

CLIMATE SENSITIVE PUBLIC FINANCIAL MANAGEMENT

An Assessment of Ghana's Situation

May 2023

List of Acronyms

Acronym	Full Meaning	
ABB	Activity Based Budgeting	
BOG	Bank of Ghana	
CLIMFINTRACK	Climate Finance Tracking Tool	
DBG	Development Bank Ghana	
EPA	Environmental Protection Agency	
ESRD	Economic, Strategy and Research Division	
FSD	Fiscal Strategy Document	
GOG	Government of Ghana	
GCARP	Ghana Climate Ambitious Reporting Programme	
GIFMIS	Ghana Integrated Financial Management Information System	
GSS	Ghana Statistical Service	
IPCC	Intergovernmental Panel on Climate Change	
LI	Legislative Instrument	
MDAs	Ministries, Departments and Agencies	
MESTI	Ministry of Environment, Science, Technology and Innovation	
MMDAs	Metropolitan, Municipal and District Assemblies.	
MoF	Ministry of Finance	
MTBF	Medium Term Budget Framework	
MTEF	Medium Tern Expenditure Framework	
MTFF	Medium Term Fiscal Framework	
MTNDPF	Medium-Term National Development Policy Framework	
NCCP	National Climate Change Policy	
NDA	Nationally Designated Authority	
NDC's	Nationally Determined Contributions	
NDPC	National Development Planning Commission	
PBB	Program Based Budgeting	
PEFA	Public Expenditure and Financial Accountability	
PFM	Public Financial Management	
SAI	Supreme Audit Institution	
SDG	Sustainable Development Goals	
SMTDP	Sector Medium Term Development Plan	
UN	United Nations	

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Introduction

1. Introduction

1.1 Background

The Government of Ghana (GoG) recognizes the social and economic consequences of climate change and the development challenges arising from it. Therefore, it is committed to mainstreaming climate change into key planning processes at the national and regional levels, including embedding it in the country's Public Finance Management (PFM) cycle. PFM reforms will allow the practices geared towards climate change to mature and ensure sustainability.

GoG is currently undertaking a number of initiatives that map out projects and programmes with climate change adaptation as a primary objective, as well as projects related to water, land management, disaster risk reduction, agriculture, social development, and health, which are directly affected by climate change and have significant co-benefits in terms of adaptation. The Ministries, Departments and Agencies (MDAs) and other governmental institutions are mainstreaming climate change into their programmes, sectorial planning, and objectives. The Environmental Protection Agency (EPA) has also transferred climate reporting tasks to the line ministries. Its priority is to integrate climate change into governmental structures, and this is being achieved by creating a credible source of information for policy formulation and inclusion in the PFM cycle. The National Development Planning Commission (NDPC) has also included climate change as a priority area in the 2022-2025 medium term national development policy framework to guide budgeting and expenditure of climate related activities. Finally, the Ministry of Finance has established the Economic Strategy, and Research Division (ESRD) which oversees climate reporting and it's the Nationally Designated Authority (NDA) for dealing with and accessing the Green Climate Fund¹.

The GoG's projects and programmes that have a direct impact on the environment, and which are being funded through annual budget allocations are screened using the National Climate Change Policy (NCCP) as a guide and with input from the Environmental Protection Agency (EPA) and the Ministry of Environment, Science, Technology and Innovation (MESTI) before they are rolled out.

1.2 Objectives

The objectives of the paper are to:

- Assess the extent to which climate change related issues have been mainstreamed into Ghana's PFM processes.
- Ascertain the gaps in mainstreaming climate change in the PFM processes.
- Outline key recommendations for the Government of Ghana's consideration.

1.3 Structure and organisation of the paper

The paper is structured as follows:

- Chapter 2: This chapter provides a summary of what climate change is and its impact on the Ghanaian economy
- Chapter 3: The chapter introduces the key concepts in PFM, overview of the key components within the PFM cycle; from strategic planning to external audit and scrutiny.

¹ the world's largest climate fund, mandated to support developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways.

- Chapter 4: This chapter provides a summary of climate specific initiatives within Ghana's PFM landscape. It also seeks to highlight gaps in the current processes and practices.
- Chapter 5: The chapter outlines the main findings and proffers recommendations aimed at addressing the identified gaps.

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Climate Change: A Global Problem with Local Implications

2. Climate Change: A Global Problem with Local Implications 2.1 The Climate Change Problem

The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as "a change in climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods of time" (UNFCCC, 1992).

Over the years, there has been growing consensus on Climate Change being an issue of global concern. According to the Intergovernmental Panel on Climate Change (IPCC), surface temperatures globally have seen a faster increase since 1970 than any other 50-year period over the last 2000 years. Since 1900, there has also been an increase in the global mean sea level which has risen faster than any preceding year (IPCC, 2021)².

2.2 Implications of Climate Change on the Local Economy

Though considered a global issue, the impact of climate change on countries will vary, with the most adversely affected countries being developing countries including Ghana. In the V20 climate vulnerable economies report, climate change attributable losses average 0.92% of a given level of annual economic growth and a total of 20% of the Gross Domestic Product (GDP) over the last two decades (2000 - 2019). Had it not been for climate change, the GDP of the V20 would have been 20% higher. Specifically, in the case of Ghana, the loss to growth due to climate change in this period is estimated at 0.50% a year on average. Ghana's actual average growth of 4% for the period would have been 4.5% without climate change³. Beyond doubt is the fact that the impact of climate change cuts across almost every sector of the economy. Furthermore, climate change and gender inequality has been found to be interconnected;⁴ thus, the following sub-sections provide an overview of some of the adverse implications of climate change on the different dimensions of the economy as well as on gender.

2.2.1 Prices of Goods in the economy

Such is the wide reach of the adverse consequences of climate change that it has no boundaries. In Ghana, the Ministry of Finance reported in the 2022 annual budget statement that inflation picked up from 7.5% in May 2021 to 10.6 percent in September 2021 on account of shocks from domestic fuel price adjustments and increasing domestic food prices arising partly from *climate-related factors.*⁵ In effect, it has become clear in the case of Ghana, that climate change could lead to increases in domestic food prices.

Given that climate-related factors are expected to negatively trend in the medium to long term, domestic food prices should be expected to increase, all things being equal. This has huge implications for public finances and the economy.

