Macroeconomic Frameworks for an Inclusive Green Economy in Africa

United Nations
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Abbreviations and acronyms

AfDB	African Development Bank
AGEP	African Green Economy Partnership
AMCEN	African Ministerial Conference on Environment
APRM	African Peer Review Mechanism
ECA	Economic Commission for Africa
FDI	foreign direct investment
FONERWA	Fund for Environment and Climate Change in Rwanda
FTSE	Financial Times Stock Exchange 100 Index
GDP	gross domestic product
GIZ	(Deutches) Gesellschaft fuer Internationale Zusammenarbeit
GNI	gross national income
ILO	International Labour Organization
IMF	International Monetary Fund
NEPAD	New Partnership for Africa's Development
PAGE	Partnership for Action of Green Economy
RECP	Resource Efficiency and Cleaner Production
SME	small and medium-size enterprises
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

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Executive summary

i. Introduction

The aim of the present study is to investigate the macroeconomic conditions that are conducive to green growth, and how an inclusive green economy can enhance structural transformation, thereby driving sustainable development. In this regard, an in-depth analysis of past and current macroeconomic policies in Africa was conducted to foster an understanding and appreciation of how they have affected economic, social and environmental developmental outcomes.

The prevailing macroeconomic environment and policy outlook are important for an effective green economy system to simultaneously address socioeconomic and environmental challenges. However, conventional policies with a sole focus on maintaining macroeconomic stability are inadequate to accelerate the pace of structural and sustainable change in the economy. Furthermore, effective macroeconomic policies are bounded by long-term national development strategies to facilitate the transformation of economic and social structures.

Macroeconomic policies provide an enabling framework needed to encourage and stimulate behavioural change and the implementation of actions that promote sustainable production and consumption, while also facilitating the development of an inclusive green economy. Fiscal policy, being the main tool for raising public revenue and making public expenditure disbursements, is a relevant policy tool for mobilizing resources that can advance investments in the green economy. Taxes on resource extraction discourage the unsustainable use of resources while creating incentives for more sustainable resource use. Furthermore, productivity and employment can be enhanced through the allocation of capital and other fiscal resources to priority sectors that have greatest potential for green transformation, value addition, higher forward and backward linkages and job creation. The conduct of monetary policy will also have a direct impact on a key constraint to the transition to a green economy: finance, through access to resources.

The inherent features of a green economy can also influence the extent to which a country's macroeconomic policies adequately address its environmental and social policy objectives. Thus, the two are mutually reinforcing. Macroeconomic policies integrated into a long-term development strategy embodying environmental objectives would facilitate the transformation of economic and social structures, with a view to ensuring a positive feedback loop in the investment–growth nexus and to engendering inclusive green growth. The integrated systems framework of an inclusive green economy could also promote multisectoral approaches, policy consistency and coherence within the national development planning framework, ultimately enhancing the outcomes of a macroeconomic framework while catering to the three dimensions of sustainable development in a balanced manner.

ii. Methodology and analytical framework

The report was prepared using a mixed-methods approach to gather data and information for an in-depth analysis of past and current macroeconomic policies in Africa; how they have influenced economic, social and environmental developmental outcomes; and how they can promote an inclusive green economy that drives sustainable transformation. The core analysis was informed mainly by a comprehensive desk review of relevant publications (reports, journal articles, research papers), complemented by primary data drawn from a questionnaire survey targeting 31 selected African countries that have gained relevant experience on their transition to a green transformation economy, with good practices and lessons to highlight.

The analytical framework draws from the report on inclusive green economy policies and structural transformation in selected African countries published by the Economic Commission for Africa. The framework explores the linkages and the contribution of green economy policies and strategies to the structural transformation of economies in Africa; the characteristics of structural transformation and the desired outcomes, and the transmission mechanisms that could reinforce and sustain the outcomes. The framework emphasizes that a favourable macroeconomic environment is critical for the success of a green economy.

iii. Overview of macroeconomic policy frameworks in Africa

The historical evolution of macroeconomic policy frameworks in Africa can be divided into three phases: the development planning phase (1960–1979); the international financial institution-led economic reform phase (1980–1999); and the high-growth phase (2000–2015). The overarching goal of development strategies in Africa during the post-independence phase (1960–1979) was human development through long- and medium-term development frameworks aimed at improving the well-being of the population. During that period, the State played a central role in the development process, driving development initiatives, building social and economic infrastructure and providing social services to the poor.

Most countries experienced rapid economic growth during the first phase. Political stability and national drives by the nationalist movements to grow their economies contributed to positive economic gains. However, in many countries, fiscal prudence was non-existent, and this development planning phase experienced fiscal profligacy with the interests of minority and politically connected factions being advanced by private actors. The macroeconomic vulnerability of many African countries was exposed by the oil-price shock in the period 1973–1974, and by sharp declines in commodity prices, and, later, by the protracted sovereign debt crises of the 1980s and 1990s.

The period 1980–1999 was characterized by the implementation of structural adjustment programmes recommended by international financial institutions with the aim of addressing the macroeconomic challenges of developing countries. In the 1980s, the World Bank drove structural adjustment programmes with the goal of promoting growth through supply-side economic policies in order to remove market imperfections, while the International Monetary Fund led the implementation of

stabilization programmes focused on the demand-side of the economy aimed at reducing inflation and achieving a sustainable balance of payments.

Most countries in sub-Saharan Africa experienced negative per capita growth, poor health conditions, increased ecological stresses, collapsed terms of trade, rising poverty and growing debt despite policy-based development lending. To reverse the negative trends African leaders, with the support of the United Nations and other partners, adopted various development frameworks, including the Lagos Plan of Action for the Economic Development of Africa, 1980–2000, and the Final Act of Lagos; the African alternative framework to structural programmes for socioeconomic recovery and transformation 1989 and the United Nations New Agenda for the Development of Africa in the 1990s.

The third phase is the high growth and development phase from2000 to 2015, which was characterized by increased efforts to find alternative solutions to drive Africa's development. The constructive implementation of modified macroeconomic stabilization policies of international financial institutions contributed to the generation of a positive growth-stability relationship across the continent. Much of the success was due to renewed faith on the part of African countries in development planning, as well as to better policy formulation and implementation and better macroeconomic management. Furthermore, global and regional frameworks such as the Millennium Development Goals and New Partnership for Africa's Development (NEPAD) frameworks were being implemented, contributing to some of the successes.

Since 2016, African countries and the rest of the world have been implementing the 2030 Agenda for Sustainable Development, which, together, with the African Union's Agenda 2063, offers a unique opportunity to achieve the inclusive, transformative and sustainable development, aspirations that are urgently required for putting the continent on a sustainable development path. The successful implementation of the agendas will largely depend on the mobilization of financial resources, which in turn would rely on a correctly conceived macroeconomic framework. In that regard, an enabling macroeconomic framework is essential to facilitate the implementation and alignment of policies and related interventions to achieve the goals of both agendas.

iv. Implications of macroeconomic frameworks for development outcomes in Africa

The three historical planning phases had implications for development outcomes in the region. There was generally positive economic growth performance in the early years after independence, followed by a period of economic decline during the structural adjustment reform phase led by international financial institutions. Economic performance picked up again in 2000, only to slow down after the global economic crises in 2008, 2009 and in recent years. Social development trends also pointed to a general lack of inclusion, and the very limited positive impact of economic growth on poverty and vulnerable populations across the continent. Poverty and inequality trends indicate that economic growth was not shared equally among African countries across the continent.

The environmental indicators, particularly carbon emissions, show that Africa is still emitting insignificant quantities when it is compared to other regions. African countries are also committed to realizing a green future, and as signatories and parties to both the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development, they would need to proactively implement macroeconomic interventions that support climate-resilient growth and development. Moreover, these interventions should strengthen efficiency in production, responsible consumption, sustainable infrastructure investments and a structural shift from carbon intensive production to cleaner production-led industrial reforms.

Going forward, the post-2015 development phase requires macroeconomic interventions that will sustain the economic performance of the decade 2000 to 2009, as well as greater efforts to address social development and environmental sustainability. Macroeconomic interventions in a green economy are intended to adequately address poverty and inequality, as well as job creation and the provision of improved basic services such as water and sanitation.

v. Macroeconomic policies for fostering an inclusive green economy in Africa

A green economy will, in most cases, be founded on a structural reform of an existing economy, with environmental sustainability and social inclusion providing the necessary checks and balances. Monetary policy reforms that governments in Africa are implementing to promote resource efficiency and the development of an inclusive green economy include measures for greater access to green funds, adjustments to financial regulations, developing intermediaries and broadening the range of financial instruments. Risk management instruments such as guarantees, insurance, grants, concessional loans, capital instruments of equity and debt finance, preferential environmental financing to promote resource efficiency measures are increasingly being adopted.

Fiscal instruments affect pricing and therefore stimulate behavioural change, which, in turn, affect both production and consumption patterns. Several countries such as Kenya, Ghana, Mauritius, Mozambique and South Africa are already implementing various fiscal reforms such as introducing environmental taxes, removing environmentally harmful subsidies and reallocating budget expenditures to promote investments in green sectors. Other fiscal policy measures being implemented to foster green growth include instruments such as carbon taxes, charges and levies to discourage environmentally unsustainable practices; subsidies, grants and concessional loans to reward environmental performance; and direct public expenditure on low carbon infrastructure.

The effectiveness and efficiency of macroeconomic policy reforms depend on the existing institutional, legal, social and economic systems. While most of the reforms being implemented by countries are piecemeal or at best ad hoc, there is now an opportunity for African countries to undertake a comprehensive macroeconomic

policy review taking into consideration green growth and social policy imperatives. Because of the inherent incentive structure, economic and other policy instruments can support shifts of investments towards clean and efficient technologies and natural capital and social infrastructure such as education, health and social protection systems. Hence, choosing an effective policy package that fits in with institutional capabilities and existing policy frameworks is one of the many challenges.

(a) Challenges in implementing macroeconomic policy reforms

Managing green structural transformation

The macroeconomic policy frameworks of most countries are based on an orthodox approach of promoting economic growth and managing inflation, money supply and a few other variables. Such orthodox approaches are inadequate to steer economies towards sustainable development, let alone towards managing the trade-offs of sustainable transformation. Macroeconomic planners would have to integrate green economy strategies, including managing trade-offs between cyclical (short-term) and structural (long-term) policy objectives associated with the green economy to fully benefit from the synergies between the green economy and structural transformation.

Ensuring the effective alignment of national development objectives with inclusive green economy strategies

In many cases the introduction and implementation of various macroeconomic reforms to promote innovations and investments in the green economy have been mainly isolated from national development programmes, and are therefore ad hoc. This poses the challenge of the misalignment of macroeconomic policies with national green economy priorities, public investment programming tools and public investment programmes. Similarly, poorly designed reforms could heighten the risk of welfare loss by vulnerable groups in the population. The short-and long-term impacts from the transition to a green economy should therefore be evaluated and carefully considered before reforms are implemented.

Domestic resource mobilization with uncompromised growth targets

A green economy would require upfront public investments that must be financed by domestic and external resources. Monetary and fiscal reforms may be necessary to enhance revenue collection, and to facilitate financing and macroeconomic performance. This requires radical, proactive and targeted macroeconomic policies beyond the traditional approaches that prefer non-expansionary policies and fiscal rigour.

Some of the upfront investment costs might be prohibitive for small and medium-size enterprises if no measures are in place to facilitate their engagement. Governments accordingly have a critical role to play mobilizing and channelling resources for catalytic investments in the green economy, in addition to facilitating private sector investments through attractive financial regulatory frameworks, as well as through improved social sector financial allocations and the effective management of public finances.

Lack of comprehensive green economy assessments and data

The range of complex and country-specific priorities and interrelationships covered by macroeconomic policies makes it difficult to measure the impact of policy reforms on the basis of limited statistical capacity, data availability and quality. Countries should develop comprehensive green economy indicator frameworks to facilitate an analysis of the inherent trade-offs and win-wins of green economy reform.

Coordination challenges

The implementation of the reforms may face coordination challenges since they may have implications for other regulatory policies, line ministries or institutions. A macroeconomic framework would offer effective policy coordination across sectors if it is supported by institutions that cut across the real sector, finance, environment and social sectors and regulatory authorities. This would ensure that the final policy mix harmonizes sectoral goals while also providing an environment that is conducive to the integrated implementation of the green economy.

Lack of adequate and appropriate green knowledge and skills

The transition to an inclusive green economy would require capacity-building measures to strengthen skills, knowledge and expertise across various sectors and spheres of government to design and implement structural transformation that fosters green growth. The monitoring and evaluation of inclusive green economy measures also require the strengthening of appropriate skills and expertise on the part of all stakeholders.

(b) Opportunities to implement macroeconomic policy reforms

Enhanced policy coordination across sectors

Governments are increasingly crafting integrated policy frameworks that proactively align economic policies with environmental and social goals. Macroeconomic policy reforms can help eliminate institutional inefficiencies while also rendering greater support for policy consistency and coordination across sectors. This is critical for the achievement of balanced outcomes for the three dimensions of sustainable development. A review of public finances to accommodate green economy projects is also an opportunity for policymakers to identify bottlenecks that impede the appropriate and effective use of public funds in sectoral allocations.

Many entry points for sustainable structural transformation

The transformation of economic activities towards the efficient use and management of natural resources is important for the stability and sustainability of the future economy. African economies offer responsive entry points for macroeconomic policy interventions to drive structural transformation and green growth. The priority sectors in many countries include agriculture, industry, mining, trade, infrastructure, energy, forestry and fisheries. These sectors provide the best settings for macroeconomic policy interventions aimed at driving an inclusive green economy. Green growth could also boost demand for green technology products and services, and would reinforce the need for wide-ranging macroeconomic reforms to strengthen growth in new industries and markets.

Green policy reforms could help improve fiscal outcomes

Countries in Africa are adopting green economy policies and are integrating or aligning them with national development plans. Policy reforms implemented while green economy policies are being aligned with national priorities could create "fiscal space" for green public investments, while also improving governments' fiscal balance. These green policy reforms are providing opportunities for the greater use of economic and other policy instruments as an efficient means of supporting the transition to an inclusive green economy. They are also primed to addressing challenges such as poverty and unemployment, while also improving the overall well-being of the population.

Financial reforms can unlock financing for long-term national development goals

Financial resource constraints can be eliminated by providing incentives to create an environment that is conducive to investment in the green economy. Monetary policy, within the inflation targeting framework, has an indirect role to play by ensuring price stability. A combination of legislation, levies, incentives, grants, subsidies and other financing initiatives can stimulate a country to transition to a low carbon, environmentally sustainable economy.

vi. Good practices, success factors and lessons learned in the implementation of macroeconomic policy reforms

Several African countries have begun implementing green economy policies and strategies, while others have green economy initiatives in sectors such as sustainable agriculture, renewable energy, sustainable transport and natural resource management, which foster structural transformation. While such implementation commenced relatively recently, countries have begun acquiring invaluable experiences that could better inform macroeconomic reforms aimed at supporting the momentum of the transition to a green economy. Clearly articulated national visions and targets guiding the reforms are among the success factors. They guide the design and implementation of an appropriate and optimal mix of macroeconomic policies that promote investments and transformation to achieve the set targets.

The reforms are only effective when they are balanced to ensure that trade-offs are minimized and opportunities to strengthen positive outcomes are harnessed. A careful consideration of these good practices and lessons learned would help to facilitate the design and implementation of macroeconomic frameworks that can enhance the implementation of inclusive green economy interventions in Africa.

Establish clear visions, targets and baselines. This helps governments to design and implement an appropriate and optimal mix of macroeconomic reforms that promote investments and transformation to achieve the set targets. Unique country circumstances and priorities should guide the process and steps needed for a country to undertake a comprehensive review of its policies, regulatory and other instruments for better socioeconomic development and environmental management outcomes. In this regard, the process of aligning national strategies with the 2030 Agenda for Sustainable Development is an opportunity to accelerate policy reforms.

Effective coordination and cooperation across different levels of government, including across relevant sectors and ministries, are important for the successful implementation of macroeconomic reforms and green economy policies. This enhances the integration of various interventions into the national development planning framework and harnesses partnerships facilitating the achievement of targeted outcomes. A set of policies may sometimes fail to elicit the response required from targeted stakeholders. In such cases complementary measures such as information and regulatory policies should be introduced to effectively achieve reform objectives.

Build and maintain robust green growth monitoring and evaluation systems to evaluate the implementation of macroeconomic reforms. It is difficult to project the impact of the 2030 Agenda for Sustainable Development on development outcomes in the absence of properly defined baselines and targets at the national level. Effective monitoring and evaluation systems enhance learning, decision-making and management, while strengthening government accountability, improving public trust and enabling stakeholder participation.

Resource mobilization is an integral part of the macroeconomic reform strategy. Reforms will have to be undertaken cautiously within the context of improving the tax system and domestic resource mobilization. Green macroeconomic reforms should include a transparent review of the tax base, in addition to reformulating existing fiscal instruments and allocating resources to deserving sectors. Apart from resource rents, green fiscal instruments are also emerging. These taxes are expanding the tax base and could potentially reduce distortions in existing taxes if a revenue-neutral approach is taken.

The role of the private sector and financial institutions in Africa in channelling finance to green products will be enhanced if policies are responsive to their needs. Although most African countries have sound banking systems with strong institutional frameworks, the range of green wealth management assets, risk management products and liquidity remains limited except in a few countries. Countries with a well-developed domestic private sector can design and implement a range of policy instruments to promote green economy investments, however, in countries where the domestic private sector is less developed, more effort is required. In that regard, ministries of finance and treasury departments have a critical role to play in both mobilizing and channelling resources to green growth sectors.

If government funding is inadequate to finance inclusive green economy initiatives, other financing mechanisms should be explored. Governments can set up financing mechanisms that help mobilize resources from both domestic and international sources to finance green economy programmes. Some of the financial reforms that African countries can implement to mobilize financial resources include green and inclusive credit guidelines, incentives, green bonds, soft loan programmes, credit systems, and carbon credits extended fiduciary, and sustainability-related disclosures, indexes and associated tracker funds.

Evaluate and manage the political economy and unintended negative impacts. Countries should conduct political economy assessments and manage unintended negative impacts of reforms. This requires the implementing agencies to understand

the political dynamics of the proposed reforms, identifying key stakeholders, institutions and policies that affect or are affected by the reforms. It is only through such an analysis that appropriate macroeconomic policy measures can be identified to safeguard the interests of all stakeholders. A policy economy analysis would also enhance governance systems and promote transparency in the implementation of governments' programmes, thus helping to reduce uncertainties and risk for investments in the green economy. Establishing clear and transparent rules under which governments provide credible and reliable long-term programmes is critical to help reduce uncertainties and risk for investments in the green economy. Rules and strong institutions are also important for continuing macroeconomic stability that boosts the confidence of relevant stakeholders to participate actively in the transition to an inclusive green economy.

Raising industry awareness and capacity development. Although capacity development may accommodate broader issues, for industries, especially small and medium-size enterprises, the focus should be on maintaining their competitive edge. Demonstrating readily available technologies and practices could facilitate the adoption of cleaner and more efficient production methods that may be inexpensive for industries, especially small and medium-size enterprises and the informal sector. Providing options may be important if business is to respond positively to macroeconomic reforms that could impose short-term adjustment costs and long-term structural changes. Stimulating and strengthening behavioural change among producers and consumers requires investments in awareness raising, education and capacity-building in the field of macroeconomic reforms. Moreover, it is essential to strengthen the administration of macroeconomic reforms, as well as relevant technical knowledge and expertise, for the effective implementation and development of an inclusive green economy.

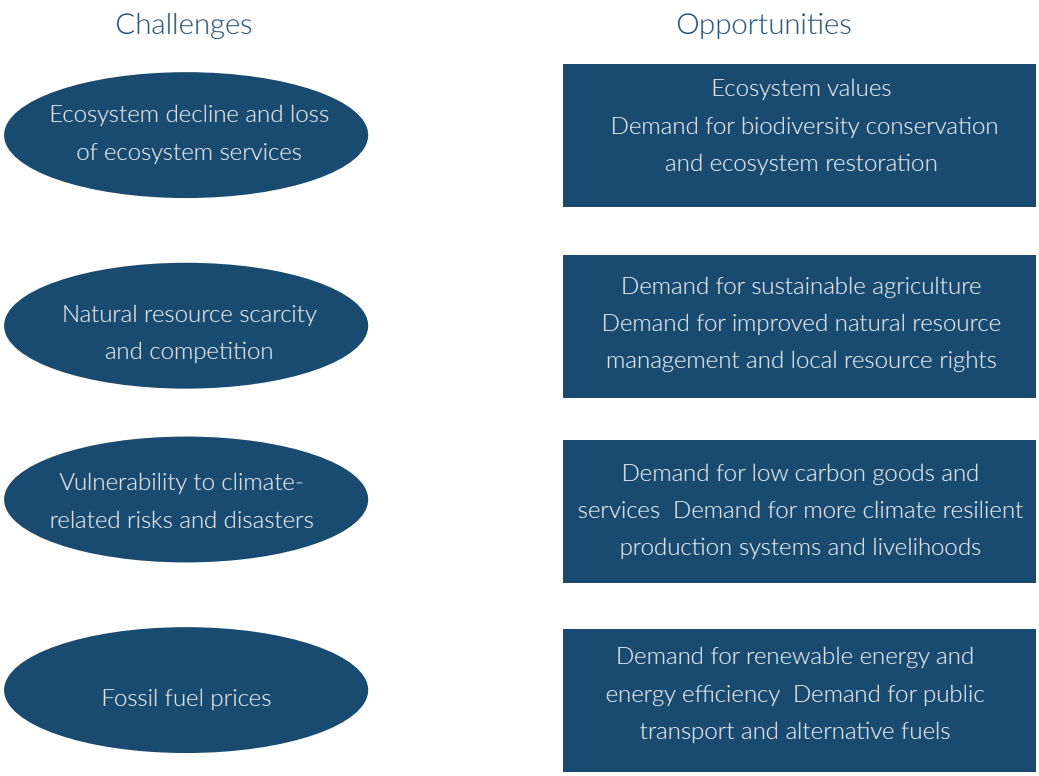
1. Introduction

i. Macroeconomic policies and the green economy

The green economy can enhance economic transformation by facilitating behavioural change that promotes the efficient, optimal and equitable use of natural resources. In that sense, a green economy could effectively contribute to increasing the amount of natural, physical and human capital, while also stimulating green innovation and decoupling economic growth from environmental pressure (ECA, 2016a; World Bank, 2012). The concept of the green economy came to renewed prominence in the search for solutions to the 2008–2009 global economic and financial crises (financial, fuel and food), including challenges from environmental degradation and climate change. The green economy was also one of the themes of the United Nations Conference on Sustainable Development (Rio+20), whose entire agenda aimed at addressing the economic, environmental and social dimensions of sustainable development. Figure 1 illustrates the opportunities that an inclusive green economy can provide in response to the challenges of the current economic system.

The prevailing macroeconomic environment and policy outlook is important for an effective green economy system to simultaneously address socioeconomic challenges such as poverty, inequality and unemployment, and environmental challenges (such as the efficient use of natural resources and the sustainability of ecosystems) (ECA,

Figure 1: Challenges of current economic system and green economy opportunities



Source: Poverty Environment Partnership, 2012.

2015a, 2016a, 2016b; GIZ, 2015; Poverty Environment Partnership, 2012). However, conventional policies which focus solely on maintaining macroeconomic stability are inadequate to accelerate the pace of structural and sustainable change in the economy. Furthermore, effective macroeconomic policies are an integral part of long-term national development strategies to facilitate the transformation of economic and social structures (ECA, 2016c).

The impressive growth rates that have been recorded in some African countries in recent years have not been able to adequately address the perennial challenges of poverty and inequality (AfDB, 2012a; ECA, 2015a, 2015b, 2016a; Omilala, 2014; Sperling, Granoff, and Vyas, 2012). Moreover, lessons learned during the implementation of the Millennium Development Goals show that economic growth alone is not adequate to create decent employment opportunities for all and to address poverty and rising unemployment in the continent (ECA, 2015b). In order to cement the "Africa rising" narrative, policymakers need to translate expectations into sustainable reality. An important aspect of this would be to correctly define the macroeconomic frameworks, while also addressing the need for equitable and sustainable transformation to ensure that economic growth is inclusive in Africa. In that regard, if an inclusive green economy is to thrive in a country, there is a need for a macroeconomic environment that promotes green growth such as fiscal and monetary policies that offer incentives for green investments and fiscal reforms that create fiscal space for public and private investments and innovations in the green economy (ECA, 2016a).

Macroeconomic reforms provide an enabling environment that is needed to encourage and stimulate behavioural change and the implementation of actions that promote sustainable production and consumption and facilitate the development of an inclusive green economy. A country's macroeconomic policies provide an important framework to foster an inclusive green economy by providing an environment that influences the willingness and ability of economic actors to invest in green activities. Governments can provide an enabling environment, for example by providing financing options, removing environmentally harmful subsidies and creating appropriate demand conditions for green industries and also supporting local green activities (UNIDO, 2011).

Macroeconomic frameworks are usually implemented through fiscal and monetary policy instruments. Fiscal policy, being the main tool for raising public revenue and making public expenditure disbursements, is a relevant policy tool for mobilizing resources that can advance investments in the green economy. For example, green fiscal reforms contribute to revenues in addition to creating fiscal space that promotes public investments in the green economy and social expenditure that benefits the poor. Moreover, taxes on resource extraction discourage the unsustainable use of resources while also creating incentives for more sustainable resource use. Furthermore, productivity and employment can be enhanced through the allocation of capital and other fiscal resources to priority sectors with the greatest potential for green transformation, value addition, higher forward and backward linkages and job creation (ECA, 2016a).

The conduct of monetary policy can also have a direct impact on a key constraint on the transition to a green economy – finance, through access to resources (via credit and a deepening of financial institutions). The right balance is needed to control inflation and money supply while allowing space for green economy financing, taking into account that the inflation target should be appropriate to the development of a given country. Moreover, credit and financial services can play an instrumental role in allowing enterprises, including small and medium-size and informal enterprises, to acquire and accumulate resources to finance the transition. In particular, preferential credit to priority sectors with high-employment and high-investment multipliers, and also to natural resource-based sectors, could foster a green economy.

Two constraints are predominant in Africa: the limited development of the private sector and obstacles to credit, especially for small and medium-size enterprises and smallholder farmers. Indeed, financial markets are not well developed in many African countries. The depth and coverage of financial systems, as measured by the ratios of broad money (M2, which is a calculation of the money supply that includes cash and checking deposits, savings deposits, money market securities and mutual funds) and private sector credit to gross domestic product (GDP), is low in most of Africa's low-income countries. In sub-Saharan Africa domestic credit to the private sector is 47 per cent of GDP with the exception of South Africa, which has a high rate of 151 per cent.[1] As a comparison, in 2014 the rate in China was 142, the United States of America, was 194, the European Union was 100. In that regard, the development and regulation of financial markets are not only a prerequisite for, but also an integral part of monetary and macroeconomic policy reform.

Furthermore, economic growth in many African countries is driven by the extraction of natural resources which are vulnerable to various external shocks such as the volatility of commodity prices (ECA, 2015a, 2015b). The instability of commodity prices has significant negative impacts on countries that mainly rely on export earnings from raw or semi-processed commodities. The recent slump in commodity prices, particularly oil, has affected not just the major economies (Angola, Egypt, Nigeria and South Africa), but also threatens growth in the non-resource rich countries (ECA, 2017). Moreover, social indicators such as poverty and inequality are worsened by the negative impacts of commodity price shocks on developing country economies.

The other challenge facing African countries' recent economic success is how to sustain growth spurts while ensuring environmental sustainability. The continent also faces the challenge of ensuring that economic growth is not accompanied by market failures that have contributed to pollution, environmental degradation and climate change, among other issues (ECA, 2016a). The challenge is therefore one of integrating environmental sustainability with efforts to advance social and economic development (GIZ, 2015). There is, accordingly, a need to rapidly transform and broaden African economies to ensure that they sustain both significant growth rates in the future and sustainable and inclusive development driven by a diverse economic base that significantly addresses the challenges of unemployment, poverty and inequality (ECA, 2016a; Gaye and others, 2015; Rodrik, 2013; Timmer and others, 2012).

1 The higher this measure, the higher the financial resource that flows to the private sector in a country, and the greater the opportunity and space for the private sector to develop and grow.

The nature and patterns of structural change or of the allocation of resources into high and increasing productivity activities would be an important measure of future economic performance (Timmer and others, 2012). However, as over 70 per cent of the African population relies on a primary sector such as agriculture for their livelihoods, a sector that contributes less than 30 per cent of GDP, it can be deduced that more than 70 per cent of the population is sharing less than 30 per cent of national income. Many African countries are experiencing rising informality because of non-competitive industry and low productivity in the services sector. This means that, if structural transformation is to contribute to inclusive growth, there is a need to raise productivity in the primary sectors including agriculture, and to increase the competitiveness of high-value sectors such as manufacturing and services.

A green economy approach can help facilitate the achievement of the goals of structural transformation in Africa through accelerating and promoting sustainable industrial development and boosting renewable energy production, availability and efficiency, as well as by increasing sustainable agricultural productivity and production (ECA, 2016a; GIZ, 2015; Sperling and others, 2012). Within this context an inclusive green economy offers an alternative paradigm shift to simultaneously address the above challenges by proactively aligning the macroeconomic policies of the State with environmental and social policy goals.

ii. Rationale for the macroeconomic framework study

A coherent and consistent macroeconomic environment is a cornerstone for stimulating investment in green activities by building investors' confidence (Global Commission on the Economy and Climate, 2014). Sound macroeconomic policies are thus critical for growth and for the attainment of developmental objectives, including poverty reduction. Moreover, growth is important to create room for new investment opportunities in a green economy. Results from Easterly and Kraay (2000) suggest that growth, investment, and productivity are positively correlated with macroeconomic stability; and that private investment is significantly and negatively influenced by uncertainty and macroeconomic instability (Ramey and Ramey, 1995).

Macroeconomic stability, or even economic growth, by itself, however, is not a desirable outcome, and policies should thus be judged in terms of their ultimate success in bringing societies to their desired outcomes such as social inclusion, freedom from poverty and human development (Elson and Cagatay, 2000). In the context of Africa, the desirable outcomes of macroeconomic policies are embodied in Agenda 2063.[2] Among other imperatives, that Agenda underlines the need for structurally transformed economies to create shared growth, decent jobs and economic opportunities for all, and for modern agriculture to increase production, productivity and value addition that contribute to farmer and national prosperity and Africa's collective food security. It also underlines the need for Africa's unique natural endowments, its environment and ecosystems, including its wildlife and wild lands, to remain healthy, valued and protected. This also applies to climate-resilient economies and communities (African Union Commission, 2015). These outcomes augur well

2 Agenda 2063 of the African Union is a strategic framework for the socioeconomic transformation of the African continent over a period of fifty years. It builds on, and seeks to accelerate, the implementation of past and existing continental initiatives for growth and sustainable development. See www.au.int/web/en/agenda2063.

for the goals of a green economy, which seeks to reconcile economic, social and environmental objectives to ensure a sustainable transformation and development path.

The inherent features of a green economy can also influence the macroeconomic policies of a country to adequately cater to environmental and social policy objectives. Thus, the two are mutually reinforcing. To resolve trade-offs between stability and development objectives, macroeconomic policies should be integrated into a long-term development strategy embodying environmental objectives. This facilitates the transformation of economic and social structures, with a view to ensuring a positive feedback loop in the investment–growth nexus and to engendering inclusive green growth. At the same time, the integrated systems framework of an inclusive green economy promotes multisectoral approaches and policy coordination, and further helps to inform decisions and actions on policy formulation and implementation, as well as on monitoring and evaluation. This promotes policy consistency and coherence within the national development planning framework, and ultimately enhances the outcomes of a macroeconomic framework while catering to the three dimensions of sustainable development in a balanced manner.

A green economy is seen as an alternative to the non-inclusive and non-sustainable growth path of the "business as usual" economic system. The twin objectives of orthodox macroeconomic policy, that is, keeping inflation and government deficit low, have failed to engender structural changes in Africa. While achieving consistent macroeconomic policy objectives in the areas of inflation, exchange rates, interest rates, external balances, growth in monetary aggregates and labour market and social outcomes remain a challenge. It is essential to ensure that macroeconomic policies support the implementation of national development plans, and of green economy strategies in particular. The report of the Economic Commission for Africa (ECA) on macroeconomic policy and the structural transformation of African economies (ECA, 2016c) highlights five outcomes that macroeconomic policies should accomplish in advancing structural transformation: (a) scaling up public investment and public good provision; (b) maintaining macro stability to attract and sustain private investment; (c) coordinating investment and other development policies; (d) mobilizing resources and reducing aid dependence over time; and (e) securing fiscal sustainability by establishing fiscal legitimacy. The present study complements the report mentioned by bringing into focus the mutually reinforcing nature of macroeconomic and inclusive green economy policies in support of the paradigm shift to a sustainable transformation.

iii. Objectives of the study

The aim of the study was to investigate the macroeconomic conditions that are conducive to green growth, and the question of how an inclusive green economy system can enhance the economic, social and environmental developmental outcomes of a macroeconomic framework, thereby driving a sustainable transformation.

