



Kenya Green Economy Strategy and Implementation Plan (GESIP)

Maanzoni-1 Draft

May 2015

- Publisher
- Acknowledgements and Foreword / Preface
- Executive Summary

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1. INTRODUCTION

1.1 Background

Steady growth and sustainable development are basic tenets of Kenya Vision 2030 and the Constitution of Kenya 2010. The Constitution recognizes clean and healthy environment as a basic human right and provides for sustainable exploitation, utilization, management and conservation of the environment and natural resources. On the other hand, Kenya Vision 2030 aims at achieving an annual growth of 10 percent per annum and transforming Kenya into “a globally competitive and prosperous country with a high quality of life by 2030”. Despite the progress in achieving various social-economic development targets, the Kenyan economy still faces several challenges. It has had relatively slow growth since 2008 and on average the growth rate remains far below the 10 percent target. The economy has suffered various shocks including fluctuating global oil prices, slowdown in global growth, terrorism and insecurity, and adverse impacts of extreme weather. Kenya’s growth therefore remains vulnerable to external shocks.

Kenya affirms, cognisant of the challenges facing us today, that it is committed to undertaking a transition to a green economy in line with the outcome of the United Nations Conference on Sustainable Development (UNCSD) held in 2012. The outcome document of the Rio+20 summit; *The Future We Want*, (UNCSD, 2012) highlighted transition to a green economy as a means towards sustainable development. Transitioning could contribute to “eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth’s ecosystems.”

The Government is developing a green economy strategy to support development efforts towards addressing key challenges such as poverty, unemployment, inequality, environmental degradation, climate change and variability, infrastructure gaps and food insecurity. The Kenya Green Economy Assessment Report launched by UNEP in 2014 concluded that Kenya is already implementing various green economy approaches and policies, and that a transition to green economy has positive impacts in the medium and long term across all the sectors of the economy. By 2030, a green growth path results in faster growth, a cleaner environment and high productivity, relative to the ‘business as usual’ growth scenario. In the Medium Term Plan 2013-2017, the Government committed to develop a green economy strategy.

There is also a need to ensure that work designed to transition to the green economy is consistent with the Sustainable Development Goals (SDGs) envisioned at the Rio+20 process. The SDGs cover various aspects of sustainable development from ending poverty and hunger, to health, equality and inclusivity as well as access to energy. Green Economy provides an avenue for functional interaction between Economy and the SDGs. – The SDGs, although not yet adopted, provide a framework in which green growth targets can reorient national economic development planning as well as guide the behavior of both the public and private sectors

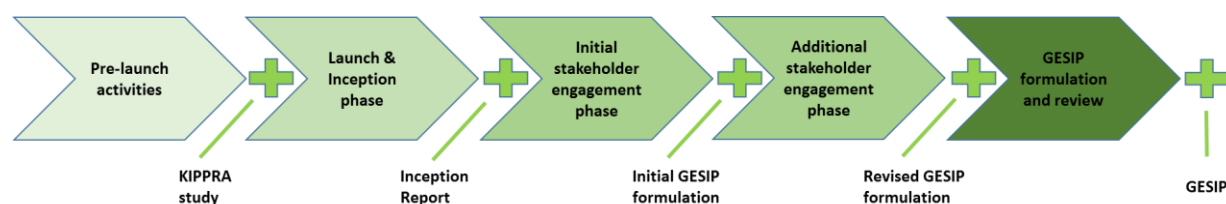
Although there is no consensus on a common definition of green economy, in the Kenya context it refers to a shift towards a development path that promotes resource efficiency and sustainable management of natural resources, social inclusion, resilience, and sustainable infrastructure development. Kenya's key policies and programmes supportive of a green economy include investments in renewable energy, promotion of resource-efficient and cleaner production, enhanced resilience to economic and climatic shocks, pollution control and waste management, environmental planning and governance, and restoration of forest ecosystems. Kenya has therefore taken several steps towards greening the economy and this strategy seeks to consolidate, up-scale and embed green growth initiatives in national development.

1.2 Formulation Process

The GESIP was produced through a participatory and consultative process that started in 2013 involving the national government (key ministries), the 47 county governments, development partners, private sector and civil society organizations. The consultations provided a forum for key stakeholders to provide inputs towards the development of the GESIP. The working session recommended five building blocks for a Kenya GESIP namely (i) promoting sustainable infrastructure development, (ii) building resilience, (iii) sustainable natural resource management, (iv) promoting resource efficiency and (v) social inclusion and sustainable livelihood. Key sectors were also identified including energy, transport, water supply and sanitation, public health, waste management, Information and Communication Technologies (ICT), Agriculture, livestock, forestry and fisheries, land and ecosystem management, extractives (oil, gas and mining), education, trade, manufacturing and industry, building and construction, tourism, building and construction.