2.2.2 Environment

Ghana is expected to experience more acute climate hazards such as flooding, as well as more frequent and intense droughts due to climate change⁶ with obvious implications for

⁶ Adshead, D., Thacker, S., Fuldauer, L.I., Gall, S.S., Chow, N., Pant, R., Russell, T., Bajpai, A., Morgan, G., Bhikhoo, N., Boroto, D., Palmer, R., Cançado, D., Jain, N., Klöttschen, V., Lawal, H., Dery, P., Twum, E., Mohammed, G., Hall, J.W., and Agbesi, L. 2022. Ghana: Roadmap for resilient infrastructure in a changing climate. Ministry of Environment, Science, Technology & Innovation, Accra, Ghana. (2022). Available from: https://gca.org/wp-

content/uploads/2022/03/Ghana_Roadmap-for-Resilient-Infrastructure-in-a-Changing-Climate.pdf

² IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis.

³ https://thecvf.org/wp-content/uploads/2022/05/Climate-Vulnerable-Economies-Loss-Report_Project_june_2022.pdf ⁴ Explainer: How gender inequality and climate change are interconnected. Available from:

 $https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected?gclid=EAIaIQobChMI4Yqn0ti_-QIVIrt3Ch21UwQZEAAYASAAEgLix_D_BwE$

⁵ The Budget Statement and Economic Policy of the Government of Ghana for the 2022 Financial Year. Available from https://mofep.gov.gh/sites/default/files/budget-statements/2022_Budget_Statement_v3.pdf

several sectors of the economy.⁷ Consequently, this has the potential to threaten the socio-economic development that has helped strongly position Ghana as a lower middle-income country. They warn further, in their research that climate-related extreme events have the potential to put Ghana's years of progress toward growth and development targets at risk. This observation is in alignment with the World Bank's assessment of Ghana's climate risk profile in 2021⁸. In the World Bank's assessment, Ghana is projected to become hotter and drier in the future, and the country will continue to experience temperature increases, extreme events such as droughts, floods and the increase in frequency and duration of heat waves. If recent floods reported in parts of Ghana occasioned by rainfall is anything to go by, then the dire projections on the adverse impact of climate change on Ghana's environment should be seen as an imminent danger awaiting manifestation. The possible toll of these projections on the public finances could only worsen given the general rise in the prices of goods and services in the country and globally.

2.2.3 Gender

Effects of climate change perpetuate and enlarge structural inequalities, such as those between women and men. A typical situation in many parts of the world where women rely on climate-sensitive work like agriculture and sweat of one's brow to make a living. the agricultural sector is regarded as a significant employment avenue⁹ for women in low- and lower-middle income countries. The women in this sector work in various roles such as farm laborers, primary procurers, etc. Given the historical gender inequities such as lower wage for women in the sector, women generally must work harder to secure income for their families during downturns in this sector. Similarly, women are also more likely to be exposed to hunger than men when farming yield is poor.

Regrettably, available evidence¹⁰ indicates that women are less likely to survive and more likely to be injured in the event of disasters, which in turn are partly caused and aggravated by climate change in recent times. This is due to historical gender inequalities that have led to inequitable access to information, resources, training, and mobility. Unsurprisingly, women and girls have been found to be less able to access relief support during disasters. This situation not only undermines their livelihoods and resilience but also leads to cycles of insecurity to future disasters. With environmental conditions not showing signs of improvement, women could be expected to be continuously impacted disproportionately.

Again, globally, women are generally considered less economically active than men. The United Nations entity for gender equality and the empowerment of women, UN Women, found¹¹ that in Ghana, 9.6% of the employed female population above the age of 15 fall below the international poverty line compared with 7.9% for men. Also, the proportion of the population above statutory pensionable age receiving a pension are 7.2% and 21.2%

content/uploads/2022/03/Ghana_Roadmap-for-Resilient-Infrastructure-in-a-Changing-Climate.pdf ⁸ Climate Risk Country Profile- Ghana. Available from

⁹ Explainer: How gender inequality and climate change are interconnected available from:

⁷ Adshead, D., Thacker, S., Fuldauer, L.I., Gall, S.S., Chow, N., Pant, R., Russell, T., Bajpai, A., Morgan, G., Bhikhoo, N., Boroto, D., Palmer, R., Cançado, D., Jain, N., Klöttschen, V., Lawal, H., Dery, P., Twum, E., Mohammed, G., Hall, J.W., and Agbesi, L. 2022. Ghana: Roadmap for resilient infrastructure in a changing climate. Ministry of Environment, Science, Technology & Innovation, Accra, Ghana. (2022). Available from: https://gca.org/wp-

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-WB_Ghana%20Country%20Profile-WEB.pdf

 $https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected?gclid=EAIaIQobChMI4Yqn0ti_-QIVIrt3Ch21UwQZEAAYASAAEgLix_D_BwE$

¹⁰ Explainer: How gender inequality and climate change are interconnected. Available from:

https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-changeare-interconnected?gclid=EAIaIQobChMI4Yqn0ti_-QIVIrt3Ch21UwQZEAAYASAAEgLix_D_BwE

¹¹ Gender data gaps and country performance. Available from: https://data.unwomen.org/country/ghana

for women and men respectively. Additionally, the unemployment rate among females of 15 years old and above was also found to be slightly higher than that of males of the same category. All these factors contribute to women having a lower purchasing power compared to men in Ghana. Given the relatively lower purchasing power of women in Ghana compared with men, the brunt of climate change would certainly be harsher on women.

2.2.4 Transportation

The African Development Bank warned in its March 2022 report on Ghana that climate risks could cost Ghana's transport sector \$3.9 billion¹². Interestingly, the potential damage of \$3.9 billion is three times the total investment of \$1.3 billion made in the sector in 2019. The estimated damages were calculated using assumptions on rehabilitation costs linked to road types, pavement conditions, and lanes, in a likely future flooding scenario. Given the ever-narrowing fiscal space of Ghana, these projections on the adverse climate impacts could be a major limiting factor on public finances, in the event they crystalize. Unsurprisingly, and in an apparent response to some of these projected adverse implications, the Government of Ghana launched a process to develop a National Adaptation Plan (NAP) to build nationwide resilience to climate change impacts in 2020¹³. The project, which is the first of its kind in Ghana, uses future climate projections to plan over large timescales, up to the year 2080. This is expected to help reduce vulnerability of the country to the negative impacts of climate change by strategically planning to build resilience.

2.2.5 Agriculture

Ghana's agricultural sector is projected to be adversely impacted by climate change. The World Bank (2021) forecasts that losses in agricultural yield could be severe due to increases in rainfall variability and the shortening of the growing seasons¹⁴. Furthermore, rising temperatures are likely to increase the presence of pests and diseases leading potentially to crop failure and reduced yields, especially for cassava, a key food staple in Ghana. In the fisheries sector, rising sea surface temperatures will continue to alter the migratory patterns and reproductive cycles of key species such as anchovies, sardines, tilapia and catfish, all staples in the Ghanaian diet and economy (USAID, 2017). A decline in the fisheries sector productivity because of climate variability (along with overfishing) is forcing Ghana to spend over \$200 million annually on seafood imports to satisfy local demand¹⁵. With no sign of sea surface temperatures declining, overall productivity of the fisheries sector could only be expected to further decline which in turn would require Ghana to increase its seafood imports. Obviously, the public purse would continue to take a hit from rising imports due to fluctuations in the local currency against the major trading currencies.