In order to accomplish the above objective, an in-depth analysis was conducted of past and current macroeconomic policies in Africa to foster understanding and an appreciation of how they have affected economic, social and environmental developmental outcomes. This is expected to lead to a deep understanding of

how fiscal, monetary and financial policies in Africa can promote an inclusive green economy, hence reinforcing the mutually supportive roles of macroeconomic and green economy policies in contributing to a sustainable transformation.

Specifically, the study:

a. Analyses past and current macroeconomic policies, indicators and development outcomes in Africa;

b. Analyses experiences in the application of macroeconomic policies for fostering an inclusive green economy in Africa;

c. Discusses strengths and weaknesses of macroeconomic policies in relation to the development of an inclusive green economy;

d. Discusses good practices, success factors and lessons learned from Africa.

iv. Methodology and analytical framework

The present report was prepared using a mixed-methods approach to gather data and information for an in-depth analysis of past and current macroeconomic policies in Africa, of how they have influenced economic, social and environmental developmental outcomes, and of how they can promote an inclusive green economy that drives a sustainable transformation. The core analysis was informed mainly by a comprehensive desk review of relevant publications (reports, journal articles, research papers), complemented by primary data drawn from a questionnaire targeting 31 African countries that have gained relevant experience on their transition to a green transformation economy, with good practices and lessons to highlight: Benin, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Egypt, Ethiopia, the Gambia, Ghana, Kenya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, the Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Togo, Tunisia, Uganda, United Republic of Tanzania and Zambia.[3]

The selected countries cover all eight countries included in the previous study by ECA on inclusive green growth and structural transformation. Moreover, other countries are included in the selection that have some green interventions and may not have specific green growth policies at present (table 1).

Only 13 of the 31 countries selected for the primary survey returned their completed questionnaires, as indicated in table 1. These responses were supplemented

3 These countries were selected based on the Green Growth Knowledge Platform's green growth map (www.greengrowthknowledge.org/map). The green growth map profiles country-specific data, resources, policies and projects. The first eight countries have some green economy strategies and policies in addition to the UNFCCC COP 21 Nationally Determined Contributions (NDC) submissions, and have implemented various green economy projects. The relevant green economy policies of the second set of countries are formally listed only in their UNFCCC COP 21 NDC submissions. Various other green economy projects and interventions involving them either have been or are being implemented. Cameroon and Tunisia have been included although they did not fall into the above categories because they had previously been included in studies focusing on inclusive green economy and structural transformation.

Table 1: Summary of selected countries for primary data collection

Criteria: Relevant green economy policies + projects	Countries selected for the survey	Countries that responded
Green economy policies/ strategies beyond UNFCCC COP 21 NDC Submission + green economy projects	Burkina Faso, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Madagascar, Morocco, South Africa	Burkina Faso, Kenya, South Africa
UNFCCC COP 21 NDC Submission + green economy projects	Benin, Botswana, Burundi, Côte d'Ivoire, Gambia, Ghana, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Togo, Uganda, United Republic of Tanzania, Zambia	Mauritania, Mauritius, Mozambique, Rwanda, Senegal, Sierra Leone, Togo, Uganda, Zambia
Included in previous inclusive green economy and macroeconomic transformation study	Cameroon, Tunisia	Tunisia
Total	31	13

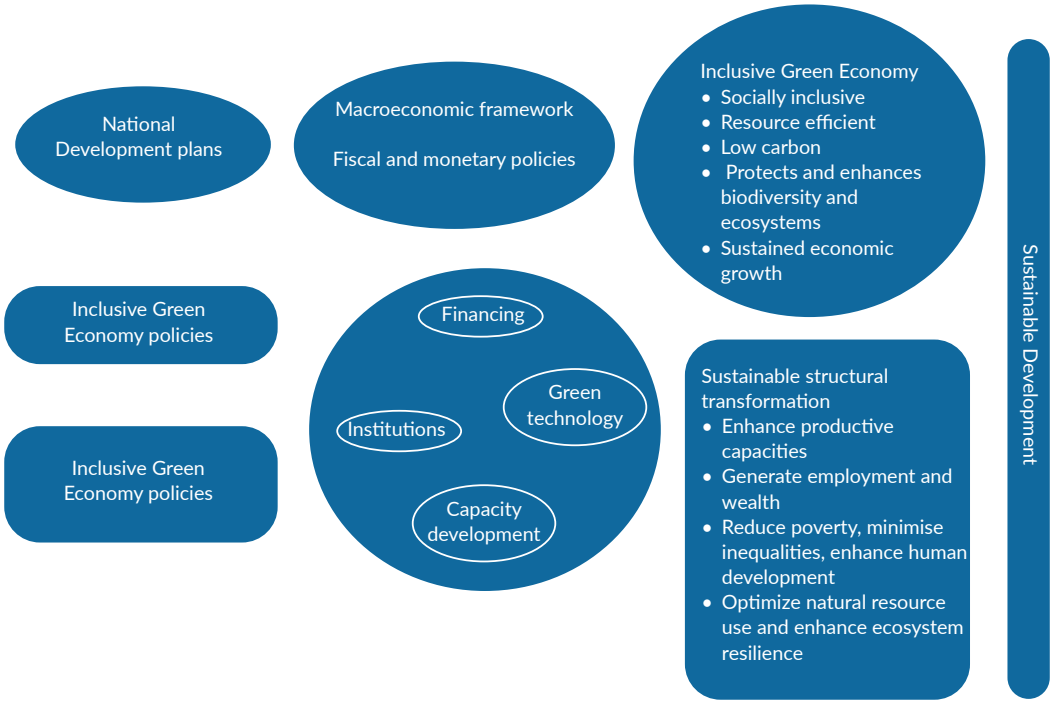
by information from published sources, including from the countries that did not respond to the questionnaire. The desk review phase included the gathering of relevant documents, data and other information from global, regional and national sources that address the objectives of the study. This was followed by a critical review and synthesis of the information. The responses to the survey questionnaires were captured and analysed in Microsoft Excel to complement the findings of the desk review.

The analytical framework draws from the report on inclusive green economy policies and structural transformation in selected African countries published by ECA (ECA, 2016a). The analytical framework explores the linkages and contribution of green economy policies and strategies to the structural transformation of economies in Africa, as well as the characteristics of structural transformation and desired outcomes, and the transmission mechanisms that could reinforce and sustain the outcomes.

In the context of this analytical framework, a favourable macroeconomic environment is critical for the success of a green economy. Also, the macroeconomic policies of a country can be influenced by a green economy to adequately address environmental and social policy objectives. Furthermore, to ensure that green economy policies and strategies drive sustainable transformation and development their implementation needs to be integrated into national development plans (ECA, 2016a, 2016b). Moreover, the framework emphasizes the economic, social and environmental dimensions of sustainable development in an integrated approach (figure 2).

The successful implementation of a green economy and of structural transformation policies requires an enabling macroeconomic environment. For example, green fiscal reforms discourage the over-extraction of resources and simultaneously create incentives for the sustainable use of resources. This creates revenue opportunities and fiscal space for green public investment and social expenditure that benefit the poor.

Figure 2: Analytical framework illustrating the role of a macroeconomic framework for structural transformation and sustainable development in an inclusive green economy



Source: ECA, 2016a.

Moreover, cost-reflective tariffs have been effective in facilitating efficient resource allocation and attracting inclusive green growth investments. Furthermore, appropriate monetary policies can help deepen financial markets, while also developing domestic markets and enhancing access to productive assets and ensuring macroeconomic stability. On the other hand, the inherent features of an inclusive green economy can influence a country's macroeconomic policies by ensuring that environmental and social policy objectives are adequately addressed. An inclusive green economy and macroeconomic policies accordingly reinforce each other (ECA, 2016a).

An integrated policy approach also helps strengthen institutions and mechanisms facilitating the effective design and implementation of policies and strategies that support structural transformation. Also, an integrated systems framework encourages the implementation of multisectoral approaches and policy coordination maximising linkages between the green economy and macroeconomic policies. Furthermore, an integrated systems approach helps to inform decisions and actions on policy formulation, implementation, monitoring and evaluation, thus promoting policy consistency and coherence in line with overall national development plans. The balanced integration of the three dimensions of sustainable development is also enhanced. Moreover, the consolidation of gains from the transition to an inclusive green economy and structural transformation requires a strong enabling environment that creates stability in the economy (ECA, 2016a).

v. Structure of the report

The rest of the report is organized as follows. Chapter 2 presents an overview of past and current macroeconomic policies in Africa. Chapter 3 discusses the implications of macroeconomic policies for development outcomes, taking into account economic, social and environmental dimensions. Chapter 4 discusses the experiences of countries implementing macroeconomic policies for fostering an inclusive green economy in Africa. It takes stock of existing and past macroeconomic policies, and the gaps in macroeconomic policy in relation to the fostering of inclusive green growth. The underlying factors and drivers of macroeconomic policies and their linkages with inclusive green economy policies and strategies were highlighted. Chapter 5 presents the challenges and opportunities for the implementation of macroeconomic policies to foster an inclusive green economy. Good practices, success factors and lessons learned from Africa and other developing countries on fiscal, monetary and financial policies that have fostered the development of an inclusive green economy are discussed in chapter 6. Chapter 7 presents conclusions and provides policy recommendations.

2. Overview of past and current macroeconomic policies in Africa

i. Introduction

This chapter discusses macroeconomic policy frameworks in Africa from 1960 onwards, which coincides with the time when most countries became independent. The period to be analysed is divided into four distinct phases: the post-independence phase (1960–1979); the international financial institution-led structural adjustment phase (1980–1999); the high growth and development phase (2000–2015); and the period since 2015, covering the adoption of the 2030 Agenda for Sustainable Development and the African Union's Agenda 2063 (2015–2063). African countries experienced some initial economic successes soon after gaining independence as they recovered from periods of low investment, war and instability. Some countries put in place some semblance of policy planning and coordination units in the early years, and had strong public investment, not just in infrastructure, but also in the productive sectors (manufacturing, mining and services). The policy stance of post-independence Africa included both increasing public investment in infrastructure and industrialization based on import substitution.

However, the early growth successes could not be sustained in the context of the implementation of international financial institution-led structural adjustment and stabilization programmes in many countries in Africa in the period 1980–1999. The structural adjustment and stabilization programmes led by the international financial institutions aimed at addressing market imperfections (on the supply side) and also reducing inflation and achieving sustainable balances of payments (on the demand side) with the objective of promoting growth (Mosley and others, 1995). This period was mainly characterized by stagnation in many countries, and by unprecedentedly

poor economic performance in some. These policy planning phases are presented in figure 3, including the institutional configurations and macroeconomic outcomes experienced in Africa over the period of five decades since independence. In addition to historical evolution, the policy frameworks which emerged after the adoption of the 2030 agenda for sustainable development are also discussed.

Figure 3: Historical evolution - policy framework, institutional configuration and outcomes

Source: Adapted from ECA, 2016c.

ii. Post-independence phase, 1960–1979

The post-independence phase coincides with the period 1960 to the late 1970s, when most African countries had just regained independence. The overarching goal for development strategies in Africa was human development through long- and medium-term development frameworks aimed at eradicating "colonial structures" and improving the wellbeing of populations (Baah, 2003). During this period the State played a central role in the development process, driving development initiatives, building social and economic infrastructure and providing social services to the poor (ECA, 2016c).

Development initiatives were also characterized by industrialization based on import substitution strategies ensuring the adequate protection of local industries and employment, with the secondary aim of gaining economic independence from colonial powers. These strategies were based on the views of African nationalists and visionaries such as Kwame Nkrumah from Ghana, Julius Nyerere from the United Republic of Tanzania and Kenneth Kaunda from Zambia, that State intervention was the most effective way of developing Africa and redressing the injustices of the imperialists (Baah, 2003; ECA, 2016c).

Despite some early progress in socioeconomic outcomes, in the late 1960s and the 1970s African countries encountered considerable bottlenecks in development which were usually blamed on "over-investments" in the social sector. Furthermore, most countries lacked coordination, coherence and consistency in the economic policies and instruments which they developed and implemented. African countries were characterized by a limited technical capacity to implement development plans to achieve set goals. Institutional configurations were still emerging. Many countries were still trying to establish their nation-States and were politically and economically fragile (ECA, 2016c). In many countries fiscal prudence was non-existent and fiscal profligacy was rampant, with the interests of minority and politically connected factions being advanced by private actors. Moreover, during this phase there was no recognition of the role of sound macroeconomic frameworks in driving and sustaining economic growth, maintaining external and internal balances and investment saving ratios, and building and consolidating nation-States.

Baah (2003) argues that the human-centred path of economic and social development driven by socialist oriented policies which had proved successful in Ghana, the United Republic of Tanzania and Zambia was viewed as a threat to free market ideology by western powers. Alternative market-orientated policies and industrialization also proved effective, with Côte d'Ivoire, Kenya and Nigeria among the countries that showed strong government support for private investments and industries (Lubeck, 1987). However, the macroeconomic vulnerability of many African countries was exposed by the oil-price shock of 1973–1974, which dramatically compromised the balance of payments of countries that depended on oil imports. Moreover, the sharp commodity price collapse in the late 1970s and early 1980s led to the protracted sovereign debt crises of the 1980s and 1990s, with domestic imbalances further exposing the macroeconomic vulnerability of many African countries (ECA, 2016c). Furthermore, political instability in Africa increased in the 1970s, threatening the progress of the previous decade and paving the way for international economic interventions.

iii. International financial institution-led structural adjustment phase, 1980–1999

Macroeconomic challenges such as protracted debt crises, domestic imbalances and political instability in the 1970s threatened the progress of the previous decade. The 1980s to the late 1990s were characterized by the implementation of structural adjustment programmes (economic liberalisation and deregulation policies) recommended by international financial institutions with the aim of addressing the macroeconomic challenges of developing countries. In the 1980s the World Bank drove structural adjustment programmes with the goal of promoting growth through supply-side economic policies to remove market imperfections, while the International Monetary Fund (IMF) led the implementation of stabilization programmes focused on the demand-side of the economy and aimed at reducing inflation and achieving a sustainable balance of payments (Mosley, Subasat and Weeks, 1995).

The policies of the international financial institutions tied development assistance and lending to structural adjustment and stabilization policies. Their economic reforms were based on the assumption that sound macroeconomic conditions on

their own would promote private-led investments to advance economic growth and development. The economic interventions largely diverted from nationalist African development priorities, replacing them with a market-orientated stance. The policies pushed during the structural adjustment era included the privatisation of public enterprises, the liberalisation of markets and fiscal austerity, all of which resulted in increased unemployment and inflation, low real wages, increased poverty, growing inequalities, and huge external debts (Baah, 2003; ECA, 2016c). The role of government was reduced to the maintenance of macroeconomic balances through the implementation of short-term stabilization policies designed by IMF.

The macroeconomic and development impacts of international financial institution-led structural adjustment programmes in Africa included negative macroeconomic developments. In particular, between 1980 and 2000 most countries in sub-Saharan Africa experienced negative per capita growth, poor health conditions, increased ecological stresses, collapsed terms of trade, rising poverty and growing debt despite policy-based development lending (Baah, 2003; Helleiner, 1992; McCord and others, 2005). Various studies such as Helleiner (1992), ECA (1990), Mosley and others (1995) were critical of international financial institution-led structural adjustment programmes in Africa, particularly their failure to drive growth and development. Some of the shortcomings of the structural adjustment programmes included their emphasis on a demand-oriented approach driven by short-term, balance-of-payments arithmetic and import strangulation eroding the investments required for recovery while also draining the existing capital stock (Helleiner, 1992).

With the support of the United Nations African leaders made efforts to reverse the above challenges. Various development frameworks were adopted and implemented, including the Lagos Plan of Action for the Economic Development of Africa, 1980-2000, and the Final Act of Lagos; Africa's Priority Programme for Economic Recovery (APPER) 1986-1990, which later became the United Nations Programme of Action for Africa's Economic Recovery and Development (1986); the African alternative framework to structural programmes for socioeconomic recovery and transformation 1989; the African Charter for Popular Participation in Development and Transformation (1990); and the United Nations New Agenda for the Development of Africa in the 1990s.

The recommendations of the Maastricht Conference on Africa in July 1990 emphasized the need to find alternative solutions to the way in which structural adjustment programmes had been implemented in the 1980s. Some of the arguments at this conference included: the need to view the development of African economies over a much longer time period; the need for national leaderships to drive development, rather than external agencies; the need for human capital development to be part of the development processes and for production growth to be restored to revive development in Africa; and the prioritising of the importance of regional economic cooperation and integration for development in Africa (Helleiner, 1992). These recommendations and many others in other forums emphasized long-term frameworks that should guide development driven by national priorities and local production-driven processes. Moreover, the recommendations also stressed African discontent with externally driven solutions to African development problems.

Some of the hard-learned lessons from international financial institution-led structural adjustment programmes included the realisation that the economic reforms imposed on African countries were not conducive to nurturing domestic developmental institutions. Many African countries were also left with huge human development and infrastructure deficits due to structural economic reforms compromising their capacity to drive their own domestic economic development. The macroeconomic conditions created during international financial institution-led reforms in many African countries were not conducive to nation-State building. Their developmental impacts were worsened by the unproductive aid relationships between African countries, as well as by international financial institutions and the donor community. Liberalization and deregulatory reforms on their own were insufficient to address Africa's development challenges. Also, good governance needed to be added to the list of required reforms.

iv. High growth and development phase, 2000–2015

Since the late 1990s and early 2000s, African countries have increasingly been making efforts to find alternative solutions to drive their own growth and development. The constructive implementation of the macroeconomic stabilization policies of international financial institutions helped to generate a positive growth-stability relationship across the continent. Coupled with the African renaissance drive of New Partnership for Africa's Development (NEPAD) and other frameworks, the period 2000–2008/2009 was characterized by impressive growth rates in many African countries. These growth rates were driven by several factors that included prudent macroeconomic policies, new export partners and high commodity prices (Wohlmuth and others, 2014).

The efforts of international financial institutions mainly focused on implementing modified policy frameworks for developing countries that deviated from the structural adjustment programmes. Examples of these initiatives include the World Bank's Comprehensive Development Framework launched to drive poverty-reduction strategies in 1999; highly indebted poor countries initiatives were implemented on the condition that the countries developed a country poverty-reduction strategy paper promoting growth and poverty reduction. Despite changes in the packaging and implementation of neoliberal macroeconomic policies dating back to the early 1980s in the Washington and post-Washington consensus era, the core values of international financial institution-led structural adjustment and stabilization programmes remained the same. Accordingly, support through the country poverty-reduction strategy paper framework was based on the "conviction" of the international financial institutions that the design of economic policy reforms under structural adjustment programmes was appropriate and adequate to effect structural transformation in Africa (ECA, 2016c).

The New Partnership for Africa's Development was established by the 2001 Lusaka Summit of Organisation of African Unity Heads of State and Government as part of the political and economic discourse to find alternative solutions to Africa's development challenges. NEPAD identified internal and external conditions that affected economic performance and worsened political turmoil in the continent which included inefficient revenue mobilization and aid dependence; weak central bank and inefficient financial

sectors; non-transparent budgetary procedures and other auditing bodies; and an unfriendly environment for private investment, characterized by pervasive corruption, poor economic infrastructure and unpredictable public administration (ECA, 2016c).

Despite NEPAD having been developed as the continental development blueprint, it was criticised for relying on neoliberal policy instruments such as privatisation, deregulation, globalisation and tax cuts that had not helped to restore Africa's growth and development during the structural adjustment programme phase. Moreover, NEPAD was also criticised for its lack of inclusivity in drafting the continental development blueprint (Adésínà, 2001). Sceptics of NEPAD viewed it as recycling the same neoliberal policies of the international financial institutions with the pretence of having an African-grown developmental framework while it is in reality still controlled by the same external forces as in the past (Adésínà, 2001).

To address these challenges and on the basis of the campaign of African Union member States for economic policy and governance reforms, the African Union established the voluntary African Peer Review Mechanism (APRM). The economic governance and management focus areas of APRM aim to promote macroeconomic policies that support sustainable development; to implement transparent, predictable and credible government economic policies; to promote sound public-finance management; to fight corruption and money laundering; and to accelerate regional integration by harmonizing monetary, trade and investment policies among participating countries (ECA, 2016c). The NEPAD APRM has demonstrated that African member States have embraced governance reforms as part of their continental home-grown development agenda. However, more efforts are required to implement institutional reforms to promote public-private partnership to support developmental nation-State building across the continent.

The global food and financial crisis of 2008/2009 was a challenge for African countries as well. The impacts of the global economic crises on African economies included reduced demand for their exports of goods and services and reduced net inflows of remittances and private capital (AfDB and others, 2010; Kasekende and Brownbridge, 2011). The low demand in export markets and lower commodity prices for exports contributed significantly to reductions in export earnings in African countries. Real GDP growth rate was also affected by reduced external and domestic private sectors. Inflation in most African economies was pushed up above inflation targets of most central banks by the global fuel and food price shocks that preceded the global financial crises. Many central banks tightened their monetary policies in response to rising inflation to forestall second round effects that could have resulted in persistent increases in inflation (Kasekende and Brownbridge, 2011).

Overall, the post-economic crises recovery period shows that African countries have been performing well in weathering the impacts of the global economic crises and are starting to show signs of recovery. The macroeconomic policies implemented by many African countries prior to the global economic crises contributed to help the continent deal with the crises better than previous global crises. Moreover, after the crises countries in East Africa implemented appropriate counter-cyclical measures, especially the removal of supply-side bottlenecks (infrastructure). Furthermore, while African economies have increased trade and investment linkages with Asia and other

emerging markets, regional integration has grown intensively across the continent (AfDB and others, 2010). Timely financial support to various African countries from multilateral financial institutions such as the AfDB contributed to help countries avoid pro-cyclical cuts in fiscal expenditures (AfDB and others, 2010).

During this phase, most African countries renewed their faith in development planning, better policy formulation and implementation, and better fiscal/monetary management. Furthermore, global and regional frameworks such as the Millennium Development Goals and NEPAD frameworks were being implemented, contributing to some of the successes. For example, the Millennium Development Goals were effectively used by countries to track their progress on social development. However, despite improved planning, and the resulting economic growth in most countries: (i) growth did not trigger structural transformation; (ii) social development gains were achieved, but at a lower scale than desired; and (iii) environmental challenges such as climate change and environmental degradation persist.

The lessons from this phase are that a macroeconomic policy framework is important in guiding countries' responses to external shocks and attracting investments that support economic growth and social development. Moreover, the availability of domestic resources and external support to facilitate the implementation and operationalisation of policy measures is critical. Going forward, the efforts of African governments should focus on integrating green growth into structural transformation goals, and on mobilizing domestic resources for investment in social sectors, public infrastructure and the green economy.

v. Post-2015 developments: adoption of the 2030 Agenda and Agenda 2063

Planning ahead, African countries have adopted Agenda 2063, which is, for the most part, consistent with the Sustainable Development Goals enshrined in the 2030 Agenda for Sustainable Development. Aspiration 1 of Agenda 2063 of the African Union, adopted by African Heads of State and Government in January 2015 aims to achieve "a prosperous Africa based on inclusive growth and sustainable development", while aspiration 6 emphasizes that the development of the continent would be "… people-driven, relying on the potential of African people, especially its women, youth and caring for children" (African Union Commission, 2015). The 2030 Agenda adopted by the United Nations in September 2015 provides a global framework that informs sustainable development priorities and would shape policies and strategies designed to achieve national development goals up to the year 2030. Although both agendas are mutually reinforcing, the challenge for African countries is to adopt and implement national policies and interventions that: (a) ensure the integrated and coherent implementation of the two agendas; (b) integrate all the development goals and outcomes in an indivisible manner; and (c) ensure balanced sustainable development outcomes (economic, social and environmental) (United Nations, 2015).

It is therefore important for African countries to show a commitment to undertake measures that contribute to restructuring their economies towards achieving inclusive sustainable development. The work on aligning national development

plans with both agendas should be accelerated, as it would be difficult to project the impact of these agendas on development outcomes without properly defining baselines and targets at a national level. Also, the successful implementation of the agendas will largely depend on the mobilization of financial resources, which in turn will rely on a correctly conceived macroeconomic framework. In this regard, an enabling macroeconomic framework is essential to facilitate the implementation and alignment of policies and related interventions to achieve the targets and goals of both agendas. ECA, the African Union Commission and the African Development Bank are assisting member States to align the First 10-Year Implementation Plan of Agenda 2063 with the Strategy for the Harmonization of Statistics in Africa and the Sustainable Development Goals. This work is expected to result in national baselines for all targets and indicators, and to ensure regular data to enable the monitoring of the implementation of the two agendas (ECA, 2016).

vi. Summary

The chapter discussed the overview of macroeconomic policy frameworks in Africa. The historical evolution of macroeconomic policy frameworks in Africa can be divided into three phases: the development planning phase (1960-1979); the international financial institution-led economic reform phase (1980-1999); and the high growth phase (2000-2015). The first phase was characterized by State-led interventions with limited coordination on policies and between government and private agents. Although some sectoral shifts occurred during this development planning phase, governments had a weak capacity to champion State-led interventions. The second phase involved macroeconomic structural adjustment reforms led by the international financial institutions and resulted in a liberalisation drive in many African countries. Although during this period efforts were made to bring macroeconomic imbalances from the development planning phase under control, it was generally regarded as a failure. This was followed by the recent phase that involved more Africa-grown initiatives to drive transformation and economic growth. This included the establishment of NEPAD and other Pan-African initiatives, culminating into the adoption of Agenda 2063 in 2015. During this period, African countries also reported increased growth rates which can also be partly attributed to improvements in macroeconomic policy frameworks across the continent.

Since 2016, African countries and the rest of the world have been implementing the 2030 Agenda for Sustainable Development which, together with Agenda 2063, offers a unique opportunity to achieve inclusive, transformative and sustainable development, aspirations that are urgently required for putting the continent onto a sustainable development path. These agendas will succeed if national alignment processes and macroeconomic frameworks are put into place to guide the implementation and mobilization of resources and support for the implementation and monitoring of progress.

The subsequent chapters analyse in detail the economic, environmental and social outcomes of past macroeconomic frameworks, with a view to identifying the strengths and weaknesses of the frameworks and the best way forward.

3. Implications of macroeconomic frameworks for development outcomes in Africa

i. Introduction

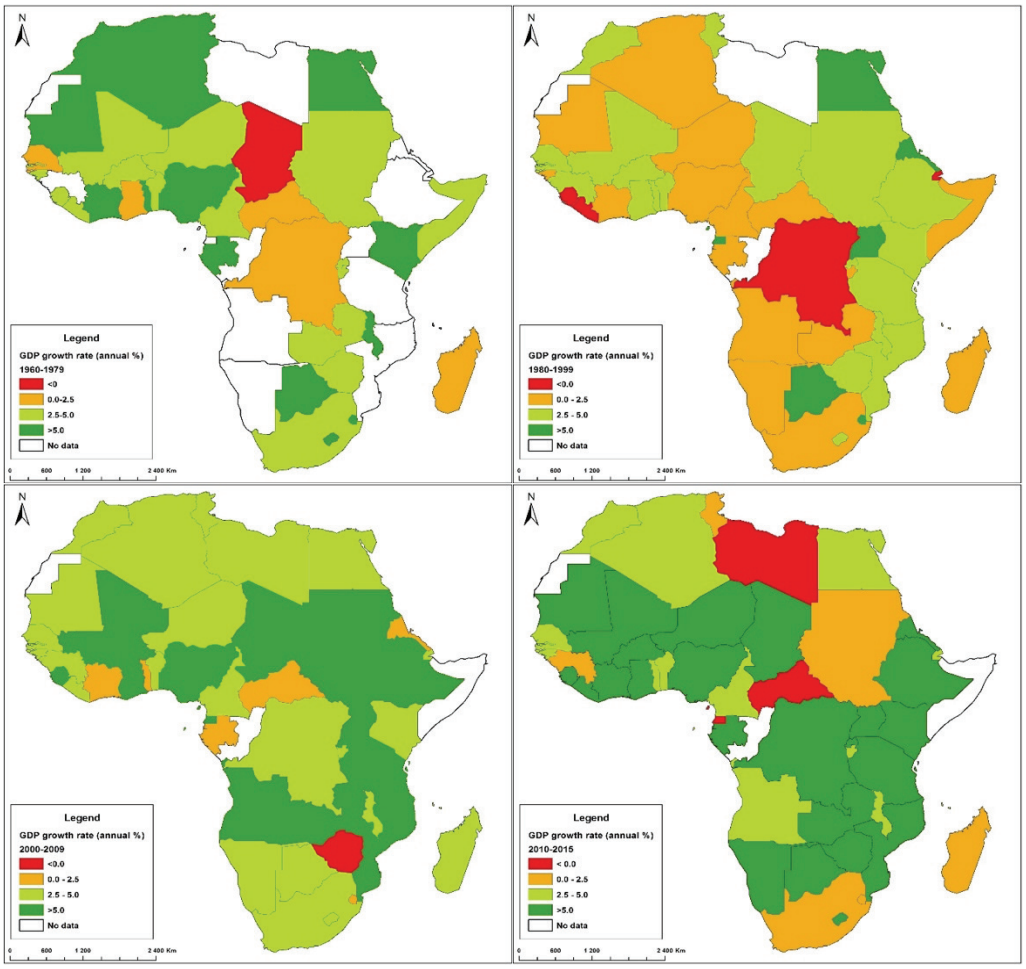
Each of the three planning phases had implications for development outcomes in the region. This chapter discusses these implications in detail and provides insights into the economic, environmental and social conditions that prevailed during or because of the policies that countries were implementing. Although development outcomes become visible after policies are first implemented, the overall picture depicted by the analysis in this chapter would be very close to any other rigorous explanation of the causal relationships between policies and outcomes. The trends and the multiple indicators offer credible insights into the impact of policies on all three dimensions of sustainable development.

ii. Economic outcomes

The post-independence phase (1960-1979) was characterized by consistently positive and strong GDP growth. Many countries in North and West Africa recorded growth rates of at least 5 per cent per year during this phase (figure 4). However, year-to-year trends indicate that the annual GDP growth rate experienced cycles of growth and decline, ending in a period of decline which was sustained into the next decade (1980-1989). The development planning policies and macroeconomic interventions implemented during the early years of independence generated growth in GDP, but at a rate which most countries could not sustain. While some countries were successful in improving the welfare of their people, most could not do so, as economic growth stagnated.

The international financial institution-led economic reforms (1980-1999) were supposed to address the shortcomings of post-colonial planning frameworks. However, they are associated with the worst performance in GDP growth rates. While the reforms were being implemented most countries, especially in West Africa, recorded less than 2.5 per cent annual growth in GDP. East African countries performed relatively better during this period than the rest of the continent. Overall, the focus on stabilization-cum structural adjustment as well as liberalisation to address government failure in the previous phase contributed little to improve the performance of African economies. This poor performance generated further adverse impacts on the welfare and livelihoods of millions of people across the continent. International financial institution-led structural adjustment programmes and macroeconomic reforms were accordingly insufficient to address the developmental challenges confronting the continent. The structural reforms left many countries with a limited capacity to drive their own domestic economic development.

Figure 4: Country average annual GDP growth, 1960–2015



Source: Based on data from the World Bank, 2016b.

During the period 2000 to 2015 many African countries experienced impressive annual growth rates, although progress slowed between 2010 and 2015. Improvements in macroeconomic management and development planning informed by lessons from previous phases can be argued to have contributed to better economic performance across the continent. Central Africa recorded the highest growth rates, followed by North Africa and West Africa, while Southern Africa and East Africa recorded the lowest growth rates. Very few countries performed poorly, for example, Zimbabwe, due to a hyperinflationary environment linked to internal reform between 2000 and 2009 and Libya, due to political unrest in the country since 2010. During this period African countries-led initiatives such as NEPAD and the voluntary APRM provided credible development solutions to the continent's development challenges. This was followed by the adoption in 2015 of African Union Agenda 2063 as a continental framework aimed at achieving inclusive growth, structural transformation and sustainable development.

The pattern of growth among countries has been heterogeneous, and while growth rates slowed generally across the continent, a few countries such as Ethiopia, Mali, Mozambique, Rwanda and the United Republic of Tanzania continued to record fast growth rates above 6 per cent, while many other countries such as Benin, Côte

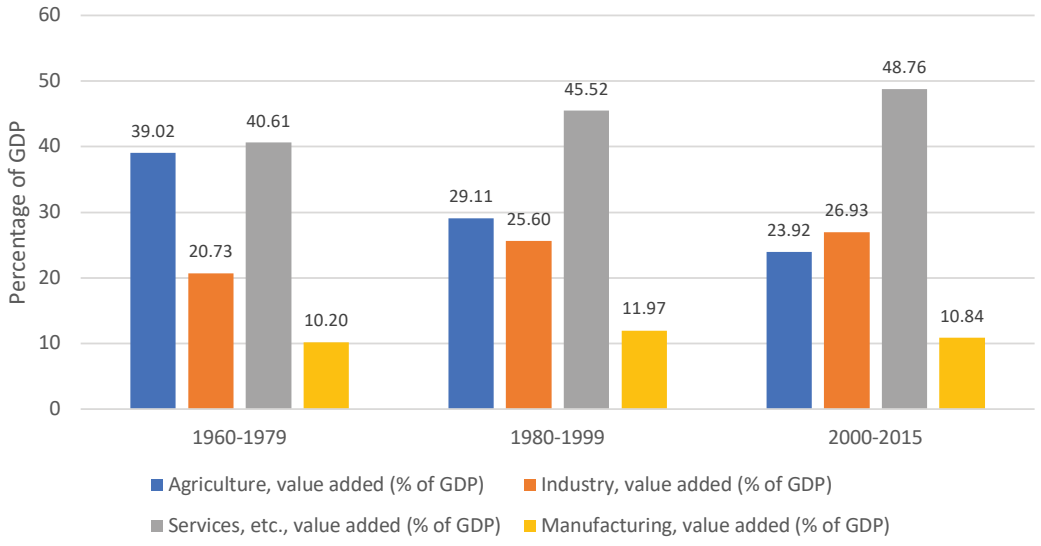
d'Ivoire, Cameroon, the Democratic Republic of the Congo, Kenya, Senegal and Togo moved up into the top third performers (World Bank, 2016a). The top performing countries in the continent are characterized as having stronger quality monetary and fiscal policies, better business regulatory environment, more diverse structure of exports and more effective public institutions (World Bank, 2016a). This emphasizes the importance of monetary and fiscal policies in driving structural transformation in Africa to advance the inclusive green growth agenda.