The process of developing the GESIP followed five phases, as shown in Figure 1.1. Stakeholder engagement was designed to be a core feature of the process. Before the project commenced, a year-long green economy assessment study was commissioned by the Ministry of Environment, Water and Natural Resources which formed the basis for understanding the implications of continued reliance on a business-as-usual approach to development in Kenya. The study highlighted the challenges, risks and opportunities of transition to a green economy. There was an inception phase that provided an opportunity for consultations on national perspectives regarding green growth. The transition following elections in 2013 and implementation of devolution pointed on the need to re-orient and engage with government, and other stakeholders. Drafting of GESIP began in January 2014 culminating in a validation workshop at the end of the process.

Figure 1.1: Overall process for development of the Kenya GESIP



1.3 Guiding Principles of the GESIP

GESIP is based on the following four principles that draw from national policy planning principles including as enshrined in Article 10 of the Constitution of Kenya. The Constitution binds all state organs and officers to abide by the national values and principles of governance including:

- *Stakeholder participation (Article 10(2) (a) – participation of the people)*: These stakeholders, internal and external to government, include various government ministries representing key sectors such as water, industrialization, energy, planning, treasury, agriculture. Others are external to the national government including civil society organizations, private sector, counties, and international development partners. A GESIP steering committee was constituted to help guide the process. Thus the perspectives cut across the political, economic, and institutional spectrum.
- *Action oriented while being cognisant of human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised (Article 10(2) (b))*: This principle requires that strategy must be actionable and clear, providing sufficient operational guidance in order to help build confidence among all actors. By necessity, being action-oriented requires a basic description of the specific policies and measures that will be established as a result of the overall strategy. Over time, the redirection of the current business-as-usual investment trajectory through these tangible changes will lead to the types of results envisioned.
- *Good governance, integrity, transparency and accountability (S. 10(2) (c))*: This recognizes that effective development coordination depends on the participation of all actors, and recognizes the diversity and complementarities of their functions. Building partnerships in Kenya is a process to expand the network of people who will be affected by the implementation of the strategy, notably the private sector, academic institutions, civil society groups, and government. The partnerships nurtured and established through such a process will be dynamic and impactful. Through constructive engagement, they can provide substantive input to support or oppose decisions, and in the process be influential in the ability of the GESIP to achieve the goals associated with the implementation of a green economy related to economic, social and environmental policy framework.
- *Sustainable development (Article 10(2) (d))*: The constitution lays an emphasis on promoting and inculcating of the value of sustainable development. Article 42 recognizes a clean and healthy environment as a right.

2. SITUATION ANALYSIS

2.1 Overview

Despite the achievements in meeting various social economic development targets, the Kenyan economy faces several challenges. It has had sluggish growth since 2008 and on average the growth rate remains far below the 10% target. In 2014, the GDP growth rate was 5.3 per cent down from 5.7 per cent in 2013. Although the economy has over the last one year enjoyed lower production costs due to fall in global oil prices, uncertainties related to terrorism and insecurity, and adverse weather conditions have persisted. Kenya's long-term growth therefore remains vulnerable to external shocks. Following devolution, the Government is implementing various measures to combat poverty, youth unemployment, environmental degradation and income inequality along with availing access to education and health for all in order to spur economic transformation.

Sustainable economic growth is also threatened by Kenya's vulnerability to climate change. It is estimated that 42% of Kenya's GDP and 70% of overall employment is derived from natural resource-related sectors, including agriculture, mining, forestry, fishing, tourism, water supply and energy. While climate change will lead to adverse impacts across all of these sectors, agricultural stands apart as particularly vulnerable. This is because agricultural systems are predominantly rain-fed and highly susceptible to shifting rain patterns and extreme climate events like drought whose frequencies and intensities are expected to increase as a result of climate change. It is projected that the resultant reductions in crop yield will have devastating effects on the country's economy in the medium term. In the recent years, Kenya has made significant discoveries of commercially viable deposits of oil, natural gas, coal and other minerals. The exploitation of these resources is expected to significantly change the structure of the economy and to produce impacts of the environment and social aspects. .