¹² Ghana: Report warns that climate risks could cost Ghana's transport sector \$3.9 billion, but roadmap offers hope. Available from https://www.afdb.org/en/news-and-events/press-releases/ghana-report-warns-climate-risks-could-cost-ghanas-transport-sector-39-billion-roadmap-offers-hope-50538

¹³ COVID-19 is a wake-up call': Ghana to develop national plan for climate adaptation. Available from https://www.unep.org/news-and-stories/press-release/covid-19-wake-call-ghana-develop-national-plan-climate-adaptation

¹⁴ Climate Risk Profile – Ghana (2021). Available from

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-WB_Ghana%20Country%20Profile-WEB.pdf

¹⁵ Climate change risk profile – Ghana. Available from

https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile%20-%20Ghana.pdf

2.2.6 Other key sectors

Evidence abounds¹⁶ that climate change has profound adverse implications for other sectors of the Ghanaian economy such as water, energy, health as well as forests and natural resources. The implications of climate change on all these sectors on women are clear. Women are more likely to be adversely impacted than men¹⁷. What is uncertain is the level of determination by the government to steadily back its climate change commitments consistently over time with funding /actions that lead to demonstrable results.

¹⁶ Climate Risk Profile – Ghana (2021) Available from

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-WB_Ghana%20Country%20Profile-WEB.pdf

¹⁷ Explainer: How gender inequality and climate change are interconnected available from:

https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-changeare-interconnected?gclid=EAIaIQobChMI4Yqn0ti_-QIVIrt3Ch21UwQZEAAYASAAEgLix_D_BwE

03

Ghana's PFM Processes and Practices

3. Ghana's PFM Processes and Practices

3.1 Definition and Key Concepts

PFM refers to the set of laws, rules, systems, and processes used by sovereign nations (and sub-national governments), to mobilise revenue, allocate public funds, undertake public spending, and account for funds and audit results¹⁸. Underpinning the concept of PFM is the need to ensure public resources are channelled towards strategic priorities or re-allocated from less strategic priorities to those considered more strategic¹⁹.

3.2 PFM Legal and Legislative Regime

Ghana's PFM system is backed by several legal frameworks to provide guidance throughout the PFM cycle. These legal frameworks are based on Articles 174 - 189 of the 1992 Constitution which focus on Finance, specifically around establishing the consolidated and the contingency funds, and associated rules²⁰.

In 2016, Parliament passed the PFM Act (Act 921) which replaced the Financial Administration Act (Act 654 of 2003). The objective of the new PFM Act of 2016 is to regulate the financial management of the public sector within a macroeconomic and fiscal framework; to define responsibilities of persons entrusted with the management and control of public funds, assets, liabilities, and resources, to ensure that public funds are sustainable and consistent with the level of public debt; to provide for accounting and audit of public funds and to provide for related matters²¹. In 2019, the associated regulation for Act 921 was also passed, that is the PFM Regulations, 2019 (L.I. 2378)²².

Other relevant legal and development frameworks associated with PFM include:

- Public Procurement Act, 2003 (Act 663) as Amended with Act 914 to provide for public procurement, establish the Public Procurement Authority; make administrative and institutional arrangements for procurement; stipulate tendering procedures and provide for purposes connected with these.
- Internal Audit Agency Act, 2003 (Act 658) which establishes the Internal Audit Agency to co-ordinate, facilitate and provide quality assurance for internal audit activities within the MDAs and MMDAs, that is enhance efficiency, accountability, and transparency in the management of resources in the Public Sector
- National Development Planning (Systems) Act, 1994 (Act 480) and the associated regulation L.I. 2232 which defines and regulates planning processes as well as provide for related matters.
- Ghana Audit Service (GAS) Act 2000, Act 584, and its associated regulation CI 70 both of which provide for the independence of the institution to audit all covered entities.

¹⁸ Lawson, A. (2015). Public Financial Management. GSDRC Professional Development Reading Pack no. 6. Birmingham, UK: GSDRC, University of Birmingham.

¹⁹ Kristensen, J. K., Bowen, M., Long, C., Mustapha, S., & Zrinski, U. (2019). PEFA, Public Financial Management, and Good Governance. PEFA, Public Financial Management, and Good Governance. Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-1466-2

²⁰ Ghana's Constitution of 1992 with Amendments through 1996 [online]. Available at:

https://www.constituteproject.org/constitution/Ghana_1996.pdf

²¹ The Public Financial Management Act, 2016 (Act 921) [online]. Available at:

https://mofep.gov.gh/sites/default/files/acts/PUBLIC-FINANCIAL-MANAGEMENT-ACT-2016.pdf

²² The Public Financial Management Regulation, 2019 (L.I. 2378) [online]. Available at:

https://mofep.gov.gh/sites/default/files/acts/PFM-Regulations-2019.pdf

3.3 PFM Processes

The PFM processes or phases in Ghana follow the framework or phases used by the Public Expenditure and Financial Accountability (PEFA) program for assessing PFM. This includes:

- Strategic planning and Macro-fiscal Framework
- Budget Preparation and Legislative Approval
- Budget Execution
- Accounting and Reporting
- External Audit and Legislative Scrutiny

3.4 Strategic Planning and Macro-fiscal Framework

This focuses on strategic planning and policy direction in setting fiscal targets as well as development of realistic revenue and expenditure projections. The NDPC is a key player here and it coordinates the strategic planning process in line with its mandate to coordinate the preparation, implementation, and monitoring of National Medium Term Development Plans (NMTDP). This is provided for in the National Development Planning (System) Act, 1994 Act 480 and the National Development Planning (System) Regulations 2016, (L.I. 2232).

The Economic Strategy and Research Division (ESRD) of the Ministry of Finance coordinates the macro-fiscal framework with support from the Ghana Statistical Service (GSS) and the Bank of Ghana (BoG). The key activities undertaken during this phase include macroeconomic forecasting, fiscal policy analysis, debt sustainability analysis among others. The Fiscal Strategy Document (FSD) prepared by MoF in April each year and submitted to Cabinet for approval in May each year highlights the Medium-Term Fiscal Framework (MTFF), and it provides measurable fiscal objectives and targets to guide the preparation of the annual budget. The MTFF assesses and forecasts the availability of financial resources to support budget programmes²³ and forms the basis of cabinet's decision on fiscal aggregates²⁴.

