third and final reading, Members of Parliament continue to debate the principles and policies of the bill. If a Member of Parliament indicates that a clause was not properly reviewed, the bill is recommitted to the committee stage. If there are no objections, all Parliamentarians present vote for

⁵⁰⁰ Article 106 of the 1992 Constitution of the Republic of Ghana.

or against the bill's passage. Following the vote, the clerk examines the votes of the proceedings to determine which amendments have been made and incorporates them into the bill. The clerk sends the final bill with all amendments to the Government printer.

When the clerk is satisfied that the bill, as finally printed by the Government printer, is a correct version, including the amendments made during its passage, vellum copies are printed and the clerk sends them to the President for assent. According to Article 106, clause (7), of the Constitution "where a bill passed by parliament is presented to the President for assent, he shall signify, within seven days after the presentation to the Speaker that, he assents to the Bill or that he refuses to assent to the Bill, unless the Bill has been referred by the President to the Council of State under article 90 of the Constitution."

Once the President assents, the bill becomes law. The new law is published in the Gazette and enters into force. A bill introduced into Parliament by or on behalf of the President is considered within three months. If the President refuses to assent to the bill, according to Article 106, clause (8) (a), he must "within fourteen days after the refusal, state in a memorandum to the Speaker, any specific provisions of the Bill which in his opinion should be reconsidered by Parliament, including his recommendations for amendments if any." Pursuant to clause (9) of the same article, Parliament shall review the bill considering the President's comments.

Private members' bills

Even though most bills come from the executive level, Article 108 of the 1992 Constitution empowers Members of Parliament to initiate legislation through 'private members' bills'. This power is, however, seldom used by Members of Parliament because of the lack of resources or expertise needed to draft legislation.

Timeline and certificate of urgency

Depending on the proposed legislation or bill, the process for passing or amending a legislative instrument can take up to five years. However, if the draft bill is presented to Parliament under a certificate of urgency, the process can be significantly reduced to less than one year.

Article 106 (13)⁵⁰¹ of the Constitution allows a Committee of Parliament to determine and certify that a particular bill is of an urgent nature. When that is done, that bill may be introduced without publication. It may also be laid in Parliament after it has been published in the Gazette but before the statutory 14-day period has elapsed.

 $^{^{\}tt 501}$ Article 106 of the 1992 Constitution of the Republic of Ghana.