2.2 Scenario Analysis

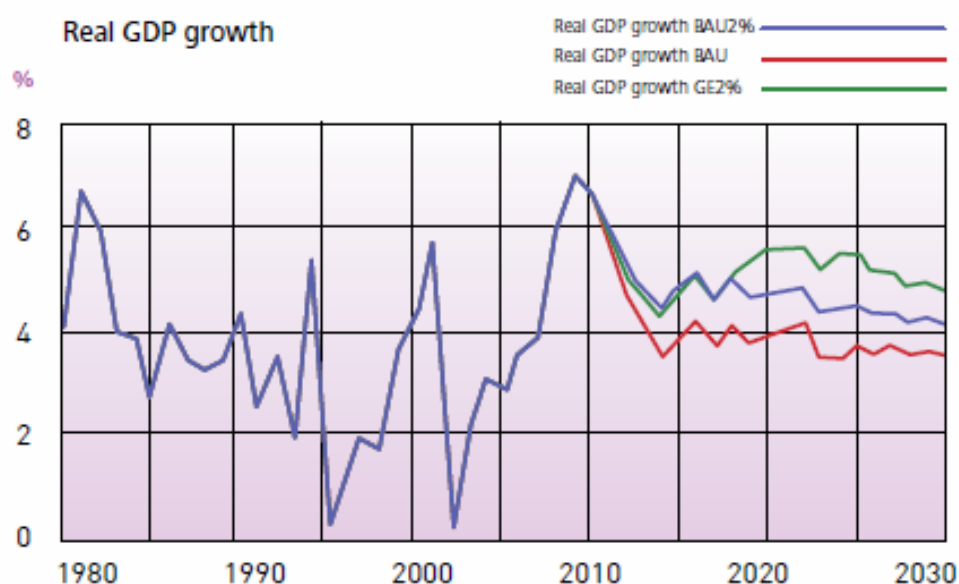
With regard to quantification of the level of investment required to support the transition to a green economy, according to the Green Economy Report by UNEP (2011), the level of additional investment needed is between 1 per cent and 2.5 per cent of global Gross Domestic Product (GDP) per year from 2010 to 2050. Based on a range of specific sectoral policy targets, the Green Economy Report modeling results allocate investments totaling 2 per cent of global GDP across a range of sectors, with the heaviest investment in energy and transport. These investment cost estimates compare well with estimates derived from other sources such as the International Energy Agency

According to the analysis, the Business As Usual (BAU) or baseline scenario assumes no fundamental changes in policy or external conditions up to 2030; The BAU2% allocates an additional 2 per cent of GDP per annum as investments to the current BAU investment path; and the GE2% scenario assumes an additional 2 per cent of GDP per annum as green investments to the baseline. Following the assumptions above, this study allocates 2 per cent of Kenya's GDP per annum to investments in green economy interventions.

GDP Growth

From an economy-wide perspective, positive economic returns are expected approximately 7 to 10 years after green economy policy interventions. The national real GDP is projected to exceed the BAU2% by about 12 per cent by 2030, to reach KES 3.6 trillion (US\$45 billion). Annual real GDP growth rates with GE and BAU interventions are 5.2 per cent and 4.6 per cent, respectively, in the 2012-2030 period on average (Figure 2.1).

Figure 2.1: Trends in Real GDP Growth Rate in BAU, BAU2% and GE2% Scenarios

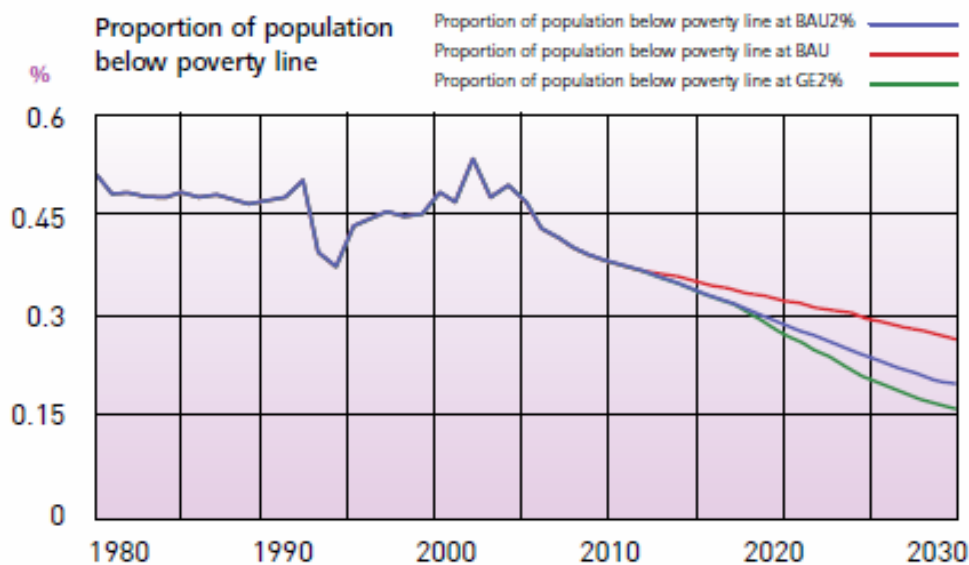


Source: T-21

Poverty Reduction

With regard to poverty reduction, the Kenyan population will also benefit from this economic development as real per capita income will rise from KES 39,897 (US\$498.7) in 2012 to KES 69,702 (US\$871.3) in 2030 under the GE2% scenario, compared to KES 53,146 (US\$664.3) in 2030 under the BAU2% scenario. The proportion of the population below the poverty line under GE2% is expected to be about 2 percentage points lower on average between 2015 and 2030 than that of the BAU2% (Figure 2.2).

Figure 2.2: Trends in the National Poverty Rate in BAU, BAU2% and GE2% Scenarios

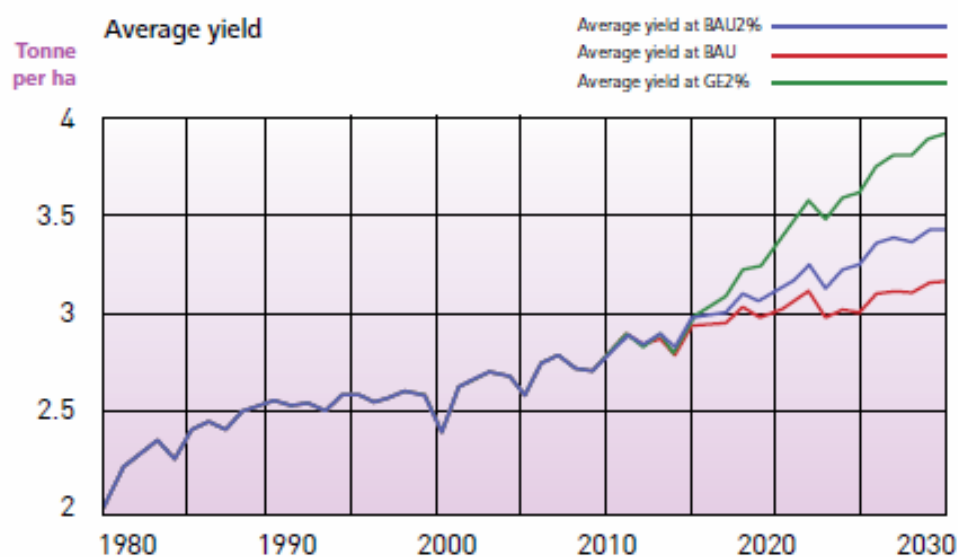


Source: T-21

Agricultural Yield

As a result of green investments, average agricultural yield is expected to exceed BAU2% by about 15 per cent in 2030. In terms of crop production, a number of green economy measures (such as water and land-use investments) will mitigate the impact of climate change on productivity, promote more sustainable farming and boost crop yields relative to the BAU case, consequently improving nutrition and food security (Figure 2.3).

Figure 2.3: Trends in Average Agricultural Yield in BAU, BAU2% and GE2% Scenarios