3.5 Budget Preparation and Approval

This process commences with the issuance of the budget circular and guidelines by the MoF to MDAs/ MMDAs not later than 30th June each year. Subsequently, the MDAs/ MMDAs prepare Medium-Term Budget Framework (MTBF) which gives the estimated cost/budget of continuing an existing strategy/plan or starting a new strategy/plan in line with their respective MTDP²⁵. MoF together with the MDAs/ MMDAs review and align on the budget requests through budget hearing taking into consideration, the resource envelop (MTFF) as well as the sector plan (SMTDP). The budget is then presented to Cabinet for approval before the Minister of Finance presents same to Parliament for the approval process to begin.

The budget then goes through review by specific parliamentary committees who invite representatives from the respective MDAs to justify their budget amounts taking into consideration the national strategic priorities. The finance sub-committee of Parliament also reviews the submission and makes its recommendation to the Parliament for

²³ World Bank. 2013. Beyond the Annual Budget. Washington, DC: World Bank. doi:10.1596/978-0-8213-9625-4 License: Creative Commons Attribution CC BY 3.0

²⁴ Abdulai (n 11)

²⁵ The guideline contains elements of the MTFF including the revenue and expenditure forecasts. The document also provides an indicative ceiling to guide budgeting by spending agencies.

consideration (deliberation and approval of the budget and any other bill required to implement it).

Sections 19 to 24 of the Public Financial Management Act, 2016 (Act 921) makes provision for timelines, content and roles for the preparation, review, and eventual approval of the budget. Ghana transitioned from the use of Activity-Based Budgeting (ABB) to Programme-Based Budgeting (PBB) with a view of focusing on results. In view of this, budgets are developed based on programmes, sub-programmes and projects to be implemented by the different covered entities.

3.6 Budget Execution/ Implementation

Once approval is given, the MoF uploads the budget unto GIFMIS²⁶, and issues a budget implementation instruction to guide spending agencies on request for release of funds, procurement, how to treat internally generated funds among others. At the end of each quarter in the implementation year, these agencies are required to submit expenditure reports to MoF, as well as financial statements to the Controller and Accountant General. The Public Procurement Authority (PPA) plays an important role in the execution of the budget by granting the relevant approvals for all procurement related activities of MDAs/MMDAs.

3.7 Accounting and Reporting

Accounting and reporting include the creation, maintenance, and storage of financial data; in-year budget reporting; and year-end financial statement close processes. The Controller and Accountant-General is responsible for compiling the financial reports of the country. MDAs/ MMDAs are required by the PFM Act to submit year-end reports (financial and performance reports) to the Controller and Accountant General. The Controller and Accountant General's Department is then expected to submit the accounts to the Auditor General not later than 3 months after the end of the financial year.

3.8 External Audit and Parliamentary Scrutiny

This phase focuses on the role of oversight in upholding transparency, accountability, integrity, and public trust in government institutions. The Ghana Audit Service carries out audit of the public accounts and submits reports to Parliament through its Public Accounts Committee for the scrutiny of the audit report.

The Auditor General is mandated by the Constitution and the PFM Act, 2016 (Act 921) to among other things

- audit the public accounts of Ghana and any other public office
- submit audit reports on the public accounts of Ghana and the statement of the Central Bank's foreign exchange receipts and payments or transfers to Parliament

²⁶ The GIFMIS platform is an information technology platform for budget management and accounting.



Sensitivity of Ghana's PFM Processes to Climate Change

4. Sensitivity of Ghana's PFM Processes to Climate Change 4.1 Climate related PFM interventions in Ghana

Ghana has over the years strived to pursue initiatives in the PFM landscape aimed at contributing to both global and domestic efforts to combat climate change. As a matter of fact, efforts to safeguard the natural environment, including addressing climate change issues and ensuring a resilient environment are now reflected as one of the objectives of the 2022 - 2025 National Medium-Term Development Plan²⁷. This gives credence to the intentions of the country in leveraging PFM policy documents to elevate and address climate change issues. The key points below highlight other notable PFM-related interventions Ghana has implemented to mitigate the adverse consequences of climate change while incorporating climate change related initiatives into the PFM system.

4.1.1 Climate Public Expenditure Institutional Review (CPEIR)

The Government of Ghana has decided to undertake periodic climate public expenditure institutional reviews as part of its commitment to leverage PFM to tackle the adverse

impact of climate change. In the light of this, the Government of Ghana undertook a second Climate Public Expenditure Institutional Review (CPEIR)²⁸ in the 2021 financial year. The objective of the review was to provide comprehensive data on interventions climate relevant and expenditure in the budget to provide a better understanding of publicly funded climate change actions to inform government policy. The study indicated that over the last five years (2015 - 2020) Ghana spent an amount of GH¢14.5 billion on various climate change interventions. This constituted an average of 3.94 percent of total expenditure.

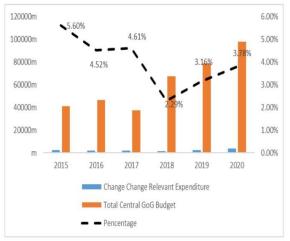


Figure 1: Graph of climate change expenditure to overall GoG expenditure. Source: 2021 CPEIR

Even though climate expenditure as a percentage of total Government expenditure declined between 2016 and 2018 as shown in figure 1,²⁹ it increased in 2019 and 2020. Given this upturn in climate expenditure, it is expected that the upward trajectory would continue. This, the Government argues, marks a clear indication of its readiness to back climate relevant interventions with the needed funds.

4.1.2 Membership of the global coalition of Finance Ministers for climate action

As demonstration of the country's commitment to mainstream climate change issues in the public financial management (PFM) processes in line with good international practices, Ghana signed up to be a member of the coalition of finance ministers for climate action³⁰. The coalition serves as a global and collaborative platform for accelerating action towards mitigating the adverse impacts of climate change through fiscal policies. Membership of this global coalition provides access to resources such as leading practices in climate PFM, technical assistance in the field of climate PFM, climate finance/ carbon pricing, etc

²⁷ https://mofep.gov.gh/sites/default/files/budget-statements/2022_Budget_Statement_v3.pdf

²⁸ https://mofep.gov.gh/sites/default/files/budget-statements/2022_Budget_Statement_v3.pdf

²⁹ Source: https://www.cabri-sbo.org/uploads/files/Documents/September-14-Session-1-Ghana.pdf

³⁰ https://www.financeministersforclimate.org/member-countries

4.1.3 Establishment of a Climate Change Unit within the Ministry of Finance

Credentialing Ghana further in the field of climate PFM, the Ministry of Finance in 2010 established a new unit – Natural Resources, Environment and Climate Change (NRECC) within the former Real Sector Division,³¹ The unit existed to oversee, coordinate and manage the financing of climate change activities. To avoid potential overlaps and potential duplication of efforts, the unit was tasked to coordinate all forms of support (domestic and international) to climate-change-related activities in Ghana. The unit developed the Climate Change Finance Tracking tools in 2016, which proposed an architecture for monitoring and reporting climate finance flows and based on this, the architecture demonstrated how climate relevant expenditure or budget could be identified and reported on using the budget code system. ³²Following the re-organisation of the divisions within the Ministry of Finance in 2019, the Ministry established the Economic Strategy, and Research Division (ESRD) which now oversees climate reporting.³³

4.1.4 Participation in the Green Climate Fund (GCF)

To mobilise finance for climate change projects, Government of Ghana has nominated the Economic, Strategy and Research Division (ESRD) of the Ministry of Finance – to be the Nationally Designated Authority (NDA) which is a requirement in dealing with the Green Climate Fund. ³⁴The Green Climate Fund which is an important element of the Paris Agreement is the world's largest climate fund³⁵, with the mandate to support developing countries to raise and realize their Nationally Determined Contribution (NDC) ambitions towards low-emissions and climate-resilient pathways.

As of May 2023, Ghana had accessed a total of US\$ 103.8m of financing for 7 projects from the Green Climate Fund ³⁶based on figures on the GCF website. Further, US\$4.3m worth of readiness support from GCF funds had been disbursed for 5 readiness activities in the country. Additionally, the Minister of Finance indicated in the 2023 budget statement that the Government had developed a programme of engagement with Civil Society Organisations to build capacity towards the implementation of the NDCs which will be supported by the Green Climate Fund (GCF) Readiness and Preparatory Support Programme.³⁷ This underscores the trajectory of Ghana's Climate PFM interventions.

4.1.5 Sustainable Financing Framework and the Second Party Opinion

In the 2022 annual budget, the Minister of Finance announced the publication of the Sustainable Financing Framework and the Second Party Opinion. ³⁸The second party opinion basically reflects an independent opinion on the alignment of the sustainable financing framework with current market standards. This was to encourage international and local private sector partners to review and engage Government on the sustainable financing framework in the light of Ghana's efforts to accelerate climate change mitigation, and adaptation. Again, this highlights Ghana's ambitions towards leveraging PFM to address key climate change impacts.

³⁵ https://www.greenclimate.fund/about

³¹ https://mofep.gov.gh/divisions/rsd/climate-change

³² https://mofep.gov.gh/sites/default/files/docs/Climate-Change-Tracking-Tool.pdf

³³ https://mofep.gov.gh/sites/default/files/news/Press-Release-on-MoF-Appointment-2019.pdf

³⁴ https://mofep.gov.gh/sites/default/files/news/NDA-Operational-Manual-Abridged-Version.pdf

³⁶ https://www.greenclimate.fund/countries/ghana

³⁷ https://mofep.gov.gh/sites/default/files/budget-statements/2023-Budget-Statement_v4.pdf

³⁸ https://mofep.gov.gh/sites/default/files/budget-statements/2022_Budget_Statement_v3.pdf

4.1.6 Integrated Monitoring, Reporting and Verification (MRV) System

In response to the increased attention to climate change financing, tracking of funds and to enable government make informed decisions and prioritize climate investments, the Ghana Integrated Monitoring, Reporting and Verification (MRV) finance system was developed to build on the already existing public financial expenditure tracking and administration structure. The reason for integrating the MRV of finance functions into the existing national budgeting process was to facilitate coordination, avoid duplication, ensure buy-in and above all, ensure that introduction of such functions to the relevant institutions is not perceived to bring additional cost. The country has developed three (3) sets of climate change finance tracking tools which are:

- 1. Climate finance tracking tool,
- 2. MRV finance guidance manual and
- 3. Climate Change Finance Tracking Tool (CLIMFINTRACK)

The first two were based on the Ghana Shared Growth Development Agenda Two (GSGDA II) Medium Term Development Policy, which had ended, hence it was imperative for the tracking tool to be updated to reflect the new policy, programme areas and budget codes to facilitate end of year climate expenditure reporting. This necessitated the development of the third tool i.e., CLIMFINTRACK, an integrated tool which seeks to provide a dashboard for tracking climate specific funds, international financing inflows and national climate relevant budget and expenditures.³⁹ The integrated MRV manual provides guidelines on how to use the tool and how to identify climate related expenditures from key words used in the budget documentation. The ESRD in collaboration with the NDPC further provided training to the MDAs on how to identify climate activities. The UNDP also provided support to facilitate trainings on the classification of climate expenditure.

4.1.7 Budget Guidelines

Section 20 of the Public Financial Management Act, 2016 (Act 912), mandates the Minister of Finance subject to Cabinet approval to issue guidelines for the preparation of the budget for each financial year. In furtherance of Government's commitment to climate change, the 2023 - 2026 budget preparation guidelines ⁴⁰instruct MDAs to mainstream climate change activities into their budget using the revised Climate Change Finance Tracking Tool. MDAs are also to use the tool to track budget allocations, including grant disbursements. Again, MDAs are to budget for gender mainstreaming activities as part of their programmes.

4.1.8 Establishment of Ghana Climate Ambitious Reporting Program

Ghana is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and committed to the Conference of Parties decision to enhance climate reporting. Consultants and experts, in the past, reported on Greenhouse Gas Inventory, Support needed and received, Nationally Determined Contributions, and Policies aimed at reducing emissions.

However, in 2013, the Environmental Protection Agency (EPA) under the Ministry of Environment, Science, Technology and Innovation (MESTI) launched the Ghana Climate Ambitious Reporting Program (G-CARP) ⁴¹aimed at facilitating the setting up of an integrated climate data management system that meets both national and international

³⁹ https://mofep.gov.gh/sites/default/files/news/Intergrated-MRV.pdf

⁴⁰ https://mofep.gov.gh/sites/default/files/basic-page/2023-2026_Budget_Preparation_Guidelines_v2.pdf

⁴¹ Ghana's Ambitious Climate Reporting Program - Global Climate Action Partnership

reporting standards as well as tracking national policies implementation. The EPA also identified all line ministries involved in the implementation and transferred the reporting obligations to them thus playing a coordinating role in climate reporting. It also ensured that these key reporting requirements are incorporated into the budgets of these line ministries.

4.1.9 Alignment of Policies to Sustainable Development Goals

Government adopted the ground-breaking global Agenda 2023 i.e., the Sustainable Development Goals (SDGs) in 2015⁴². To support the process of achieving the agenda, Ghana developed an SDG budget baseline report in 2018.⁴³The purpose of the report was in threefold, i.e.

- 1. To start developing a methodology that provides a more proactive and collaborative SDG's integrated budgeting process, within and among Ministries, Departments & Agencies.
- 2. To develop techniques that make future tracking of annual and cumulative funding in the budget more accurate.
- 3. To build the baseline for a report-series that combines government financing flows with impact data based on SDG's indicators from the National Statistical System.

The report recommended a redesign of the budget system to enable the tracking of all SDG's allocation and funding, like what has been done to trace the climate funding body. Specifically, it recommended that the policy objectives are aligned with SDG's targets.

In line with this, a series of workshops were organised where stakeholders from key institutions agreed that aligning the policy objective segments of the Chart of Accounts (coding system for classifying government's budget) was commendable and an important step to track the financing of SDG targets⁴⁴. The coding structure of the policy objective was therefore re-arranged to build the SDG targets into the coding mechanism. The SDG targets are then uploaded to Hyperion (the budget module) of the Ghana Integrated Financial Management Information System (GIFMIS).

4.1.10 Medium Term National Development Policy Framework

Finally, the budgeting process of Ghana begins with policy discussions with National Development Planning Commission. NDPC sets medium term national development policy framework every four years which guides budgeting and expenditure for the period. The policy objective segments of the chart of accounts are based on these policies. The 2022 - 2025 medium term priorities focus on economic growth; digitization; science, technology, and innovation; urbanization and infrastructural deficits; youth unemployment; public health; emergency preparedness, the fight against pandemics; and climate change.⁴⁵

Specifically in relation to climate change, the medium-term objectives are to enhance institutional capacity and coordination for effective climate action; enhance climate change resilience; and reduce greenhouse gases. To enhance climate change resilience, specific strategies to be implemented include: developing capacity to access Global

⁴² https://mofep.gov.gh/news-and-events/2021-04-19/ghana-participation-in-the-2021-un-sdg-investment-fair

⁴³ https://mofep.gov.gh/sites/default/files/news/Ghana's-SDG-Budget-Baseline-Report-Aug-09-18.pdf

⁴⁴ https://mofep.gov.gh/sites/default/files/news/SDG-Manual.pdf

⁴⁵ https://ndpc.gov.gh/media/National_Development_Policy_Framework_volume.pdf

Climate Funds; promoting climate-smart indigenous agricultural knowledge; promoting climate-resilience interventions for vulnerable groups especially women; developing climate-responsive infrastructure; mainstreaming climate change in national development planning and budgeting processes; intensifying awareness creation on climate change; and promoting co-financing arrangements for climate change interventions at the local level.

4.2 Possible gaps in making Ghana's PFM climate sensitive

Despite the interventions the government continues to roll out in the PFM space to address climate change issues in Ghana, a few improvement opportunities or gaps exist. These gaps if addressed could help accelerate Ghana's ambition to mitigate the impact of climate change on the lives of its citizens and the economy in general. Notable areas of improvement that have been identified include the following.

4.2.1 Lack of dedicated climate change budget programmes / sub-programmes structures could obscure monitoring and reporting

A review of the annual budget which is one of the key PFM policy documents indicate that the budget for climate change related projects and programmes are spread across various broad government programmes and sub-programmes. This could hamper the visibility of PFM-related climate change projects and programmes as well as tracking of climate change expenditures and results.

Though the development of the CLIMFINTRACK is expected to cure this potential gap, a recent engagement with selected PFM actors indicates that the knowledge and understanding of climate change and related activities by key GoG personnel particularly budget officers and accounting personnel is relatively low. This could adversely impact not only the quality of the information generated by CLIMFINTRACK but also effective monitoring and reporting on climate change related activities and expenditures across the various government programmes and sub-programmes.

4.2.2 Institutional challenges undermining visibility of climate change structures in the decentralised PFM value chain

Per the current arrangements, activities of key climate change structures such as NDA (for GCF) and NRECC are centralised at the MoF in Accra. Hence, these structures could appear to be detached from the MMDAs, especially those that are geographically distanced from Accra. The National Development Planning Commission (NDPC) which also deals with the MMDAs on climate change issues is centralised, although it works with the MMDAs in the development of district plans and to monitor the implementation of same. Again, it could appear to be detached from the MMDAs that are located across the country. These arrangements could potentially constrain efforts in mainstreaming climate change issues within the budget allocations of subnational entities.

The challenge of elevating the visibility of climate change structures is not peculiar to Ghana. The Commonwealth Secretariat⁴⁶ observed in a study that there were institutional challenges in fully mainstreaming climate change into national development planning processes in Uganda, Pakistan and Cambodia as well. The effect of the lapses in the institutional arrangements is that there is limited / no ownership of climate change relevant

⁴⁶ Government of Eswatini Climate Public Expenditure and Institutional Review (CPEIR) (page 2). [Accessed on 9 August 2022]. Available from: https://production-new-commonwealth-files.s3.eu-west-

^{2.}amazonaws.com/migrated/inline/Eswatini_CPIER_UPDF.pdf

PFM initiatives at the local or subnational levels. Hence, attempts to mainstream anticlimate change measures into the PFM value chain are viewed from a compliance perspective rather than an emerging phenomenon.

It even becomes concerning when no mainstreaming efforts are noted downstream in the PFM value chain. Specifically, from the perspective of monitoring, the World Bank⁴⁷ in a publication confirmed that there are no specific audit and evaluation arrangements in place for climate-relevant expenditures in Ghana. This observation run through for most of the countries covered in the review including Kenya, Uganda, Cambodia, and Nepal. Given that Ghana's Supreme Audit Institution i.e., Ghana Audit Service was not active even at the national level as per the World Bank publication, the situation at the subnational level could not be different.

4.2.3 The apparent silence of PFM legislations on the place of women in key PFM structures

A review of relevant legislations in Ghana's PFM landscape shows that no specific provisions have been made to facilitate the active participation of women in the formulation of fiscal policies and the design of economic interventions across the value chain. Therefore, it becomes discretionary for the appointing authorities in deciding whether to appoint women to serve in key roles in the PFM arena. It is generally accepted that active women participation in PFM decision-making helps to elevate the gender dimension in PFM choices. One of the key objectives of the heads of the commonwealth of nations⁴⁸ was to promote the active participation of civil society including women. However, as per Table 1 below, a review of select PFM structures provided in legislations shows that membership of these structures is mainly defined from the perspective of institutional representation, with virtually no gender consideration. Hence, the likelihood of having men dominating PFM leadership positions is not only high, but a reality⁴⁹.

In fact, at the national level, available data corroborate this⁵⁰. Globally, only 25 of 190 finance ministers were females with less than a third of all heads of national supreme audit institutions (SAIs) also being females as of 2020. Given the low women representation in PFM leadership roles, climate sensitive PFM initiatives could overlook gender considerations. This development justifies calls by gender advocates to strengthen the pipeline of women into public finance jobs and leadership positions to advance gender equality ambitions in line with social and economic development.

⁴⁷ 2021. "Technical Annex: Overviews of Climate Expenditure Tagging Frameworks" EFI Insight-Governance. Washington, DC: World Bank. Available from: https://openknowledge.worldbank.org/bitstream/handle/10986/35174/Technical-Annex-Overviews-of-Climate-Expenditure-Tagging-Frameworks.pdf?sequence=4&isAllowed=y

⁴⁸ https://web.worldbank.org/archive/website01531/WEB/IMAGES/GUIDEL-2.PDF

⁴⁹ https://www.publicfinancefocus.org/opinion/2019/03/positive-role-women-improving-public-finance

⁵⁰ https://www.idi.no/news/idi-news/csw-2021

No	Legislation (specific section / regulation)	Linkage of legislation to the PFM value chain	Provision	Gender sensitivity
1.	Section 3 of the National Development Planning Commission (NDPC) Act, 1994 (Act 479),	Planning phase	Membership / composition of the commission.	No
2.	Regulation 7 of PFM Regulation	Macroeconomic and Fiscal Policies	Economic Policy Coordinating Committee	No
3.	Regulation 9 of PFM Regulation	Macroeconomic and Fiscal Policies	Fiscal Risk Committee	No
4.	Regulation 26 of PFM Regulation	Budgetplanning,execution,andmonitoringandevaluation	Budget Committee	No
5.	Regulation 143 of PFM Regulations, 2019 (L.I. 2378),	Budget Execution	Cash Management	No
6.	Section 87 of PFM Act, 2016, Act 921/ Regulation 223 of PFM Regulation	Monitoring and Audit	Audit Committee	No

Table 1 –Sensitivity of Ghana's PFM Legislation to Gender

4.2.4 Lapses at the planning stage

The budget guidelines instruct MDAs to mainstream climate change activities in their strategic plans. However, there are no specific activities or objectives to be achieved in relation to climate change nor metrics to measure their performance, thus the inclusion of climate related activities in their strategic plans is done at their own discretion. Also, during budget hearing, parliament's scrutiny of the budget does not appear to focus on climate change related activities and expected results. Additionally, the NDPC is mandated to vet the submitted plans to ensure climate related activities are considered but this rarely happens. Despite the efforts being made to mainstream climate change using the PFM process, these lapses clearly undermine the achievement of the intended objectives.

4.2.5 Linkage between MDA budget execution and SDGs

Government policies have been aligned to the sustainable development goals. These policies also underpin the budget guidelines that are utilised during the annual budget preparation process. Thus indirectly, MDAs are expected to contribute to the achievement of specific sustainable development goals (SDGs). However, due to GoG personnel's limited understanding and appreciation of climate change, coupled with the limited budget releases, other service activities are often prioritised over climate change related activities. Hence the current process of driving the achievement of the SDG goals through the PFM system may not be as effective as expected due to the challenges enumerated earlier.



Conclusion and Policy Recommendations

5. Conclusion and Policy Recommendations

5.1 Conclusion

There is no doubt about the role of PFM in mitigating the adverse impacts of climate change. From carbon trading through climate fund mobilisation to sustainable finance arrangements, PFM provides a powerful platform.

Remarkably, climate-sensitive PFM is not a novelty in Ghana given the previous work done in this space. Climate-sensitive PFM projects and operations implemented over the 2015 – 2020 fiscal periods amounted to 3.93% of the overall GoG expenditure. Though this is low when compared with 13% recorded by the EU^{51} , it's a step in the right direction and a welcoming news.

Without a doubt, Ghana has recorded some notable initiatives in the climate PFM arena. These include periodic CPEIRs, continuous membership of the finance ministers for climate change coalition, participation in the Green Climate Fund, establishment of Economic Strategy and Research Division within the Ministry of Finance, the adoption of the sustainable financing framework, alignment of policies to the sustainable development goals, the establishment of GCARP and an Integrated MRV System, And the inclusion of climate change in the medium-term national development policy framework and budget guidelines. All these contribute to the country's efforts to leverage PFM to address the negative impact of climate change. However, opportunities exist for improvements to be made in this area across the value chain. Hence, every effort should be made to continue with and improve on the progress made in this area.

5.2 Policy Recommendations

Standalone / dedicated budget programmes/ sub-programmes

Given the fragmented nature of climate sensitive-PFM projects and operations across various budget programmes/ sub-programmes, the Government should explore the potential of creating dedicated / stand-alone budget programmes/ subprogrammes for every sector Ministry. The budget programme/ sub-programme could be dedicated to capturing the climate change projects and operations of all covered entities in the sector. This generally aligns with the prevailing practice in Eswatini. This will facilitate climate budget tagging, a tool for monitoring and tracking climate-related expenditures in the national budget system.

Improved visibility of climate change structures in the decentralised PFM value chain

The Government should also consider extending climate sensitive PFM structures to the other covered entities in the decentralised PFM landscape. This could entail the designation and capacitation of climate change agents / focal persons in the various covered entities i.e., MMDAs. This is to help coordinate, facilitate, and bring focus to climate-sensitive PFM actions within the various covered entities. Hence, climate sensitive PFM would have an elevated focus right from the development planning process at the national and subnational levels. Furthermore, entities involved in the reporting and monitoring processes should mainstream climate reporting and monitoring in their work. For example, the Controller and Accountant-General's department could report on climate expenditures separately i.e., under specific government climate change programmes and sub-programmes while the Ghana Audit Service audits and reports on these expenditures for subsequent scrutiny by Parliament. These would enhance the credibility of reports on

⁵¹ https://www.eca.europa.eu/Lists/ECADocuments/SR22_09/SR_Climate-mainstreaming_EN.pdf

climate projects and operations as opposed to waiting for the Ministry of Finance to report on climate expenditures during CPEIRs.

Mainstreaming of gender considerations in PFM Structures and other economic interventions

The importance of gender diversity in respect to public finance roles cannot be overemphasized. This is due to the immense value it brings. Women bring diverse and rich perspectives that cannot be overlooked in climate sensitive PFM decision-making across the value chain. From making inputs to developing fiscal policies to be gender sensitive to monitoring gender-responsive climate expenditures, women could be invaluable. Hence, in activating the PFM structures in the various legislations, the government should consider putting in place a policy to ensure that women representation in all these structures is enhanced.

Key economic interventions such as the micro and small loans scheme operated by MASLOC currently has a focus on women empowerment as part of its four key areas of focus. To further deepen its focus on women, consideration should be given to developing specific products that target women owned SMEs.

Additionally, state-owned financial intermediaries such as the new development bank – Development Bank Ghana (DBG) is expected to target key sectors such as agriculture, manufacturing etc. It also has a climate change focus as part of the investment process. However, deliberate focus on gender should be considered.

Awareness creation, capacity building and strengthening Institutional responsibility

With the alignment of policies to the sustainable development goals, MDA's and MMDA's are already working towards the achievement of these goals. There should be increased awareness creation and training to deepen their understanding and inculcate a sense of ownership and commitment to planning and implementation of climate related activities. Again, Parliament needs to be trained and sensitized on climate change in order to scrutinise and enforce climate related activities in the MDA' plans during budget hearing. Finally, NDPC must intensify its vetting of the submitted plans of MDA's especially in relation to climate change.

Inclusion of specific climate related activities in the budget guidelines and the establishment of climate KPI's

The PFM Act mandates the preparation of budget guidelines hence the inclusion of mainstreaming climate activities in the issued budget guidelines is an important step towards mitigating the impact of climate change. Nonetheless, the MoF should further provide climate focus areas or activities coupled with the establishment of Key Performance Indicators to assess the plans and performance of MDAs in relation to climate change. This, not only strengthens the legislation but also ensures there is commitment to planning, implementing, monitoring, and reporting of climate related activities by the MDAs and MMDAs. This would contribute to the effectiveness of the audit engagements that would be conducted by the Ghana Audit Service as they will be conducted on the basis of climate policies, objectives and KPI's.

Deepened collaboration among stakeholders

Evidently, efforts have been made to mainstream climate change in the PFM process. However, some of these initiatives are not known to some key PFM stakeholders. A collaborative effort from all key stakeholders (NDPC, ESRD, EPA, MESTI, CAGD, Ghana Audit Service, Internal Audit Agency, Parliament, MDA's, MMDA's) is fundamental to achieving the mainstreaming objective. Also, all stakeholders including budget/planning officers, accountants, consultants, and academia should be in the known of all climate related initiatives.

The collaboration should include the use of technology for knowledge sharing highlighting the threat of climate change to national development, government's efforts at addressing the impact of climate change and linkage(s) to the SDGs, use of CLIMFINTRACK to monitor and report on climate change related expenditures etc. Additionally, MoF should expedite granting the public access to CLIMFINTRACK to help create awareness among the citizenry about GoG's climate change goals, initiatives, and activities.

References

- Adshead, D., Thacker, S., Fuldauer, L.I., Gall, S.S., Chow, N., Pant, R., Russell, T., Bajpai, A., Morgan, G., Bhikhoo, N., Boroto, D., Palmer, R., Cançado, D., Jain, N., Klöttschen, V., Lawal, H., Dery, P., Twum, E., Mohammed, G., Hall, J.W., and Agbesi, L. 2022. Ghana: Roadmap for resilient infrastructure in a changing climate. Ministry of Environment, Science, Technology & Innovation, Accra, Ghana. (2022). Available from: <u>https://gca.org/wpcontent/uploads/2022/03/Ghana_Roadmap-for-Resilient-Infrastructure-in-a-Changing-Climate.pdf</u>
- The Budget Statement and Economic Policy of the Government of Ghana for the 2022 Financial Year. Available from https://mofep.gov.gh/sites/default/files/budgetstatements/2022_Budget_Statement_v3.pdf
- Ghana: Report warns that climate risks could cost Ghana's transport sector \$3.9 billion, but roadmap offers hope. Available from https://www.afdb.org/en/news-and-events/press-releases/ghana-report-warns-climate-risks-could-cost-ghanas-transport-sector-39-billion-roadmap-offers-hope-50538
- Lawson, A. (2015). Public Financial Management. GSDRC Professional Development Reading Pack no. 6. Birmingham, UK: GSDRC, University of Birmingham.
- COVID-19 is a wake-up call': Ghana to develop national plan for climate adaptation. Available from <u>https://www.unep.org/news-and-stories/press-release/covid-19-wake-call-ghana-develop-national-plan-climate-adaptation</u>
- Climate Risk Profile Ghana (2021). Available from <u>https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-</u> <u>WB_Ghana%20Country%20Profile-WEB.pdf</u>
- Climate change risk profile Ghana. Available from
 <u>https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile%20-%20Ghana.pdf</u>
- https://mofep.gov.gh/sites/default/files/budgetstatements/2022_Budget_Statement_v3.pdf
- Source: <u>https://www.cabri-sbo.org/uploads/files/Documents/September-14-Session-1-Ghana.pdf</u>
- <u>https://www.financeministersforclimate.org/member-countries</u>
- <u>https://www.eca.europa.eu/Lists/ECADocuments/SR22_09/SR_Climate-</u> mainstreaming_EN.pdf
- <u>https://mofep.gov.gh/sites/default/files/docs/Climate-Change-Tracking-Tool.pdf</u>
- <u>https://mofep.gov.gh/sites/default/files/news/Press-Release-on-MoF-Appointment-2019.pdf</u>
- https://mofep.gov.gh/sites/default/files/news/NDA-Operational-Manual-Abridged-Version.pdf
- https://mofep.gov.gh/sites/default/files/budget-statements/2023-Budget-Statement_v4.pdf
- <u>https://mofep.gov.gh/news-and-events/2021-04-19/ghana-participation-in-the-2021-un-sdg-investment-fair</u>
- <u>https://mofep.gov.gh/sites/default/files/news/Ghana's-SDG-Budget-Baseline-Report-Aug-09-18.pdf</u>
- https://mofep.gov.gh/sites/default/files/news/SDG-Manual.pdf
- <u>https://ndpc.gov.gh/media/National_Development_Policy_Framework_volume.pdf</u>
- https://mofep.gov.gh/sites/default/files/news/Intergrated-MRV.pdf
- <u>https://mofep.gov.gh/sites/default/files/basic-page/2023-</u> 2026_Budget_Preparation_Guidelines_v2.pdf
- Ghana's Ambitious Climate Reporting Program Global Climate Action Partnership
- https://thecvf.org/wp-content/uploads/2022/05/Climate-Vulnerable-Economies-Loss-Report_Project_june_2022.pdf