A comparison of economic performance in the different macroeconomic planning phases indicates that the 1980–1999 period was generally characterized by economic stagnation, while the period 2000–2009 recorded the highest growth rates in Africa. The post-economic crises period shows that African economies had begun to pick up again. Macroeconomic policies (stabilization policies and instruments) implemented in the 2000s contributed to improved economic performance across Africa. These macroeconomic stabilization policies also helped African countries to weather the effects of the global economic crises in the late 2000s. It is important that African countries should strengthen their implementation of prudent macroeconomic policies to build on growth from the previous decade, while also ensuring that their benefits are inclusive and environmentally sustainable. This is critical for the achievement of the 2030 Agenda for Sustainable Development and the continental agenda for 2063.

a. Economic structure

The first decade of the development planning phase was associated with the dominance of the agriculture and services sectors in African economies, contributing about 40 per cent of GDP. The industry and manufacturing sectors contributed on average 21 per cent and 10 per cent respectively of GDP. In the international financial institution-led structural adjustment phase, the contribution of the agriculture sector

Figure 5: Average sectoral contribution to GDP by macroeconomic planning phase (percentage of GDP)



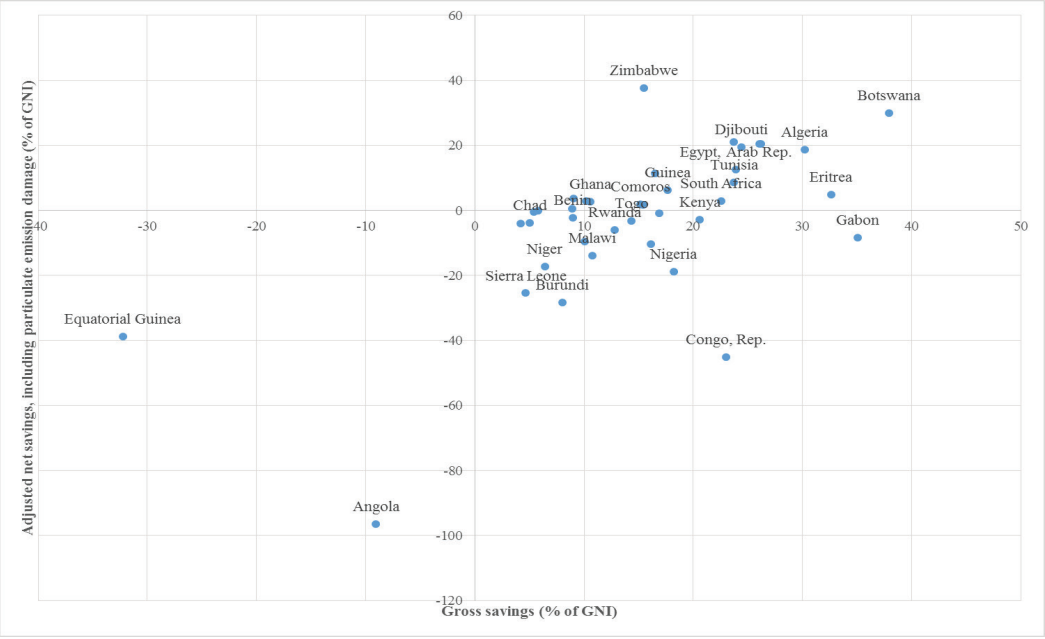
Source: Based on data from the World Bank, 2016b.

decreased drastically while the services (49 per cent), industry (26 per cent) and manufacturing (12 per cent) sectors recorded significant increases (figure 5).

Despite efforts to grow the manufacturing sector of African countries, it has struggled and has not significantly improved its contribution to African GDP over time. The sector has failed to grow, from about 10 per cent of GDP in the 1960s to almost the same value by 2015. By contrast, the services sector's contribution to GDP continued to grow to almost 50 per cent in the last reporting period. Although the industry sector (mostly mining) recorded a marginal increase, the contribution of the agriculture sector continued to decline over time. In the most recent reporting period the sector contributed just above 20 per cent of GDP. It follows from this that most African countries still rely on the primary sectors (agriculture and industry) as their main source of economic growth.

Changes in the structure of outputs, especially from crude materials production (in the form of agriculture and mining) to more transformational activities (in the manufacturing sector) are essential drivers of development in African countries (Ajakaiye, 2005). The agriculture sector continues to be the dominant sector despite its general decline over the years in most countries. The manufacturing sector, on the other hand, remains very small across the continent and in the different analytical phases presented. This highlights the need for a big push to drive the contribution of transformational activities (industry and manufacturing) in the national output of African countries. Inclusive green economy activities should focus on ensuring that primary products produced in Africa are transformed to add value and are traded for better returns.

Figure 6: Gross savings (percentage of GNI) and adjusted net savings, including particulate emission damage (percentage of GNI), 1990-1999



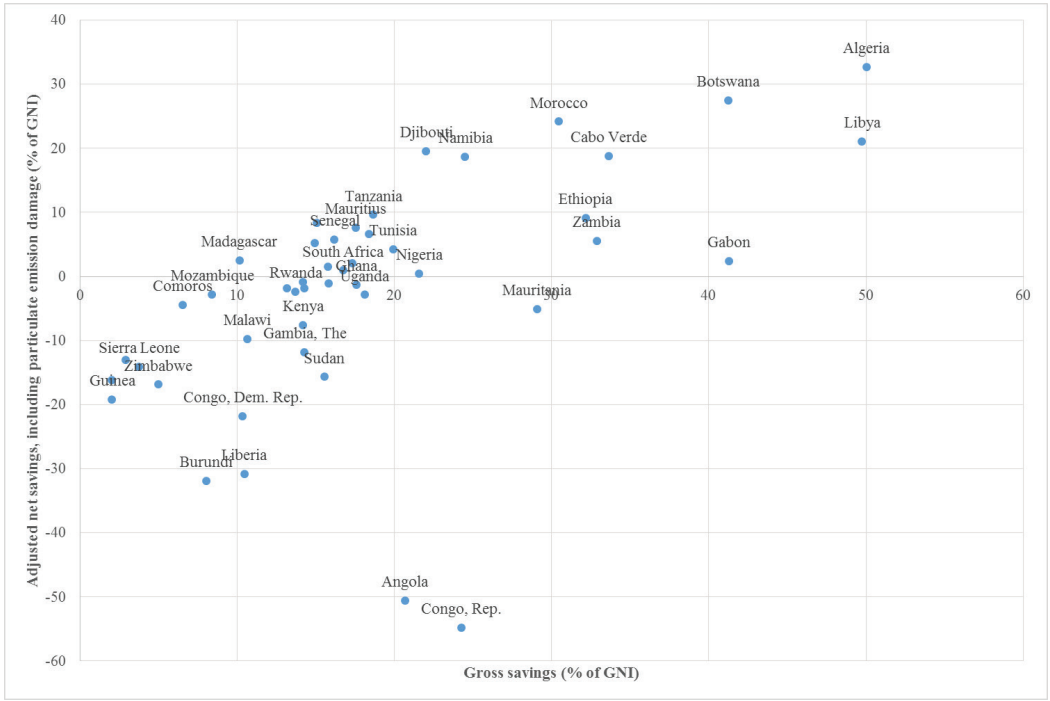
Source: Based on data from the World Bank, 2016.

b. Savings and investment

Figures 6 and 7 present the gross savings as a percentage of gross national income (GNI) and adjusted net savings, including particulate emission damage (percentage of GNI) for the phases 1990-1999 and 2000-2015, respectively. During the international financial institution-led structural adjustment phase, Angola and Equatorial Guinea recorded negative gross savings and adjusted net savings respectively. Only Algeria and Botswana recorded high levels of gross savings (above 30 per cent of GNI) and adjusted net savings (at least 20 per cent of GNI). Although Eritrea and Gabon also recorded gross savings in excess of 30 per cent of GNI, if one takes into account adjustments for resource depletion the results indicate that these gross savings were generated mainly from natural resource depletion. This is the case for most of the African countries with relatively high gross savings, which are reduced when one allows for natural resource depletion.

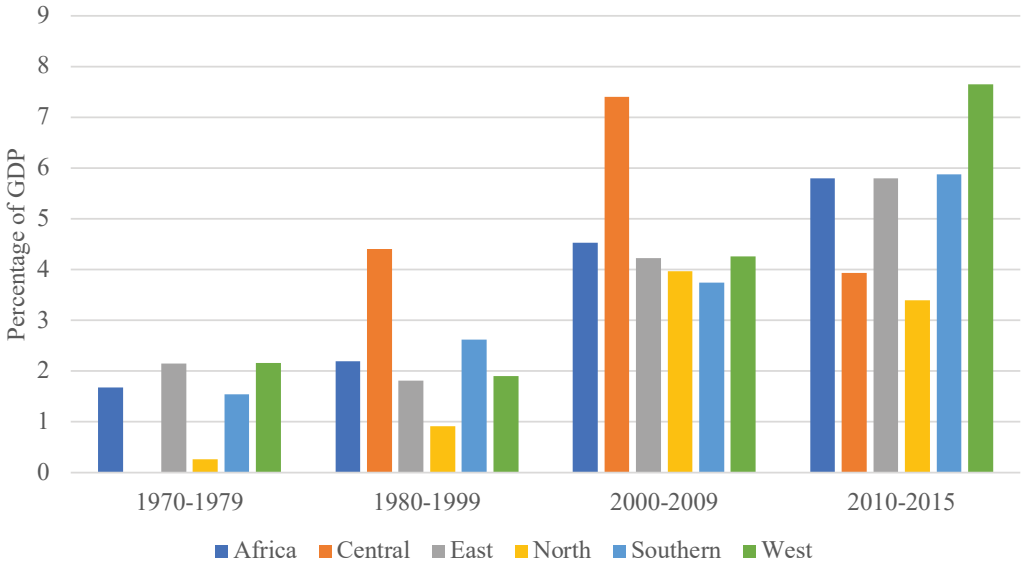
The phase 2000–2015 shows that Algeria, Botswana and Libya recorded gross savings of above 40 per cent and adjusted savings of above 20 per cent (figure 7). Again, although data for both gross savings and adjusted savings were high for these countries, the adjusted savings reveal the significant contribution of natural resource depletion to these countries' national savings. Although Angola and the Congo recorded gross savings of above 20 per cent of GNI, if adjusted for resource depletion their performance drops substantially to below negative 50 per cent. Many other countries in Africa also recorded negatively adjusted net savings despite positive gross savings positions.

Figure 7: Gross savings (percentage of GNI) and adjusted net savings, including particulate emission damage (percentage of GNI), 2000-2015



Source: Based on data from the World Bank, 2016.

Figure 8: Foreign direct investment, net inflows (percentage of GDP) by region



Source: Based on data from the World Bank, 2016.

The depletion of natural resources has implications for the sustainability of countries in the future. African countries have experienced negative incomes when the depletion and depreciation of natural assets and environmental damage from economic growth are accounted for (AfDB, 2012b; ECA and UNEP, 2011). This was even more marked during the international financial institution-led structural adjustment phase. The evidence shows that short-term economic gains from exploiting natural resources do not translate into overall gains in terms of savings to support future economic growth (ECA and UNEP, 2011). The negative adjusted net savings trend indicates that the growth path was unsustainable and was worst during the first phase of development. However, improvements in adjusted net savings values in the period 2000-2015 reveal that many countries have actively implemented measures to sustainably manage and use their natural resources and to reduce environmental damage from economic activities. The implementation of macroeconomic policies that stimulate and enhance inclusive green economy activities would be critical to help countries sustainably use their natural resources while simultaneously advancing their social and economic goals.

Net foreign direct investment (FDI) was very low in the period 1970– 979, which corresponds to the period of State-controlled interventions in many African economies (figure 8). Net FDI continued to decline in the first half of the international financial institution-led structural adjustment phase before steeply increasing around the mid-1990s to above 5 per cent of GDP in 1999. Despite fluctuations in the past decade to date, net FDI inflows were positive until 2011, when they registered a sharp decrease towards the beginning of 2014. Overall, net FDI inflows provide an important source of resources for investments, some of which are critical for the green economy. Macroeconomic policies should help create an environment conducive to attracting FDI for investments in the green economy.

iii. Social indicators

a. Poverty and inequality

The impact of economic growth on social development, particularly in the period 2000 to 2015, when several African countries were among the ten fastest growing economies in the world, has not been as good as it should be. Poverty remains a challenge across the continent, with only a few countries having succeeded in reducing the proportion of poor people in absolute terms. For example, the average change in poverty rate per year decreased substantially by at least 5 per cent in the following countries: Botswana, Cabo Verde, Chad, the Gambia, Mauritania, Namibia, Morocco and Tunisia (table 2). On the other hand, the following countries experienced increases in poverty rates of at least 2 per cent: Côte d'Ivoire, Guinea-Bissau, Kenya, Mauritius, Seychelles and Zambia. Although Mauritius and Seychelles recorded increases in average poverty rate per year, the absolute levels of poverty in these countries is very low compared to most countries in Africa.

Because high levels of poverty and inequality are widespread, it would take sustained high levels of economic growth and more equitable distribution of incomes to address these problems across the continent (GIZ, 2015). The focus of macroeconomic reforms for structural transformation and green growth should be to address these social inequalities, thus ensuring a more equitable and sustainable growth path. An inclusive green economy will make a decisive contribution to ensuring increased social and economic stability in Africa.

The following African countries experienced increases in inequality at an annual rate of at least 2 per cent per year: Benin, Central African Republic, Ethiopia, Guinea-Bissau, Malawi, Togo and Zambia. On the other hand, inequality reduced in the following countries by a rate of at least 2 per cent per year: Burkina Faso, Burundi, Cabo Verde, Guinea, Mali, the Niger and Sierra Leone (table 3). Inequality in Africa remains a critical challenge, ranging from about 31per cent in Sao Tome and Principe to above 60 per cent in South Africa. The countries with the highest levels of inequality were in Southern Africa, and the fact that the biggest economies are among the most unequal implies that the benefits of the recent growth in GDP have not been shared equally in many African countries and across the continent (AfDB, 2012a).

Table 2: Summary of poverty levels in Africa

Country	Initial year	Poverty rate in initial year	Final year	Poverty rate in final year	Total change in poverty rate	Per cent change in poverty rate	Average change in poverty per year
Angola	2000	32.28	2008	30.13	-2.15	-6.66	-0.83
Benin	2003	48.85	2011	53.11	4.26	8.72	1.09
Botswana	2002	29.75	2009	18.24	-11.51	-38.69	-5.53
Burkina Faso	2003	57.26	2014	43.73	-13.53	-23.63	-2.15
Burundi	1998	84.12	2006	77.65	-6.47	-7.69	-0.96
Cabo Verde	2001	16.01	2007	8.07	-7.94	-49.59	-8.27
Cameroon	2001	23.12	2014	23.98	0.86	3.72	0.29
Central African Republic	2003	64.77	2008	66.26	1.49	2.30	0.46
Chad	2003	62.94	2011	38.43	-24.51	-38.94	-4.87
Congo	2005	50.2	2011	36.97	-13.23	-26.35	-4.39
Democratic Republic of the Congo	2004	94.05	2012	77.08	-16.97	-18.04	-2.26
Djibouti	2002	20.63	2013	22.52	1.89	9.16	0.83
Côte d'Ivoire	2002	23.03	2008	29.02	5.99	26.01	4.33
Ethiopia	2004	36.31	2010	33.54	-2.77	-7.63	-1.27
Gambia	1998	70.46	2003	45.29	-25.17	-35.72	-7.14
Ghana	1998	33.85	2005	25.19	-8.66	-25.58	-3.65
Guinea	2002	61.2	2012	35.27	-25.93	-42.37	-4.24
Guinea-Bissau	2002	53.87	2010	67.08	13.21	24.52	3.07
Kenya	1997	21.5	2005	33.6	12.1	56.28	7.03
Lesotho	2002	61.31	2010	59.65	-1.66	-2.71	-0.34
Madagascar	2001	68.68	2012	77.84	9.16	13.34	1.21
Malawi	2004	73.63	2010	70.91	-2.72	-3.69	-0.62
Mali	2001	57.92	2009	49.25	-8.67	-14.97	-1.87
Mauritania	2000	19.64	2014	5.93	-13.71	-69.81	-4.99
Mauritius	2006	0.42	2012	0.53	0.11	26.19	4.37
Mozambique	2002	80.6	2008	68.74	-11.86	-14.71	-2.45
Namibia	2003	31.46	2009	22.6	-8.86	-28.16	-4.69
Morocco	2000	6.27	2006	3.12	-3.15	-50.24	-8.37
Niger	2005	74.93	2014	45.7	-29.23	-39.01	-4.33
Nigeria	2003	53.46	2009	53.47	0.01	0.02	0.00
Rwanda	2000	76.97	2013	60.43	-16.54	-21.49	-1.65
Sao Tome and Principe	2000	29.84	2010	32.28	2.44	8.18	0.82
Senegal	2001	49.25	2011	37.98	-11.27	-22.88	-2.29
Seychelles	1999	0.58	2013	1.06	0.48	82.76	5.91
Sierra Leone	2003	58.47	2011	52.33	-6.14	-10.50	-1.31
South Africa	2000	32.59	2011	16.56	-16.03	-49.19	-4.47
Swaziland	2000	48.44	2009	42.03	-6.41	-13.23	-1.47

Country	Initial year	Poverty rate in initial year	Final year	Poverty rate in final year	Total change in poverty rate	Per cent change in poverty rate	Average change in poverty per year
Tanzania, United Republic of	2000	84.74	2011	46.6	-38.14	-45.01	-4.09
Togo	2006	55.55	2011	54.18	-1.37	-2.47	-0.49
Tunisia	2000	5.32	2010	1.99	-3.33	-62.59	-6.26
Uganda	2002	62.21	2012	34.64	-27.57	-44.32	-4.43
Zambia	2002	49.44	2010	64.42	14.98	30.30	79

Source: *Based on data from the World Bank, 2016b. Note: Swaziland is the former name of Eswatini.*

Table 3: Summary of inequality levels in selected African countries*

Country	Initial year	Initial GINI index	Final year	GINI index	Total change in GINI index	Per cent change in GINI index	Average change in GINI index per year
Angola	2000	51.96	2008	42.72	-9.24	-17.78	-2.22
Benin	2003	38.58	2011	43.44	4.86	12.60	1.57
Botswana	2002	64.73	2009	60.46	-4.27	-6.60	-0.94
Burkina Faso	2003	43.25	2014	35.3	-7.95	-18.38	-1.67
Burundi	1998	42.35	2006	33.36	-8.99	-21.23	-2.65
Cabo Verde	2001	52.5	2007	47.19	-5.31	-10.11	-1.69
Cameroon	2001	42.14	2014	46.54	4.4	10.44	0.80
Central African Republic	2003	43.61	2008	56.24	12.63	28.96	5.79
Chad	2003	39.82	2011	43.32	3.5	8.79	1.10
Congo	2005	47.33	2011	48.94	1.61	3.40	0.57
Democratic Republic of the Congo	2004	42.16	2012	42.1	-0.06	-0.14	-0.02
Djibouti	2002	40	2013	44.13	4.13	10.33	0.94
Côte d'Ivoire	2002	41.34	2008	43.18	1.84	4.45	0.74
Ethiopia	2004	29.81	2010	33.17	3.36	11.27	1.88
Gambia	1998	48.52	2003	47.33	-1.19	-2.45	-0.49
Ghana	1998	40.07	2005	42.77	2.7	6.74	0.96
Guinea	2002	43	2012	33.73	-9.27	-21.56	-2.16
Guinea-Bissau	2002	35.57	2010	50.66	15.09	42.42	5.30
Kenya	1997	46.3	2005	48.51	2.21	4.77	0.60
Lesotho	2002	51.57	2010	54.18	2.61	5.06	0.63
Madagascar	2001	47.44	2012	42.65	-4.79	-10.10	-0.92
Malawi	2004	39.87	2010	46.12	6.25	15.68	2.61
Mali	2001	39.87	2009	33.04	-6.83	-17.13	-2.14

* GINI indices are based on World Bank estimates. The summary includes countries with at least two data points of GINI index estimates.

Country	Initial year	Initial GINI index	Final year	GINI index	Total change in GINI index	Per cent change in GINI index	Average change in GINI index per year
Mauritania	2000	39.03	2014	32.42	-6.61	-16.94	-1.21
Mauritius	2006	35.65	2012	35.84	0.19	0.53	0.09
Mozambique	2002	47.04	2008	45.58	-1.46	-3.10	-0.52
Namibia	2003	63.32	2009	60.97	-2.35	-3.71	-0.62
Morocco	2000	40.64	2006	40.72	0.08	0.20	0.03
Niger	2005	44.43	2014	33.99	-10.44	-23.50	-2.61
Nigeria	2003	40.06	2009	42.97	2.91	7.26	1.21
Rwanda	2000	48.55	2013	50.44	1.89	3.89	0.30
Sao Tome and Principe	2000	32.13	2010	30.82	-1.31	-4.08	-0.41
Senegal	2001	41.23	2011	40.29	-0.94	-2.28	-0.23
Seychelles	2006	42.77	2013	46.82	4.05	9.47	1.35
Sierra Leone	2003	40.17	2011	33.99	-6.18	-15.38	-1.92
South Africa	2000	57.77	2011	63.38	5.61	9.71	0.88
Swaziland	2000	53.11	2009	51.45	-1.66	-3.13	-0.35
Tanzania, United Republic of	2000	37.3	2011	37.78	0.48	1.29	0.12
Togo	2006	42.21	2011	46.02	3.81	9.03	1.81
Tunisia	2000	40.81	2010	35.81	-5	-12.25	-1.23
Uganda	2002	45.17	2012	41.01	-4.16	-9.21	-0.92
Zambia	2002	42.06	2010	55.62	13.56	32.24	4.03

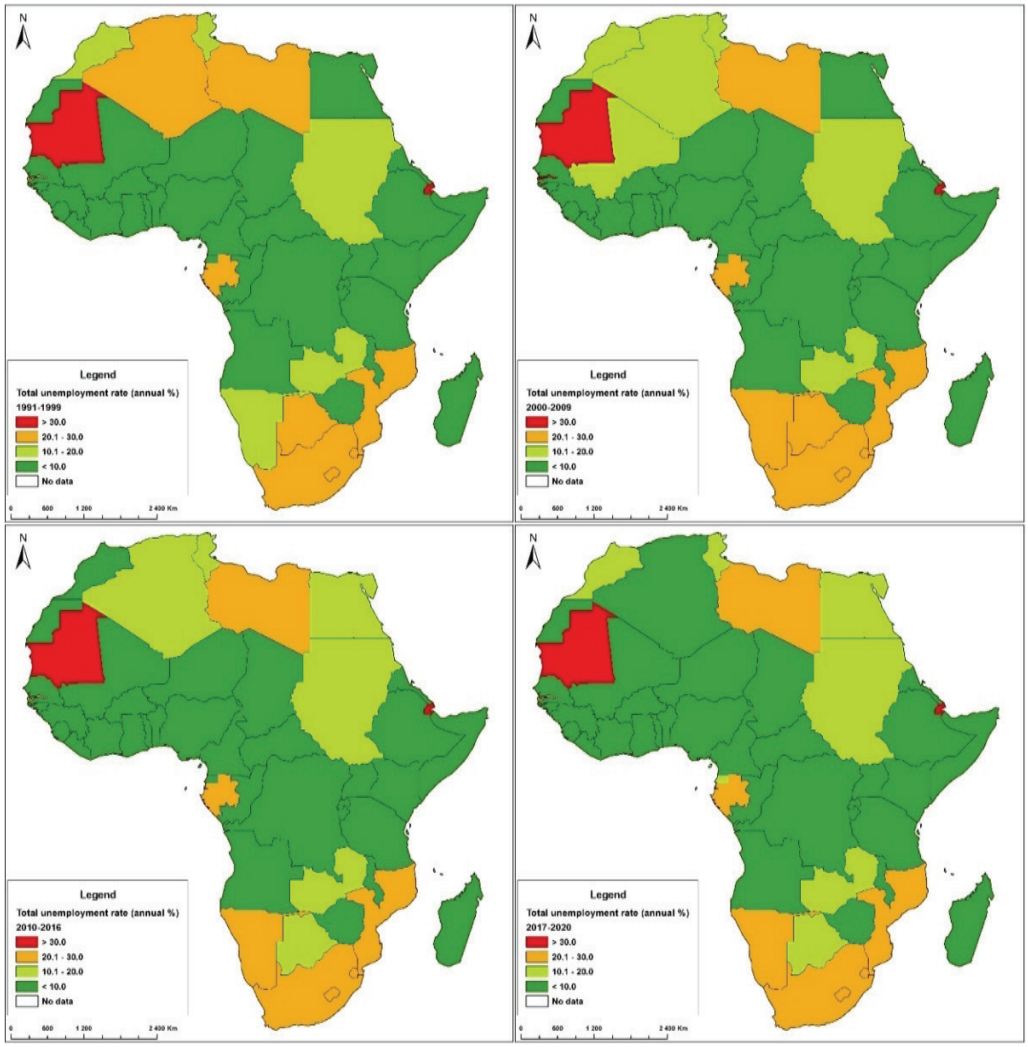
Source: Based on data from the World Bank, 2016b.

Note: Swaziland is the former name of Eswatini.

Economic and employment opportunities that are expected in the transition to an inclusive green economy are vitally important in addressing the unemployment challenge across the continent, particularly among young people and women. Furthermore, because natural resource-based sectors (e.g. agriculture, the mineral sector, forestry and fisheries) remain the largest job providers in the continent, the transition to an inclusive green economy should aim to maintain and enhance natural capital to sustain jobs, incomes and livelihoods for millions of people across the continent (ECA and UNEP, 2011). Macroeconomic policy frameworks should therefore aim to create an environment conducive to supporting investments and jobs in the green economy.

The average total unemployment rate fluctuated at around 12 per cent during both the international financial institution-led structural adjustment phase (1991–1999) and the high growth phase (2000–2015). This trend is projected to continue until 2020 (figure 9). The trends for youth unemployment in the same macroeconomic phases (figure 10) show similar trends, but with high levels of unemployment fluctuating around 20 per cent.

Figure 9: Total unemployment rate by country



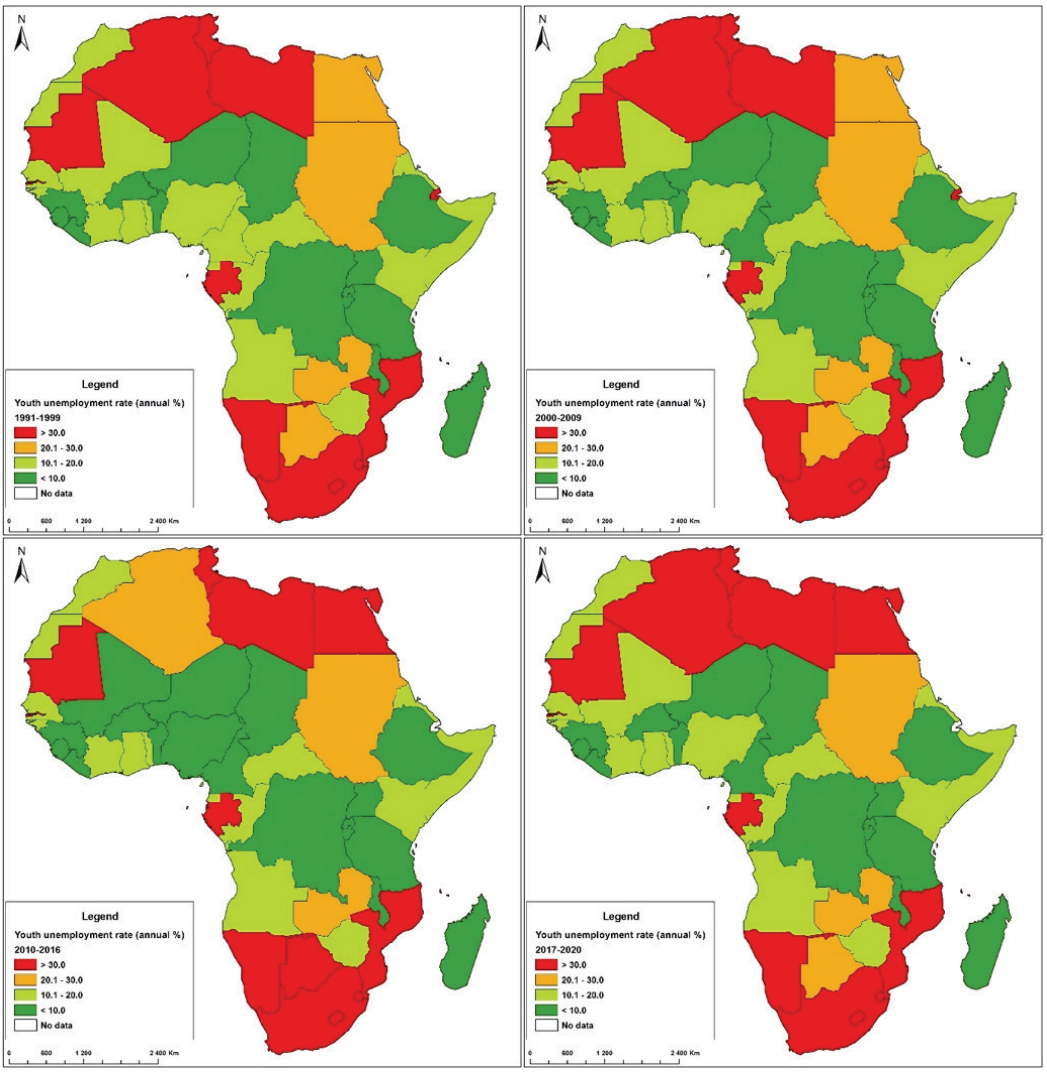
Source: *Based on data from ILO, 2016.*

Providing adequate employment (particularly for young people) for the growing population in many African economies remains a major challenge. Most recent economic growth experience in Africa has been non-inclusive, mainly due to heavy reliance on capitalintensive enclave sectors which meant that majority of the population was excluded and most of the labour force was not absorbed (AfDB, 2012b). Overall, the economic growth experience in many countries has not been able to create employment opportunities for a majority of the unemployed populations (Omilala, 2014; ECA and UNEP, 2011).

b. Basic infrastructure and public services

Despite the drive in the post-independence phase to invest in public infrastructure, access to improved water and sanitation remained a challenge for most parts of the continent including during the international financial institution-led structural adjustment phase (figure 11). A lot of progress has been made in improving access to water across the continent, particularly during the period 2000 to 2015. This phase coincided with renewed global frameworks and support for developing countries to implement the Millennium Development Goals. It is estimated that 427 million

Figure 10: Youth unemployment rate by country

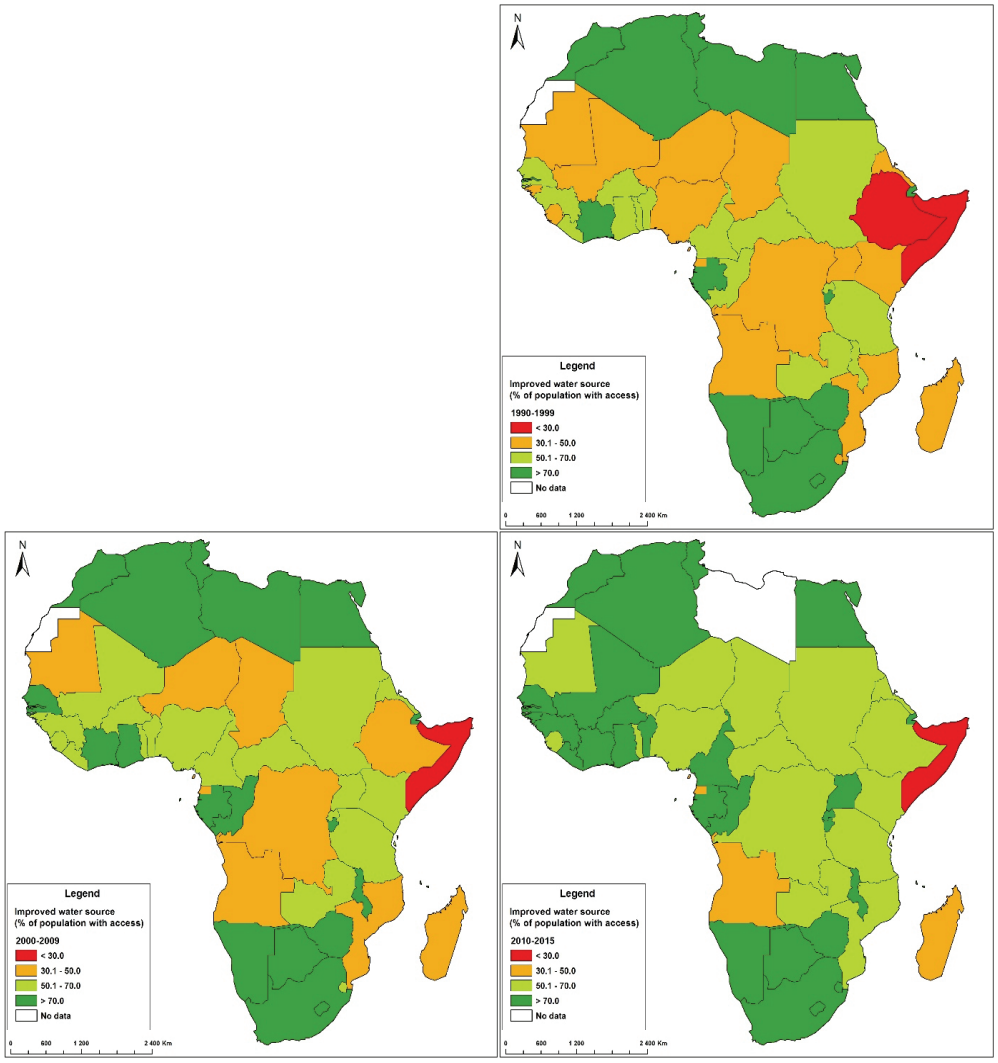


Source: *Based on data from ILO, 2016.*

people gained access to clean water during the Millennium Development Goal period (WHO, 2015). Despite the progress made, Africa's levels of access to these basic services remain low compared to other regions of the world. The challenge for many countries is to expand coverage, maintain existing infrastructure and sustain progress that has been made into the future. There is also a need for investments in sustainable infrastructure and water efficiency measures to ensure access to improved water for existing and growing populations. It is estimated that African countries need to spend at least 4.5 per cent of their GDP on water and sanitation to have a chance of achieving the Sustainable Development Goal on clean water and sanitation (United Nations Water, 2015).

There were marginal improvements in the proportion of the population with access to improved sanitation facilities between 1990 and 2015 (figure 12). However, by the end of 2015 about 695 million people in sub-Saharan Africa were without access to sanitation. Remarkably, the number of people practicing open defecation increased (WHO, 2015). The North African region recorded the highest proportion

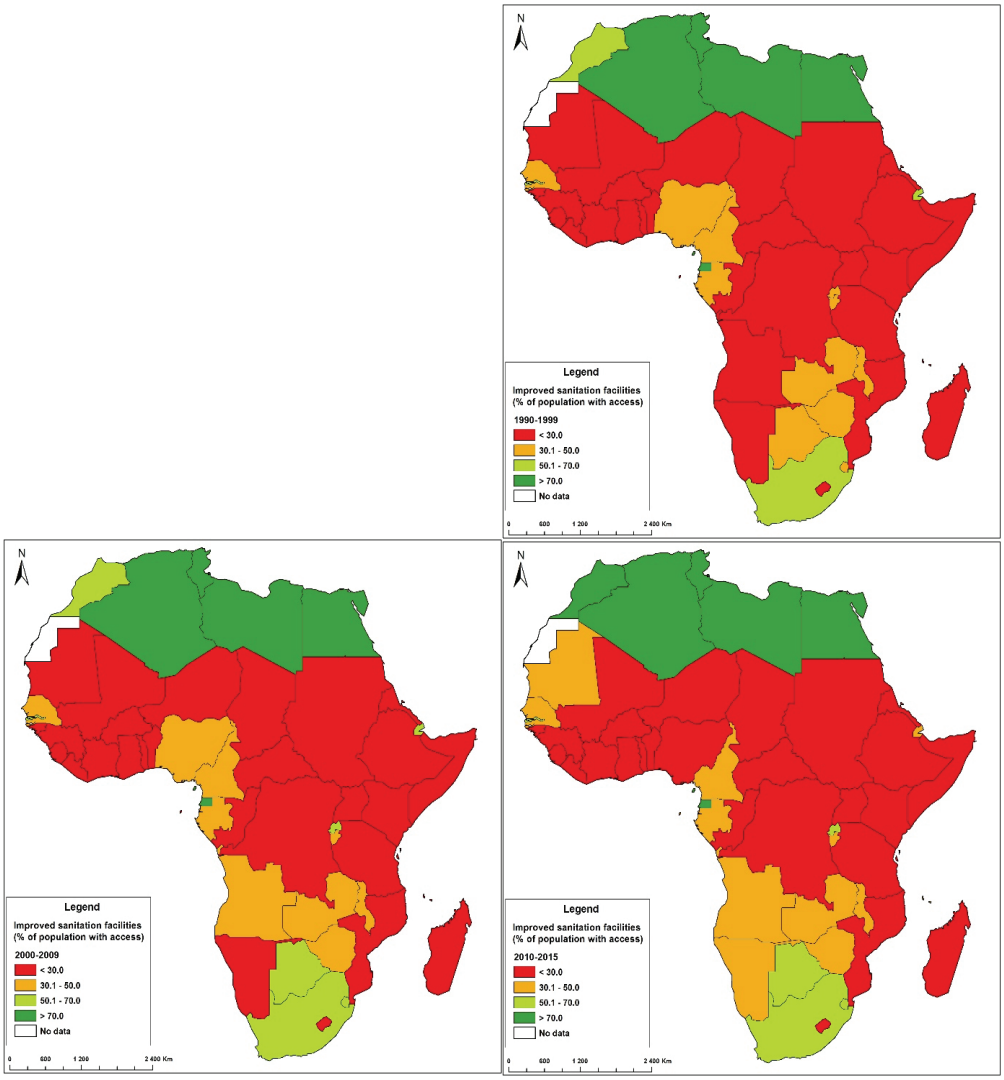
Figure 11: Improved water sources (per cent of population with access) by country



Source: *Based on data from the World Bank, 2016b.*

of the population with access to improved sanitation facilities. Most parts of the East and West African regions recorded the lowest proportion of their population with access to improved sanitation facilities. Despite efforts that were made to implement sanitation infrastructure in accordance with the Millennium Development Goals, backlogs remain across most parts of the continent. The implication for macroeconomic policies in support of an inclusive green economy is to ensure that more resources are allocated to sustainable investments in water and sanitation to address the backlogs in providing these basic services across the continent. According to WHO a radical increase in water and sanitation investment will be required if countries in the region are to achieve the Sustainable Development Goal on clean water and sanitation.

Figure 12: Improved sanitation facilities (per cent of population with access) by country



Source: Based on data from the World Bank, 2016b.

iv. Environmental outcomes

i. Carbon emissions

African countries are among the countries that signed the Paris Agreement on Climate Change. As of June 2017, 39 of the 153 countries that have ratified were in Africa, including countries such as Ethiopia, Rwanda and South Africa that are already implementing various measures to guide their economic development along on a climate-resilient development path.[4] Africa's strength lies in its enormous endowment of natural resources and great renewable energy potential. From a judicious exploitation of these endowments, Africa can attain a triple dividend including economic growth, poverty reduction and environmental management. Implementing climate-resilient development interventions also contributes to strengthening the sustainable use of natural resources and ecosystems.

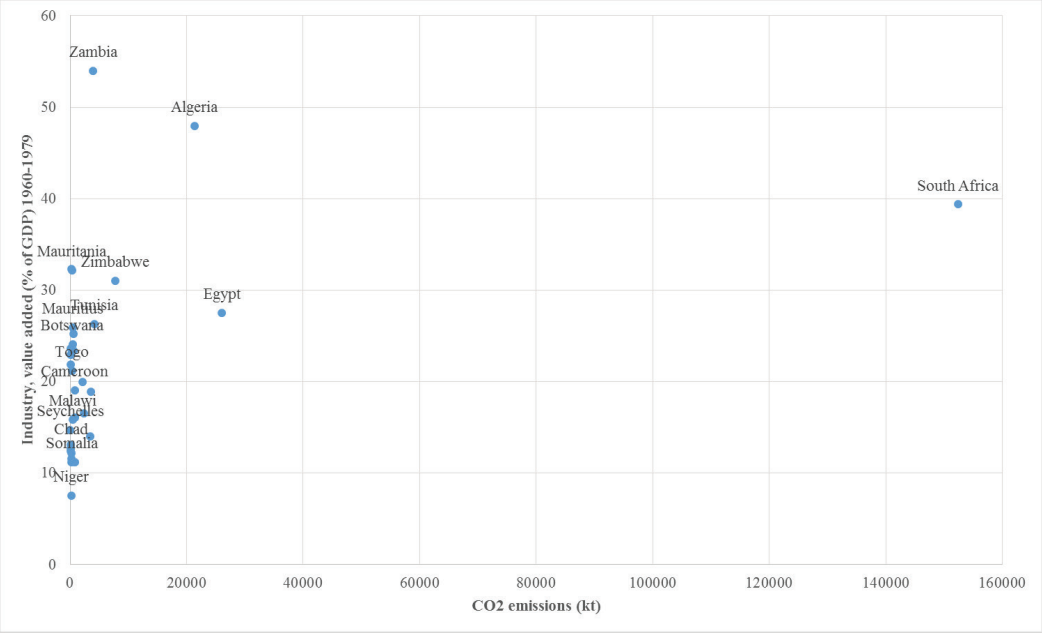
4 As of June 2017, the following few countries in Africa had not ratified the Paris Agreement on Climate Change - which they had, however, signed in 2016: Angola, Burundi, Cabo Verde, the Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Guinea-Bissau, Liberia, Libya, Mozambique, South Sudan, Sudan, United Republic of Tanzania and Zimbabwe.

The headline indicator for environmental pollution is carbon emission from energy and land use change. Africa contributes far less than most countries to carbon dioxide emissions. Economic growth will put pressure on the environment, not only through carbon emissions, but also through resource extraction. Macroeconomic reforms should ensure that climate change mitigation and adaptation interventions complement both the developmental goals and the green economy priorities of each country.

Figures 13 to 15 present scatterplots of carbon dioxide emissions (kt) and industry value added (percentage of GDP) for the periods 1960-1979, 1980-1999, and 2000-2015. During the post-independence phase (1960-1979) most African countries contributed minimally to carbon dioxide emissions, except for South Africa. Algeria and Egypt are the only other countries after South Africa with higher carbon dioxide emissions (kt). Similar patterns are observed for the period 1980-1999, except for Nigeria, which increased its emissions measured in terms of industry value added between 2000 and 2015. In addition to the above countries, Morocco's carbon dioxide emissions by industry value added also increased. Overall the rest of the African countries show very low carbon dioxide emissions by industry value added.

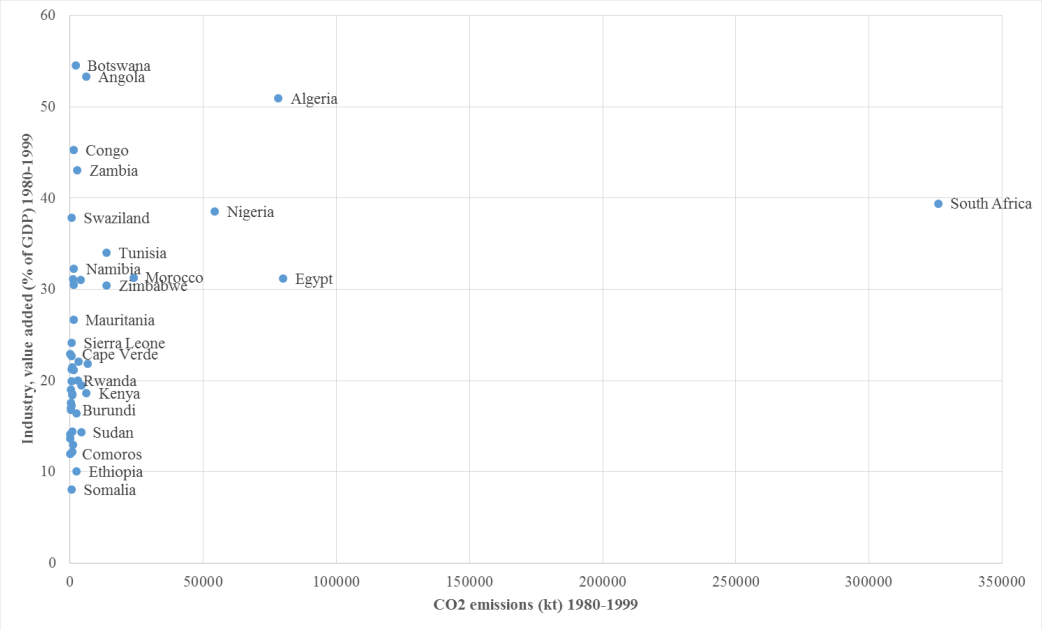
Despite their low levels of carbon dioxide emissions, most African countries such as Ethiopia, Rwanda and South Africa have already started implementing various measures to guide their economic development along a climate-resilient development path. African countries can also harness the implementation of climate-related interventions from the international climate finance options that are available, in addition to mobilizing their own domestic resources. Furthermore, implementing climate-resilient development interventions also contributes to strengthening the sustainable use of natural resources and ecosystems in African countries.

Figure 13: Carbon dioxide emissions (kt) and industry, value added (percentage of GDP) (1960-1979)



Source: *Based on data from the World Bank, 2016.*

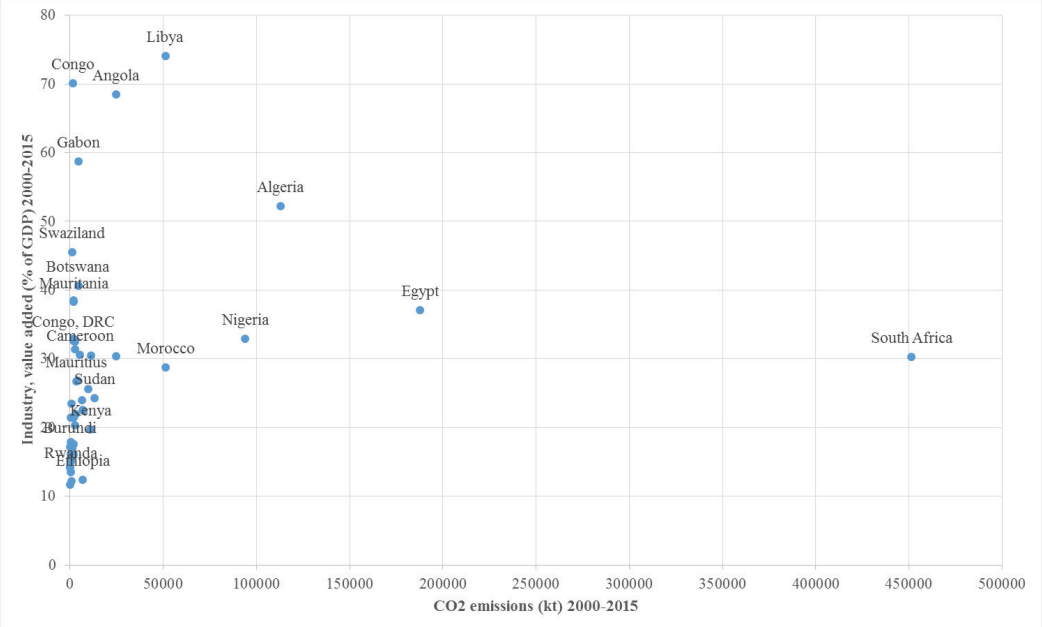
Figure 14: Carbon dioxide emissions (kt) and industry, value added (percentage of GDP), 1980-1999



Source: Based on data from the World Bank, 2016.

Note: Swaziland is the former name of Eswatini.

Figure 15: Carbon dioxide emissions (kt) and industry, value added (percentage of GDP), 2000-2015

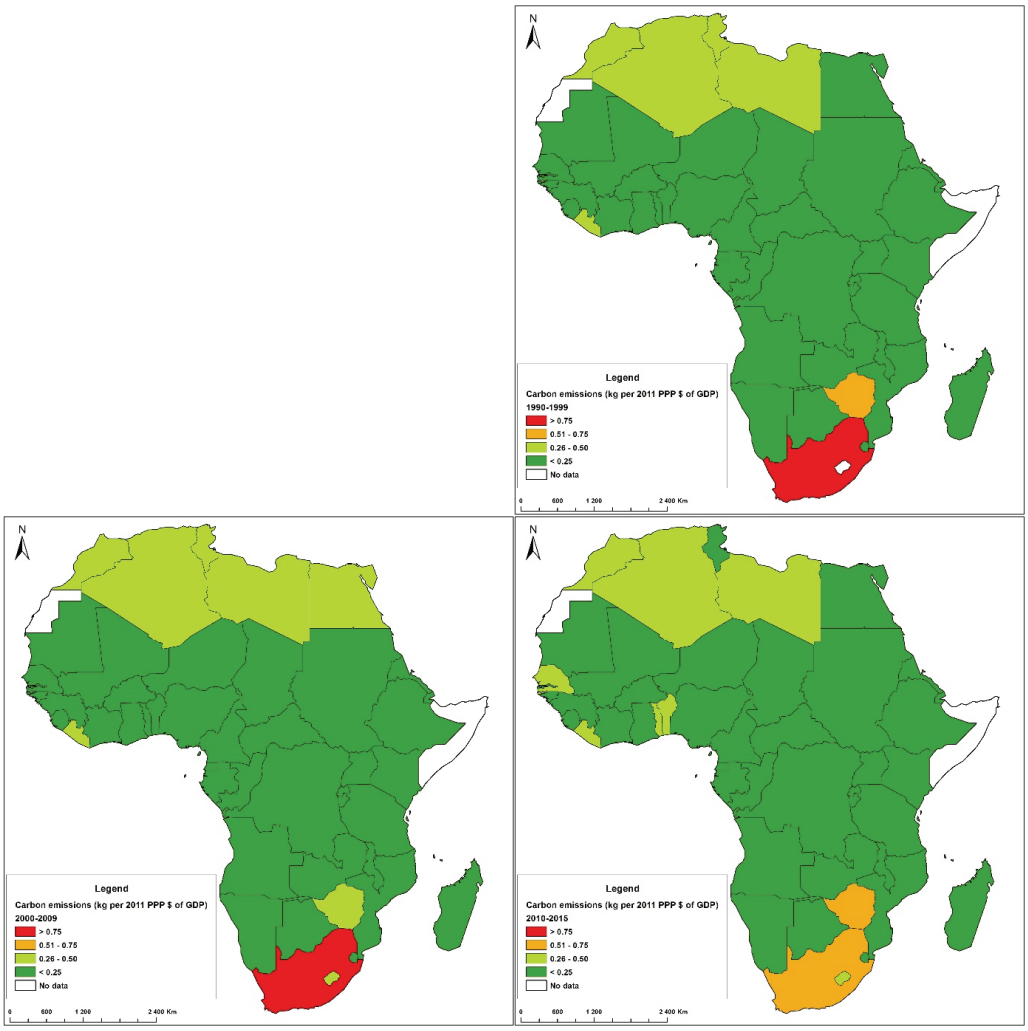


Source: Based on data from the World Bank (2016).

Note: Swaziland is the former name of Eswatini.

In the last decade of international financial institution-led structural adjustment only Algeria, Egypt, Libya, Morocco, South Africa and Zimbabwe recorded high levels of carbon dioxide per unit of GDP. During the first part of the high growth phase (2000–2009) South Africa was the only African country with emissions in excess of 0.75 kg per 2011 PPP dollars of GDP (figure 16). However, from 2010 to 2015, there was a general fall in emissions per unit of GDP in South Africa. Overall, most parts of the

Figure 16: Country – carbon dioxide emissions (kg per 2011 PPP dollars of GDP)



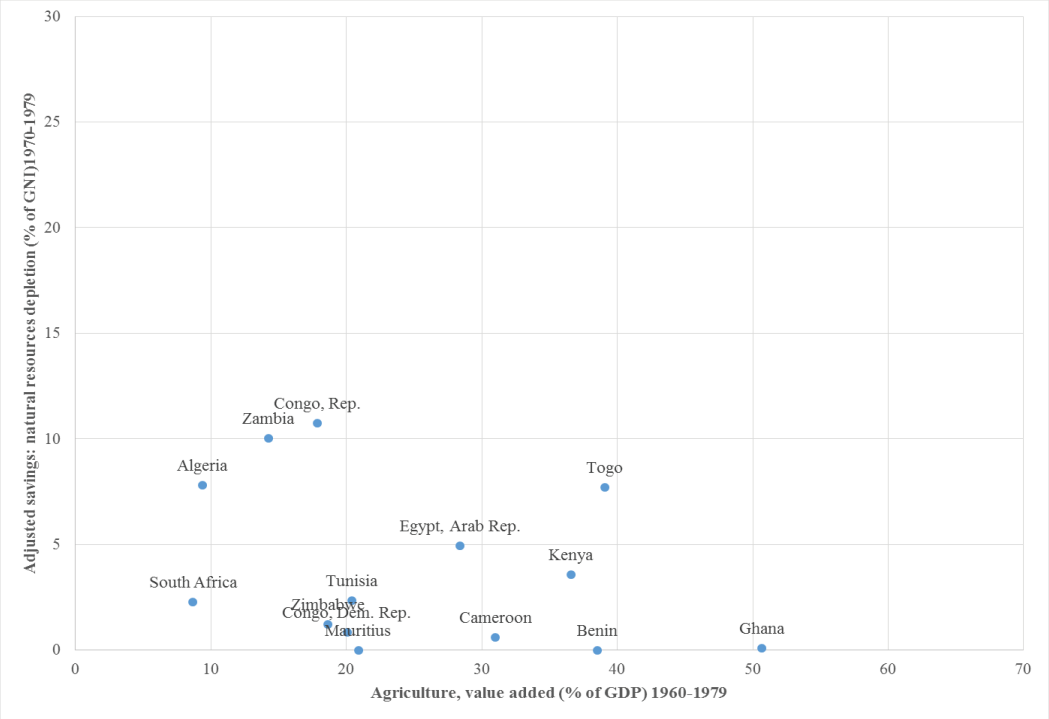
Source: Based on data from the World Bank, 2016b.

continent's emissions per unit of GDP remain very low, below 0.25 kg per 2011 PPP dollars of GDP. The reductions in emissions per unit of GDP in South Africa could be ascribed to the increased emphasis being placed on the impact of economic activities on the environment and the efforts that are being undertaken to address greenhouse gas emissions and to drive the economy towards low carbon development. Several African countries have also stepped up their efforts to address climate change through the implementation of inclusive green economy programmes and other sustainable development programmes, particularly in the high growth phase (2000–2015).

ii. Natural resource extraction

Natural resource and materials extraction (measured by adjusted savings: natural resources depletion (percentage of GNI)) is another measure of environmental pressure from economic activities. In the post-independence phase (1960-1979), the countries with the highest natural resource depletion levels, that is, above 10 per cent of GNI (Zambia and the Congo) incidentally had low agriculture value added (figure 17). Overall, during the post-independence phase, many countries relied on

Figure 17: Adjusted savings: natural resources depletion (percentage of GNI) and agriculture, value added (percentage of GDP), 1960-1979



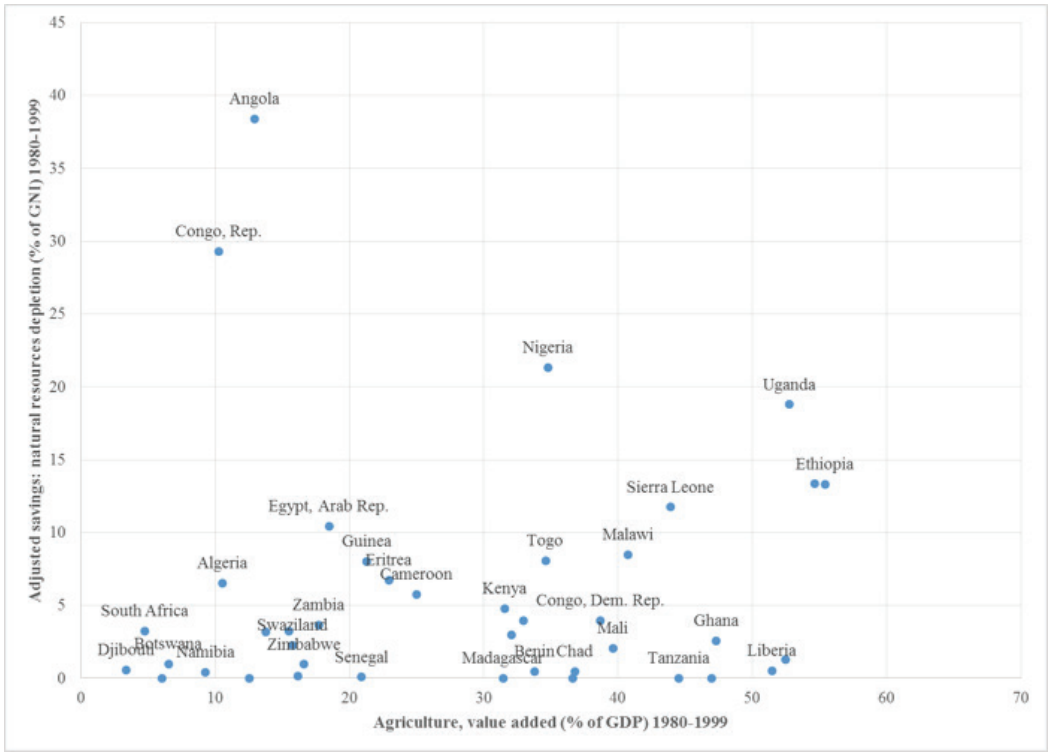
Source: Based on data from the World Bank, 2016.

agriculture as their main economic activity. This did not include Algeria and South Africa, which recorded less than 10 per cent in both natural resource depletion and agriculture value added. The countries recording the highest levels of agriculture value added, above 30 per cent of GDP (such as Benin, Cameroon, Ghana, Kenya and Togo) had low levels of natural resource depletion (less than 10 per cent of GNI).

During the international financial institution-led structural adjustment phase (1980-1999) agriculture continued to contribute substantially to the economies of many African countries. Agriculture contributed more than 30 per cent of GDP in countries such as Ghana, Liberia, Malawi and the United Republic of Tanzania, whose natural resource depletion levels were, however, below 10 per cent of GNI (figure 18). Exceptions were recorded in Ethiopia, Nigeria, Sierra Leone and Uganda, which all had high levels of agriculture value added and natural resource depletion above 10 per cent of GNI. This indicates that other sectors, particularly mining and forestry, contributed substantially to the extraction and depletion of natural resources.

The phase 2000-2015 reveals the increased role of other sectors of the economy as shown by the increased depletion of natural resources and declining agriculture value added (figure 19). Countries such as Angola, the Republic of the Congo, Equatorial Guinea, Gabon and Libya reported the highest natural resource depletion levels (at least 20 per cent of GNI) and very low agriculture value added (below 10 per cent of GDP). Compared to the previous phases discussed above, many more countries show the increased depletion of natural resources in the range 10 to 20 per cent of GNI and agriculture value added of at least 20 per cent (such as Equatorial Guinea, Ghana, Nigeria and Togo). These results reveal the diversification of these economies

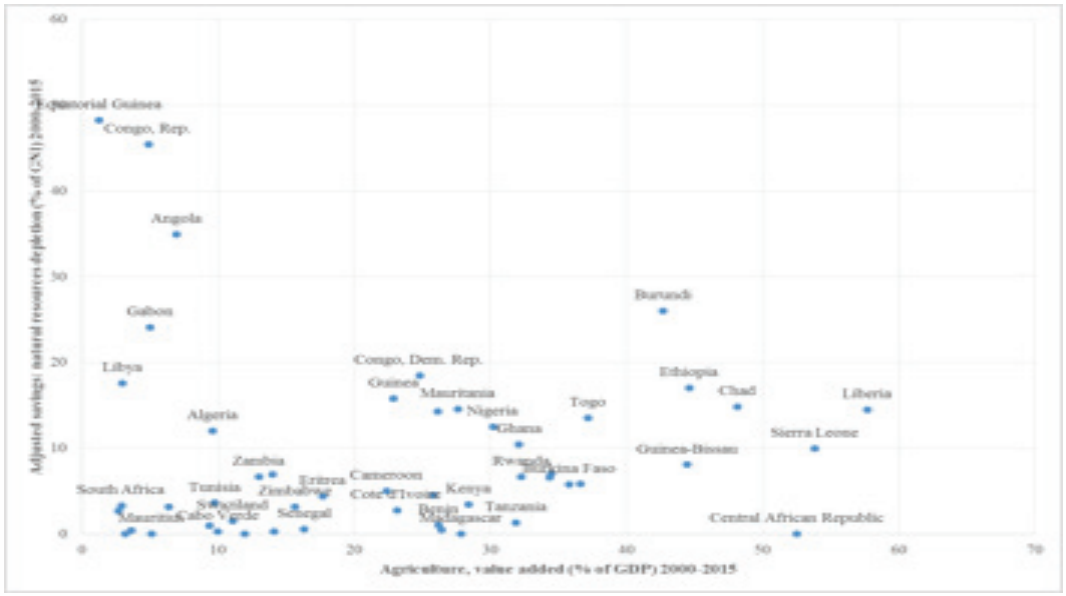
Figure 18: Adjusted savings: natural resources depletion (percentage of GNI) and agriculture, value added (percentage of GDP), 1980-1999



Source: Based on data from the World Bank, 2016.

Note: Swaziland is the former name of Eswatini.

Figure 19: Adjusted savings: natural resources depletion (percentage of GNI) and agriculture, value added (percentage of GDP), 2000-2015



Source: Based on data from the World Bank, 2016.

Note: Swaziland is the former name of Eswatini.

to other economic activities using their natural resources. A number of countries also recorded low levels of both agriculture value added and natural resource depletion, such as Eswatini, Mauritius, South Africa and Tunisia. This might be an indication of growth in other sectors such as the services sectors. Overall, the implementation of macroeconomic policies to advance the inclusive green economy in each country should consider the specific context of each country.

iii. Energy use efficiency

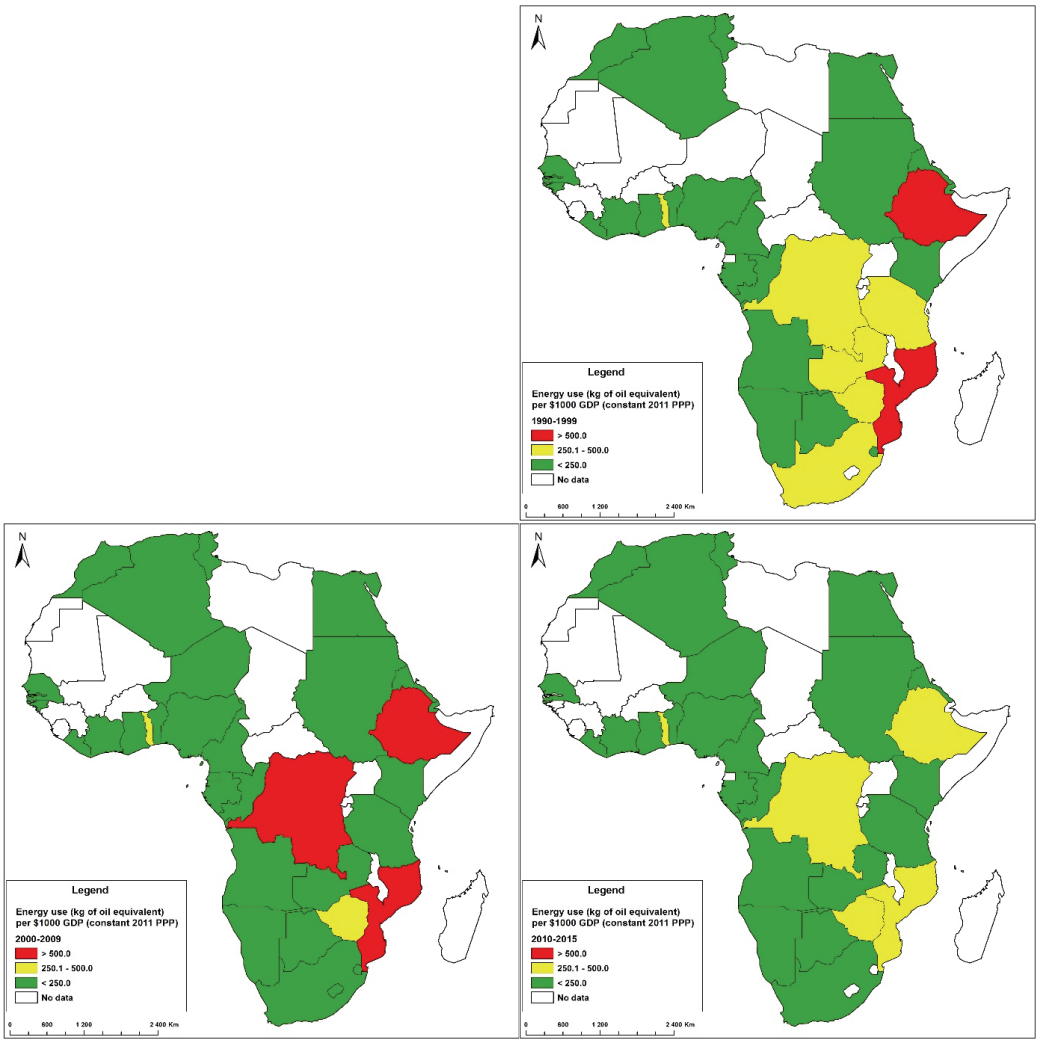
The data on energy use per $1,000 GDP (constant 2011 PPP) indicate a declining trend across the regions (figure 20). In the last decade of the international financial institution-led structural adjustment phase (1990-1999) Ethiopia and Mozambique recorded the highest energy use per $1,000 GDP (constant 2011 PPP). Moreover, energy use was also relatively high for a number of Southern African countries (the Democratic Republic of the Congo, South Africa, Zimbabwe and Zambia). There were improvements in several African countries, and by end of the phase 2010-2015 only a few countries in Southern Africa, as well as Ethiopia in East Africa, recorded energy use per $1,000 GDP (constant 2011 PPP) of between 250-500. Africa therefore consumes less total energy based on the available measure, but at a sectoral or industrial firm level the case may be different. This is also partly explained by the huge gap in energy access, with over 620 million people in Africa lacking access to electricity.

The projected future demand for energy should be of concern to policymakers, as the implications of demand growing by 85 per cent between 2012 and 2040 (EIA, 2016) would place pressure on energy efficiency if renewable energy technology diffusion is slow to replace carbon intensive energy sources. The thrust of the macroeconomic framework for a green economy should be to encourage investment in clean energy alternatives to increase access, thus ensuring that population without access is covered; while at the same time ruling out the possibility that about 560 million people in sub-Saharan Africa could still be without access to electricity in 2030, even after considerable annual investments in renewable energy (EIA, 2016).

During the last decade of the post-independence phase (1970–1979) oil- and coal rich countries in North, West and South Africa relied on oil, gas and coal resources as their main sources of electricity (figure 21). These sources contributed more than 50 per cent of total energy production for these regions. In most parts of the East African region, they contributed between 25 and 50 per cent of each country's total energy production.

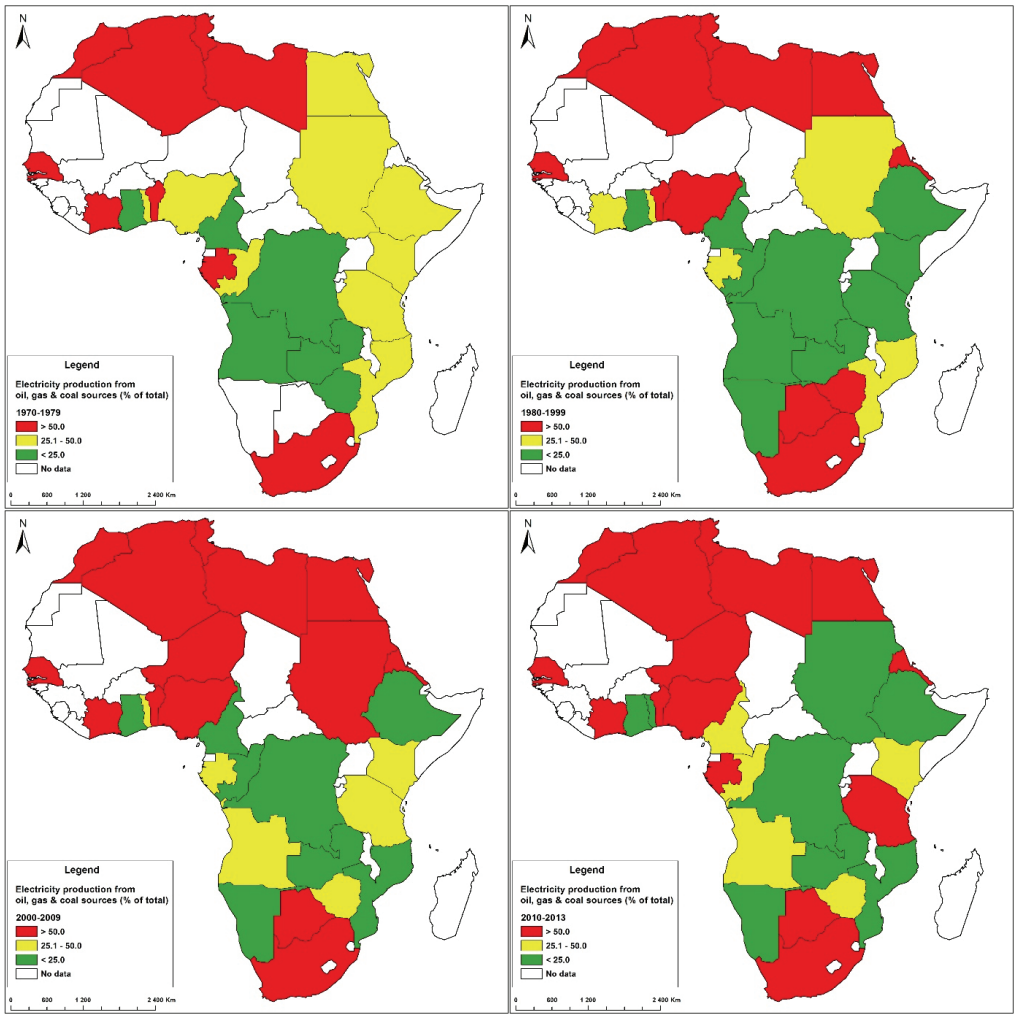
During the international financial institution-led structural adjustment phase, a few more countries (Botswana, Eritrea, Nigeria and Zimbabwe) had more than 50 per cent of their total electricity produced from oil, gas and coal sources. In the high growth phase, more countries in North and West Africa had more than 50 per cent of their electricity produced from oil, gas and coal sources. A significant proportion of the electricity generated in Africa is accordingly from oil, gas and coal sources. The countries with large deposits of these resources have also not leveraged their advantage to invest in alternative renewable sources.

Figure 20: Country energy use (kg of oil equivalent) per $1,000 GDP (constant 2011 PPP)



Source: Based on data from the World Bank, 2016b.

Figure 21: Country electricity production from oil, gas and coal sources (per cent of total)

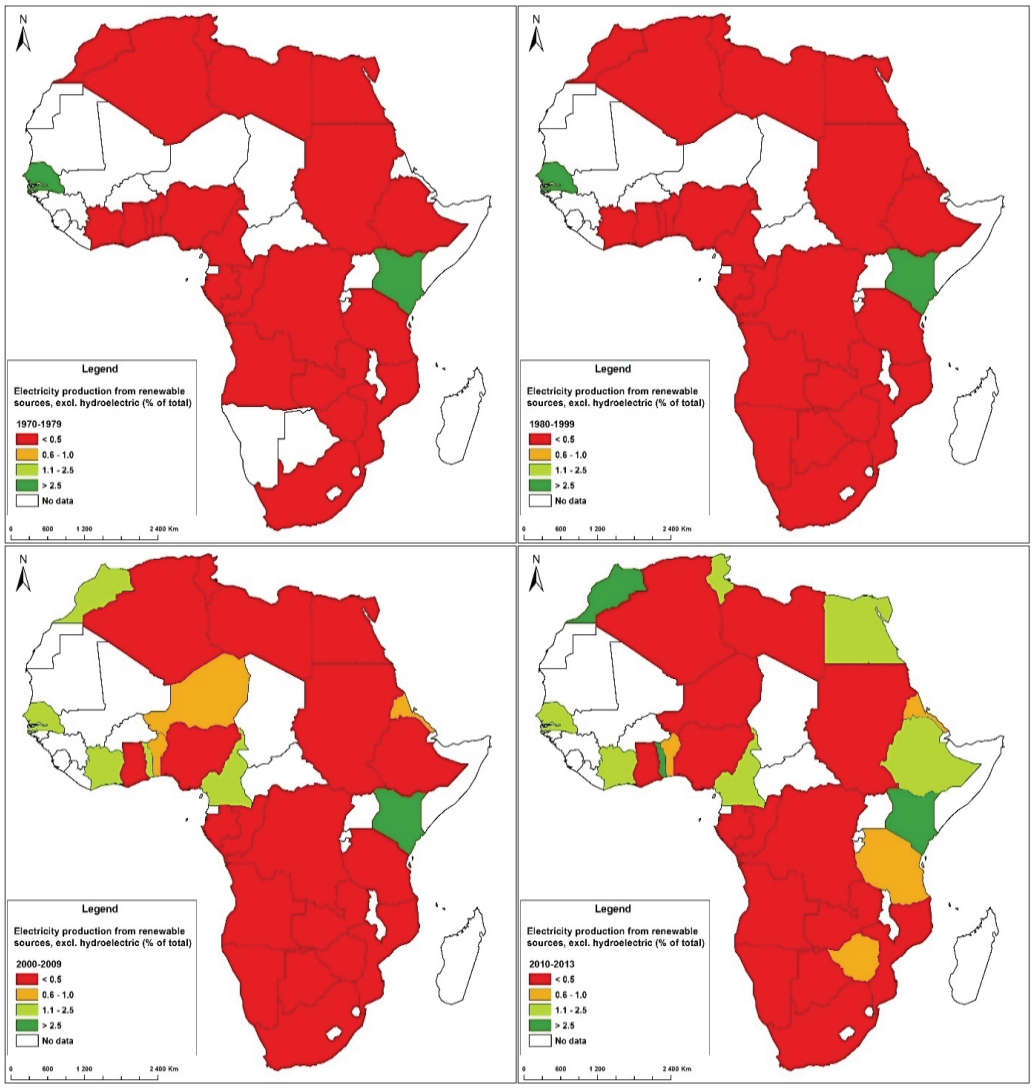


Source: Based on data from the World Bank, 2016b.

Overall, throughout the period 1960 to 2015, the Central and East African regions produced on average 25 to 50 per cent of their energy from oil, gas and coal sources, although most of their electricity was from hydroelectricity. Kenya, Morocco, Rwanda, South Africa and Tunisia are already implementing measures to advance renewable energy production as part of their efforts to guide their economies along a less carbon intensive development path. Electricity production from renewable sources (excluding hydroelectricity) has remained very low, at below 2.5per cent of total electricity produced, despite a rising trend in the past decade and recent years. In the period 1960 to 1999 only Kenya and Senegal were producing at least 2.5 per cent of their electricity from renewable sources (excluding hydroelectricity) (figure 22). From 2012 onwards, several African countries have put in place energy policy measures promoting investments in renewable energy production as part of their efforts to transition their economies into sustainable development and/or inclusive green growth development paths.

Macroeconomic policies such as fiscal policies that support investments in clean production mechanisms, as well as in infrastructure and renewable energy production, would be important in advancing an inclusive green economy agenda while also

Figure 22: Country electricity production from renewable sources, excluding hydroelectricity (per cent of total)



Source: Based on data from the World Bank, 2016b.

improving productivity and efficiency in production and reducing emissions. The challenge, however, is how to address a structural shift away from electricity from oil, gas and coal sources, which are the main source for most African countries. Shifting the energy base could have macroeconomic impacts, including short-term adjustment costs. However, the continuing slump in oil and gas prices might be an opportune window for importing countries to invest their savings in long-term renewable technologies that could reduce their dependency on oil or gas for energy. Renewable energy technology deployment in the region should outpace economic growth if it is to have a reasonable chance of increasing coverage to its population which is currently without electricity.

iv. Summary

The focus of this chapter was on understanding the economic, social and environmental impacts from the implementation of different macroeconomic frameworks. The macroeconomic and development indicators reviewed were grouped into economic,

social and environmental categories. The indicators were analysed on the basis of available data, generally covering the period 1960 to 2015. Each indicator was analysed with emphasis on its implications for macroeconomic policies and the green economy. Overall, in terms of macroeconomic performance indicators the data show differences between the macroeconomic planning phases that were under discussion. There was generally positive economic growth performance in the early years after independence, followed by a period of economic decline during the international financial institution-led structural adjustment reform phase. Economic performance picked up again in the last decade before slowing down after the global economic crises in 2008 and 2009, and in recent years. Moving forward, the post 2015 development phase requires both macroeconomic interventions that will sustain the economic performance of the decade 2000 to 2009 and greater efforts at addressing social development and environmental sustainability.

The social development indicators also point to the general lack of inclusion in the economy, with very little impact of economic growth on poverty and vulnerable populations across the continent. The poverty and inequality statistics indicate that the benefits of economic growth have not been shared equally across the continent and in the individual countries. Macroeconomic interventions facilitating the development of an inclusive green economy are intended to adequately address poverty and inequality, job creation and the provision of improved basic services such as water and sanitation. There may be a need to redistribute the economic gains from economic growth and development, and to ensure that every citizen has an opportunity to engage actively in the green economy.

Environmental indicators, particularly carbon emissions, show that Africa is still emitting insignificant quantities compared to other regions. African countries are also committed to realizing a green future, and as signatories and parties to both the Paris Agreement on Climate Change and the 2030 Agenda for sustainable development, they would need to proactively implement macroeconomic interventions supporting climate-resilient growth and development. Moreover, such interventions should strengthen efficiency in production, responsible consumption, sustainable infrastructure investments, and a structural shift from carbon intensive production to cleaner production-led industrial reforms.

4. Case studies of macroeconomic policies for fostering an inclusive green economy in Africa

i. Overview of macroeconomic policies for fostering an inclusive green economy

The structural transformation agenda in Africa is driven by the need to transform national economies to "create wealth, reduce poverty, minimize inequalities, strengthen productive capacities, enhance social conditions of its people and achieve sustainable development" (ECA, 2013). There is a growing realisation that both future economic growth and social stability are threatened by inaction on growing environmental challenges, as well as on the importance of the sustainable use and management of resources, both now and in future (GIZ, 2015). Macroeconomic policy reforms to develop an inclusive green economy (monetary and fiscal) aim to address market failures and "to get the prices right" through policies such as fiscal taxes and charges on the extraction of scarce natural and environmental resources and also on pollution, with a view to reforming inefficient subsidies (OECD, 2013). Moreover, these macroeconomic reforms focus on creating an enabling environment for private and public investments and innovations in green activities, as well as on inducing behavioural change in production and consumption (OECD, 2013) that will contribute to sustainable development while simultaneously addressing environmental and social goals.

Macroeconomic policy reforms that governments in Africa can implement to promote resource efficiency and the development of an inclusive green economy can be grouped into the following three categories: (a) reward/penalize – these reforms reward (penalize) resource efficient (inefficient) behaviour by economic actors; (b) motivate – this category of reforms aims to provide economic actors with incentives and support for resource efficiency; and (c) support – this category focuses on providing support to economic actors (producers and consumers) to strengthen the implementation of resource efficiency measures (Tyson and Kuhndt, 2007). Developing countries are introducing new approaches such as financial and economic measures and are modifying some policy approaches from the developed world (such as regulatory measures) to fit their circumstances (UNIDO, 2011). However, as discussed earlier, a green economy is founded on a structural reform of the existing economy, with environmental sustainability and social inclusion providing the necessary checks and balances.

Specific monetary and fiscal policies and examples of their application in Africa are discussed in the sub-sections below. The discussion identifies macroeconomic policies that have been implemented in African countries to advance the implementation of an inclusive green economy. In this regard it is important to note that past macroeconomic policies were not primarily focused on facilitating the development of an inclusive green economy.

ii. Monetary policies for a green economy

Monetary policy directly affects the availability of financial resources which are critical for the implementation of investments in an inclusive green economy. Moreover, the limited development of financial markets negatively affects access to credit, especially among small and medium-size enterprises and smallholder farmers. Measures to address these constraints are critical to facilitate investments in green activities.

An adequate supply of financial resources is essential for the realisation of inclusive green economy goals and targets and for achieving sustainable development in the continent. Monetary reforms are critical to ensure that African countries effectively mobilize appropriate financial resources from domestic, international, and public and private sources for the implementation of inclusive green economy programmes. These reforms should ensure that the financial and capital markets in Africa are aligned with sustainable development goals (UNEP, 2015a).

Restrictive monetary policies such as a credit crunch or exchange controls affect access to productive assets and the investment potential of an economy. Alternatively, a monetary policy that enhances access to credit and financial services, such as the deepening of financial markets, facilitates investments in an economy. The transition to an inclusive green economy can be facilitated by preferential credit to priority sectors with high employment and high investment multipliers, as well as to natural resource-based sectors (ECA, 2016a). Beyond the management of macroeconomic stability to promote domestic and foreign investments, monetary policy should be designed with resource gaps to achieve sustainable development goals in mind (ECA, 2016c). This would require close collaboration and cooperation between monetary authorities and planners in the ministries which are responsible for financial and economic management.

The regulatory environment can address biases and inertia against the green economy. However, excessive regulations can increase the costs of green investments, making them unattractive while, on the other hand, reduced regulations can hamper incentives for green investments. Countries with a well-developed domestic private sector can design and implement a range of policy instruments to promote green economy investments. In situations where the domestic private sector is less developed more effort is required to attract foreign direct investment and to invest public resources in priority green activities and sectors (ECA, 2016a). The macroeconomic framework should also aim to facilitate the creation of positive relationships between the public and private sectors. This can help leverage resources from both sides, for example through the synergy of public-private partnerships, to help provide much-needed resources for investments and innovations in an inclusive green economy.

Based on the UNEP inquiry on aligning the financial system with sustainable development, many of the monetary and financial reforms for inclusive green growth and sustainable development are still at early stages of development, and have largely been introduced in individual countries in an ad hoc manner. Some of the financial reforms that African countries can implement to mobilize financial resources for inclusive green economy programmes include green and inclusive credit guidelines

and incentives, green bonds, extended fiduciary and sustainable stock exchanges (UNEP, 2015a).

a. Green bonds

Green bonds and associated certification and oversight aim to attract new sources of finance. Some countries in the region have a capacity to attract green bond issuances in local currencies, for example, in 2015 the International Finance Corporation (IFC) issued a ZAR1 billion green bond on the Johannesburg Stock Exchange, with a local bank, the First Rand Bank Limited, as the anchor investor.[5] It is critical to understand that strong financial institutions are important for bond issuances, as success depends on several factors, including liquidity in the market. Also, in the case of South Africa, the first green bond to be listed on the Johannesburg Stock Exchange was the 1.46 billion rand ($140 million) bond issued by the City of Johannesburg to fund climate change mitigation including the installation of solar water heaters, gas and natural energy investments. Cape Town also recently sold an oversubscribed green bond, raising more than four times the amount initially intended to 29 investors in a closed auction.[6] These green bond issuances are challenging perceptions that green economy investments are risky and unattractive to the private sector, which is itself implementing most of the projects.

The African Development Bank has also been disbursing green loans and credit to specific projects in various countries. The projects range from renewable energy, water saving, transport, farm income enhancement and forest conservation to sustainable infrastructure (table 4).

b. Green funds

Many countries in Africa, such as Ethiopia, Kenya, Rwanda and South Africa have designed or are designing intermediaries, economic and financial instruments and financial planning systems to facilitate the transition to a climate-resilient green economy (Kaur and others, 2014). For example, Ethiopia established a facility to mobilize and disburse climate finance for climate-resilient green economy investments, while South Africa established its Green Fund to facilitate investments in green initiatives in the country.

The Government of Ethiopia established a climate-resilient green economy, that is, it implemented a strategy, which was the main framework for the green growth that was crucial to the country's national development goal of becoming a middle-income country by 2025 (Government of Ethiopia, 2011a). The climate-resilient green economy facility is a national intermediary for mobilizing and disbursing climate finance for such investments. That facility consolidates all funding for investments in the country and helps with the coordination of activities. This contributes to the reduced transaction costs, fragmentation and duplication associated with the implementation of uncoordinated projects. The climate-resilient green economy facility allocated $20.8 million to six core climate-resilient green economy sectors in

5 South Africa, see www.ifc.org/wps/wcm/connect/91ca0e7f-3819-4c0e-a929-f2753539e6fa/FY16+Green+ Bond+Impact+Report_Final.pdf?MOD=AJPERES

6 See, for details, http://ewn.co.za/2017/07/12/city-of-ct-raises-r4-3bn-with-green-bond; or www.fin24.com/Economy/city-of-cape-town-pleased-with-success-of-first-green-bond-20170712

Table 4: African Development Bank Green Bonds Portfolio*

Country	Projects/Sectors	AfDB finance (in millions of US dollars)	Green bond allocation as of 31 October 2016 (in millions of US dollars)
Cabo Verde	Cabeólica Wind Power Project	16	16
Egypt	Gabal El-Asfar Wastewater Treatment Plant - Stage II, Phase II Project	60	23
Kenya	Lake Turkana Wind Power Project	128	71
Morocco	ONEE Integrated Wind/ Hydro and Rural Electrification Programme; Ouarzazate Solar Power Station Project - Phase I (NOORo 1 power plant); Power Transmission and Distribution Development Project; Ouarzazate Solar Complex Project - Phase II (NOORo II and NOORo III power plants); The National Irrigation Water Saving Programme Support Project (PAPNEEI); and Railway Infrastructure Reinforcement Project	920	441
Rwanda	Kivuwatt Project/ Renewable Energy	25	25
Seychelles	Mahe Sustainable Water Augmentation project	21	0.2
South Africa	Transnet rail; Xina Solar One Project; and Eskom Renewable Energy Project - Sere Wind Facility	324	261
United Republic of Tanzania	Dar Es Salaam Bus Project	97	0.3
Tunisia	The Electricity Distribution Networks Rehabilitation and Restructuring Project; and the Project to improve the Quality of Treated Water	89	56
Uganda	Farm Income Enhancement and Forestry Conservation Programme and Uganda Rural Electricity Access Project	177	1.34
Zambia	Ithezi-Tezhi Power Project/ Renewable energy	35	35

* www.afdb.org/en/topics-and-sectors/initiatives-partnerships/green-bond-program/portfolio-selection/

January 2014 to prepare and implement fast-track investments aimed at promoting economic growth, reducing greenhouse gas emissions and building resilience to climate change (Ministry of Finance and Economic Development, 2015). A total of $150 billion is expected to be raised over the first 10 years for investment in climate-resilient green economy initiatives (IIED, 2016). Most of these are now synchronized and integrated with the country's national development framework, the growth and transformation plan.

The Government of South Africa, through the Department of Environmental Affairs, established the Green Fund a catalyst in the transition towards a green economy. The fund is supported by a very strong institutional and policy framework including the Green Accord, the New Growth Path, and the National Development Plan aimed at promoting green growth in the country (Government of South Africa, 2012). The government made available 1.1 billion rand over three years, to initiate the fund. The fund is managed by the Development Bank of South Africa on behalf of the Department of Environmental Affairs. The fund aims to provide catalytic finance to facilitate investment in green initiatives that will support poverty reduction and job creation, and is designed as an additional and complementary resource to existing fiscal allocations that support the transitioning of the South African economy to a low carbon, resource efficient and climateresilient growth path. The fund is also designed to respond in the following ways to market weaknesses that are currently hampering South Africa's transition to a green economy by promoting innovative and high impact green programmes and projects; reinforcing climate policy objectives through green interventions; building an evidence base for the expansion of the green economy; and attracting additional resources to support South Africa's green economy development (Government of South Africa, 2012, 2013).

c. Financial regulation and extended fiduciary

Institutional investors, pension funds, insurance companies, sovereign wealth funds and other State-owned investment vehicles provide an important source of long-term finance for development. Some countries have used extended fiduciary regulations to nudge investors towards more responsible and sustainable investment behaviour. However, because environmental, social and governance reporting is generally not obligatory in most countries, those which respond are only responding to investor preferences concerning risk, portfolio profiles and other standards. Fiduciary regulations only place obligations on agents managing other people's wealth and assets to prudently manage and transparently report to their clients.

In South Africa, adjustments to regulation 28 on pension funds only impose asset diversification principles on all private retirement funds assets over a certain size. The principle has been credited for channelling investment into domestic assets, although it has no explicit requirement for holdings of green assets other than that assets must pass through environmental, social and governance reviews (UNEP, 2014a; 2016a). However, South Africa is unique in that, in 2004, the Johannesburg Stock Exchange became the first stock exchange in emerging markets to create a socially responsible investment index. In 2012, the Johannesburg Stock Exchange announced that 70 per cent of listed companies fulfil the basic requirements for becoming constituents of its 2012 socially responsible investment index. Although the index only became obligatory in 2013 for all companies that form the FTSE/Johannesburg Stock Exchange

All Share Index, its impact on the behaviour of investors is clearly positive, given the number of companies that voluntarily report their socially responsible investment.[7]

The Johannesburg Stock Exchange is the most advanced stock exchange in Africa. With 322 listed companies and market capitalisation of about $338 billion, it is probably the world leader in sustainability reporting, with companies required to comply with the King Code, a sustainability disclosure requirement. Listed companies must report consolidated financial and environmental, social and governance information on a "comply and explain" basis. Other regulations supporting sustainability reporting in South Africa include: (a) the 2009 Mineral Resources and Petroleum Bill, which requires certain companies to disclose social and labour plans to the government, addressing current and post operations social impacts; (b) the 2008 Companies Act, which makes directors liable for performance and the public disclosure of information; and (c) the 2004 Broad-Based Black Empowerment Act, which requires the disclosure of corporate initiatives regarding black empowerment.

In a survey conducted in sub-Saharan Africa by the Association of Chartered Certified Accountants (ACCA, 2014), it was found that the level of sustainability reporting among listed companies in the rest of the region excluding South Africa was very low, with only 13 companies (15 per cent) reporting, through either a sustainability report, a combined report or an integrated report. Although several stock exchanges including the Ghana Stock Exchange, the Stock Exchange of Mauritius, the Nigerian Stock Exchange and the Zimbabwean Stock Exchange are taking steps to put in place environmental, social and governance reporting requirements, most of these reports are voluntary (ACCA, 2014). There is therefore more scope for stock exchanges to influence sustainability reporting, for example by extending sustainable stock market initiatives involving sustainability-related disclosures, indexes and associated tracker funds rolled out in several African countries including Egypt, Nigeria and South Africa.

d. Financial incentives

The development of inclusive green businesses in many African countries is constrained by accessibility to financial resources to facilitate investments, particularly by small and medium-size enterprises. Financial instruments that governments can use to promote investments in an inclusive green economy include risk management instruments such as guarantees and insurance, concessional loans, capital instruments of equity and debt finance and preferential environmental financing to promote resource efficiency measures (Kaur and others, 2014; UNIDO, 2011). For example, the financial instruments planned by the Ethiopian Government through the climate-resilient green economy (facility in supporting such investments include grants, concessional loans and results-based payments. The Government of Rwanda, through its Fund for Environment and Climate Change (known as FONERWA), planned to implement financial instruments in a phased approach including short-term (operating up to one year), medium-term (operating for two to five years) and long-term (more than five years) financial instruments. The short-term instruments include in-kind support (for example, grants for public sector investments and technical assistance); medium-

7 The Johannesburg Stock Exchange socially responsible investment index has no exclusions or down weightings of specific industries or sectors. Ethical Investment Research Services is the data provider (UNEP, 2014a).

term instruments include guarantees and low interest or concessional loans, while long-term instruments include equity investments (Kaur and others, 2014).

iii. Fiscal policy reforms for the green economy

Environmental fiscal reform refers to "a range of taxation or pricing instruments that can raise revenue, while simultaneously furthering environmental goals" (World Bank, 2005a). Such fiscal policy reform includes the following measures: the introduction of environmental taxes and instruments such as carbon taxes, charges and levies to discourage environmentally unsustainable practices (such as pollution charges); subsidies, grants and subsidized loans to reward environmental performance; and incentives such as removing environmentally harmful subsidies; and direct public expenditure on low carbon infrastructure (UNEP, 2011). The policy reforms may also include taxes and charges on natural resources extraction, environmentally damaging products (such as fossil fuels), or harmful by-products of production or consumption such as industrial pollution and waste (AfDB, 2012a; Jones, 2011; OECD, 2013; UNIDO, 2011; World Bank, 2005a).

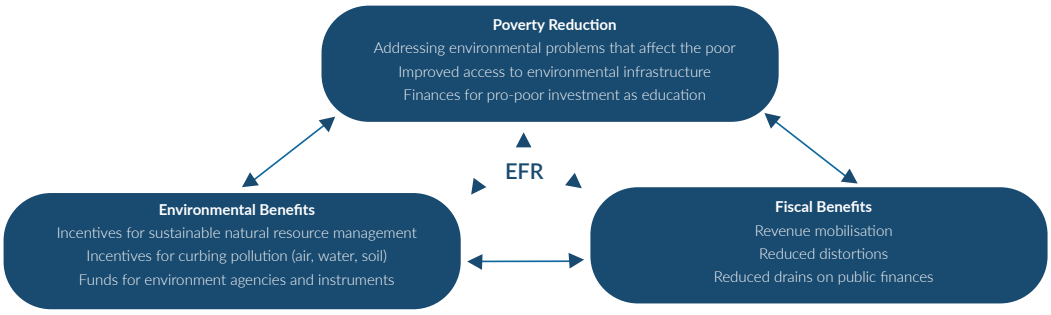
Environmental tax reforms/measures are usually intended to address a range of other economic and social objectives such as raising public revenues beyond meeting environmental goals (Jones, 2011). Overall, fiscal policy reforms can contribute the following three main benefits: mobilizing resources for governments; improving environmental management practices; and reducing poverty (figure 23). Fiscal reforms can also help mobilize revenues that can be invested in poverty reduction and environmental management programmes. Also, by encouraging the sustainable use of natural resources and reducing pollution, environmental fiscal reform can contribute to adopting solutions to environmental problems that improve the well-being of the poor (World Bank, 2005a). Many countries in Africa have implemented environmental tax measures with significant environmental, fiscal and social impacts.

Fiscal instruments affect pricing through taxation and subsidies, therefore stimulating behavioural change affecting both production and consumption patterns. For example, direct grants or tax credits are usually used to support business research and devlopment, especially in developed countries, as in the Canadian province of Quebeq, which provides a 20 per cent tax credit for environmental technology investments (UNIDO, 2011). Similar policies and measures can be applied in developing countires to incentivise local businesses to invest in green activities. Several African countries such as Ghana (UNEP, 2014b), Kenya (UNEP, 2016b), Mauritius (UNEP, 2014c), Mozambique (UNEP, 2015b) and South Africa (UNEP, 2013) are already implementing various fiscal reforms, for example by introducing environmental taxes, removing environmentally harmful subsidies and reallocating budget expenditures to promote investments in green sectors (UNEP, 2015c). Some macroeconomic fiscal reforms and examples of their application in African economies are discussed below.

a. Public budgets at all levels of government

The public budget is an important tool for resource mobilization and allocation. In a developing country context, where resource scarcity and financing gaps put pressure on budget allocations, there is a need for a better alignment of national development

Figure 23: The benefits of environmental fiscal policy reforms



Source: World Bank, 2005a.

priorities. The critical role of environmental fiscal policy reform is to mobilize and reallocate resources as appropriate, to avoid creating distortions and tax burdens in the economy. Although the transition to a green economy may require a huge initial investment, a government budget is the best tool to allocate resources to investments linked to in-country socioeconomic developments, such as the energy infrastructure, railroad transport links and the schools and hospitals needed to meet development goals.

For example, the Government of South Africa made several budget commitments to the Green Fund to support research and development in the renewable energy sector. Such support is critical, particularly where markets are currently non-existent, especially involving energy technologies with long gestation periods which are a disincentive to private investment (UNIDO, 2011). Funding for renewable energy independent power producer procurement programmes is justified by the need to address market failures and additional knowledge spillover benefits accruing to society from implementing the programmes (box 1).

Box 1: Financing green infrastructure - South Africa's renewable energy independent power producer procurement programme

The renewable energy independent power producer procurement programme was launched by the Government of South Africa in 2011 as part of its efforts to increase the proportion of renewable energy in the national electricity supply. The programme aims to procure grid-connected renewable electricity from independent power producers through a competitive tender process. The selected independent power producers received power purchase agreements backed by a sovereign guarantee that helped provide attractive low-risk cash flow for successful projects. In addition to reducing risk, the design helped increase confidence in the programme and the improved bankability of the projects. The programme successfully mobilized large-scale private sector investment. After it was launched, South Africa was ranked in the top ten clean energy investment countries by Bloomberg New Energy Finance. The Government of South Africa managed to procure 3,922 MW from 64 independent power producers and $14 billion in private sector commitment over three competitive rounds of bidding. This example demonstrates that in-country financial legislation and regulation can facilitate the mobilization of capital in the private sector for large-scale, low-risk green projects using commercialized technologies and benefit from economies of scale and sovereign guarantees. Moreover, the competitive and transparent design of South Africa's renewable energy procurement programme and the mitigation of key risk by Government have contributed to the success of the programme.

Source: UNEP, 2016a.

b. Environmental charges and taxes

Instruments of the public budget, environmental taxes and charges also have a special place in environmental policy. A review of charges and environmental taxes has been used to mobilize resources, and to support povetry reduction and environmental management initiatives that have synergies, in some cases, or distributional trade-offs in other cases. Environmental taxes could have positive social outcomes when viewed as part of a comprehensive mix of policies together with regulatory and other instruments for better socioeconomic and environmental management outcomes. Fiscal reforms can be used to address environmental problems that affect the poor, to improve access to environmental infrastructure and to increase the financing of pro-poor investments such as education. Environmental taxes and charges are therefore useful in changing the incentives for sustainable natural resource management and for curbing air, water and soil pollution. They can incentivise funds for environment agencies and instruments, while also reducing the drain on public finances (World Bank, 2005a).

Fiscal revenues from tax reforms provide an important public revenue base for many governments in Africa. For example, at least 70 per cent of total government revenues in Algeria, Angola, the Democratic Republic of the Congo, Equatorial Guinea, Libya and Nigeria were derived from taxing the extraction of natural resources including petroleum (Daniel and others, 2010). Fiscal arrangements have also been revised in many countries responding to the commodity price boom before the global economic

Box 2: Fiscal policy reforms in Mozambique

Description and objectives: Mozambique, is now in the process of undertaking macroeconomic fiscal policy reviews to help create an enabling environment for supporting the implementation of development and green growth policies. The initiatives are aimed at supporting the development and competitiveness of the local economy and include:

- Mozambique is developing a tax code review of value added tax to stimulate increased agricultural marketing, while also broadening the tax base and developing agri-business
- The allocation of agricultural equipment in areas of high agro-ecological potential in order to increase the level of agricultural mechanization, to stimulate increased production and productivity
- The revision of customs tariffs in order to stimulate the development of industry in Mozambique and the substitution of imports of essential goods by domestic production
- The approval and implementation of surcharges and other "anti-dumping" measures for industry to protect domestic products from competition with imported products
- Simplifying procedures and removing barriers in order to revitalize national maritime trade and to promote the use of rail to improve the flow of raw materials and domestic production to reduce transaction costs and improve the competitiveness of Mozambican companies
- The operationalization of a private central credit register and a central collateral registry to ensure improved access to and cost of credit in Mozambique
- The revision of Decree No. 15/2010 of 24 May, to increase the margin of preference given to domestic products in purchases made by the State and other public institutions

Results/outcomes: The intended outcomes of fiscal reforms in Mozambique are to encourage the sustainable use of natural resources, to generate fiscal revenue that the Government can use to strengthen the implementation of inclusive green economy interventions.

Source: Primary survey data, 2016.

crises (Jones, 2011). For example, Zambia introduced windfall taxes on certain mineral resources driven by the limitations of existing fiscal regimes to ensure that the government can remain profitable (Daniel and others, 2010). Mozambique is also in the process of reforming its tax code to introduce various resource-specific levies and incentives across multiple economic sectors (box 2).

Environmental taxes have been applied in various forms, but the most common are levied on a physical unit or proxy with a specific scientifically proven negative impact on the environment.[8] Cameroon introduced a forest taxation regime to promote

8 http://ec.europa.eu/eurostat/web/environment/environmental-taxes.

sustainable forest management, to encourage more local processing and equitable sharing of forest rents as well as to improve governance and transparency in the forest sector (box 3). The forest tax regime changed the fiscal structure (shifting the tax basis from the product to the area of the concession) and introduced the auctioning of harvesting rights and regulations that limited the harvesting area to one-thirtieth of the concession areas and also banned exports of logs (Topa and others, 2009).

Box 3: Application of environmental fiscal reform in the forestry sector and its impacts in Cameroon

Description of problem: Various reforms can be applied to get rents from timber extraction including stumpage taxes levied on timber harvested by either value or volume or on timber exported; charges per hectare of concession, taxes on corporate profits or income taxes; State participation in the industry; or auctions of timber concessions combined with deposit-refunding systems. The forestry sector significantly contributes to the economy, employment and export earnings in Cameroon. The country is the largest African exporter of wood (both in volume and value) and possesses the largest wood-processing capacity. The forestry sector in Cameroon was part of an organsied clientle until the 1990s involving sectoral institutions such as the Forest Department which operated as the gatekeeper of harvesting rights. Also involved were the ministerial-level and higher authorities who had direct relations with the timber industry and other vested interest groups. However, the forestry sector was rampant with corruption that was damaging the sector in many ways, including diverting much-needed public resources and demoralising civil society. This discouraged high quality investors from investing in Cameroon and undermined the confidence of the public in the State and political system. In 1998, Cameroon, bowing to international pressure, decided to implement reforms in the forestry sector as part of the Government's willingness and capacity to move away from past corrupt practices and to improve the country's image internationally.

Policy intervention and objectives: The Government introduced governance and transparency reforms that included the participation of independent observers in bid evaluation and concession award commissioning, as well as control operations in the field. Moreover, the reforms included a system of guarantees to ensure that forest taxes were paid punctually and in full and that records of crimes committed against forest as public property were made publicly available.

Results and outcomes: The implementation of the reforms has been evaluated using many direct and indirect indicators, including some that relate to tax and fiscal issues. For example, millions of US dollars have been paid to settle charges of illegal logging and criminal forest activities, and there has been an over 90 per cent recovery rate for forest fees and taxes. This has resulted in significant growth in the contribution of the forest sector to the economy of Cameroon. There have also been substantial increases in fiscal revenues to State and local governing bodies, from about $5 million to $50 million per annum, and from close to zero to $9 million per annum respectively. The reforms have also

contributed to improve the general investment climate in the country, attracting investors to invest more in the country.

The experience in Cameroon demonstrates that the careful design and implementation of environmental and fiscal reform can, together with regulatory and other instruments, significantly contribute to generating socioeconomic and environmental benefits. As with any other environmental and fiscal reform , care should be taken to ensure that trade-offs between economic, environmental and poverty reduction benefits are addressed in the design and implementation of these reforms.

Source: World Bank, 2005a.

Environmentally related taxes and pricing instruments are effective in promoting green growth, as they represent a cost imposed on the production or consumption of the environmentally harmful activity, thereby creating disincentives for the activity. The application of environmental taxes varies widely across Africa, but several countries in Africa including Cameroon, Mauritius, South Africa and Rwanda have been reporting significant profit margins in revenue collected from environmental taxes and charges (table 5).

c. Subsidies and grants

Increased environmental sustainability concerns and pressures for fiscal consolidation have heightened interest in broader green fiscal reforms (Jones, 2011). The priority reform areas include, according to Jones (2011), removing current preferential rates and exemptions on environmentally harmful goods and removing transfers to firms under emissions trading markets); and exploiting potential new bases for environmental charging in energy, water, waste, certain chemicals, and exhaustible natural resources.

Table 5: Environmental taxes and charges

Country	As a share of GDP, 2014 (per cent)	As a share of total tax revenue, 2014 (per cent)
Cameroon	0.81	5.04
Côte d'Ivoire	0.09	0.53
Mauritius	2.68	13.43
South Africa	2.29	8.22
Senegal	1.63	8.1
Rwanda	1.19	7.38
Tunisia	1.15	3.77
OECD	1.56	5.07

Source: OECD database.*

http://stats.oecd.org/Index.aspx?DataSetCode=ENV_ENVPOLICY.

Box 4: Low-interest bank loans and capital subsidies for solar energy in Tunisia

In December 2009, the Government of Tunisia established the first national solar energy plan with the objective of increasing the proportion of renewable energy sources from 1 to 4.3 per cent in 2014. The plan includes the use of solar photovoltaic systems, solar water heating systems and solar concentrated power units for electricity generation. The energy savings expected to result from the solar energy plan could reach 22 per cent for 2016, with a reduction of 1.3 million tonnes per year of CO2.

Within the framework of the national solar energy plan, the Government established the Tunisian solar programme – a joint initiative of the Tunisian National Agency for Energy Conservation, the State utility Société Tunisienne de l'Electricité et de Gaz, the United Nations Environment Programme and the Italian Ministry for the Environment, Land and Sea. The Tunisian solar programme provides an example of solar thermal market development using economic instruments. Financial and fiscal support for the programme combines a capital grant qualifying for value-added tax exemption, a customs duty reduction and a bank loan with reduced interest rates.

The Government provides a subsidy of 20 per cent of the system cost, while customers are expected to finance a minimum of 10 per cent of the purchase and installation costs. As a result of the programme, over 50,000 Tunisian families now get their hot water from the sun based on loans. As of 2008, the Tunisian solar programme helped avoid 214,000 tonnes of cumulative CO2 emissions. Jobs have also been created, as 42 technology suppliers were officially registered and at least one thousand companies installed the systems.

Source: UNEP, 2010. Green Economy, Developing countries success stories.

Some environmentally harmful subsidies have several undesirable characteristics. They drain public resources and deprive developing countries of resources that could be deployed to reduce poverty and meet other social development goals. For instance, the fiscal cost of fuel subsidies, taking into account both direct subsidies and foregone taxes amounted to 1.4 per cent of Africa's GDP in 2012 (IMF, 2013). The removal of such subsidies can help reduce distortions in the economy that incentivise environmentally damaging behaviour and, in the process, can reduce pollution and the consumption of scarce resources. The removal of distortions in the market helps increase efficiency in the economy and can help to free up large amounts of government revenue that can be invested in other priority areas such as poverty reduction programmes.

Some subsidies inhibit technological change, and may lockn inefficient technologies or processes. Policy initiatives for promoting investments and for the uptake of renewable energy across Africa are usually aimed at replacing fossil-based power generation plants. Examples include the removal of subsidies on fossil fuels, capital cost subsidies, and financing and loans mechanisms for solar plans in Tunisia and Morocco (UNEP, 2010) (box 4). The removal of these ineffiecient subsidies helps

create a level playing field enabling clean and newer technologies to compete with established industries (GIZ, 2014).

Overall, removing environmentally harmful subsidies has the potential to generate fiscal space for new investments in green sectors and the provision of basic social services. For example, the removal of fossil fuel subsidies by the Government of Ghana in 2013 freed up public resources (about $1 billion per year) that would be reallocated to the implementation of inclusive green economy policies (UNEP, 2014b; GIZ 2014). Additional financial resources created from introducing and implementing green fiscal reforms can be allocated to finance social protection, education and health and for research and development to stimulate further innovation and investments in green sectors (UNEP, 2015c).

d. Aligning public expenditures with green growth objectives

Public environmental expenditure reviews help with the systematic assessment of the "equity, efficiency and effectiveness of public environmental spending" and can either be stand-alone analysis or part of a wider public expenditure review or country environmental analysis (Markandya, Hamilton and Sanchez-Triana, 2006). Such reviews focus on assessing the efficiency and effectiveness of government resource allocations in the context of environmental priorities by reviewing allocations within and among sectors and or at different national and subnational levels of government (AfDB, 2014). The main question is whether government expenditures are effective in meeting environmental priorities, and not the amount that is spent. The review assesses the equity of resource distribution, as well as local and national sources of financing and the efficiency of the planning, allocation and monitoring of central and decentralised spending (Markandya and others, 2006).

These reviews help governments to identify mismatches in the prioritisation of resource spending on environmental sustainability and natural capital in relation to environmental policies and plans. Further, the outcomes of the reviews help in the design of government budgets, policy reforms and investment projects. For example, such reviews help identify resource gaps and assess potential sources of revenue such as pollution fees or environmental protection levies that can be used to sustain the required levels of environmental protection (Markandya and others, 2006; OECD, 2013). Furthermore, review outcomes can help increase the visibility of environmental issues. The reviews also help to provide a context for environmental policy and key issues, and links to development strategies such as poverty reduction strategy programmes, as well as abasis for sectoral reforms in combination with policy and institutional analysis.

Public environmental expenditure reviews have been carried out in several African countries including Madagascar, Mozambique and the United Republic of Tanzania. For example, reviews in Madagascar helped the Government identify the financial gap for the protected area system which depended on aid for half of its funding, and demonstrated how the protected areas system could generate fiscal revenue for government through ecotourism fees (box 5). In Mozambique, public environmental expenditure reviews focused on the lack of prioritisation in environmental policy and the very weak links between environmental policy and actual expenditures. The Mozambique 2012 review found that planning and budgeting practices in the country

did not allow the easy establishment of a clear link between policies and budget allocation and expenditures. Moreover, despite sharp increases in total expenditure from 115.6 million meticais in 2005 to 354.3 million meticais in 2010 (equivalent to an annual average growth rate of 26 per cent), total environmental expenditure remains at about 0.3per cent of the total State budget and 0.1 per cent of GDP. Some of the recommendations to improve the efficiency and effectiveness of public environmental expenditure in the report of the public environmental expenditure review included the need to introduce a programme-based budget approach (Orçamento Programa) and to place more emphasis on ensuring a clear linkage between planning and budgeting (Republic of Mozambique, 2012).

Another public environmental expenditure review in the United Republic of Tanzania showed that environmental resources were under-priced and that very little revenue was collected in forestry, fisheries and wildlife (only 5-10 per cent of potential forest revenue was collected). On the basis of this assessment the review demonstrated that there was considerable potential to generate fiscal revenue from the proper pricing of environmental resources. The findings of public environmental expenditure reviews have contributed to increasing the environmental budget, linking it to the national development and poverty reduction strategy through the strategic budget allocation system (OECD, 2013).

Box 5: Madagascar public environmental expenditure review - ensuring sustainable funding for environmental protection

Description and objectives: The natural resource base is critical for the sustainable development of Madagascar, especially its rural economy. Deforestation is the main environmental challenge in the country that result in losses of forest resources, biodiversity and tourism revenues, as well as in downstream soil degradation, erosion, flooding and siltation. Although environmental institutions and protected area systems have been established with donors working with Government, the small contribution of donor funding raised questions about the sustainability of the programme. The Madagascar review, as part of sectoral inputs into the 2004 public expenditure review, analysed funding for the protected areas system. The overall objective was to analyse the use of public resources in the environmental sector.

Results/outcomes: The analysis showed that, between 1997 and 2001, at least 50 per cent of total spending on the environment was financed by donors. Moreover, between 1997 and 2003 government environmental expenditures (through the Environment Ministry and environmental agencies) was at least 4 per cent of the government budget, with donor funding included. When donor funding was deducted, government environmental expenditure dropped to about 2.5 per cent. Moreover, the report of the Madagascar review on the use of public resources in the environmental sector also found allocations to that sector were not responding adequately to needs, and mainly comprised capital expenditures (averaging 91 per cent of total expenditure between 1997 and 2004). The report also found that recurrent expenditures were underfunded for

the same period. This had detrimental impacts on the conservation of natural resources in the country.

The Madagascar review helped to identify shortfalls in the development funds required to complete the protected areas systems. Furthermore, the review found that enough additional revenue could be generated from ecotourism, through increasing park fees for foreigners and raising hotel taxes. This revenue could then be used to fund the required investments in the protected areas system. This could also make the operation of the protected areas systems a net source of government fiscal revenue. As discussed above, public environmental expenditure reviews can help to identify resource gaps and to assess potential sources of revenue such as pollution fees or environmental protection levies that can be used to sustain the required levels of environmental protection.

Source: World Bank, 2005b; Markandya and others, 2006.

e. Sustainable public procurement

Sustainable procurement is a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment (Perera and others, 2007; Sustainable Procurement Task Force, 2006). Sustainable and green public procurement measures are being used in many countries to pursue social and environmental goals. Sustainable procurement helps create demand for green goods and services and stimulates behavioural change towards sustainable production and consumption on the part of producers and consumers (UNIDO, 2011).

Sustainable public procurement can stimulate markets for products and services of the inclusive green economy, including by strengthening the development of sustainable innovations and interventions. Furthermore, sustainable public procurement guarantees the availability of a market for enterprises, creating confidence in the economy and boosting the commercialisation of inclusive green innovations (Perera and others, 2007). Governments can promote sustainable investments in infrastructure through the sustainable procurement of goods and services. Furthermore, increased resource efficiency in sustainable public procurement can generate cost-saving opportunities, and there are opportunities for growth in small and medium-size enterprises delivering sustainable goods and services to the public sector.

Moreover addition, sustainable public procurement provides a platform for governments to demonstrate their commitment to addressing environmental and sustainable development challenges such as climate change, environmental degradation and poverty and inequality (Perera and others, 2007). This commitment contributes to strengthen a wider engagement in an inclusive green economy on the part of various agents in the country. It also has the potential to contribute to creating decent employment opportunities, as well as to sustainable activities and improvements in gender and ethnic equity, poverty reduction and improvements in health (OECD, 2013).

Box 6: Sustainable public procurement in Mauritius and Tunisia

Description and objectives of sustainable public procurement interventions: The promotion of sustainable public procurement in developing countries such as Africa has been driven by the Marrakech Task Force on Sustainable Procurement (MTFP) in partnership with UNEP. The MTFP process (2005–2011) was initiated by the Government of Switzerland as part of the task forces under the Marrakech Process on Sustainable Consumption and Production. The Capacity-Building for Sustainable Public Procurement in Developing Countries, which was designed in 2008 with financial support from the European Union, Switzerland and the Organization of Francophone countries. The project piloted the MTFP Approach in a number of developing countries including Mauritius and Tunisia in Africa (GIZ, 2013). Mauritius adopted the national action plan on sustainable public procurement for Mauritius (2011-2015) in 2011. Although Tunisia adopted a national action plan for sustainable public procurement in 2012 and introduced the new rules of public procurement in 2014, enforcement systems are, however, still lacking (ECA, 2015c). The main objective of these interventions is to establish structures and introduce sustainable public procurement and help develop policies on sustainable public procurement, while also raising awareness and providing capacity-building on the subject to various stakeholders such as procurement officers, the private sector etc.

Results and outcomes: Despite the pilot activities that have been implemented in the few African countries indicated above, there is little well-documented evidence of the results of sustainable public procurement interventions in Africa. The recent 2013 and 2016 UNEP reports evaluating the implementation of sustainable public procurement highlight experiences from other non-African mostly developed countries that have implemented sustainable public procurement (e.g. Canada, India, Japan, Thailand and Switzerland).

Many countries, especially in the developed world, have implemented sustainable public procurement principally in relation to environmental goals, although social goals are now growing in importance. Mauritius and Tunisia are examples of African countries that have introduced sustainable public procurement, with support from UNEP (box 6), as well as from Ghana and South Africa, this time with the support of the International Institute for Sustainable Development. Another example is the Common Purchase for Progress initiative introduced by the Government of Rwanda with the aim of purchasing 40 per cent of the national strategic food reserve's requirements (OECD, 2013).

iv. Summary

Macroeconomic policy reforms to advance an inclusive green economy aim to address market failures and "getting the prices right" through policies such as fiscal taxes and charges on the extraction of scarce natural and environmental resources and pollution, and by reforming inefficient subsidies. Macroeconomic policy reforms that governments in Africa are implementing to promote resource efficiency and the development of an inclusive green economy include monetary policy reforms allowing for greater access to green funds through bonds, adjustments to financial regulations, and developing intermediaries and broadening the range of financial instruments.

Financial instruments that governments can use to promote investments in an inclusive green economy include risk management instruments such as guarantees and insurance, grants, concessional loans, capital instruments of equity and debt finance, and preferential environmental financing to promote resource efficiency measures. These measures are usually justified by the need to address market failures and the additional knowledge spillover benefits accruing to society from implementation.

Fiscal instruments affect pricing through taxation and subsidies, and therefore stimulate behavioural change affecting both production and consumption patterns. A number of African countries such as Ghana, Kenya, Mauritius, Mozambique and South Africa are already implementing various fiscal reforms such as introducing environmental taxes, removing environmentally harmful subsidies and reallocating budget expenditures to promote investments in green sectors. Other fiscal policy measures being implemented to foster green growth include environmental tax reforms and instruments such as carbon taxes, charges and levies to discourage environmentally unsustainable practices, as well as subsidies, grants and concessional loans to reward environmental performance, and direct public expenditure on low carbon infrastructure.

The effectiveness and efficiency of a macroeconomic policy reform depends on the existing institutional, legal, social and economic systems. While most of the macroeconomic policy reforms being implemented by African countries are piecemeal or at best ad hoc, there is an opportunity for them to undertake a comprehensive macroeconomic policy review taking into consideration green growth and social policy objectives. A macroeconomic policy framework could foster the transition to a green economy by creating incentives for green behavioural change and for redressing social impacts. Because of their inherent incentive structure, economic and other policy instruments can support shifts of investments towards clean and efficient technologies and natural capital and social infrastructure such as education, health and social protection systems. Choosing an effective policy package that fits in with institutional capabilities and existing policy frameworks accordingly remains a challenge. The following chapters discuss some of the challenges and the opportunities in implementing macroeconomic policy reforms and outline a set of good practices, lessons and recommendations.

5. Challenges and opportunities in implementing macroeconomic policy reforms for an inclusive green economy

i. Introduction

Implementing a macroeconomic policy reform for a green economy is a challenge for the policymaker to transition from the orthodox macroeconomic management of economic growth, employment, and low inflation on one hand, and the extreme balancing act of calibrating the economy to ensure a distribution of welfare that is politically and socially acceptable, with inbuilt environmental safeguards. The parameters of choice offered by traditional macroeconomic policy analysis are therefore inadequate for tracking sustainable development.

Macroeconomic policy reforms are constrained by the political and institutional context in which they are implemented (World Bank, 2005). Because any policy reform would entail trade-offs and win-wins, the process of designing and implementing macroeconomic policies should therefore carefully consider the political and institutional challenges of identifying the winners and losers. This is important to develop mechanisms to ensure widespread support for the reforms and to inform the design of compensatory or mitigation measures for the losers when required. Furthermore, it is critical to understand the views and interests of affected stakeholders such as poor and vulnerable groups, non-poor households, the private sector, and civil society organizations to be able to design effective measures to manage them.

This chapter highlights some of the challenges and opportunities that macroeconomic policy reforms offer green economy transition in Africa. Where possible, these are illustrated using specific country cases or sectors such as agriculture, industry, mining, trade, infrastructure, energy, forestry and fisheries, to concretely provide contexts in which macroeconomic policy interventions can contribute positively to an inclusive green economy.

ii. Challenges

Managing green structural transformation

Most countries have macroeconomic policy frameworks that lean towards the orthodox approach of promoting economic growth, while managing inflation and money supply, and a few other variables. Sustainable development and the green economy are placing new demands on macroeconomic planners in terms of what else to track. The transition to an inclusive green economy includes managing the negative impacts of green structural changes, particularly on traditional economic sectors and vulnerable populations (Jones, 2011; UNEP, 2010). For example, there

Box 7: Macroeconomic policies to advance the achievement of national development priorities in Senegal

Description of weaknesses/trade-offs: Senegal developed the emergent Senegal plan in 2014 whose Axis 1 and Axis 2 directly consider the key characteristics of an inclusive green economy in projects to be implemented. However, Senegal has not yet developed specific fiscal policy measures to foster an inclusive green economy. There are concerns that a green economy may require very restrictive macroeconomic policies that could limit the country's development model. Hence, the conservative view of orienting the economy towards economic rationality prevails over considerations of efficiency and sustainability.

Required remedial actions: There is a need to pursue a balanced macroeconomic policy that combines economic, social and environmental goals. It is also important for the country to design and implement good macroeconomic policies that advance inclusive green economy objectives as a part of national development priorities. A green economy may also be implemented by restructuring projects to advance national development priorities. It is also necessary to upscale at the sectoral level to drive green and inclusive growth, with specific fiscal and monetary policies that will promote the financing of the green economy. Moreover, a well-defined and trackable macroeconomic framework is needed if an inclusive green economy is to develop in Senegal.

Source: Primary survey data, 2016.

would be trade-offs between the cyclical (short-term) and structural (long-term) policy objectives associated with the green economy.

Environmental protection measures like climate change mitigation may help to sustain longer term productivity while in the short term they raise production costs and erode incomes (UNEP, 2010). Many African countries have yet to put in place macroeconomic reforms that are conducive to an inclusive green economy. Senegal is a typical example of a country with strong sustainable development institutions which has yet to implement wide-reaching macroeconomic policy reforms for developing an inclusive green economy (box 7).

Poor design and implementation of macroeconomic policy reforms

The design of macroeconomic policy reforms could heighten the risk of welfare loss by vulnerable groups in the population. For example, Ghana ran a deficit equivalent to 12 per cent of GDP, significantly over the target to retain fuel subsidies. A tax compensating for global and local damages produced by fossil fuels in the generation of electricity and in transportation would increase revenue by about 7 per cent more than revenue collected in 2013 (equivalent to 15.3 per cent of GDP). Whereas in Nigeria, natural gas sold below the market price by Nigeria Liquefied Natural Gas, a State company jointly owned by foreign energy companies Shell, Eni and Total, the under-priced gas sales led to a colossal deficit estimated at $29 billion (UNEP, 2015).

Owing to such deficits there is no funding for priority socioeconomic developments, given that both Ghana and Nigeria have significant gaps in education, health, water

and sanitation. For instance, Nigeria has 10.5 million out-of-school children - the world's highest number, while tens of millions of people still lack access to clean water and proper sanitation.[9] Green fiscal policy reform is not only a driver to create "fiscal space" for green investment and to reduce the use of polluting energy sources, but also improves the government's fiscal balance, allowing resources to flow to other priority sectors. The short-term and long-term impacts of the transition to a green economy should therefore be evaluated and options carefully weighed before macroeconomic reform policies are implemented.

Ensuring the effective alignment of national development objectives with inclusive green economy strategies

Another challenge for macroeconomic policy reforms is how to ensure the effective alignment of inclusive green economy strategies with national development objectives (box 8). Unlike traditional macroeconomic frameworks and targets and indicators which are drawn from national development plans, inclusive green economy plans and strategies are usually standalone, without any direct link or consistency with national development plans (ECA, 2016a). This challenges the capacity of macroeconomic policies to adequately cater for an inclusive green economy (ECA, 2016a). In many cases the introduction and implementation of various macroeconomic reforms to promote innovation and investment in the green economy have been isolated and ad hoc. This was the approach followed by the few countries that led the transition to a green economy in Africa, including Ethiopia and Rwanda. However, Ethiopia's second

Box 8: Alignment of green economy strategies with national development plans in Togo

Description of weaknesses/trade-offs: Togo is in the process of developing its national development plan for the period 2018-2022. The plan integrates sustainable development objectives and focuses on structural transformation. Furthermore, the country is developing a national strategy for sustainable public procurement and its action plan in the context of promoting sustainable consumption and production patterns. The challenge for the country is how to align its macroeconomic policies with its national development priorities, and how to make available enough resources to implement reforms and inclusive green economy interventions when they are designed.

Required remedial actions: The required remedial actions include the improved linking of macroeconomic policies with public investment programming tools (links between the State budget, the programme budget and the public investment programme). There is also a need to widen the tax base by pursuing reforms of the Togolese Revenue Office, as well as to end exemptions that are regressive. Additional measures are also required to mobilize resources for financing green economy projects through the Central Bank of Togo.

Source: Primary survey data, 2016.

9 www.unicef.org/nigeria/overview.html.

national development plan, the growth and transformation plan II now integrates climate-resilient green economy priority interventions.

Domestic resource mobilization with uncompromised growth targets

The transition to a green economy will require upfront public investments that must be financed by both domestic and external resources. However, with aid flows to the region becoming tight, domestic resources will have to be bolstered to meet initial investment costs. The challenge most countries face is how to mobilize domestic resources and to allocate them to deserving economic sectors to stimulate investment in the green economy without compromising other development priorities. Fiscal reforms may be necessary to enhance revenue and macroeconomic performance (ECA, 2015).

Box 9: Implementing macroeconomic policies to advance the achievement of national development priorities and to foster an inclusive green economy in Zambia

Description of weaknesses/trade-offs: Zambia has recently encountered challenges in its efforts to consistently achieve single-digit inflation and restore stability in the exchange rate. However, the inflation rate in Zambia has increased to double digits, which is higher than is desirable. This has contributed to an increased cost of living for the millions of people in the country, exposing many more people to poverty and inequality. Moreover, the opportunities for local investments have been reduced due to increasing costs. Furthermore, the unstable exchange rate has been linked to the volatility in natural resource prices. The overdependence of Zambia on copper negatively affects exchange rates when copper prices are fluctuating. The instability in exchange rates negatively affects investments to advance national priorities, particularly in cases involving the acquisition of resources from outside the country.

Overdependence on copper as the main source of foreign currency export earnings and influencer of the foreign exchange market means that volatility in the copper market affects the whole economy. For example, recent declines in cooper prices have negatively affected foreign currency export earnings for the country. The very high inflation rate also negatively affects investments across the country, including green economy activities, due to high investment costs, particularly for small local businesses. Moreover, efforts to import technologies for the green economy are hampered by the instability in the exchange rate.

Required remedial actions: The required remedial actions include efforts to diversify the economy beyond reliance on copper, to increase the export base. Other actions include efforts by Government to undertake measures to restore the inflation rate to less than 10 per cent, while also ensuring stability in the exchange rate. In addition to diversifying the economy to expand the export earnings base as discussed above, it is important to promote the development of local technologies in the green economy space that do not depend on foreign exchange requirements.

Source: Primary survey data, 2016.

Moreover, reforms may also address the complex challenge of taxation in the informal economy. Efforts aimed at tackling the informal economy should aim to improve tax policy and tax administration (World Bank and PricewaterhouseCoopers, 2016). This is also a grey area for poverty reduction and inequality, as the rise of the informal economy in Africa tends to mask certain aspects such as being the only alternative economic activity for the otherwise unemployed. It is also a response to deindustrialization, and is arguably the most efficient sector in countries trapped in low growth dynamics.

The transition to an inclusive green economy will require radical, proactive and targeted macroeconomic policies beyond traditional approaches preferring non-expansionary policies and fiscal rigour. The challenge for macroeconomic policy is achieving consistent policy objectives regarding inflation, exchange rates, interest rates, external balances, growth in monetary aggregates and labour market and social outcomes (ECA, 2016a) (box 9).

Lack of comprehensive green economy assessments and data

While most nations have statistical offices that monitor various aspects of their economy, society and environment, only a few countries have developed an integrated set of indicators to facilitate an analysis of the inherent trade-offs and interlinkages among the economic, social and environmental dimensions of sustainable development (ECA, 2015). Given that the performance of the macroeconomic environment is often measured by growth rates and prices, macroeconomic policy analysis should be broadened to include green growth outcomes (ECA, 2016a). The challenge is to develop comprehensive green economy assessment frameworks with limited statistical capacity, data availability and quality. The wide range of often complex and country-specific sub-issues and interrelationships covered by macroeconomic policies makes it difficult to measure the conduciveness of the macroeconomic environment with limited data.

The implementation of public environmental expenditure reviews could help countries to assess some of the issues, but of themselves, such reviews also require intensive information. Countries with weak adminstrative systems find it challenging to compile such data. For example, there might not be a framework that defines environmental expenditures. Moreover, detailed environmental budget and expenditure data may not be available, thus requiring the reclassification of expenditure items, something which might not be possible within the limited time that is available. Furthermore, the "measurement of efficiency and effectiveness may be difficult in the absence of expenditure data by output and of effectiveness measures for the environment sector" (Markandya and others, 2006). Another challenge for public environmental expenditure reviews is the sustainability of the environmental budget, especially for developing countries which rely on donor funding to support environmental budgets. Public environmental expenditure reviews should consider environmental expenditures with and without donor funding to measure their own government's environmental resource expenditures (Markandya and others, 2006).

Coordination challenges

A green economy requires strategic policy formulation and coordination to ensure consistency with national development plans relating to economic, social and environmental goals. A macroeconomic framework would offer effective policy coordination across sectors if it is supported by institutions that cut across sectoral, financial and regulatory authorities. The implementation of macroeconomic reforms may face coordination challenges, since individual reforms may implicate other regulatory policies. For example, illegal dumping can become economically attractive when landfill is taxed in accordance with strict regulatory controls. Moreover, some reforms such as general subsidies tend to undermine the relative price changes that are necessary to incentivize the transition to a green economy (Jones, 2011). It would be critical to ensure that the final macroeconomic policy mix addresses these conflicting goals and helps to provide an environment that is conducive to investments in an inclusive green economy.

Upfront costs may impose an additional burden on taxpayers

The implementation of inclusive green growth comes with upfront investment costs that can be incurred by specific groups such as government and industry (GIZ, 2015; Sperling and others, 2012). However, because the benefits of an inclusive green economy might be long-term in some cases, the upfront costs may be prohibitive for small and medium-size enterprises wanting to be actively involved in new economic

Box 10: Implementing macroeconomic policies to advance the achievement of national development priorities and a green economy in South Africa

Description of weaknesses/trade-offs: Fiscal policy in South Africa has been increasingly constrained by high and rising debt service costs, social spending commitments, the public sector wage bill and waste/inefficiencies. This presents a key challenge in terms of funding additional government/State programmes that could benefit the economy. Furthermore, monetary policy cannot exert a direct influence on building/promoting an inclusive green economy.

Required remedial actions: The Government has recognized the need to restrict further increases in the items listed above while maintaining support for the economy and advancing out of the current low economic growth environment. Concerted efforts are being undertaken to cut the public sector wage bill by limiting wage increases and lowering the headcount over the coming years. The Government has also introduced "austerity" measures which aim to restrict spending on non-capital spending budget line items. Spending increases on social welfare programmes are also being kept in line with inflation or below the level of inflation. Moreover, more could be achieved by better aligning incentives for the inclusive green economy – something which will require significant improvement in the Government's overall fiscal position. Imposing a carbon tax may have long-term benefits for the inclusive green economy, but may also reduce output and job creation as companies incur greater transition costs.

Source: Primary survey data, 2016.

opportunities if no measures are in place to facilitate their engagement. Public financing is therefore critical to ensuring that the designed strategies are actually implemented to benefit the intended beneficiaries (box 10).

It is critical for African countries to ensure that they mobilize adequate resources from both domestic and international sources to ensure the implementation of green growth programmes. The successful design and implementation of inclusive green economy interventions should be supported by a thriving financial sector that actively mobilizes financial resources. Ministries of Finance and Treasuries have a critical role to play in both mobilizing and channelling resources for the implementation of inclusive green economy activities, in addition to facilitating private sector investments in the green economy space through attractive financial regulatory frameworks. However, tax reforms should carefully balance the welfare impacts on taxpayers against environmental and social gains.

The trade-off of introducing new market-based or regulatory reforms are concerns regarding increased costs to businesses and potential job losses (UNIDO, 2011) when the businesses cannot afford to sustain the increased costs and are forced to shed some jobs. However, well-designed policy mixes should be able to contribute to substantial cost savings, while also presenting both existing and new businesses with green business opportunities (UNIDO, 2011).

Taxes and levies are designed to induce behavioural change and, in an inclusive green economy, to compensate most affected households and firms. The compensation of affected households and firms including the sustainable environmental use of resources enhances the acceptability of environmental policy reforms and increases fiscal revenues (Jones, 2011). The problem with this is, however, that the economic rationale for environmental taxes is usually weak and the effective management of public finances might be constrained if these taxes are tightly earmarked. However, appropriately designed reforms should adequately address many development challenges including infrastructure deficit, the efficient management of natural resources, natural disasters, climate change and food security (Sperling and others, 2012).

Lack of adequate and appropriate green knowledge and skills

The formulation and implementation of macroeconomic frameworks for a green economy will be hampered by the lack of adequate and appropriate green knowledge and skills (GIZ, 2015; Sperling and others, 2012). The transition to an inclusive green economy will require capacity-building measures to build and strengthen skills, knowledge and expertise across various sectors and spheres of government to design and implement structural transformation that fosters green growth. Moreover, the design, implementation, monitoring and evaluation of inclusive green economy measures also require the strengthening of appropriate skills and expertise on the part of the people involved.

The lack of development progress during the structural adjustment phase, for example, despite a huge influx of foreign investment capital, was in part due to the chronic challenges of human, social and institutional capital (McCord and others, 2005). The

design and implementation of an inclusive green economy in Africa should accordingly integrate the development of human, social and institutional capital. This is critical to ensure that countries have the capacity to design and implement inclusive green interventions that significantly contribute to addressing developmental challenges. The development of human, social and institutional capital should also be targeted at disadvantaged sections of society such as the poor, historically disadvantaged populations, women, the disabled and the informal sector. It is important to ensure that the benefits from green economy interventions are inclusive.

iii. Opportunities

Green fiscal policy reforms could help improve fiscal outcomes

Countries in Africa are adopting green economy policies and are integrating or aligning them with national development plans. Green fiscal policy reform implemented in the process of aligning green economy policies and national priorities could help to create "fiscal space" for green investment, while also improving the government's fiscal balance. Fiscal policy reforms are adopting instruments such as environmental taxes, pollution charges, subsidies for green technologies, green budgeting and tax incentives to create the fiscal space needed to promote green investments while also limiting environmental externalities. These green policy developments provide opportunities for the greater use of economic and other policy instruments as efficient means of supporting the transition to an inclusive green economy.

Improving domestic resource mobilization can have positive benefits if the funds are invested in productive sectors. Taxes introduced with the goal of correcting market failures or reducing the distortionary effects of existing taxes, as well as new green taxes, may improve economic performance and the distribution of income while protecting the environment (double or triple dividends) (Goulder, 1994; Ciaschini and others, 2009; ECA, 2015). It is also an opportunity to link the green economy to specific development targets such as infrastructure development, social development and environmental protection (ECA, 2015).

Enhanced policy coordination across sectors

Macroeconomic policy reforms can help eliminate institutional inefficiencies and can render greater support for policy consistency and coordination across sectors. Recent growth successes in Africa are attributed to better macroeconomic planning and management including the pursuit of macroeconomic stability, which is critical for all forms of policy interventions and outcomes (ECA, 2016a). However, weak inter-sectoral coordination exposed countries to global economic crises, for example, many growth successes during the turn of the century were due to the commodities boom. But since commodity markets have weakened, the failure of macroeconomic frameworks to anticipate policy reforms or to reassess sources of growth to broaden sectoral options that yield green growth has been rather dramatic.

An alignment is emerging between macroeconomic policy and inclusive green economies in Africa. Countries are increasingly crafting integrated policy frameworks

that proactively align macroeconomic policies with environmental and social goals (box 11). This strengthens the role of policy coordination for the effective implementation of inclusive green economy policies and strategies which are critical for the achievement of balanced outcomes for the three dimensions of sustainable development (ECA, 2016a). Further, the review of public finances to accommodate

Box 11: Ethiopian climate resilient green economy strategy and the growth and transformation plan II

Ethiopia embarked on a structural transformation agenda in 2010/2011 as reflected in its first growth and transformation plan. Among the successes of the transformation plan was real annual GDP growth averaging 10 per cent, bolstered by a strong showing in agriculture, industry and services. The plan gave emphasis to promoting the agricultural and manufacturing sectors, and infrastructure development. The plan also recognized the limits of growth imposed by environmental issues, particularly climate change, and tried to highlight the importance of the conservation and management of natural resources for sustainable structural transformation. Alongside the transformation plan, Ethiopia has been implementing a climate resilient and green economy strategy to reinforce its long-term economic vision of raising GDP per capita to an average of at least $1,800 by 2030, while at the same time reducing greenhouse gas emissions on a per capita basis to 1.1t CO2.

Growth and transportation plans are five-year strategic plans whose results are short- to medium-term, while Ethiopia's climate-resilient green economy provides a basis to explore the linkages and contributions between those policies and strategies and the country's structural transformation - a long-term goal. The current transformation plan for the period 2015-2020 therefore mainstreams the economy strategy, highlighting the four pillars of the green economy, namely, (i) agriculture: focusing on improving crop and livestock production practices for higher food security and farmer income while reducing emissions (agricultural and land use efficiency measures); (ii) forests: with the intention of protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks (increased greenhouse gas sequestration in forestry); (iii) energy: with the aim of expanding the share of electricity generation from renewable sources of energy for domestic and regional markets; and (iv) transport, industrial sectors and infrastructure: with the underlying feature of leapfrogging to modern and energy-efficient technologies in transport, industry and buildings.

Structurally, climate change, soil degradation, deforestation and the loss of biodiversity are critical challenges with significant implications for sustainable development in Ethiopia. With the streamlining of the growth and transportation plan and the climate-resilient and green economy strategy, six priority sectors have emerged: agricultural, livestock, urban, transport, industry and energy, whose role in distributing green economy impacts right across the economy is indispensable.[1] The country has also cascaded the green economy strategy to the sectoral level, with many of the sectoral strategies drawing directly from the growth and transportation plan.

1 www.adaptation-fund.org/wp-content/uploads/2017/01/Ethiopia-OPG-ANNEX-4-1-Project-proposal_ MoFEC-Dec-26-16-Final_Cleaned-version.pdf.

green economy projects is an opportunity for policymakers to identify bottlenecks that impede the appropriate and effective use of public funds in sectoral allocations (ECA, 2015).

Many entry points for sustainable structural transformation

The structure of African economies offers responsive entry points for macroeconomic policy interventions to drive structural transformation and green growth (ECA, 2016a). The transformation of economic activities towards improved efficiency and management of natural resources is important for the stability and sustainability of the future economy. The transition to a green growth path can help unlock economic, social and environmental benefits for societies, enabling the synergies between them (GGBP, 2014). The priority sectors in many African economies include agriculture, industry, mining, trade, infrastructure, energy, forestry and fisheries. These sectors provide the setting for macroeconomic policy interventions aimed at driving an inclusive green economy (ECA, 2016a). Moreover, a green economy would not happen on its own, and planned macroeconomic and structural reforms are critical to encourage green innovations and investments that drive inclusive green growth (box 12).

Addressing poverty, unemployment and other social development priorities

The implementation of macroeconomic reform policies to promote the transition to an inclusive green economy in Africa would contribute to addressing developmental challenges such as poverty, unemployment and the overall wellbeing of the population (ECA, 2015a; Jones, 2011; UNEP, 2015c). Assessments by UNEP showed that, in Kenya, investments in green sectors would result in an additional 3.1 million people being lifted out of poverty by 2030 (UNEP, 2014d). Furthermore, studies in Ghana, Kenya and South Africa show that decent new jobs would be created through the implementation of green economy policies (UNEP, 2013, 2014d, 2015d). Macroeconomic policy reforms are therefore critical for the achievement of an effective and efficient transformation that addresses externality-generating activities, while also curtailing distortions that negatively affect the environmental conditions that are necessary to promote environmentally sustainable and equitable economic growth and development.

Structural reform priorities can be reinforced by the transition to an inclusive green economy

Structural reform priorities can also be reinforced by the transition to an inclusive green economy. In the context of Africa's structural transformation, policymakers are keen to achieve a shift from low to highly productive activities, with the industrial sector playing a central role. This would drive and sustain economic growth. Green growth could boost demand for green technology, products and services, and would reinforce the need for wide-ranging macroeconomic reforms to strengthen growth in new industries and markets.

Box 12: Macroeconomic reforms for an inclusive green economy in Sierra Leone

Description of strengths/win-wins: Sierra Leone, like many other African countries, has taken the initiative to design macroeconomic reforms and inclusive green economy interventions that advance the achievement of national development priorities. The implementation of macroeconomic policy can improve economic stability, increase investment and promote economic growth. Some of the reforms implemented include royalties on minerals extraction to raise government revenues and subsidies to farmers, to provide basic inputs for increased agricultural production. There have also been increases in government spending, to support key sectors such as agriculture, fisheries and tourism in diversifying the economy. The expected outcomes from the implementation of these measures include ensuring the sustainable exploitation of mineral resources; ensuring the sustainable management of resources in the above-mentioned sectors to improve the incomes of households engaged in these sectors; and providing sustainable livelihoods for poor rural communities. Furthermore, these measures are aligned with national priorities such as natural resources management in pillar 4 of the agenda for prosperity; and pillar 1 of the same agenda for reforms related to increasing government spending and subsidies for farmers.

Actions needed to take advantage of this strength: the successful implementation of the macroeconomic reforms that are being implemented in support of an inclusive green economy requires further technical assistance and training. There is a need to strengthen the capacity of the responsible agencies to implement and enforce the reforms to support the design and implementation of macroeconomic reforms and inclusive green economy interventions. This should also include the capacity to evaluate the impacts of the reforms and to design appropriate measures to take advantage of positive benefits while avoiding or mitigating negative impacts. The macroeconomic policies implemented in Sierra Leone demonstrate the drive by many countries in Africa to design and implement reforms that improve their macroeconomic performance, while also facilitating the implementation of inclusive green economy measures, in alignment with national development priorities.

Source: Primary survey data, 2016.

In the renewable energy sector, for example, African clean energy technologies' share of international research collaborations is 23 per cent, compared to 12 per cent worldwide (UNEP-EPO, 2013) – a sign that, with appropriate policies and support such as through South-South cooperation, the continent could become an important player in green research and development and renewable deployment (box 13). Industries in Africa are also increasingly adopting cleaner production processes to increase resource use efficiency and reduce waste. For example, since the concept of "cleaner production" was coined in 1989, by 2000, thanks to support from UNEP and UNIDO for the joint programme on resource efficient and cleaner production, seven countries had established national cleaner production centres which promote investment projects to facilitate the transfer of environmentally sound technologies to industries, particularly small and medium-size enterprises (ECA, 2015).

Box 13: Cogeneration for Africa project: supporting renewable energy generation through South-South cooperation

Launched in 2007, the cogeneration for Africa project is an innovative clean energy regional initiative funded by GEF (not in list of acronyms. What is this?), co-implemented by UNEP and AfDB and implemented by the Energy, Environment and Development Network for Africa. The project builds on the success of cogeneration in Mauritius, which currently meets about 50 per cent of its electricity needs (UNEP, 2013). Key among the success factors was the introduction of feed-in-tariffs for sugar companies which sell excess electricity to the national grid. The project is scaling up the use of efficient, mostly biomass-based (agricultural waste) cogeneration systems, initially in seven eastern and southern African countries (Eswatini, Ethiopia, Kenya, Malawi, the Sudan, Uganda and the United Republic of Tanzania). Drawing on the technical and policy expertise of successful cogeneration in Mauritius, key activities include appropriate technologies and suppliers; technical advice to developers, financiers and investors, and, policy guidance. Support is extended to stakeholders in the form of capacitybuilding, technology transfers and investment packages to create business that is conducive to innovative clean energy.

The project has supported agro-processing private enterprises. In particular, Kenya adopted the feed-in-tariffs in 2008 to promote renewable energy generation, which was reviewed in 2010 and now covers wind, small hydros, biogas, municipal waste energy, geothermal and solar energy resources. Sugar factories, which were generating electricity for their own internal use, now supply the national grid. Mumias Sugar Company, the first beneficiary, now provides 26 MW to the national grid after trebling its cogeneration in 2009, and is still expanding (Kimani, 2010). A new cogeneration plant with a capacity of 800 kW has also been installed by James Finlay Kenya Limited – a tea producer.

The experience in Mauritius and now Kenya has demonstrated economic, social and environmental benefits giving policymakers and investors alike the confidence to replicate the scheme in the areas of both technology and policy. As a result, the feed-in-tariffs have been developed in Malawi, the United Republic of Tanzania and Uganda; and are expanding beyond sugar to the tea industry and other renewable energy sources. The scheme demonstrates how South-South cooperation and technology transfers, when backed up by appropriate policies, can facilitate an inclusive green economy in Africa.

Financial reforms can provide investment incentives in line with long-term national sustainable development goals

Financial reforms can provide investment incentives in line with long-term national sustainable development goals and can, in the process, generate strong impetus for higher levels of awareness, innovation and transformation (Jones, 2011; Murai and Kirima, 2015) (box 14). This helps to address resource constraints, particularly for small and medium-size enterprises, and also creates an environment that is conducive to investment in the green economy. Again, as indicated above, the growth in diversification promoted by green growth requires incentives including financing to support new industries operating in the green space.

Box 14: Experiences in implementing macroeconomic reforms in South Africa

Description of strengths/win-wins: Fiscal policy has, for the first time since the 2007/8 global financial crisis, attempted to stabilise the South African economy and to provide countercyclical support. The same was true of monetary policy in the immediate aftermath of the crisis. In this respect, macroeconomic policy supported national priorities through lessening the duration and impact of the crisis on jobs and output. Over the past three years, however, both fiscal and monetary policy have had the opposite effect, as both increasingly contradicted each other in the face of higher inflation, in the case of monetary policy, and in the face of increased public sector debt levels/service costs, in the case of fiscal policy). Overall macroeconomic management of the economy did, however, remain prudent – attempting to balance short-term fluctuations in output and inflation within the context of a sustainable, predictable long-term framework which supports planning and the achievement of national development priorities.

Fiscal policy, as a macroeconomic management tool, assists through a combination of legislation, levies, incentives, subsidies and other taxes to manage and stimulate the country's transition to a low carbon, environmentally sustainable economy and society. These tools are mostly aligned with environmental protection (including emissions reduction) legislation and regulations administered by the Department of Environmental Affairs. Monetary policy, within the framework targeting inflation, has only an indirect role to play, through ensuring price stability.

Actions are needed to take advantage of this strength: Better macroeconomic alignment is needed to improve the economy's performance in the areas of competitiveness, labour relations, skills development and infrastructure. Furthermore, better coordination is needed among economic sector departments to develop an overarching inclusive green economy strategy for the country – within the overall macroeconomic management framework. The policy landscape surrounding this need is often conflicted/ contradictory when compared with national priorities.

Source: Primary survey data, 2016.

iv. Summary

Macroeconomic policy reforms can help anchor structural transformation and make green growth into a national development priority. Sustaining high growth rates provides opportunities and fiscal space for green investments and the transition to an inclusive green economy. Macroeconomic reforms can also help sustain economic stability to promote green growth investments.

The trade-off for a transition to an inclusive green economy includes managing negative impacts from structural changes related to transition, particularly on traditional economic sectors and vulnerable populations. Moreover, the distributional impacts of economic reforms may fall disproportionately on poor households, highlighting the need to prioritise equity when evaluating the environmental and social gains

of reforms. The poor design and implementation of macroeconomic fiscal reforms would also heighten the risk to the welfare of vulnerable sections of the population.

There is an emerging direct demand for macroeconomic policy support for an inclusive green economy in Africa. In recent years Africa has experienced growing traction on green economy policies designed and implemented to support structural transformation and social development. This momentum should be strengthened to further promote the achievement of national sustainable development goals.

Fiscal reforms, particularly tax-based ones, are an important part of policies to mobilize resources, both public and private, for an effective and equitable economic transformation. The structure of African economies offers responsive entry points for macroeconomic policy interventions to drive structural transformation and the transition to an inclusive green economy. The priority sectors in many African economies including agriculture, industry, mining, trade, infrastructure, energy, forestry and fisheries provide the setting for macroeconomic policy interventions aimed at driving inclusive green economy investments.

Fiscal reforms affect the structure of incentives that businesses and households face in making consumption and investment decisions in green activities. Structural reform priorities can also be reinforced by the transition to an inclusive green economy. The introduction and implementation of financial reforms to foster an inclusive green economy can provide investment incentives in line with long-term national sustainable development goals, and can in the process create strong impetus for higher levels of awareness, innovation and transformation. The growth in diversification promoted by the growing inclusive green economy would demand macroeconomic measures to support new industries operating in the green space.

A wide range of macroeconomic policy frameworks are accordingly available to policymakers. There is growing awareness that an orthodox macroeconomic management approach is not adequate to guide countries towards sustainable development. In the subsequent chapters some good practices, success factors and lessons learned in implementing macroeconomic reforms for a green economy are discussed with a view to providing some concrete examples of reforms that have worked in Africa and elsewhere.

6. Good practices, success factors and lessons learned in the implementation of macroeconomic policy reforms

i. Introduction

Several African countries have been implementing green economy policies and strategies, while others have green economy initiatives in specific sectors such as sustainable agriculture, renewable energy, sustainable transport and natural resource management, all of which foster structural transformation (ECA, 2016a). While such implementation commenced relatively recently, countries have begun acquiring invaluable experiences that could better inform macroeconomic reforms aimed at supporting the momentum of transition. Among the success factors are clearly articulated national visions and targets guiding the reforms. They guide the design and implementation of an appropriate and optimal mix of macroeconomic policies that promote investments and transformation to facilitate the achievement of set targets.

Because unique country circumstances determine development priorities, macroeconomic reforms should be designed in line with these national priorities. However, macroeconomic policy reforms on their own are not sufficient to foster the transition to an inclusive green economy. There is a need for integration with other measures such as informational and regulatory policies, to strengthen behavioural responses to macroeconomic reforms. Moreover, it is important to strengthen administration, technical knowledge and expertise relating to effective implementation, to promote the development of an inclusive green economy.

This chapter presents some good practices emerging from implementation experiences, and discusses success factors and lessons learned. The analysis, which is mainly informed by primary data drawn from a questionnaire survey of selected African countries that have gained relevant experience on their transition to a green transformation pathway, highlights good practices and lessons learned. These primary data were complemented by secondary data from published reports.

ii. Good practices, success factors and lessons learned

Establish clear visions, targets and baselines

There is a need to establish clear visions, targets and baselines for a long-term green growth pathway for transformational change including specific short-term and medium-term goals related to economic growth, poverty reduction, employment and natural resources protection (GGBP, 2014) to guide macroeconomic reform interventions that aim to promote the transition to an inclusive green economy. This helps governments design and implement an appropriate and optimal mix of macroeconomic reforms that promote investments and transformation to achieve the

set targets. Also, in implementing green economy policies and strategies, countries that have a designated lead entity and an established multi-stakeholder coordination mechanism for synergy of the efforts of government ministries, agencies and other stakeholders have achieved early success in identifying key reforms for promoting a green economy (ECA, 2016a).

Each country can implement effective and meaningful macroeconomic reforms to foster inclusive green economy activities in line with its unique social, economic and environmental situation, as well as with the sectoral composition of the national economy and the risk and vulnerability profile of different sectors and groups (OECD, 2013; UNEP, 2015c). Also, macroeconomic reforms and inclusive green economy policies and strategies should be aligned with national development plans and goals for a successful transition to an inclusive green economy (UNEP, 2015c). These conditions determine the appropriate macroeconomic reforms to be implemented in

Table 6: Aligning inclusive green economy policies and strategies with aligned with national development plans and goals

Country	Strategic framework for inclusive green economy
Rwanda	Green growth and climate resilience: national strategy for climate change and low carbon development (2011–2050) (2011). The national vision for Rwanda is to be a developed climate-resilient, low carbon economy by 2050. The strategic objectives include the following: achieving energy security and a low carbon energy supply that supports the development of green industry and services; achieving sustainable land use and water resource management that results in food security, appropriate urban development and the preservation of biodiversity and ecosystem services; and achieving social protection and improved health and disaster risk reduction that reduces vulnerability to climate change (Government of Rwanda, 2011).
South Africa	The green economy accord (2011), a partnership agreement signed by various stakeholders including Government, organized labour, community constituents and business representatives. Moreover, the Government of South Africa has in recent years designed and implemented programmes and policies aimed at transitioning the economy into a green growth path. These programmes and policies (e.g. the National Development Plan Vision 2030 (National Planning Commission, 2012); the National Strategy for Sustainable Development (Department of Environmental Affairs, 2011), the New Growth Path (Economic Development Department, 2011) aimed at addressing developmental challenges (such as spurring economic growth and job creation, and reducing poverty and inequality) while simultaneously addressing environmental issues.
Ethiopia	Ethiopia's climate-resilient green economy strategy and the national vision are to achieve middle-income status by 2025 in a climate-resilient green economy. The national plan for Ethiopia is to follow a green growth path that fosters development and sustainability based on four pillars: (a) agriculture: improving crop and livestock production practices for higher food security and farmer income while reducing emissions; (b) forestry: protecting and re-establishing forests for their economic and ecosystem services including as carbon stocks; (c) power: expanding electricity generation from renewable energy for domestic and regional markets; and (d) transport, industrial sectors and buildings: leapfrogging to modern and energyefficient technologies (Government of Ethiopia, 2011b).
Morocco	The Moroccan Department of Agriculture formulated the Green Morocco Plan (2008-2020) in 2008 in compliance with the high directives of His Majesty King Mohammed VI. The Green Morocco Plan (Morocco's new agricultural strategy) was established to design and implement structural and sectoral reforms in the main sector of the economy (agriculture). The strategic objective is to strengthen the sector's competitiveness while promoting inclusive economic growth. The Green Morocco Plan also aims at increasing growth, reducing poverty, ensuring the long-term sustainability of the agricultural sector and at consolidating its integration into national and international markets, see www.agriculture.gov.ma/pages/la-strategie.

line with financing cycles to help improve their development trajectories towards a sustainable development path. The above good practices are illustrated by practical examples from Ethiopia, Morocco (table 6), Rwanda and South Africa.

Ensure well-designed planning and coordination processes for macroeconomic reforms

The establishment of enduring green growth programmes and reforms needs well-designed planning and coordination processes involving all relevant stakeholders (GGBP, 2014). In Ethiopia, the Prime Minister's Office plays a lead role in the implementation of the climate-resilient green economy strategy with support from nine ministries, and the Ministry of Finance and Economic Development houses such a facility for mobilizing resources. Other countries have also put into place coordination arrangements that foster multidisciplinary approaches in the development and implementation of green economy policies (ECA, 2016a).

Moreover, institutional reforms are important in facilitating the effective implementation of green economy strategies and policies, with the cooperation of different government segments (UNEP, 2010; ECA and UNEP, 2011). Effective coordination and cooperation across different levels of government including across relevant sectors and ministries such as finance and the environment are important for the successful implementation of macroeconomic reforms and green economy policies. This would enhance the integration of various interventions into the national development planning framework including environmental risks, opportunities and partnerships facilitating the achievement of targeted outcomes.

Macroeconomic reforms should be consolidated beyond individual projects and programmes

Implementing macroeconomic and structural transformation reforms remains critical to redirect private and public investment flows and innovations both across and within sectors. The challenge with these interventions is that isolated project interventions are insufficient. There is need for a strategic macroeconomic framework that guides the prioritization and mix of reforms that can steer the green economy while also addressing pressing developmental goals in individual sectors. Experiences from South Africa show that, while there might be resistance to macroeconomic reforms among different actors, calculated risks must be taken beyond individual programmes. In particular, the transition to a green economy would be accelerated by major reforms affecting all sectors at once (box 14).

Macroeconomic reforms should be implemented with other complementary reforms

Macroeconomic reforms on their own are not sufficient to foster the transition to a green economy. There is a need for complementary measures such as information and regulatory policies to strengthen behavioural responses to macroeconomic reforms, for example, fiscal incentives that facilitate the consumer distinction of environmentally friendly goods (Jones, 2011; UNEP, 2010). For example, the Western Cape government in South Africa implemented a project to support agricultural value

Box 15: Low carbon development and macroeconomic reforms in South Africa

South African fiscal policy has for the most part since the 2007/8 global financial crisis attempted to stabilize the economy and to act as countercyclical support. The same was also true of monetary policy in the immediate aftermath of the crisis. In this respect, macroeconomic policy supported national priorities by lessening the duration and impact of the crisis on jobs and output. The overall macroeconomic management of the economy does, however, remain prudent – attempting to balance short-term fluctuations (output, inflation) within a sustainable, predictable long-term framework which supports the planning and achievement of national development priorities.

Although the proposed implementation of a carbon tax has encountered significant resistance from business, the Government is forging ahead with its implementation. Given the country's already low economic growth rate the impact on investment and economic activity may be negative in the short term and potentially in the medium to longer term. This is because businesses already face a raft of environmental levies and compliance costs. The alignment and coherence of policy formulation is therefore vitally important to the success of instruments and policies to advance an inclusive green economy in the country.

Source: Primary survey data, 2016.

chains in view of impending carbon taxes that could have compromised its main export activity (box 16).

It is also possible for environmental policies to fail to elicit the response required from the targeted stakeholders. In this case, complementary measures such as regulatory (a noun is missing here), product labels and information measures should be introduced to complement fiscal measures for the effective achievement of reform objectives. For example, product labels can provide stimulation and can strengthen behavioural change from fiscal incentives by providing producers and consumers with information identifying goods and services produced in an environmentally sustainable way (UNEP, 2010). Moreover, direct regulation can help to address inefficiencies that might arise from poorly coordinated markets (UNEP, 2010).

Build and maintain robust green growth monitoring and evaluation systems

Effective monitoring and evaluation systems enhance learning, decision-making and management, while also strengthening government accountability, improving public trust and enabling stakeholder participation. The implementation of macroeconomic reforms should have effective monitoring and evaluation systems to evaluate, track and communicate green growth progress and results. The reforms should address monitoring and evaluation indicators covering the most important economic, environmental and social policy objectives for each country. Monitoring and evaluation information should be shared in a timely manner with appropriate audiences through communication methods targeting and engaging green growth relevant stakeholders (GGBP, 2014).

Box 16: Resource productivity in agricultural value chains in the Western Cape, South Africa[1]

In partnership with the Western Cape government, GreenCape is using the agricultural sector as the first case for the regional resource flow model project. This project consists of a strategic analysis of resources within the sector to identify possible constraints that may limit its productivity and competitiveness over time.

The project has generated carbon intensity estimates for wheat, wine and fruit, as well as partial carbon intensity estimates for livestock and game farming. This information has been benchmarked against international figures for similar agricultural products. While most of the focus was on refining an approach for assessing resources use for grain production, with an eye to using this information to inform policy in future, the example of the wine industry has already stimulated interesting discussions that hold lessons for other product value chains.

Wine production in South Africa has a higher overall carbon footprint than in other wine producing regions. The bulk of these emissions can be attributed to processing rather than farming, with emissions levels being further augmented by the necessity to provide transport to export markets. The energy mix, being largely dependent on coal-fired power stations, has a significant impact on the carbon intensity of local wines. Renewable energy investments, alternative packaging materials, and bulk exporting are all potential strategies to counteract carbon taxes or the environmental requirements of retail chains importing South African wines into foreign markets. These options will need to be carefully considered, given their variable impacts on jobs in the extended value chain for wine.

Source: Western Cape Government Green Economy Report 2015.

1 www.westerncape.gov.za/110green/files/atoms/files/Green%20Economy%20Report_2015.pdf.

The Ethiopian second growth and transformation plan (phase II), for example, has an elaborate policy matrix covering all main goals and outputs, including the targets for each sector.[10] Moreover, the indicators are set in such a way that their measurement of annual progress is objectively verifiable. The plan II integrates the climate-resilient green economy, which also has an elaborate monitoring and evaluation framework. More importantly, while plan II responds to national priorities including the environment and climate-resilient green economy, efforts have been made to ensure that its goals and targets are linked to indicators and targets set in the Sustainable Development Goals.

Resource mobilization as a part of macroeconomic reform strategy

Domestic resource mobilization will be critical for the success of a green economy transition in Africa. Macroeconomic policy reforms will have to be cautiously undertaken within the context of improving the tax system. Resource-rich countries have tended to rely on resource tax revenues, including Botswana, Cameroon, Chad,

10 www.cmpethiopia.org/media/gtp_ii_policy_matrix_english_final_august_2016_2.

Congo, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Guinea and Nigeria (Thomas and Treviño, 2013). However, new green fiscal instruments are also emerging, and in other sectors. For example, Morocco, South Africa, the United Republic of Tanzania, Uganda and Zambia impose taxes on pollutants and emissions. These taxes are expanding the tax base and could potentially reduce distortions in existing taxes if a revenue-neutral approach is taken. Ghana and South Africa have also been removing or reducing harmful subsidies and introducing new measures to offset losses in the affected segments of the economy.

Green macroeconomic reforms should involve a transparent review of the tax base, reformulating existing fiscal instruments and allocating resources to deserving sectors. For example, Morocco spent 35 billion euros between 2008 and 2010 on public investments consisting mainly of new infrastructure and upgrades to foster the emergence of growth poles and to create the conditions for balanced development. These conditions were critical for strengthening key sectors and diversifying economic activities. Moreover, the Government implemented several fiscal reforms including income tax breaks for structuring projects, lowering some tax rates, simplifying the tax code and eliminating distortions due to the multiplicity of rates and exemptions (AfDB, 2012).

Green financial instruments are proliferating and diverse investors are interested in green economy projects in Africa. Municipalities, corporations and multilateral development banks have also shown tremendous interest in the green economy, with several green bond issuances already registered. The role of private sector and financial institutions in Africa in channelling finance to green products will multiply if monetary authorities take the initiative in creating space in which green financial products can grow.

Although most countries have sound banking systems with strong institutional frameworks, the range of green wealth management assets, risk management products and liquidity remains limited except for a few countries. The Johannesburg Stock Exchange is leading the way in bridging these gaps, and through its international trading platforms projects in South Africa have access to funds from overseas. Its sustainable stock exchange approach and its regulatory framework including its sustainability indexes are among the world's best.

Macroeconomic reforms should create financial resources through, for example, soft loan programmes, credit systems and carbon credits for financing the upfront investments required to implement and adopt inclusive green economy policies (UNEP, 2015c). Green financing is important to enhance investments in innovations and investments in green sectors. Without access to adequate financing the opportunities to be derived from inclusive green economy proposals would not be attainable (UNEP, 2015c). Macroeconomic reforms should therefore ensure that financial resources are created to promote the implementation and adoption of inclusive green economy reforms.

Green economy interventions require investments which can be financed from domestic and international public and private sources. With government funding already constrained by other development priorities, all possible financing mechanisms

should be explored. Several countries in Africa have set up financing mechanisms specifically for their climate-resilient green economy strategies. The case of Rwanda (box 17), demonstrates governments' commitment to mobilizing resources to support inclusive green economy activities.

Evaluate and manage the political economy and unintended negative impacts

The design and implementation of macroeconomic reforms should consider their potentially negative distributional impacts on vulnerable groups such as low-income households. Knowledge of these impacts ensures that measures are either

Box 17: Financing climate-resilient green economy development in Rwanda

The Government of Rwanda established the national climate and environment fund (FONERWA) as the primary financing mechanism for public and private environmental projects addressing the country's climate-resilient development needs. The vision of FONERWA is "To respond to Rwanda's current and future financing needs for environment, climate change, and green growth to accelerate goals of national sustainable economic development" (FONERWA, 2017). The advantage of the centralised funding mechanism is that all initiatives are aligned with national priorities and targets.

The establishment of the mechanism to attract finance for green growth in Rwanda has successfully enabled the country to implement various projects, thus raising the country's profile as one of the success stories in implementing inclusive green economy interventions. FONERWA managed to overcome some of the challenges of implementing green economy interventions such as access to financial resources by successfully attracting foreign direct investment from the United Kingdom. Furthermore, FONERWA successfully overcame political barriers by anchoring the development of the fund in Rwandan law (Organic law 4/2005). Also, the joint management of FONERWA by the Ministry of Finance and Economic Planning and the Rwanda Environment and Management Authority ensured that green economy goals were aligned with national development priorities (GIZ, 2015). The successful implementation of the pilot phase of FONERWA led to the Government of Rwanda announcing the full establishment of the fund in October 2014 as the engine of green growth in the country.

To date, through FONERWA, the Government of Rwanda has made $4 million in capitalization commitments and has managed to generate $50 million in seed capitalization from the Department for International Development of the United Kingdom of Great Britain and Northern Ireland, the German KfW (the name is originally from Kreditanstalt für Wiederaufbau – Credit Institute for Reconstruction) and, from UNDP, $18 million in leveraged external finance and $15 million in leveraged co-financing for fund-supported projects. To date, 33 projects have been granted funding, 89,694 green jobs have been created, 21,847 hectares of land have been restored, 17,449 families have been connected to off-grid clean energy, and 12,998 hectares of watersheds and water bodies have been restored (FONERWA, 2017).

implemented to avoid them without foregoing the net environmental and fiscal benefits of reform, or mitigating measures are put into place to reduce losses through, for example, tax exemptions, reduced tax rates or direct compensation (UNEP, 2010). Valuation services provided by natural systems help decision makers compare their value with the economic costs and benefits of other public decisions. Approaches such as green accounting that extend beyond the valuation of natural assets and focuses on the stock of natural and other assets (wealth) of the country compared to a flow measure such as GDP can be used to provide valuation information to made decisions regarding trade-offs between economic interests and natural assets. For example, they help to identify situations where economic growth fails to create wealth by consuming natural assets more rapidly than other assets, and is not sustainable (World Bank, 2012).

Active and well-balanced communication and engagement with all relevant stakeholders is also critical to raise awareness of the benefits of fiscal reforms, and of the inefficiency of current practices such as subsidies and measures in addressing any potential negative distributional impacts on specific groups to overcome opposition (UNEP, 2010). This would help to ensure that macroeconomic reforms are inclusive and are integrated with national development goals, while also identifying relevant indicators and targets for tracking progress. Affected stakeholders and the public should be provided with information regarding the interventions, the implementation process, their rights and roles in the interventions and how they would be affected in terms of both benefits and costs.

The case of Ghana and the removal of harmful subsidies demonstrates the importance of actively engaging stakeholders in green economy interventions. The Government's earlier attempts to remove a fossil-fuel subsidy without proper consultation and communication with the public faced strong resistance, and had to be withdrawn several times. However, after careful engagement with the public and the dissemination of information about the benefits and costs of the intervention, the Government could implement the programme.

Moreover, better knowledge and understanding of the social impacts of the reform on different stakeholders (winners and losers) and any potential sources of resistance help to design reform and mitigation measures in a way which minimizes resistance (box 18). In addition to measuring social impacts, it is important to understand the political will, institutional capacity and effective communications and outreach strategy that are required to engage with affected parties on the benefits of and justification for reform.

Box 18: The importance of political economy – the case of Morocco

Morocco's attempts to reform its universal subsidy rewarding fossil-fuel consumption demonstrate the importance of managing the political economy. Policymakers need to understand the winners and losers of proposed reforms such as inclusive green economy reforms, as a basis for making appropriate decisions. Morocco's quest to reform its energy subsidy that would sharply reduce the fiscal burden, while also facilitating a greener growth path, was faced with multiple problems. Overall, the energy subsidy presents a huge fiscal burden to the economy and promotes the consumption of fossil fuels that undercut the country's ambitious mitigation goals. Furthermore, because the low subsidized price of fossil fuels makes renewable and efficiency investments less competitive the subsidy is regressive, thus benefiting the wealthy the most.

However, Morocco backtracked in its efforts to reform the energy subsidy mainly because the reform was believed to be unpopular despite the lack of a study by Government to ascertain the unpopularity of the proposed reform and those stakeholders who would probably resist it, and to identify alternatives that could motivate changes. With the assistance of the World Bank, a study was conducted in 2010 based a representative national sample of 1,600 households.

The results showed that 70 per cent of the population were not aware of the existence of energy subsidies, and that a majority of buyers did not know the real price of the fuel they were using. The idea of reducing the subsidy was opposed by most respondents, and when offered a well-targeted social programme the percentage of those who resisted the reform was reduced. A detailed explanation of the programme helped to reduce it further. The main group that continued to resist the programme until the very end was the wealthy.

The findings from the study helped the previous Government to understand the political awareness and preferences of the population regarding the energy subsidy. This helped the Government to develop a medium-term communications strategy that informed the population of the existence of the energy subsidy and explained its disadvantages. A communications campaign ensued in early 2011, with the new government elected in November 2011 prioritizing energy subsidy reform in its agenda.

This experience shows that increases in tax burdens will be met with resistance from industry and paying stakeholders, and that there is a need for advocates of reform to have both political will and public support for their reforms. For example, the design of reforms should integrate public awareness campaigns to educate the public and other stakeholders on emissions from industry, for example, and on the health and environmental threats which they pose to human well-being and the environment. This would encourage the public to support the implementation of the reforms.

Source: World Bank, 2012.

Ensure strong governance systems and institutions

The effective implementation of macroeconomic reforms to transition to an inclusive green economy would be enhanced with strong governance systems that promote transparency and accountability. Establishing clear and transparent rules under which

Box 19: Leadership in mainstreaming environmental issues in Burkina Faso

Burkina Faso depends heavily on development cooperation for economic development and cooperation. The country's fiscal structure depends on very low tax rates and a narrow tax base. Furthermore, the country has poorly-defined economic instruments for environmental management and conservation and does not adequately meet the requirements for achieving sustainable development, economic growth and poverty reduction goals. Although Burkina Faso has significant natural resources characterized by varied and rare fauna and flora and diverse ecosystems, environmental regulation is weak and barely enforced, with environmental concerns often subordinated to efforts to achieve growth.

With support from UNDP-UNEP the Ministry of the Environment launched a joint programme: the "Poverty and Environment Initiative (PEI) – Burkina Faso" aimed at strengthening national capacities to analyse poverty and environmental linkages. Furthermore, in collaboration with the (German) Society for International Cooperation (Gesellschaft für Internationale Zusammenarbeit – GIZ), the PEI supported capacity-building related to environmental fiscal reforms focused on increasing the country's ability to integrate sustainability into development planning processes.

The outcomes of the PEI intervention included a directive from the Ministry of Economy and Finance of Burkina Faso in March 2011, calling for the inclusion and establishment of an environment unit as part of the ministry's organisational structure. The country PEI team successfully lobbied for this institutional change to improve understanding and awareness of environment-poverty linkages among policymakers in charge of economic development and planning. This led to the inclusion of poverty-environment issues in the country's strategy for accelerated growth and sustainable development (2011-2015), as well as in national planning and budgetary processes.

The experience of Burkina Faso demonstrates the importance of institutional support and political will from government to institutionalize environmental issues and to integrate them with national economic development and planning processes. The design and implementation of inclusive green economy interventions should also ensure that the necessary institutional support mechanisms are in place to ensure that appropriate support is provided, together with the necessary regulatory and budgetary requirements.

Source: GIZ, 2014.

governments provide credible and reliable long-term programmes is critical to help reduce uncertainties and risk for investments in the green economy (PAGE, 2014; UNEP, 2015c, 2015d). Rules and strong institutions are also important for continuing macroeconomic confidence boosting the confidence of relevant stakeholders to participate actively in the transition to an inclusive green economy. Governments in Africa have demonstrated strong governance systems and leadership in designing and implementing inclusive green economy and structural transformation programmes. These national programmes integrate economic, social and environmental objectives ranging from sustainable job creation, energy access, resilient economic growth,

investing in critical environmental assets (water, biodiversity, forests, and soil), and designing climate-resilient cities and infrastructure in line with the national development goals of the countries.

Investments in a green economy are medium- to long-term structural benefits whose achievement requires champions and leaders who can motivate, mobilize and guide their peers. These champions and leaders can be drawn from government or local communities, where they provide direction, technical expertise and the institutional linkages required to design the structures for an inclusive green economy. Burkina Faso's poverty-environment initiative (PEI) (box 19) is a typical example, where the appointment of high-profile individuals from the political and private sectors, and traditional authorities in the areas of the arts and culture as poverty-environment champions proved to be successful in communicating and lobbying to raise the profile of poverty-environment mainstreaming in the country (UNDP-UNEP, 2015). This led to the inclusion of poverty-environment objectives in both the national development plan (SCADD 2011-2015) and sector plans.

Raising industry awareness and capacity development

Raising awareness and capacity development, particularly of industry, is important to improving environmental performance. Although capacity development may take on broader aspects, for industries, especially small and medium-size enterprises, the focus should be on maintaining their competitive edge. Small and medium-size enterprises or even large corporations might not have the accounting tools to identify the costs of waste and pollution hidden in their overheads, or might not be aware of the alternative technologies and practices, which they can adopt to improve their efficiency (UNIDO, 2011). It is therefore critical to raise awareness and build capacity along different value chains for industries to integrate efficiency into their operations. Capacity-building efforts could also focus on helping industries access green solutions including disseminating and demonstrating the benefits of environmentally sustainable and resource-efficient production processes (UNIDO, 2011).

Demonstrating readily available technologies and practices could facilitate the adoption of cleaner and efficient production methods that might be inexpensive for industries, especially small and medium-size enterprises and the informal sector. Providing options may be important if business is to respond positively to macroeconomic reforms that could impose short-term adjustment costs and long-term structural changes. The increasing shift towards sustainable consumption and production and the need to respond to the increasing scarcity of production resources such as water and fuels has resulted in increased demand for resource efficiency. Governments across the world have set up cleaner production centres or have established new agencies that drive the adoption of resource efficiency in the economy. The cleaner production centres usually promote high-profile demonstration projects in enterprises that could be used as credible examples to other enterprises in similar sectors. Moreover, they provide training services aimed at creating the skilled capacity to enable industries to implement resource-efficient production methods (box 20).

Box 20: National Cleaner Production Centre of South Africa

The National Cleaner Production Centre of South Africa (NCPC-SA) was launched in 2002 as a cooperative programme between South Africa and UNIDO with funding from the country's Department of Trade and Industry (DTI) together with the Government of Austria and the Government of Switzerland. Full ownership of the Centre was assumed in 2006 by the Department of Trade and Industry, which has been developing it into an established national agency for the implementation of cleaner production (UNIDO, 2011). NCPC-SA is a national government programme promoting the adoption of resource efficiency and cleaner production (RECP) approaches to help industries lower their costs through the reduced use of production resources such as energy, water and other materials, and through waste management (NCPC-SA, 2017).

NCPC-SA is a member of UNIDO and UNEP's global RECP network (RECPnet), as well as of the African Roundtable on Sustainable Production and Consumption. NCPC-SA is mandated to contribute to building the manufacturing industry's competitive capacity through appropriate resource efficiency service offerings and competencies as part of its efforts to shift to a low carbon economy in South Africa. The four strategic offerings of the centre include the following: awareness-raising, advocacy for and demonstration of the benefits of RECP; providing technical support to industry through RECP methodologies and tools; facilitating the implementation of RECP in industry; and capacity-building and the development of RECP skills (NCPC-SA, 2017).

Some of the impacts of NCPC-SA include the following: in the period 2014-2016, NCPC-SA trained 45 interns, identified 48.5 million rand in potential savings and r11.2 million rand in resource savings implemented (NCPC-SA, 2017). In the 2015/2016 financial year, 191 RECP assessments were conducted in companies across nine sectors. Assessments identified potential savings valued at 231 million rand per annum in the areas of energy, material, water and waste. Moreover, the 191 companies were able to save 1.15 billion rand over the next five years through interventions identified by NCPC-SA in 2015/2016 (NCPC-SA, 2016).

Build capacity of relevant stakeholders

Stimulating and strengthening behavioural change among producers and consumers requires investments in awareness-raising and education. It is important to build social acceptance and to strengthen support from business and the public, all of which is critical for the successful implementation of macroeconomic policies (PAGE, 2014). Participatory approaches to the design and implementation of inclusive green economy and macroeconomic reforms ensures that the interests of different stakeholders are accounted for, and also encourages inclusivity.

There is a need for large investments in both human and physical capital in relevant public institutions such as finance and environment ministries, as well as for customs and revenue administrators to enhance the proper administration of policy reforms that affect remotely located natural resources (Jones, 2011; UNEP, 2010, 2015c; UNIDO, 2011). Overall, there is a need to ensure that agencies and institutions

responsible for implementing macroeconomic reforms have the necessary technical knowledge and expertise to design, formulate and implement these reforms in line with national priorities and development plans. Furthermore, agencies should have the capacity to monitor and enforce reforms (World Bank, 2005a).

iii. Summary

Macroeconomic reforms will have implications for fiscal, monetary and financial policies that countries are implementing to foster the development of an inclusive green economy. Government commitment and leadership are very important in driving macroeconomic reforms. National priorities as expressed in national development plans should guide the formulation of macroeconomic frameworks for an inclusive green economy. The alignment and coherence of fiscal, monetary and financial policies would allow the effective implementation of national development plans including a green economy strategy.

There is also a need to ensure coordination across sectors and effective engagement among stakeholders. The reforms are only effective when they are balanced to ensure that trade-offs are minimized and opportunities to strengthen positive results are harnessed. For that, a robust monitoring and evaluation system and the effective analysis and communication of the impacts are important. This would also help to inform the identification of unintended impacts and the design of remedial actions, as well as the management of the political economy of reform.

Furthermore, it is important to build the administrative capacity to facilitate the implementation, monitoring and evaluation of macroeconomic reforms. Some challenges are associated with every reform, but the opportunity to undertake a wide range of productivity-enhancing measures is important for economies trapped in low growth dynamics and unstainable growth paths. A careful consideration of these good practices and lessons learned would help to facilitate the design and implementation of macroeconomic frameworks and reforms to enhance the implementation of inclusive green economy interventions in Africa.

7. Conclusions and recommendations

i. Conclusions

The aim of this study was to investigate the macroeconomic conditions that are conducive to an inclusive green economy, and to consider how an inclusive green economy system can enhance the economic, social, environmental and developmental outcomes of a macroeconomic framework, thereby driving sustainable transformation. An in-depth analysis of past and current macroeconomic frameworks in Africa and of how they have affected economic, social and environmental developmental outcomes was conducted. The outcomes of the historical evolution of macroeconomic policy frameworks in Africa can be divided into four phases: the post-independence phase, 1960–1979; the international financial institution-led structural adjustment phase, 1980–1999; the high growth and development phase, 2000–2015; and the post-2015 development phase.

The first two macroeconomic frameworks were largely not conducive to inclusive and sustainable economic growth. There was generally a positive economic growth performance in the early years after independence, followed by a period of economic decline during the international financial institution-led structural adjustment reform phase. The environment, poverty and inequality were not adequately addressed as countries continued to slide, despite high economic growth propelled by public infrastructure investments. Social indicators such as poverty, inequality and unemployment continued to disappoint across all periods including the early years of the twenty-first century, which recorded the highest growth rates in the history of African countries since the 1960s. The post-2015 development phase requires macroeconomic interventions to sustain the economic performance of the years 2000 to 2009; and greater efforts to address social development and environmental sustainability.

From 2016, African countries and the rest of the world have been implementing the 2030 Agenda for Sustainable Development, which, together with the African Union's Agenda 2063, offers a unique opportunity to achieve inclusive, transformative and sustainable development, and to realise aspirations that are urgently required to put the continent on a sustainable development path. African countries are also committed to realizing a green future, and as signatories and parties to the Paris Agreement on Climate Change, they will need to proactively implement macroeconomic interventions supporting climate-resilient growth and development. Moreover, these interventions should strengthen efficiency in production, as well as responsible consumption, sustainable infrastructure investments and a structural shift from carbon intensive production to cleaner production-led industrial reforms.

As policy and institutional reforms take shape around Africa, it is becoming clear that structural transformation and green growth are the cornerstones of sustainable development. Countries cannot afford to implement piecemeal or ad hoc interventions, as they risk exacerbating the adjustment costs of forgoing a comprehensive macroeconomic policy review taking into consideration green growth

in all economic sectors, as well as social development. Because of the inherent incentive structure, economic and other policy instruments can support the shifting of investments towards clean and efficient technologies, natural capital and social infrastructure such as education, health and social protection systems. However, choosing an effective policy package that fits in with the existing policy frameworks and institutional capabilities poses the biggest short-term challenge.

A wide range of options for macroeconomic policy interventions is available to policymakers to stimulate green growth. There could be trade-offs in the transition, but an appropriately formulated reform agenda would have built-in mechanisms for managing negative impacts, particularly on traditional economic sectors and vulnerable populations. The poor design and implementation of macroeconomic reforms could also heighten the risk of welfare loss for the vulnerable sections of the population. However, there are many entry points for achieving inclusive growth, particularly through macroeconomic policy interventions targeting priority sectors in many sectors including agriculture, industry, mining, trade, infrastructure, energy, forestry and fishers.

ii. Recommendations

Macroeconomic reforms for fostering an inclusive green economy will have implications for existing fiscal, monetary and financial policies that governments are implementing. Government commitment and leadership is very important in driving the reforms. National priorities as expressed in national development plans should guide the formulation of macroeconomic frameworks for an inclusive green economy. There is also a need to ensure coordination across sectors and government departments, as well as effective engagement among stakeholders.

Macroeconomic policy reforms implemented in the process of aligning green economy policies and national priorities provide opportunities for the greater use of economic and other policy instruments as efficient means of supporting the transition to an inclusive green economy. Unique country circumstances and priorities should guide the process and the steps needed for a country to undertake a comprehensive review of policies, regulatory and other instruments for better socioeconomic development and environmental management outcomes. In this regard, the process of aligning national strategies with the 2030 Agenda for Sustainable Development is an opportunity to accelerate policy reforms.

Economic growth and related dynamics such as urbanization, growth in industrial output and demographics will put pressure on the environment, not only through carbon emissions, but also through increased natural resource extraction. In this regard, renewable energy, sustainable agriculture and fisheries are some of the critical sectors for promoting green growth in the African region. Macroeconomic reforms should ensure that climate change mitigation and adaptation interventions are complementary to both the developmental goals and the green economy priorities of each country.

Build and maintain robust green growth monitoring and evaluation systems to evaluate the implementation of macroeconomic reforms. It would be difficult to project the impact of the 2030 Agenda for Sustainable Development on development outcomes without properly defining baselines and targets at a national level. This would facilitate the design and implementation of an appropriate and optimal mix of macroeconomic reforms promoting investments and transformation to achieve the set targets. Effective monitoring and evaluation systems enhance learning, decision-making and management, while also strengthening government accountability, improving public trust and enabling stakeholder participation.

Macroeconomic reforms should improve the availability of and access to resources for inclusive green economy investments. Countries with a well-developed domestic private sector can design and implement a range of policy instruments to promote green economy investments, while situations where the domestic private sector is less developed require more effort. In this regard, ministries of finance and treasury departments have a critical role to play in both mobilizing and channelling resources to green growth sectors, in addition to facilitating private sector investments in the green economy space through suitable fiscal regimes and attractive financial regulatory frameworks.

In most cases government funding is inadequate to finance inclusive green economy initiatives. Other financing mechanisms should be explored. Governments can set up financing mechanisms that help mobilize resources from both domestic and international sources to finance green economy programmes. Some of the financial reforms that African countries can implement to mobilize financial resources include green and inclusive credit guidelines, incentives, green bonds, soft loan programmes, credit systems, and carbon credits extended fiduciary, as well as sustainability-related disclosures, indexes and associated tracker funds.

Macroeconomic reforms will only be effective when they are balanced to ensure that trade-offs are minimized, and opportunities are harnessed to strengthen positive results. Countries should conduct political economy assessments and manage the unintended negative impacts of green economy transitions. This requires the implementing agency to understand the political economy dynamics of the proposed reforms, identifying key stakeholders, institutions and policies that affect or are impacted by the reforms. It is only through such an analysis that appropriate macroeconomic measures can be identified to safeguard the interests of all stakeholders in the green economy. A policy economic analysis would also enhance governance systems and promote transparency in the implementation of governments' programmes, while also helping to reduce uncertainties and risk for investments in the green economy.

Build the capacity of relevant stakeholders to participate actively in the design and implementation of macroeconomic interventions. Stimulating and strengthening behavioural change among producers and consumers requires investments in awareness-raising, education and capacity-building for macroeconomic reforms. Moreover, it is important to strengthen the administration, technical knowledge and expertise associated with macroeconomic reforms. This is an essential precondition for the effective development of an inclusive green economy.

Annexes

Annex 1: Survey questionnaire on a macroeconomic framework for an inclusive green economy in Africa

Background and introduction

In the African context, despite impressive and sustained economic growth rates in the past decade, growth rates have been criticized for not being inclusive, as they made limited contributions to job creation and broader participation and the overall improvement of the lives of the poor. Overall, Africa faces a challenge to both maintain and translate rapid economic growth into sustained and inclusive development based on economic diversification that creates jobs, contributes to reduced inequality and poverty rates, enhances access to basic services and corrects market failures that undermine environmental sustainability. Within this context, an inclusive green economy offers an alternative paradigm shift to simultaneously address the above challenges by proactively aligning the macroeconomic policies of the State with environmental and social policy goals.

To achieve this paradigm shift it will be critical to ensure a macroeconomic environment that is conducive to the well-being of the population. The successful implementation of an inclusive green economy across the continent would require member States to have stable and sustainable macroeconomic policy environments designed to support economic growth and resilience, resource efficiency and low carbon development, sustainable management of natural resources, development of sustainable infrastructure, and to provide support for poverty reduction and social inclusion. Moreover, macroeconomic policies should be bound by a long-term development strategy to facilitate the transformation of economic and social structures with a view to both ensuring a positive feedback loop in the investment-growth nexus and to engendering inclusive green growth. The macroeconomic framework (particularly the twin strategies of fiscal and monetary policy) remains critical for the realization of an inclusive green economy, to cement the "Africa rising" narrative and the desirable outcomes of the macroeconomic policies embodied in Agenda 2063.

Fiscal policies: Most countries in Africa, especially in sub-Saharan Africa, face large resource gaps due to low domestic savings and high investment needs. The gap between gross domestic savings and gross capital formation increases external debt and can create risk for the macroeconomic stability of the country. Fiscal policy is crucial to aligning more resources towards the green economy through policy instruments that promote the goals of a green economy. Green fiscal reforms, for example, generate revenues and create fiscal space for green public investments and social expenditures benefiting the poor. Taxes can also serve as disincentives to deter the over-extraction of resources and to incentivize sustainability. Cost-reflective tariffs have been effective in ensuring the efficient allocation of resources and in attracting inclusive green growth investments. Public investments targeted at developing renewable energy sources, for example, can address energy, environmental, social and economic challenges. Capital allocation to priority sectors with the greatest potential to create

jobs through value addition, as well as through forward and backward linkages, can enhance productivity and employment.

Monetary policies: The conduct of monetary policy can have a direct impact on a key constraint to a green economy transition: finance, through access to production assets (via credit and deepening of financial institutions). Restrictive monetary policies (for example, raising interest rates) can limit the transformative potential of a green economy by constraining investments and economic growth. The right balance is thus needed to control inflation while allowing space for green economy financing, taking into account the need for the inflation target to be appropriate to the country's development. While high inflation can be harmful for growth and development, a very low inflation target in low-income countries can negatively impact on growth in the process. Moreover, credit and financial services can play an instrumental role in allowing enterprises, including small- and medium-scale and informal enterprises, to acquire and accumulate resources to finance the transition. In particular, preferential credit to priority sectors with high-employment and high–investment multipliers, and natural resource-based sectors could foster a green economy.

Overall, advancing the concept of an inclusive green economy in Africa helps foster a sustainable growth and transformation path on the continent. It is therefore critical to ensure that inclusive green economy policies are supportive and embedded within the national development plan that embodies each country's national development objectives. In this context, the Economic Commission for Africa has commissioned a study on macroeconomic frameworks for an inclusive green economy in Africa. The aim is to investigate macroeconomic conditions that are conducive to an inclusive green economy; and also to enhance an understanding of the role of fiscal, monetary and financial policies in driving the sustainable transformation of Africa.

Objectives of the survey

The objective of this questionnaire is to collect relevant country level data and information on the study, from designated study focal points in the selected African countries: Benin, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Egypt, Ethiopia, Gambia, Ghana, Kenya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia.

Notes for study focal points in completing the survey questionnaire

- Please feel free to consult other institutions in the country to obtain and compile information required for this questionnaire.

- Complete the questionnaire by providing all necessary information in a clear and concise manner.

- If the space available in the questionnaire is not adequate, please provide responses on additional sheets of paper.

- The questionnaire is not necessarily exhaustive on all issues related to the study; therefore, please provide any other information that you may have on issues that are relevant to the objectives of the study, but which may not have been covered by the questionnaire.

- Please provide documents that contain the information being sought.

Questions

1. Main national development plan/structural transformation strategy- objective/ goals, priorities of the country

a. Please outline the country's plans to achieve structural economic transformation:

Briefly outline the country's national development or structural economic transformation agenda
i. Name of the national development or structural transformation strategy/plan or its equivalent: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Period covered by strategy/plan: Click here to enter text.
iv. Main objective/s of the national development or structural transformation strategy/plan: Click here to enter text.
v. Key priorities including sectors for the structural transformation of the country: Click here to enter text.
vi. Identify and list some key inclusive green economy priorities including sectors for national development/structural transformation of the country that have been integrated in the plan/ strategy:
vii. Remarks (any salient information not covered above): Click here to enter text.

2. Main inclusive green economy strategies/ policies adopted and their linkages/ synergy with policies directly addressing national development and/or structural transformation

a. Has the country adopted a main or recognized inclusive green economy strategy or policy?

_____Yes _____No

b. If **yes**, briefly outline below the main and recognized strategy or policy adopted and its linkages/synergies with policies that directly promote structural transformation

Inclusive green economy strategy or policy 1

i. Name of the inclusive green economy strategy/policy: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving an inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with structural transformation policies: Click here to enter text.

Inclusive green economy strategy or policy 2

i. Name of the inclusive green economy strategy/policy: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving an inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with structural transformation policies: Click here to enter text.

If **no**, please explain if there are plans, if any, to formulate and adopt a main/recognized inclusive green economy strategy or policies/policy instruments.

3. Macroeconomic policies (fiscal and monetary), national development priorities and development of inclusive green economy

a. Briefly outline below the **fiscal policies** that your country adopted to advance its national development priorities and to foster an inclusive green economy. Outline their linkages/synergies with national development priorities and inclusive green economy policies.

(Please refer to annex 1 for some examples of macroeconomic and inclusive green economy-related policy instruments).

Fiscal policy 1:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
iv. National development priorities: Click here to enter text.
v. An inclusive green economy: Click here to enter text.
vi. Main linkages/synergies with:
vii. National development plan: Click here to enter text.
viii. Inclusive green economy policies: Click here to enter text.

Fiscal policy 2:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
iv. National development priorities: Click here to enter text.
v. An inclusive green economy: Click here to enter text.
vi. Main linkages/synergies with:
vii. National development plan: Click here to enter text.
viii. Inclusive green economy policies: Click here to enter text.

Fiscal policy 3:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with:
    a. National development plan: Click here to enter text.
    b. Inclusive green economy policies: Click here to enter text.

b. Briefly outline below the **monetary policies** that your country adopted to advance national development priorities and to foster an inclusive green economy. Outline their linkages/synergies with national development priorities and inclusive green economy policies.

Monetary policy 1:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with:
    a. National development plan: Click here to enter text.
    b. Inclusive green economy policies: Click here to enter text.

Monetary policy 2:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with:
    a. National development plan: Click here to enter text.
    b. Inclusive green economy policies: Click here to enter text.

Monetary policy 3:

i. Name: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy in the context of achieving:
    a. National development priorities: Click here to enter text.
    a. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies with:
    a. National development plan: Click here to enter text.
    a. Inclusive green economy policies: Click here to enter text.

4. Strengths and weaknesses of macroeconomic policies in relation to the achievement of national development priorities and the development of an inclusive green economy

a. Briefly highlight the main strengths and win-wins in the implementation macroeconomic policies to advance the achievement of national development priorities and to foster the development of an inclusive green economy. What actions should be undertaken to harness the weaknesses/trade-offs?

Strength/win-wins 1:

In relation to national development priorities:

i. How is this a strength of macroeconomic policies in advancing achievement of national development priorities? Click here to enter text.
ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to advance the achievement of national development priorities? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a strength of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.
ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to foster development of an inclusive green economy? Click here to enter text.

Strength/win-wins 2:

In relation to national development priorities:

i. How is this a strength of macroeconomic policies in advancing the achievement of national development priorities? Click here to enter text.
ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to advance the achievement of national development priorities? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a strength of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.
ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to foster the development of an inclusive green economy? Click here to enter text.

Strength/win-wins 3:

In relation to national development priorities:

i. How is this a strength of macroeconomic policies in advancing the achievement of national development priorities? Click here to enter text.

ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to advance the achievement of national development priorities? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a strength of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.

ii. What actions are needed to take advantage of this strength to support the formulation and implementation of macroeconomic policies to foster the development of an inclusive green economy? Click here to enter text.

b. Briefly highlight the main weaknesses and/ trade-offs in the implementation of macroeconomic policies to advance the achievement of national development priorities and to foster the development of an inclusive green economy. What measures and remedial actions should be taken to overcome the weaknesses/trade-offs?

Weakness/trade-off 1:

In relation to national development priorities:

i. How is this a weakness/ trade-off of macroeconomic policies in advancing the achievement of national development priorities? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a weakness/trade-off of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

Weakness/trade-off 2:

In relation to national development priorities:

i. How is this a weakness/trade-off of macroeconomic policies in advancing the achievement of national development priorities? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a weakness/trade-off of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

Weakness/trade-off 3:

In relation to national development priorities:

i. How is this a weakness/trade-off of macroeconomic policies in advancing the achievement of national development priorities? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

In relation to an inclusive green economy:

i. How is this a weakness/trade-off of macroeconomic policies in fostering the development of an inclusive green economy? Click here to enter text.

ii. What are the required remedial actions? Click here to enter text.

5. Good practices, success factors and lessons learned in the design and implementation of macroeconomic policies to advance achievement of national development priorities and to foster the development of an inclusive green economy

a. Briefly highlight as indicated below, some of the good practices, success factors and lessons learned in the formulation and implementation of macroeconomic policies to advance the achievement of national development priorities and to foster the development of an inclusive green economy.

Good Practice 1:

i. Name of policy: Click here to enter text.
ii. Objective and brief description of the process of formulation and implementation of the policy: Click here to enter text.
iii. Outcome of implementation of policy: Click here to enter text.
iv. Success factors (what made it a success?): Click here to enter text.
v. Lessons learned that should be taken into account to ensure the successful development and formulation of the policy: Click here to enter text.

Good Practice 2:

i. Name of policy: Click here to enter text.
ii. Objective and brief description of the process of formulating and implementing the policy: Click here to enter text.
iii. Outcome of implementation of policy: Click here to enter text.
iv. Success factors (what made it a success?): Click here to enter text.
v. Lessons learned that should be taken into account to ensure the successful development and formulation of the policy): Click here to enter text.

Good Practice 3:

i. Name of policy: Click here to enter text.
ii. Objective and brief description of the process of formulating and implementing the policy: Click here to enter text.
iii. Outcome of implementation of policy: Click here to enter text.
iv. Success factors (what made it a success?): Click here to enter text.
v. Lessons learned that should be taken into account to ensure the successful development and formulation of the policy): Click here to enter text.

6. Other sectoral or national policies and strategies being pursued to achieve the country's national development/structural transformation goals/objectives:

Apart from the macroeconomic and inclusive green economy policies and strategies that have been adopted ***[as indicated in the questions above]***, what other sectoral or national policies or strategies are being pursued to achieve the country's national development/structural transformation goals/objectives?

Other policy/policy instrument 1:

i. Name of the sectoral or national policy/ strategy/instrument: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy/strategy/ instrument in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies of the policy/strategy/instrument with structural transformation policies: Click here to enter text.

Other policy/policy instrument 2:

i. Name of the sectoral or national policy/strategy/instrument: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy/strategy/instrument in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies of the policy/strategy/instrument with structural transformation policies: Click here to enter text.

Other policy/policy instrument 3:

i. Name of the sectoral or national policy/strategy/instrument: Click here to enter text.
ii. Year adopted: Click here to enter text.
iii. Main objective/s and purpose of the policy/strategy/instrument in the context of achieving:
    a. National development priorities: Click here to enter text.
    b. An inclusive green economy: Click here to enter text.
iv. Main linkages/synergies of the policy/strategy/instrument with structural transformation policies: Click here to enter text.

7. Contact information on the person completing the questionnaire:

Title (Prof./Dr./Mr./Mrs./Ms.)	Click here to enter text.
First Name	Click here to enter text.
Last Name	Click here to enter text.
Designation/Job Title	Click here to enter text.
Organization/Institution	Click here to enter text.
Address	Click here to enter text.
Telephone number	Click here to enter text.
Fax number	Click here to enter text.
Email address	Click here to enter text.
Website of organization/institution	Click here to enter text.
Institutions consulted	Click here to enter text.
Country	Click here to enter text.
Date of completion of questionnaire	Click here to enter text.

THIS IS THE END OF THE QUESTIONNAIRE

THANK YOU FOR TAKING TIME TO COMPLETE THIS QUESTIONNAIRE

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