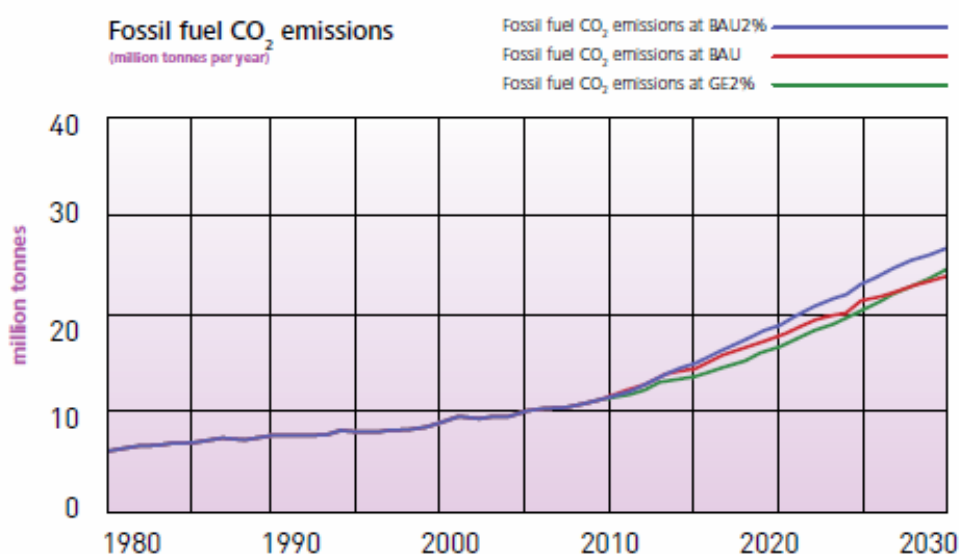


Source: T-21

Fossil Fuel Emissions

In the energy sector, green economy investments are allocated to reduce energy consumption and to expand the supply of electricity from renewable energy. Energy savings will reach 2 per cent of future BAU energy consumption in 2030. Concerning renewable energy, public and private sector interventions are projected to increase geothermal power capacity from 0.1 GW (2011) to 1.34 GW by 2030 (twice as much as in the BAU scenario). Other new renewable would grow from 0.01 GW to 1.2 GW by the year 2030, reaching a total 20 per cent of power supply (Figure 2.4).

Figure 2.4: Trends in Fossil Fuel CO₂ Emissions in BAU, BAU2% and GE2% Scenarios



Source: T-21

The economy-wide results indicate that green economy investments yield several positive impacts in the medium- to long-term period across all sectors. However, in the short run, green economy investments may be associated with adjustment costs such that the gain in GDP is not substantial compared to BAU. Green policies associated with short-term changes in prices of final goods and services, costs of operations, and technology choices may create different welfare costs and benefits for different segments of the population.

2.3 Key Challenges to a Green Economy in Kenya

In addition to providing a package of initiatives and actions that are designed to spur green transition, the GESIP also provides the overall policy framework to facilitate a transition to green economy and outlines the need to mainstream and align green economy initiatives across the economic, social and environmental spheres of society towards a globally competitive low carbon growth path. This is the Vision for Green Economy in Kenya.

Although there is growing national support for a green economy through the 'Environment and Sustainable Development' paradigm shift, Kenya is faced with five key challenges in effectively implementing a green economy strategy. First, although several laws and regulations have been developed to encourage sustainability across sectors, compliance and enforcement remains problematic.

Second, there currently exist few standards for green technologies, goods or services. This is evidenced by an inadequacy of information about green technologies, thus stifling technology transfer and adoption and adaptation. Nevertheless, progress is underway as evidenced by current efforts to set minimum energy efficiency standards for certain appliances. What will also be needed are environmental standards for green technologies (such as solar panels), food safety, and animal and crop products. An approach that organizes and addresses opportunities to strengthen environmental standards by sector will benefit the environment as well as Kenya's ability to trade internationally. Various regulations and standards are increasingly being applied in international trade. There is thus need to create an enabling environment where small and medium sized enterprises are both able to meet them and also enhance profitability.

Third, the current economic policy framework in Kenya needs to account for the intrinsic value of its natural capital and support sustainable development. Like most countries, Kenyan prices and policy regime do not fully account for the external costs associated with technologies, products and practices that are environmentally friendly. This also tends to diminish any nascent demand for green alternatives. What Kenya requires is the incorporation of natural resources in the System of National Accounts i.e. the derivation of indicators and statistics to monitor the interaction between Kenya's economy and key, if not all natural resources and use the results thereof for decision making e.g. design of fiscal policy instruments to achieve desired outcomes on the stocks of NRs and/or environmental quality. There is potential to use fiscal policy instruments such as environmental taxes, subsidies, pollution charges, public expenditure on green infrastructure, public procurement, feed-in-tariffs and grants. Kenya already has a feed-in tariff to promote green energy but it excludes some resources such as wave, tidal and ocean thermal energy conversion. These tariffs help to level the playing field with fossil fuel energy sources.

Fourth, increased funding will be needed to effect a transition to a green economy due to challenges in up front capital costs, particularly in areas like energy where up-front costs for clean technologies can be high. These funds will need to originate from both the private and public sector. At the international level, