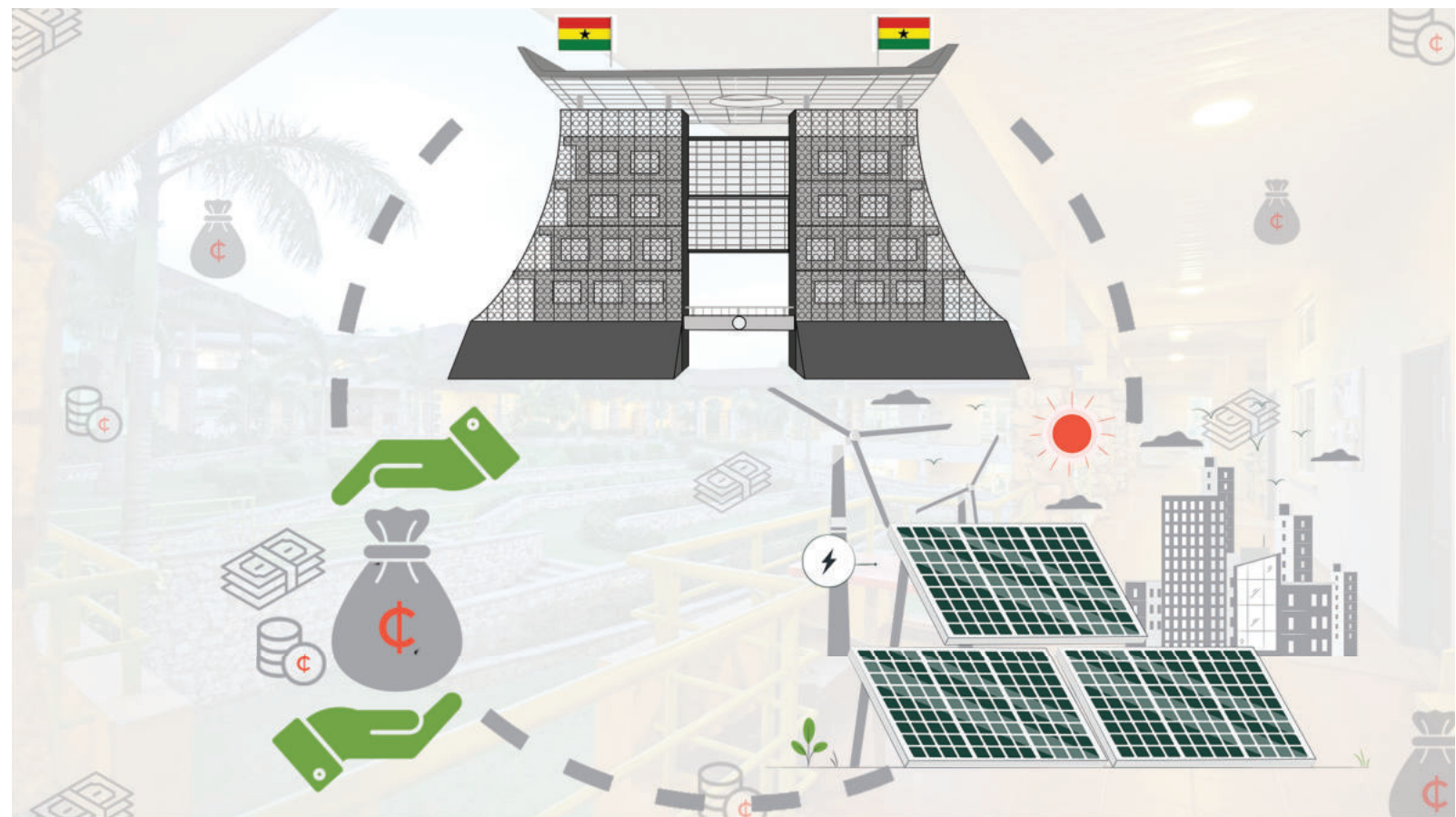


IDENTIFYING SUPPORTIVE FISCAL POLICIES FOR GREEN BUSINESSES IN GHANA: An Analysis of the Existing Tax Regime and Implications for Financial Sustainability

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Prepared by



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LIST OF ABBREVIATIONS

ABB	Activity Based Budgeting
CPESD	Coordinated Programme for Economic and Social Development
CPP	Climate Prosperity Plan
EEAI	Electronic Vehicle Early Adoption Incentive
ETS	Emission Trading System
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GPP	Green Public Procurement
IMF	International Monetary Fund
MDA	Ministries, Departments and Agencies
MMDA	Metropolitan, Municipal, District Assembly
MTDP	Medium-Term Development Plan
MTEF	Medium Term Expenditure Framework
MTFF	Medium-Term Fiscal Framework
NDC	Nationally Determined Contributions
NDPC	National Development Planning Commission
NEIP	National Entrepreneurship and Innovation Programme
PBB	Programme Based Budgeting
PC-PEG	Post-Covid Programme of Economic Growth
PDPEA	Problem-Driven Political Economy Analysis
PFM	Public Financial Management
POA	Programmes of Action
SME	Small and Medium Enterprises
SOE	State Owned Enterprises
STDP	Short-Term Development Plan
VAT	Value Added Tax

KEY MESSAGES

- Green fiscal policy tools are critical to mobilizing revenues for climate change investment and altering firms and consumer behaviour toward clean energy technologies. Key fiscal policies implemented by countries include carbon tax, emissions trading systems, and feebates and regulations.
- Ghana does not have a formal green fiscal policy strategy, however, there are several tax instruments and regulations that can achieve the purpose of a green fiscal policy if properly aligned with the Nationally Determined Contributions (NDCs). Key tax instruments such as the environmental excise tax, sanitation and pollution levy, and feed-in-tariffs are relevant to green fiscal policies in Ghana. Apart from the feed-in tariffs, the other instruments are not oriented to the climate change needs of Ghana.
- Ghana's fiscal policy environment has several entry points for integrating green fiscal policies. The Public Financial Management system (PFM) is a key lever for implementing green fiscal policies since the provisions are flexible to accommodate green fiscal policy. Key government policies such as the Post-Covid Programme for Economic Growth (PC-PEG) and the Climate Prosperity Plan (CPP) have opportunities to leverage fiscal policies to achieve environmental and climate needs.
- Ghana's development plans are not aligned with the NDCs, thus the broad fiscal policies of the government do not reflect the climate targets.
- Ghana does not have a special tax regime for green businesses. As a result, they are exposed to the same taxes as other businesses. However, several business tax exemptions and personal reliefs can be leveraged to minimize the impact of taxes on green businesses.

1.0. BACKGROUND - CLIMATE CHANGE, GREEN BUSINESS, AND FISCAL POLICIES

Climate change poses severe threats to sustainable development in Ghana. Economic growth and development have been relatively stable over the last decade and a half, mainly driven by increased commercial production of petroleum resources. However, improved growth and stability have been achieved at the expense of severe environmental destruction. Greenhouse gas (GHG) emissions have almost doubled over the last two decades because of poor land use management, high fossil fuel-based energy and transportation sector, and unsustainable waste management and industrial processes. In 2013, the cost of environmental destruction was estimated at 10 percent of GDP.

Addressing the impact of climate change on key sectors of the economy like agriculture and energy has placed significant constraints on the fiscal condition of the country because more finance has had to be diverted to address the low food production and perennial flooding. Already, about 3.6 million people face extreme hunger and nearly 45,000 people are affected by flooding every year. These imply that climate change could be a key multiplier of poverty and slow the pace of economic growth and development. Thus, a sustainable approach is needed to control the exposure of the Ghanaian economy to climate change.

Green/Climate-smart businesses offer solutions to improve the economy, environment, and livelihoods. Green enterprises adopt innovative approaches and technologies that reduce waste, maximize natural resources, and employ production mechanisms that reduce greenhouse gas emissions. The core business models of green small and medium enterprises prioritize sustainability and harness new and existing innovative solutions that support vulnerable communities in adapting to the risk of climate change. Green business potentials, if properly harnessed, have the potential to attract private climate investment required to implement the mitigation and adaptation measures. Additionally, the achievement of the mitigation and adaptation measures significantly rests on the capacity of businesses to green their processes and behaviour modification that supports the circular economy. For instance, climate-smart agribusiness models can reduce the emissions from the agriculture, forestry, and land use sectors, which account for about 54 percent of greenhouse gas emissions in Ghana by lowering deforestation and ensuring proper land use. Green businesses also offer society-wide environmental and economic benefits by creating sustainable jobs through the cost-reduction effect of their circular economy approaches.

Climate-smart fiscal policies create channels for revenue mobilization and improve demand for green products and services. Fiscal policy tools such as carbon taxes, emissions trading systems, and other forms of fossil fuel taxes create revenue-generating streams that encourage domestic revenue mobilization to support public finances. The revenues accrued from the fiscal tools can be used to support investment in mitigation and adaptation programmes, and offset the attendant social impact of climate change on employment and welfare. Importantly, the revenues can serve as direct grants, subsidies, tax credits, and other supportive schemes to accelerate green investments, products, and services. In the case of climate-smart businesses, fiscal policy tools like environmental taxes could be used to reduce or remove existing taxes that increase the cost of doing business and create opportunities for upscaling innovations. Integrating climate change in macro-fiscal policy planning and medium-term expenditure framework ensures that government spending is tailored to address the risk of climate change. Through green public procurement, governments can use public spending to stimulate climate-smart businesses and green investment.

However, there is limited understanding of the mix of optimal fiscal instruments that can stimulate green investments in Ghana. Many developing countries like Ghana recognize that fiscal policies play a role in discouraging high-emission production and consumption and direct investment in climate-resilient technologies and innovations. However, the policies and programmes are uncoordinated and there is limited political economy support for such measures to implement green fiscal policy tools. For instance, Ghana cannot fully track and verify public expenditures that support climate change because the climate budget tagging has not worked effectively since its implementation. Furthermore, existing environmental taxes such as the environmental excise tax instruments have not been effectively leveraged to promote innovation by climate-smart businesses. Recently, the government launched its framework for international carbon pricing and trading in carbon markets. However, there are no linkages to how such instruments are aligned to promote green businesses and the implication for fiscal policy frameworks.

Against this background, this policy paper examines the readiness to integrate green fiscal policies into the existing fiscal policy planning process and identifies the set of fiscal policy tools that can support green businesses in Ghana to thrive. This paper contributes to green fiscal policy planning literature and further increases stakeholder awareness and understanding of these issues.

Despite their potential contribution to Ghana's climate action, the business and policy environment remains unsupportive. Green businesses thrive and support local and national climate change activities where governments create an enabling environment that supports their financial viability, market access, and competitiveness. The absence of a coherent policy and regulatory support for green businesses points to a misunderstanding and lack of awareness of the contribution of climate-smart enterprises to the overall climate action. This is because the climate-smart industry is heterogeneous, complex, and cut across multiple sectors such as energy, agriculture, and other value chains. As a result, there is limited understanding of the perfect blend of incentives that is conducive for all climate-smart businesses to thrive. In addition, green businesses have not received sufficient political support and recognition necessary to influence fiscal measures to support their activities. Fiscal policies have been identified as key levers to accelerate the activities of green businesses. Green fiscal policies mean the use of both government spending and taxes to induce climate-smart investment and make green technologies the most preferred option.

This means governments can use fiscal instruments either in the form of budget expenditure or taxes to support the adoption and innovation by green businesses. Fiscal policies in the form of taxes, subsidies, and other forms of incentives support climate-resilient development by discouraging the use of fossil fuels, reducing the cost of investment in green technologies, and creating spaces for public investment to reflect the country's climate realities . Several economies have adopted diverse bundles of fiscal programmes that accelerate green investments and environmentally sustainable projects. For instance, China has implemented VAT rebates, corporate tax breaks, and research and development tax reliefs to support green initiatives and respond to the carbon reduction needs of the country. These fiscal programmes reduce the cost of operation by freeing up space for capital investment. In 2019, Sweden's carbon tax policy contributed to a 25 percent reduction in emissions and expanded the economy by 75 percent. Typically, such fiscal policy tools are intended to increase pressure on businesses and people to switch to low-carbon production and consumption patterns and reward entities that employ technologies and innovation that are climate-smart.

1.1 OBJECTIVES AND RELEVANCE OF THE PAPER

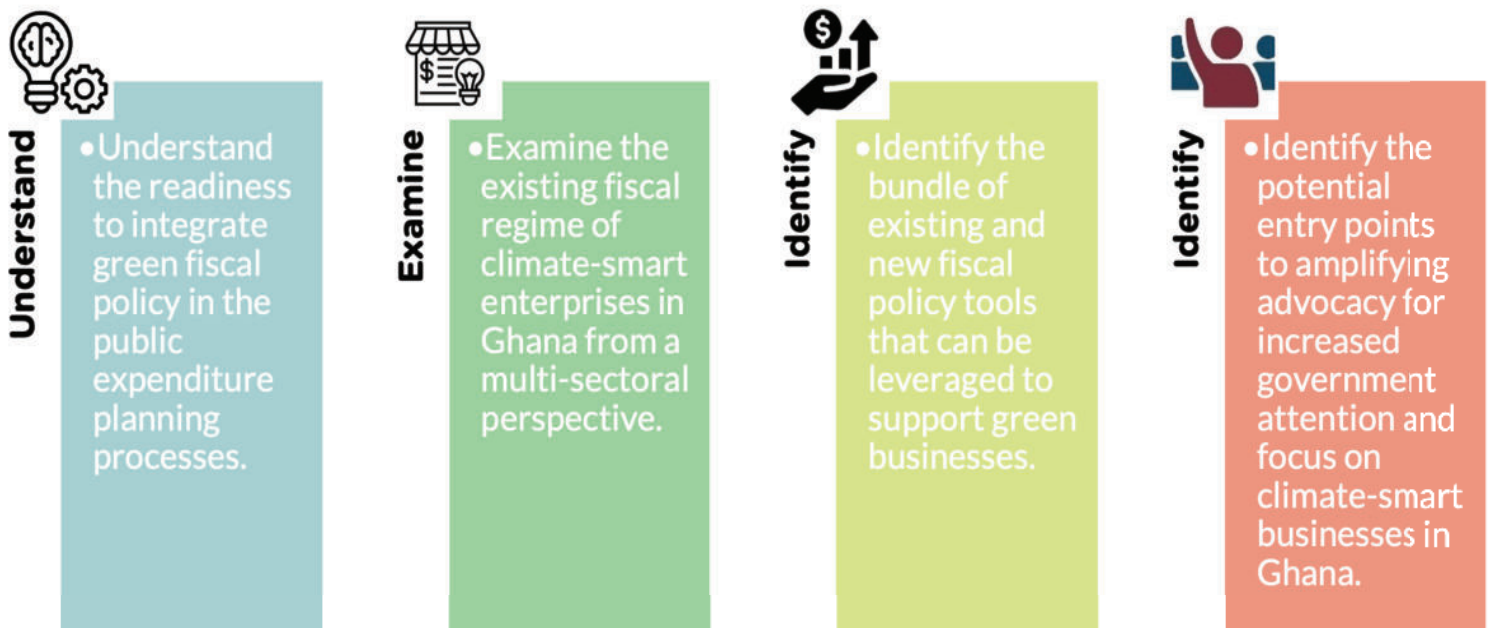
The purpose of this paper is to understand the existing entry points to integrate green fiscal policies in macro-fiscal policy planning and government expenditure framework and identify a bundle of fiscal policies that can accelerate green businesses to be financially sustainable. The key objectives of the paper are;

1. Understand the government's preparedness to integrate green fiscal policy into the public expenditure planning processes.
2. Examine the existing fiscal regime for climate-smart enterprises in Ghana from a multi-sectoral perspective.
3. Explore new fiscal policy tools that can be leveraged to support green businesses.
4. Identify potential entry points to amplify advocacy for increased government attention and focus on climate-smart businesses in Ghana.

The key framing questions guiding the analysis are:

1. What opportunities exist to integrate green fiscal policies into public expenditure frameworks and fiscal policy planning?
2. What is the nature of the fiscal regime for climate-smart enterprises in Ghana?
3. Are there optimal green fiscal tools that are supportive of the financial sustainability of green businesses?
4. How can we enhance advocacy for government to support green businesses, and integrate them into Ghana's climate action?

Figure 1 Objectives of the Paper

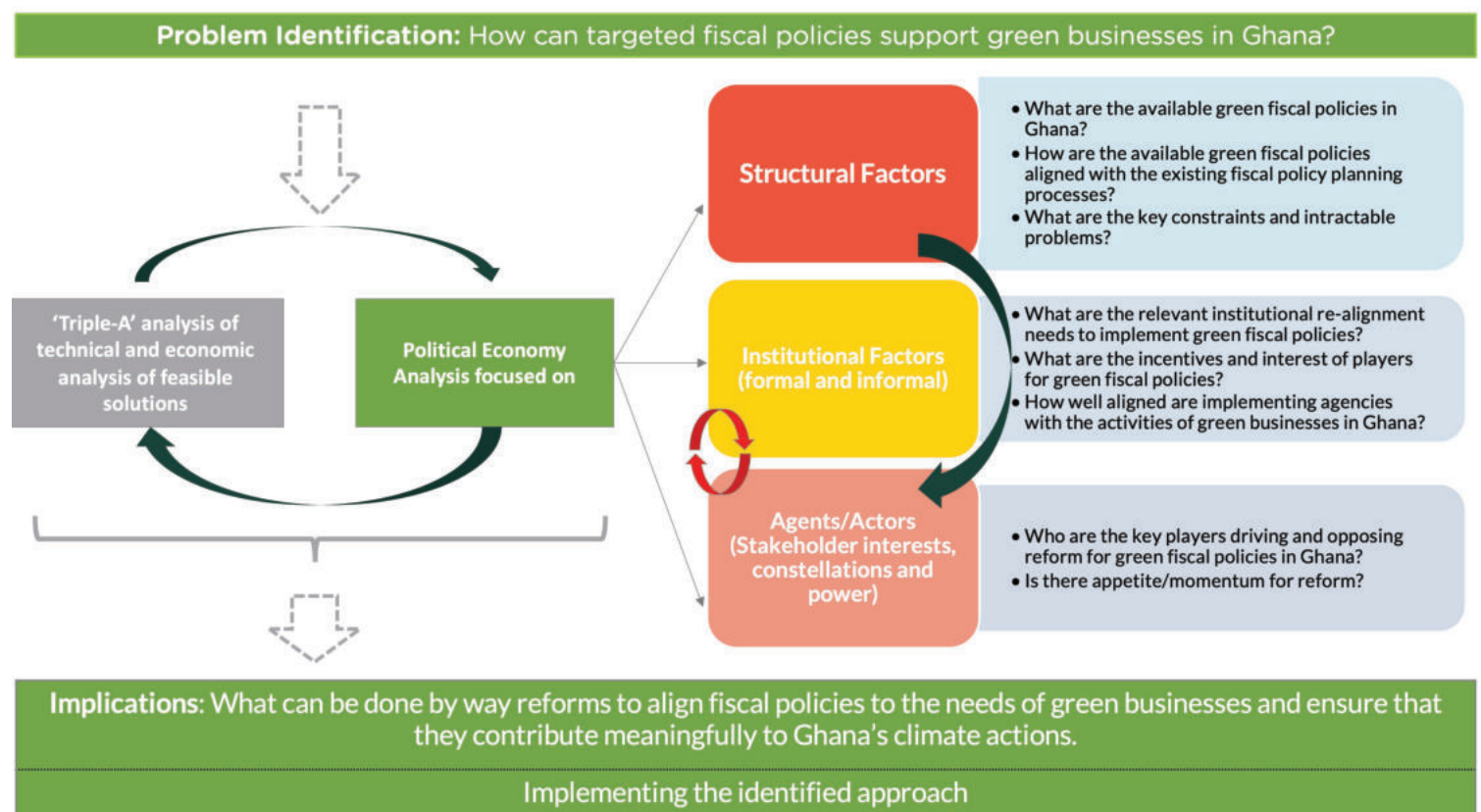


1.2. APPROACH

Achieving reforms to green policies that support climate-smart businesses occurs at an intersection between policymaking and the political economy. A Problem-Driven Political Economy Analysis (PDPEA) was adopted to conduct the study. The PDPEA integrates a technical analysis of the effective fiscal policies and instruments that are supportive of green businesses, in addition to an analysis of the institutional and policy entry points to integrating green fiscal policy in current public expenditure frameworks and the political support needed for green businesses in Ghana's climate action.

A survey of green businesses to understand the current fiscal regime and the optimal fiscal package that can support their financial sustainability was conducted to complement the political economy analysis. Additionally, key informant interviews with the Environmental Protection Agency, green business coalitions, and experts were organized to understand existing efforts to integrate green fiscal tools into government expenditure planning, and mechanisms to implement the identified supportive fiscal instruments for green businesses in Ghana. A Triple 'A' Analysis was conducted to understand the key stakeholders to engage to amplify the needs of green businesses in a consultative dialogue. The Triple 'A' analysis practically assesses the political support needed to implement the green fiscal policies relevant to the sustainability of green businesses; the level of acceptance of the need to tailor existing and future fiscal policies to the needs of green businesses; and the available entry points for implementing the policy reform approaches (See Figure 2).

Figure 2 Problem-Driven Political Economy Analysis & Triple 'A' Analysis





Authority is the support needed to effect policy change or build state capacity (whether political, legal, organisational, or personal).



Acceptance is the extent to which those who will be affected by reform or policy change (in government or outside it) accept the need for change and the particulars of a suggested reform.



Ability is the practical side of the reform process, and refers to the level of available expertise, time, and funding for a proposed intervention. In each case, it is important to assess the existing level and establish the gaps that need closing.

Source: IMANI Centre for Policy and Education- Adapted from multiple PEA Frameworks.

2.0. GREEN FISCAL POLICIES AND INSTRUMENTS - TYPES AND HOW THEY SUPPORT CLIMATE ACTION

Green fiscal policies are essential in responding to the threats of climate change. Typically, countries require financial investments to support infrastructural development needed to mitigate GHG emissions and create support systems that help households and firms adapt to climate change. The effects of climate change can place a significant strain on public finances, and in some instances have implications on public debt. To address the cost implications of climate change on public finances, fiscal tools must be designed to respond to the cost of abating the impact of GHG emissions. Green fiscal policy has become one of the key instruments countries are leveraging to control emissions and incentivize investment in green technologies and innovations. In addition, green fiscal policies have also become important revenue mobilization channels for supporting country adaptation programmes. Green fiscal policy instruments are designed to impose a tax or fee that internalizes the environmental cost of emissions or creates an incentive for polluters to transition to green investments and technologies. For example, the province of British Columbia in Canada uses the revenues of carbon pricing to cut corporate income taxes and any distortions to labour, and the federal government offers a lump sum to compensate households for higher energy prices due to carbon taxes and pricing policies.

Fiscal policies for green investment and businesses can be designed to achieve diverse policy results. Green fiscal policies can take the form of market or non-market initiatives for cutting GHG emissions. The common fiscal policy instruments adopted include carbon tax, carbon pricing, emissions trading schemes, feebates, subsidies, regulations, and direct budget support. These policy instruments have varying policy strengths and thus can be combined effectively to achieve different fiscal policy outcomes based on the political and citizen support, and the nature of tax administration of the country. Nonetheless, the choice of green fiscal policies must take into consideration the political, economic, and social context of the country.

Carbon pricing is one of the market-based green fiscal policies used by countries to control GHG emissions. It is designed to internalize the environmental cost of GHG emissions by putting a price on carbon, mainly to pass the cost of mitigating emissions to the emitter. A carbon tax is a form of carbon pricing that levies a fixed tax level on the carbon content of fossil fuels and other GHG emissions in a country. Carbon taxes are designed to influence actors to switch to greener and less polluting fuels because of the premium paid for using fossil fuels. Carbon taxes can be levied on both the supplier and the consumer- they can be levied on the producer generating the GHG emissions or the consumer buying a product that has high carbon content. For example, a carbon tax can be levied on petrol, diesel, or any product from a high polluter. Emissions Trading Systems (ETS) often referred to as cap and trade system is another form of carbon pricing.

Under the ETS framework, the government sets maximum allowable levels of emissions beyond which an emitter will be taxed for exceeding the limits. ETS mechanisms provide credits to organizations that stay below the maximum limit, who then can sell the credit to entities that need the credits to comply with the regulations. The maximum allowable levels of emissions are gradually reduced over time to ensure the country meets its targets. A typical ETS market is the European Union ETS Market, which is also the world's largest carbon market (having reduced about 1 billion tons between 2008 and 2016).

Feebates and regulations are non-market forms of fiscal instruments used to address the mitigation of GHG emissions. Under feebates systems, the government sets a sliding scale of fees or rebates on specific products and activities that are below or above certain emissions levels. Feebates and rebates work by imposing a fee for exceeding emissions levels or rates, and rebates for staying below the emissions rate. For instance, Singapore's Carbon Emission-based Vehicle Scheme in 2013 transformed into a Vehicular Emissions Scheme that provides higher rebates for clean vehicles and imposes a high fee on high-polluting vehicles. The aim is to influence people to switch to cleaner fuel vehicles. In addition, buyers of fully electric cars and taxis will receive 45 percent rebates on additional registration fees under Singapore's Electronic Vehicle Early Adoption Incentive (EEAI). Renewable energy subsidies and incentives are forms of direct support governments provide to attract green energy investment and ensure the projects are bankable. Such projects receive subsidies and tax incentives that ensure that green businesses can compete with existing power generation technologies. Subsidies and incentives can be provided to avoid carbon taxes that could push energy prices upward.

Green bonds have also gained significant momentum as one of the efficient fiscal instruments available to both private and public entities to address climate change. A green bond is a debt security issued to raise capital to invest mainly in climate change or environmental sustainability-related projects. Although it is one of the fastest-growing instruments, it is highly under-utilized in low-income countries due to the complex public debt landscape. Since 2017, green bonds have leveraged about US\$800 billion of assets (US\$269 billion in 2020), and represent only 1 percent of the total debt market, indicating the prospects of green bonds. Green bonds help government and private entities to access capital with relatively longer repayment periods to invest in green activities, which are typically long-term in terms of cash flow and sustainability.

Green Public Procurement (GPP) has been identified as another opportunity to use fiscal activities to influence environmental outcomes. GPP prioritizes the purchase of environmentally sustainable items and engages organizations whose activities are less harmful to the environment.

Under GPP, procurement goes beyond looking for the least cost tenderer but highly prioritizes the environmental impact of the activities of the tenderer or the procurement items. GPPs require changes in procurement culture and deliberate structural reforms by procurement entities. This also implies that procurement agencies must be fully integrated into the broader climate action strategy to ensure that the procurement systems are aligned with the country's environmental needs. Table 1 below shows the advantages and disadvantages of the common green fiscal policy instruments.

Green Fiscal Policy Instrument	Pros	Cons
1. Carbon Pricing Instruments - Market-Based Instruments		
Carbon Tax	<ul style="list-style-type: none"> - Carbon taxes are easy to administer because they can be integrated into the existing tax administration system. - Revenue flows to the government are predictable. - Carbon taxes applies high premium to using fossil fuels and incentivize shifting to cleaner fuels. 	<ul style="list-style-type: none"> - Carbon taxes could cause short to medium-term rises in the prices of products, especially energy prices. - They can be politically sensitive and may lose support from citizens. - The actual emissions reduction from carbon taxes are not predictable.
Emissions Trading Systems	<ul style="list-style-type: none"> - They are easy to mobilize political support for its implementation. - The opportunity to trade credits incentivizes entities to shift towards cleaner technologies. - ETS can be integrated into the existing tax administration system. - The actual emissions reductions are predictable. 	<ul style="list-style-type: none"> - The emission allowance can negatively affect the expected revenue and emissions target. - ETS requires enhanced capacity and infrastructure to monitor emissions. - ETS may not be comprehensive and may focus on only large emitters.

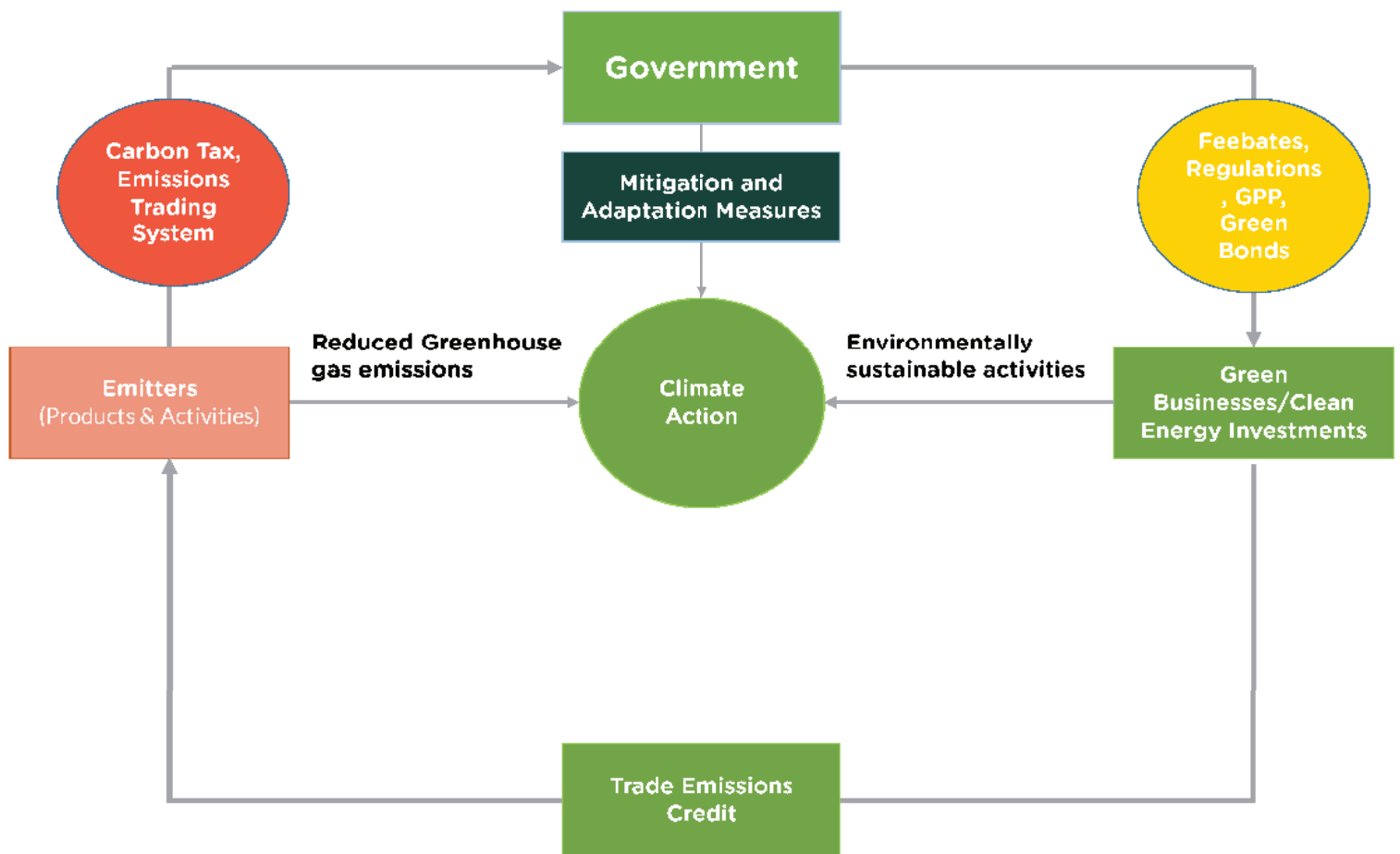
Non-Market Based Instruments		
Feebates and regulations	<ul style="list-style-type: none"> - Feebates are easy to implement. - They can incentivize behavioural changes towards clean technologies. - They can support clean and green investments. 	<ul style="list-style-type: none"> - Emissions reduction are unpredictable. - Revenues flow from feebates and regulations are unpredictable.
Green Bonds	<ul style="list-style-type: none"> - A channel for mobilizing finance to support clean investment. - It can minimize short-term pressures on the fiscal condition of countries. 	<ul style="list-style-type: none"> - It can have negative implications on the debt sustainability of countries. - Green Bonds can be expensive for low-income countries.
Green Public Procurement	<ul style="list-style-type: none"> - It can be useful for green businesses since it can be a key sales channel. - Easier to implement because it requires procurement entities to develop a culture to support green products and activities. 	<ul style="list-style-type: none"> - Actual emissions reduction is unpredictable.

Table 1. Pros & Cons of Existing Green Fiscal Policy Instruments

2.1. LINKAGES BETWEEN GREEN FISCAL POLICIES, GREEN BUSINESSES AND CLIMATE ACTION

Government imposes carbon-pricing mechanisms (carbon tax or ETS) on high emitters to raise revenues to address the environmental impacts of climate change through mitigation and adaptation programmes. The revenues from green fiscal tools are used to establish incentive schemes such as feebates and subsidies to support green business innovations that supports its climate action. Additionally, the government can also raise green bonds or use green public procurement schemes to complement carbon pricing mechanisms. Green businesses can trade carbon credits with high emitters for them to meet emission regulations. Overtime, high emitters and consumers switch towards green products and services to reduce the cost associated with carbon emission and support the overall climate action of the government. This process ensures that the environmental cost of carbon emissions are paid for, and the green business innovations are supported.

Figure 3 Linkages between Green Fiscal Policies, Green Businesses & Climate Action



Source: IMANI CPE.

2.2. HOW DO GREEN FISCAL POLICIES AFFECT GREEN BUSINESSES?

Fiscal policies can affect green businesses in three main ways;

- They place a high premium on fossil fuels and other GHG-emitting activities, making them expensive for producers and consumers. The high prices influence behavioural change in consumers to shift towards less expensive and low carbon emission products and activities. This then creates demand for green business activities and products. For example, British Columbia's province carbon tax covers about 70 percent of emissions, leading to a significant decline in GHG emissions and a shift towards green technologies.

- **They create multiple revenue channels that can support fiscal conditions and investments in clean technologies and green businesses.** The IMF estimates that additional fiscal revenues from green fiscal policies could reach as high as 2 percent of GDP at a carbon price of US\$75. The revenues from green fiscal policies can be used to compensate the affected sectors and stimulate investment in clean technologies and climate-smart businesses. For example, India's coal taxes are lodged in the National Clean Energy and Environment Fund, which is used to support renewable energy investment. Also, Germany invests all the revenues from new ETS in green investment and just transition.

- **Green fiscal policies communicate the green investment readiness of a country to domestic and international investors.** Fiscal policies like carbon taxes communicate to green investors that the country is committed to a low-carbon transition and a supportive business environment. ETS also provides incentives for high emitters to consider shifting towards green technologies because of the opportunities to trade emissions. In addition, green fiscal policies can facilitate a country's access to the green bonds market. For example, China is the highest issuer of green bonds with about US\$22.9 billion in 2019 due to some measures of carbon taxes.

3.0. GREEN FISCAL POLICY ENVIRONMENT IN GHANA

The overarching objective of green fiscal policies is to ensure that fiscal policies, which are critical elements of the government's strategies to achieve economic transformation, are underpinned by the principles of a green economy. Ghana does not have a broad strategic framework for green fiscal policy planning and implementation, however, there are pieced works of policies and interventions intended to achieve the goals of a green recovery. These include;

- (i) **The Framework for International Carbon Markets and Non-Market Approaches.**
- (ii) **The Environmental Excise Tax.**
- (iii) **Sanitation and Pollution Levy.**
- (iv) **Renewable Energy Feed-in-Tariffs.**

In addition, there are other budget spending that may directly or indirectly contribute to climate change mitigation and adaptation. However, they have not been directly designed with climate change as the underlying goal.

The Framework for International Carbon Markets and Non-Market Approaches was designed by the government to trade some of its conditional emissions on the international carbon market. Ghana does not directly impose a levy or tax instrument in the form of carbon pricing. However, Ghana intends to trade about 24MtCO₂e of the conditional absolute emissions reduction under the Article 6.2 Framework of cooperative approaches. A major reason for the absence of carbon pricing in the form of a carbon tax or an ETS in the domestic market is that the government has identified that the targeted sectors are already overtaxed and an imposition of a domestic carbon tax could increase the cost of doing business for the firms and cost of living for households. The strategy to participate in the international carbon market is intended to signal Ghana's readiness to support green investment and mobilize the needed finances to implement the programmes of action in the NDCs. Even though this policy has not been finalized, there are no linkages in the existing frameworks that are intended to directly use the proceeds of the carbon trade to support domestic green enterprises. Additionally, it is unclear how the capacities of domestic green enterprises will be enhanced to ensure their activities will feed into the broad emissions reduction framework.

The Environmental Excise Tax is levied on all plastics and plastic products produced or imported into the country. The environmental excise tax was passed to address plastic pollution and establish a fund that would support plastic recycling in Ghana. In 2013, the tax rate was increased from 5 percent to 10 percent, and its coverage expanded to include all plastics and plastic-related products. A national plastics authority envisioned to be set up and financed from about 50 percent of the total collected tax is yet to be established to bring the purpose of the act into action.

In 2019, the tax was estimated to have accrued over GHC900 million, however, the funds have not been used for the purpose for which it was established. The Ministry of Local Government and Decentralization is expected to develop the modalities for utilizing the funds. So far, there are no publicly available modalities for using the fund. The current structure of the law appears to support green businesses engaged in plastic recycling, but there has not been a definite policy to this effect. This can be a potential entry point to use fiscal policies to support green businesses in Ghana.

The Sanitation and Pollution Levy was implemented to enhance the sanitation situation and control pollution. This levy imposes GHp10 per litre on petrol and diesel through the amendment of the Energy Sector Levies Act (Amendment) 2021, Act 1064. The Minister for Finance is mandated to set up a Sanitation and Pollution Account to receive the revenues from the levy. The funds in the Sanitation and Pollution Accounts are expected to be used to:

- Improve air quality in urban areas of the country and combat pollution.
- Design, construct, and re-engineer solid and liquid waste treatment and disposal facilities including compost production facilities, recycling facilities, landfill sites, medical and other specialized waste treatment facilities.
- Construct sanitation facilities to accelerate the elimination of open defecation.
- Support disinfection, disinfection, and fumigation of public spaces, schools, lorry parks, health centres, and markets.
- Provide dedicated support for the maintenance and management of major landfill sites and other waste treatment plants and facilities across the country.

The Sanitation and Pollution Levy was not designed with the green economy as its main goal, even though some of the activities can potentially address the effects of climate change. The current design of the levy does not provide any support for green enterprises. However, it can be a potential entry point to support green innovations by SMEs that are linked to the objectives of the levy.

Ghana's Renewable Energy Act 2011 (Act 832) establishes a feed-in-tariff (FIT) scheme to support green energy investments. FITs unlike direct tax instruments are regulatory-based fiscal instruments used to support green business investments. The Act establishes a feed-in-tariff scheme for a duration of 10 years irrespective of the technology. The Public Utility Regulatory Commission (PURC) is mandated to set the tariffs for a renewable energy investment or project. Section 25 (1&2) of Act 832 supports the FIT regime. Ghana's feed-in-tariff regime consists of three main aspects;

- **A renewable energy purchase obligation:** This component of the FIT ensures that an electricity distributor or a bulk consumer will purchase some proportion of their power from renewable energy technology. This guarantees the availability of an off-taker for the renewable energy project.

- **Connection to a transmission and distribution system:** This component of the FIT ensures that the renewable energy project has access to transmission and distribution lines needed to serve the customers.
- **Feed-in-Tariff rates:** The FIT rate is a predetermined price at which electricity can be purchased from renewable energy technology in Ghana. It is mostly higher than the regular market tariffs. This fixed rate of tariffs guarantees investors predictable returns over the FIT rate duration. In Ghana, the FIT rate is set for 10 years after the rate is set by the PURC. This supports the project's bankability and creates an economic incentive for green energy investment promotion in Ghana. Table 2 shows the gazetted feed-in-tariffs.

Table 2. Gazetted Feed-in-Tariff as of September 2013 (Duration 10 years)

Technology	Tariff Rate (Ghp/Kwh)
Solar	32.1085
Wind	40.2100
Hydro < 10MW	26.5574
Hydro 10MW>100MW	22.7436
Landfill Gas	31.4696
Sewage Gas	31.4696
Biomass	31.4696

The available green fiscal policy instruments have been summarized in Table 3 below.

Fiscal Policy Instrument	Purpose
Ghana's Framework for International Carbon Market and Non-Market Approaches	<p>The framework is intended to support Ghana's participation in the international carbon trading market. Ghana plans to trade about 24 MtCO_{2e} of its conditional absolute emissions reduction.</p> <p>The policy does not explicitly mention the use of proceeds to support green businesses.</p>
Environmental Excise Tax	<p>The instrument imposes a percentage tax on all plastics and plastic products produced or imported to Ghana. The proceeds are expected to support plastic recycling in Ghana. The fund management authority has not been established, and modalities for spending are yet to be published.</p> <p>The tax instruments do not explicitly mention the use of the proceeds to support green businesses in the plastic value chain.</p>
Sanitation and Pollution Levy	<p>The instrument imposes GHp 10 per litre on petrol and diesel in Ghana. The proceeds of the levy are intended to support broader sanitation issues in Ghana and address air pollution.</p> <p>The tax instrument does not explicitly mention the use of the proceeds to support green businesses in the waste management value chain.</p>
Renewable Energy Feed-in-Tariffs	<p>The FIT regime establishes fixed tariffs for all RE technologies for a period of 10 years. The FIT regime is supported by the Renewable Energy Act 2011 (Act 832), making it predictable.</p> <p>The FIT regime covers all forms of green technologies and explicitly supports green businesses.</p>

Table 3. Available Green Fiscal Policy Instruments in Ghana

4.0. OPPORTUNITIES FOR INTEGRATING GREEN FISCAL POLICIES INTO PUBLIC EXPENDITURE AND FISCAL PLANNING

Ghana is facing severe economic challenges occasioned by high public debt, escalating inflation, and rising energy prices. Ghana is witnessing a two-decade high inflation rate of 38.1 percent, energy prices have doubled since the beginning of the year, and public debt has crossed US\$50 billion (GHC575.5 billion), about 72 percent of GDP. Global economic shocks have also amplified the economic challenges caused by the COVID-19 pandemic and other internal structural weaknesses. The government is struggling to maintain the fiscal and financial stability needed to drive economic recovery. In these fiscal constraints, the impact of climate change is increasingly worsening, and more financial investments are needed to address the damages to economic growth and livelihoods. However, several opportunities exist for government to use fiscal policies to address climate change and economic growth.

Public financial management systems make fiscal policies work and thus must be climate-sensitive. Fiscal policies operate within a framework of laws, structures, and processes established by the public financial management system (PFM). Fiscal policies are effective in achieving climate goals when the PFM can adapt to the climate and environmental needs of the country. This means that the PFM law must be reformed to take into consideration issues related to climate change. This would ensure that the fiscal policy framework and medium-term expenditure framework are designed to achieve the climate change objectives of the PFM Act. Ghana's PFM Act was not designed with explicit consideration of climate change, however, there are sections in the PFM law that make it possible for the government to consider climate change and other environmental goals as key fiscal policy objectives. Section 14 of the PFM Act 2016 (Act 921) makes a provision for the government to consider other fiscal policy objectives that are consistent with the fiscal policy principles set out in Section 13. This means that the government can pass an amendment to the PFM law to integrate climate change as a key fiscal policy objective. This would ground the 'green' PFM into law, and ensure covered entities evaluate the climate implications of their medium-term expenditure frameworks. Section 16 provides the Minister the right to revise the fiscal policy indicators every five years. This is an entry point for the government to include climate-sensitive fiscal targets that would ensure that public entities' spending and revenue collection respond to the climate needs of the country. Providing a legal basis for integrating climate targets in the PFM Act is essential to ensure that climate-sensitive budgeting is not an ad-hoc activity, and insulated from change of government and economic reforms.

The updated Nationally Determined Contributions (NDCs) are sufficient green strategic frameworks that can guide public expenditure to include green fiscal policies. Beyond reforming the PFM systems to reflect the climate needs of the country, a green strategic framework is required to set out the relevant green investments required to achieve the climate and environmental goals of the government. The green strategic framework can also serve as a guiding framework for public infrastructure investments to be climate-sensitive. The updated NDCs establish the clear goals of the country by 2030, and the relevant programmes of action (POA) to achieve these targets. Moreover, the NDCs categorize the POAs into conditional and unconditional targets. The unconditional POAs are activities that the government of Ghana can implement with or without support from the international community. These unconditional targets and POAs must be translated into government policies that will be fed into the Coordinated Programme for Economic and Social Development (CPESD). Through this, the main strategic document that influences the fiscal policy framework and the medium-term expenditure framework of public institutions reflects the climate change priorities of the country.

With a climate-sensitive PFM and the NDCs, Ghana will be ready to integrate green fiscal policies in public expenditure and fiscal policy planning. When the PFM frameworks provide strong legal support for green fiscal objectives and the NDCs provide a strategic framework, green priorities can be included in the fiscal policy framework and national development strategies, which are the key pillars of the national budget. Green priorities (revenue and expenditure) can then be integrated into the medium-term fiscal framework (MTFF). The MTFF is the government's resource envelope and serves as the link between the CPESD and the immediate spending, revenue, and financing activities in the national budget. This implies that an MTFF can be used to set out the fiscal and environmentally sustainable pathway to achieve the CPESD. Thus, the clear emissions reduction expected from green fiscal policy tools can be directly integrated into the MTFF to ensure that the overall resource envelope of the government takes cognizance of climate change.

The budget preparation stage is a critical entry point to integrate green fiscal policies and the needs of green enterprises into public expenditure and investment. The budget circular (also known as budget guidelines) is a critical document that can ensure that green fiscal policies are integrated into the budgets of MDAs/MMDAs. The budget circular provides guidance notes for public entities to prepare their budget. When climate targets from the NDCs are embedded in their granular form in the budget circular, the entities' revenue and expenditure will be aligned to the climate needs of the country, and thus achieve the principles of green fiscal policy. Section 20 (2) of the Public Financial Management Act 2016 (Act 921) spells out the key issues that must be contained in the budget circular. Sub-section (h) of Section 20 (2) gives the Minister the power to set the selection criteria for investment projects.

These are potential entry points for the Ministry of Finance to influence public expenditure to reflect climate change. Moreover, the budget can be used to ensure that public investment projects respond to the climate change needs of the government. In addition, the transition from Activity Based Budgeting (ABB) to Programme Based Budgeting (PBB), which focuses on results, sub-programmes, and projects, presents an opportunity for the government to include the NDCs in the PBB of MDA/MMDAs. The budget preparation is an opportunity for the Ministry and the MDA/MMDAs to align their short and medium-development plan (SMDTP) to the MTFF. Thus, if the MTFF reflects fiscal and environmentally sustainable pathways, the Ministry can align the SMDTP of public entities to achieve climate change goals. By the time the budget reaches the execution stage, green fiscal policies and green business needs will be captured in public expenditure.

To ensure that the green fiscal goals and targets are adhered to in the expenditure of public entities, green budget tagging is essential. Green budget tagging is an important aspect of the process that ensures green fiscal policies are integrated into public expenditure and the expected results are achieved. Green budget tagging facilitates the tracking of expenditures related to green fiscal targets set out in the development plan and green strategic framework. Ghana has developed budget codes that can track public expenditure related to climate change. The recent Climate Public Expenditure and Institutional Reform reports about 30 budget codes designated to track climate-relevant public expenditure. The codes are categorized based on high, medium, and low relevance to climate change. The existing budget code tracking is an opportunity to ensure that green fiscal policy is integrated and tracked in public expenditure. Between 2015 and 2020, about GHC14.5 billion of the total public expenditure of about GHC390 billion has been earmarked for climate-relevance activities. This translates to an average of about 3.9 percent of total public expenditure on climate-relevance activities. Due to the misalignment between the needs of green businesses and public expenditure, the expenditure in climate-relevant areas has not benefited green businesses. In addition, the Ministry of Finance has developed the CLIMAFINTRACK programme, which is expected to strengthen climate budget tagging in Ghana. These are existing opportunities to ensure that green fiscal policy targets are tracked and effectively monitored. Figure 4 shows how green fiscal policies can be integrated into public expenditure in Ghana.

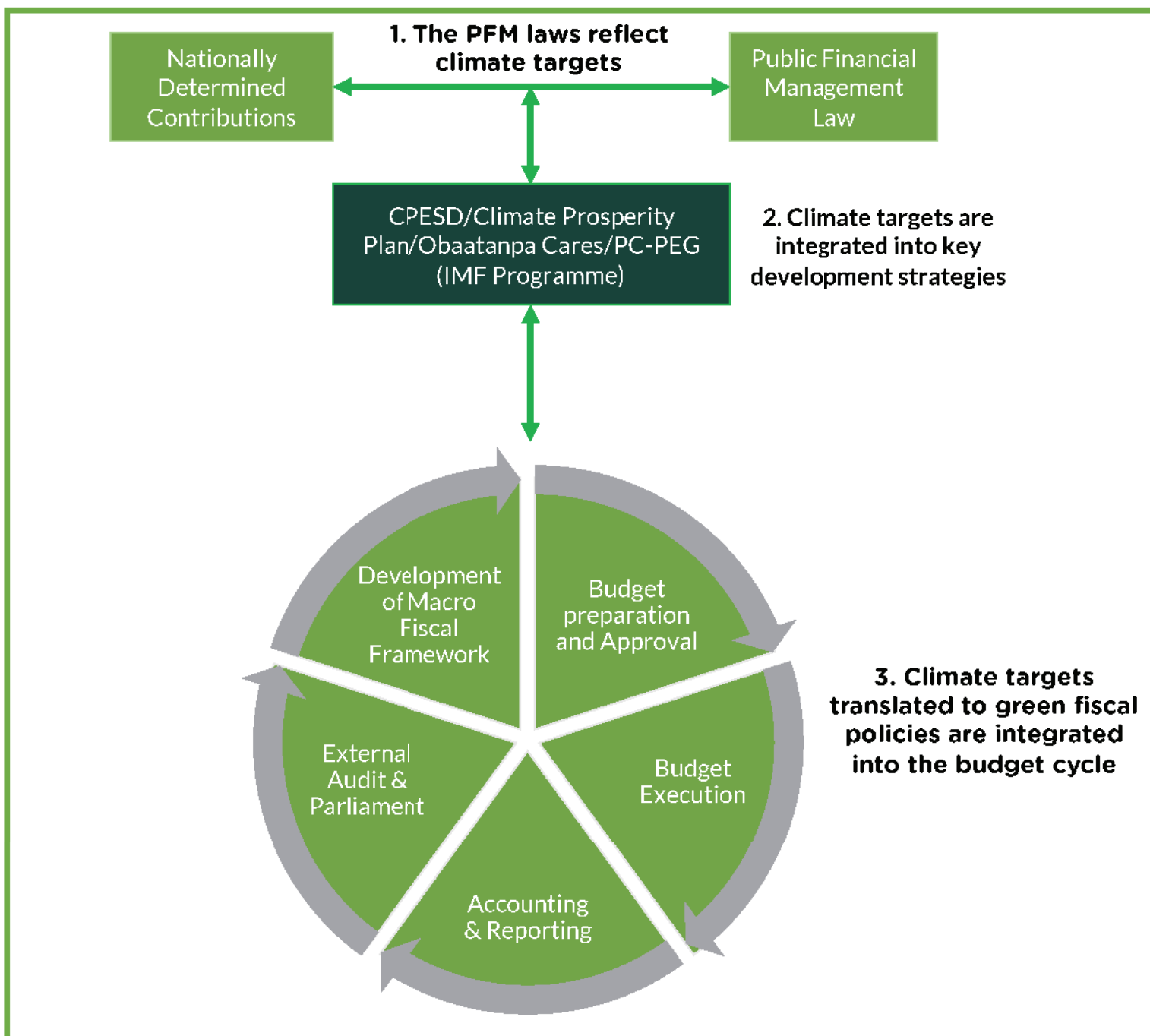
The Covid-19 pandemic and global economic shocks have led governments to develop several economic recovery programmes to respond to the socio-economic challenges and prepare the country against future uncertainties. In Ghana, Post-Covid Programme for Economic Growth and the Climate Prosperity Plan are examples of programmes developed to achieve sustainable economic recovery. These programmes have become key policy reference points for development planning and Ghana's 17th IMF programme. These programmes can be leveraged to achieve environmental and climate goals.

• **Post-Covid Programme of Economic Growth:** The PC-PEG is the government's blueprint to address the current macroeconomic challenges. The key objectives of the programme are to restore fiscal and debt sustainability, minimize fiscal risk including liabilities from SOEs, deepen structural reforms, improve sovereign debt ratings and gain access to the international market, and build buffers to ensure resilience to economic shocks. Climate change poses a severe fiscal risk that can affect the fiscal situation of Ghana through unplanned expenditure on infrastructure to address disasters from climate change and low productivity on major export commodities such as cocoa. Therefore, the PC-PEG can be leveraged to include green fiscal policy goals that align public expenditure to address environmental risk to Ghana's fiscal situation.

The PC-PEG underpins the 17th IMF programme, which recognizes climate change as one of the potential risks to the economy. In the new IMF programme, the government has committed to invest in resilient public infrastructure to address climate change and explore investment in low-carbon energy production. This is an entry point to integrate green fiscal policy in the programme to achieve the risk of climate change to the environment.

• **Climate Prosperity Plan (CPP):** The government is developing a strategic plan for Ghana to take advantage of the opportunities climate change presents to accelerate economic growth and prosperity for citizens. This plan seeks to bring together public entities, private sector players, and civil society organizations together to develop a pathway to transition to low-carbon economic growth that offers sustainable livelihoods. The Climate Prosperity Plan (CPP) will become a key development strategy that will underpin the fiscal objectives of the government. There is an opportunity to ensure that the CPP amplifies the needs of green businesses, and ensures green fiscal policies are integrated into public expenditure.

Figure 4. Pathways for Integrating Green Fiscal Policy in Public Expenditure

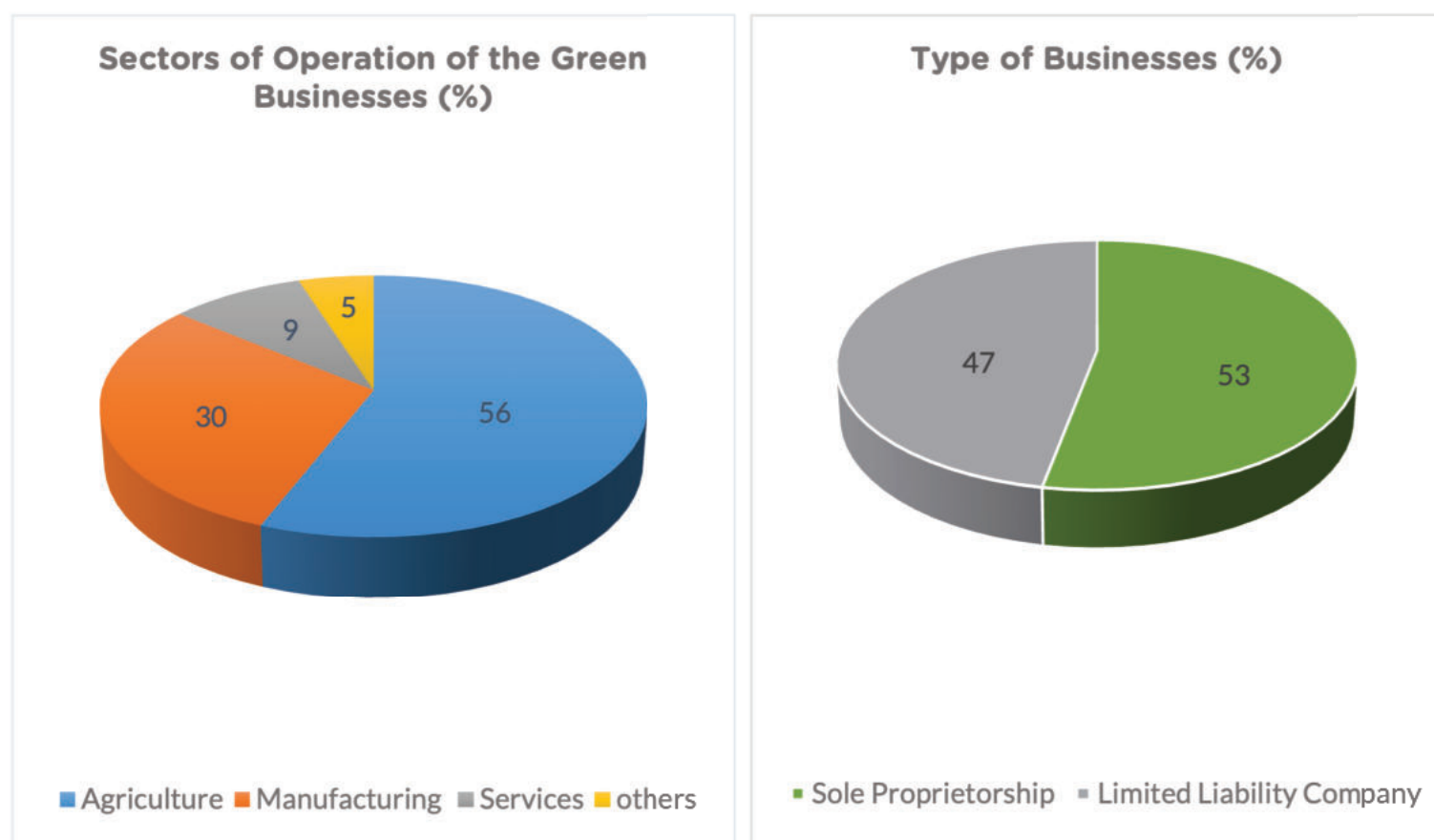


5.0. THE FISCAL REGIME FOR CLIMATE-SMART ENTERPRISES IN GHANA

The tax regime of an economy has significant implications for the sustainability of green businesses. Green investments are mostly regarded as risky ventures because they do not offer quick returns, require permanent capital (long-term lending with stable interest rates), and consumer behaviour towards green products, especially in developing economies like Ghana is relatively low, which leads to slow growth in demand for green products. Taxes reduce the returns on green investment and increase the risk associated with investing in green solutions. A high tax regime increases the cost of doing business and limits investors' appetite to upscale innovations when the investors do not have any incentive to offset the cost of taxes. Most green businesses in Ghana are in their development stage where they earn low revenues and re-invest profits to strengthen their innovations. As a result, the tax regime is highly sensitive to the financial sustainability of green innovations. In an economic environment like Ghana where inflation and interest rates are high, a high tax regime could stifle the growth of most green business innovations.

Thirty-four (34) registered green businesses from different sectors of the green businesses industry were engaged through a survey, to understand the nature of the tax and incentive regime for green businesses in Ghana. The survey covered businesses in all sectors of the economy. Fifty-six percent (56%) of the businesses were in the agriculture sector, thirty percent (30%) were in the manufacturing sector and nine percent (9%) from the services sector. The green businesses are registered as either sole proprietorships (52%) or limited liability companies (48%). Seventy-five percent (75%) of the businesses are registered with the Ghana Revenue Authority and file their taxes annually. The businesses have relatively high staff strength. About forty percent (40%) of the respondents employ about 6 to 10 people, and almost a third employ more than 16 people, indicating the potential of green SMEs to support job creation.

Figure 5. Type of Business & Sectors of Operation



Source: IMANI CPE.

Green businesses in Ghana are subject to the existing tax regime like any other business. Ghana does not have a special tax regime targeted at supporting green enterprises. The main tax obligations of green businesses were income tax, VAT, withholding tax, and local assembly levies. Other taxes include import duties, sanitation and pollution levy, and covid-19 levy. In addition, half of the businesses' total taxes range between GHC1,000 and GHC5,000, and about 30 percent of the businesses reported total taxes exceeding GHC5,000. Also, total taxes represent up to about 20 percent of the operation and managerial costs for almost half of the green businesses. More than a third (33.3%) of the businesses report that taxes were between 10 and 20 percent of their profits, and a third (30%) indicated taxes take up to 10 percent of their profits. Given that green businesses require long-term capital and record relatively low profits at the development stage, high taxes reduce profits and make it difficult for businesses to finance their debt obligations and reinvest to upscale their innovations. Already, these businesses operate in an expensive business environment with interest rates of almost 40 percent and high energy prices.

Figure 6. Tax Regime of Green Businesses in Ghana

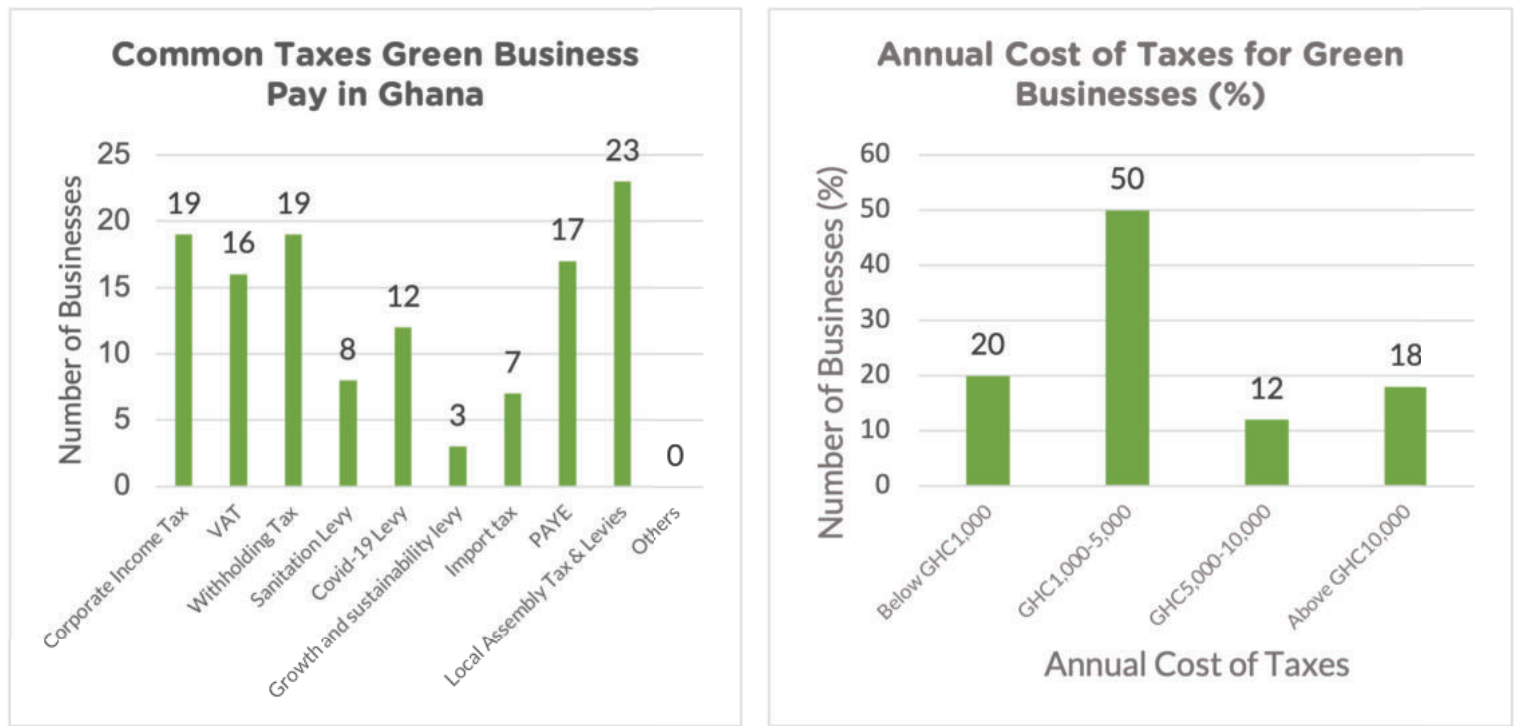
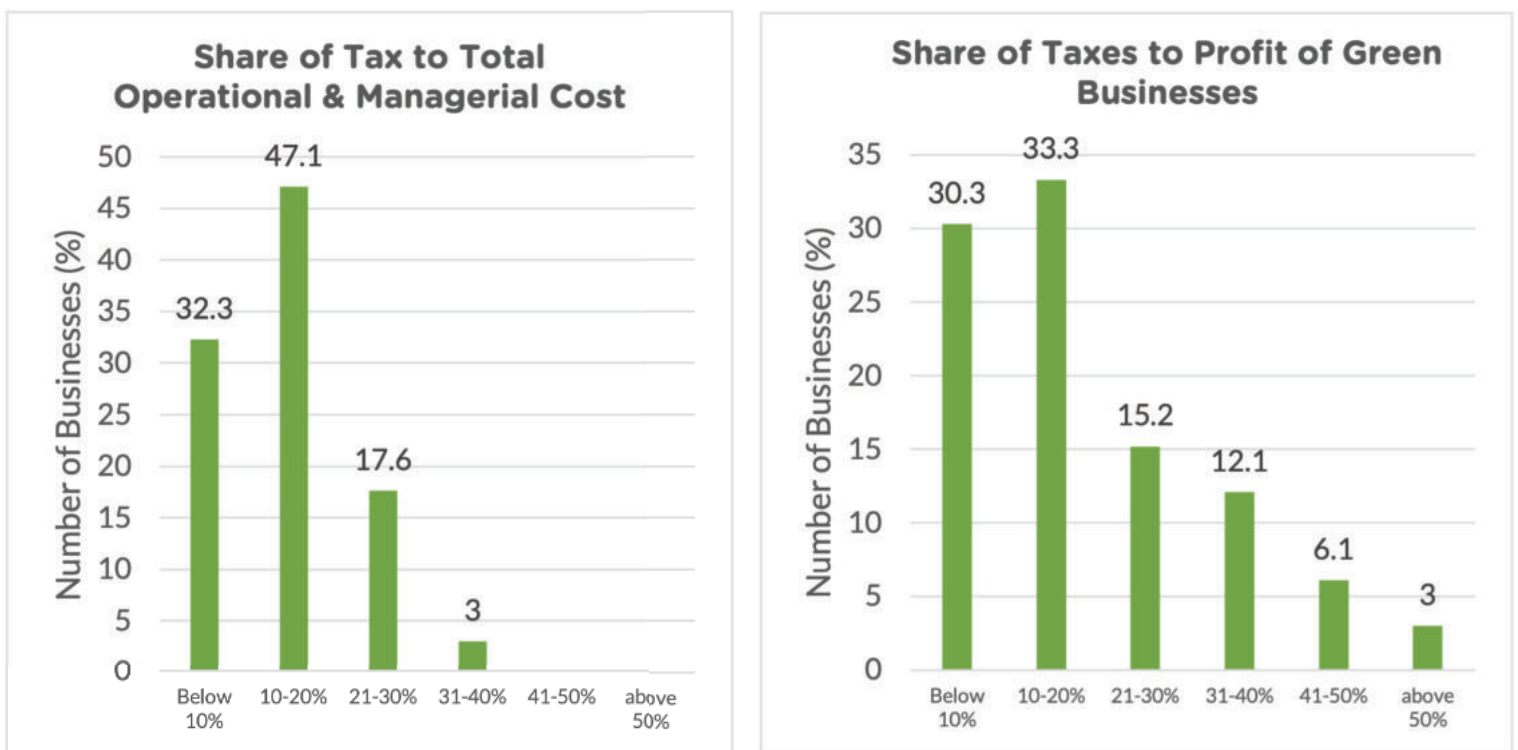


Figure 7. Share of Taxes in the Operational Cost & Profits of Green Businesses in Ghana



Source: IMANI CPE.

One of the young leaders at the Strategic Youth Network (an umbrella organization of green enterprises engaged in climate innovations) we engaged added that;

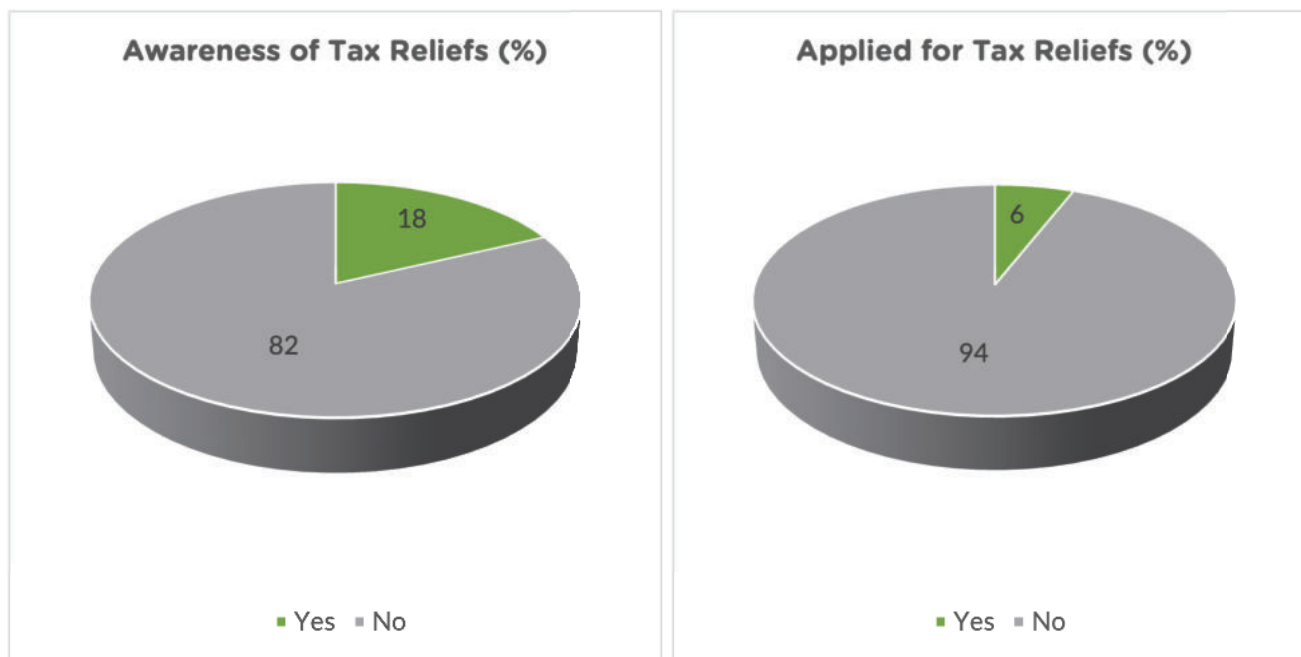
“Taxes are the main reasons most of the members in our group are not registering their businesses. They complain all the time to us that they want to formalize their businesses, however, the moment you register the business, Registrar General’s Department will be chasing you to submit your income tax and other tax compliant documents. They are at the stage where they not making a profit so the taxes will collapse their business. The major tax they complain about is the income tax.

I believe some reliefs on the taxes will help the members.

“- Young Leader, Strategic Youth Network for Development.

On the issue of incentives, the findings show that most of the businesses were not aware of the tax reliefs and business tax exemptions. Ghana’s tax regime makes available reliefs and exemptions to reduce the tax burden of individuals and businesses and encourage tax compliance. There are personal tax reliefs and income tax exemptions that can be accessed by taxpayers to reduce the tax burden. The income tax exemptions come in the form of tax holidays and special tax rates for specific industries. For example, green businesses in the agro-processing, waste management, and tree crop sectors can receive up to five (5), seven (7), and ten (10) years of tax holidays respectively, and a special corporate income tax of 1 percent. There are also several personal tax reliefs available for entrepreneurs to reduce the cost of tax on their operations. Also, there are tax exemptions that are available to businesses based on their location. For instance, agro-processing businesses in the Northern parts of Ghana are eligible to pay only 5 percent of corporate income tax compared to the same businesses located in Accra and Tema, which pay 20 percent. The survey results indicate that about 82 percent of the businesses were not aware of the business exemptions. Out of the 18 percent who were aware of business tax exemptions and reliefs, more than 90 percent had never applied for the reliefs and exemptions. This indicates low awareness and utilization of tax incentives that can support green businesses.

Figure 8. Awareness of Business Tax Reliefs and Exemptions



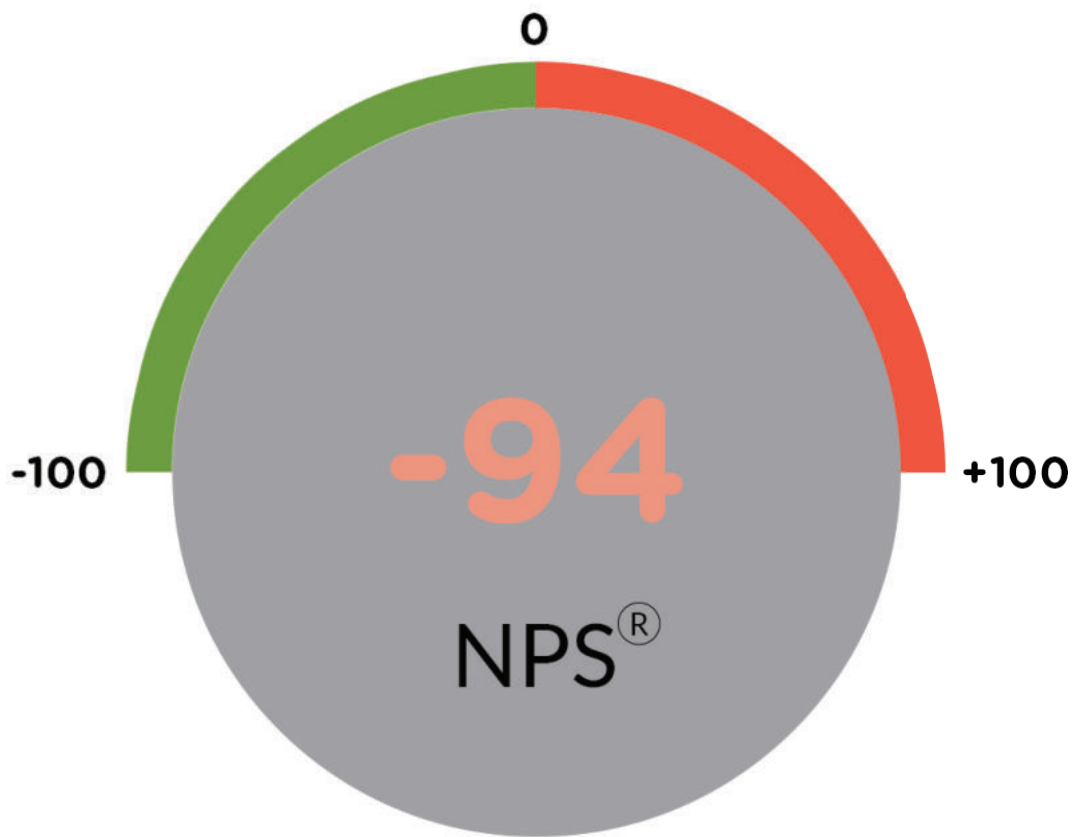
One of the young leaders at SYND added that;

Most of the green business entrepreneurs we engage are unaware of the reliefs and exemptions available to businesses in Ghana. We organized a capacity-building programme last year, and the entrepreneurs were surprised to learn the number of exemptions available to them. I think because they don't know the exemptions and reliefs, they don't apply for them

“- Young Leader, Strategic Youth Network for Development.

Furthermore, about 46 percent of the businesses had participated in public procurement, and a government entity purchased some of their items. This practice can be encouraged by deepening the opportunities to use public procurement to support green business. Most green enterprises tend to have a relatively small customer base at the development stage. Thus, the government can set policy targets for public entities to purchase a specific percentage of goods and services from green businesses. This has the potential to support the market base of green businesses. In addition, 97 percent and 88 percent of the businesses engaged have, respectively not benefited from any government subsidy or budget support targeted at supporting green enterprises. Overall, the green businesses engaged describe the business and policy environment as unsupportive. The total net promoter score of negative 94 percent was recorded for the extent to which they consider the business and policy environment as supportive of their innovations. This also suggests low confidence in the business and policy environment, which is a reflection of limited understanding of the green business space by the government, weak targeting of interventions for green enterprises, and low awareness of the existing tax reliefs and other supports available for green entrepreneurs.

Figure 9. Green Business Entrepreneurs Perception of the Business & Policy Environment



Source: IMANI CPE.

6.0. CONCLUSION AND POLICY IMPLICATIONS

It is increasingly clear that green fiscal policies are essential tools for accelerating efforts to address the fiscal risk and livelihood threats presented by climate change. They present enormous opportunities for shifting the behaviour of firms and consumers towards clean energy solutions and products. However, the bundle of green fiscal policies must be designed to reflect the economic, social, and political environment of the country. Ghana does not have a green fiscal policy strategy, however, there are tax instruments and frameworks that can be aligned to achieve the goals of green fiscal policies. As a result, climate-smart businesses have not benefited from the high public expenditure in climate-relevant areas. Additionally, the current policy environment has several entry points for the government to integrate green fiscal policies. The PFM law, PC-PEG programme, and the current IMF programme are potential entry points to integrate green fiscal policies into public expenditure. Ghana does not have a special tax regime for green businesses, and thus green businesses are faced with the multiplicity of taxes in the business community. Nonetheless, the existing business exemptions and personal reliefs offer multiple incentives to minimize the tax burdens of businesses.

6.1 POLICY RECOMMENDATIONS

1. Develop and implement a formal green fiscal policy strategy. The assessment of the green fiscal policy environment reveals key domestic tax and policy instruments that can be leveraged to ensure that government expenditure and revenue are supportive of green enterprises in Ghana. The challenge is that the existing green fiscal tools are not aligned with the NDCs and the National Climate Change Policy. A green fiscal policy strategy would ensure that the NDCs are broken down into granular activities, which can be mapped to special green fiscal policies that can help the government align public expenditure to climate needs. Moreover, a green fiscal policy will consolidate all the existing tax instruments and regulations that are supportive of climate change, and ensure coherence in the policy implementation. The identified entry points in the PFM law and government programme are positive signs of the readiness of the policy environment for green fiscal policies. A clear green fiscal policy strategy informs current and potential investors about the available opportunities in the green business sector and the government's commitment to a low-carbon and climate-resilient economy. The strategy will provide a road map to include green fiscal policy targets in the fiscal policy objectives of the PFM Act.

2. **Align the NDCs with the development plans at the national and sub-national levels.** The CESPDP is the main development strategy for developing the MTFP that sets the

Every year, the NEIP will be required to show the progress of work on the number of green businesses they have supported to contribute to the target. This will align the activities of NEIP related to green businesses directly to the NDCs. In addition, the NDPC must guide sub-national entities on mechanisms to align their MTDP and STDP to the NDCs. This would ensure that the MTEF reflects the NDCs at the sub-national level.

3. Government must align key economic recovery programmes to the NDCs to ensure an environmentally sustainable recovery. Post-covid policy planning has been characterized by short and medium-term economic recovery programmes designed to address the economic challenges due to the pandemic and global economic constraints. While these programmes become key development pathways and influence the fiscal policies of the government, the programmes must be aligned to the targets of the NDCs to ensure that the recovery programmes prioritize green fiscal policies and support climate-smart businesses. For instance, there is not a single mention of climate change in the Ghana Obaatanpa Cares Programme, which is a key economic recovery programme of the government.

4. Align green fiscal policies and expenditures to the needs of green businesses in Ghana. Even though a significant amount of public expenditure is allocated to climate-relevant areas, these expenditures have not benefited green businesses because they are not aligned with their needs. The government must conduct a needs assessment to understand the policy alternatives to use public expenditure activities to support green enterprises. The needs assessment can help the government develop specific targets for green business development through public expenditure.

5. Capacity building for green enterprises to leverage the business tax exemptions and personal reliefs in the tax regime. The government must work with the existing chamber of green business to provide capacity building for the businesses to understand the approaches to use tax exemptions to minimize the rising cost of doing business. Furthermore, the capacity-building programmes must include sensitization activities to increase awareness of the opportunities available for green businesses at the Ministry of Finance such as the Green Climate Fund and other international support programmes that target green SMEs.

6. Reform and establish the Plastic Authority to utilize the revenues of the environmental excise tax. The government can leverage the proceeds of the environmental excise tax to support green businesses involved in plastic recycling. The tax must be reformed to reflect the needs of green businesses in the plastic recycling industry and achieve the goals of a green fiscal policy .



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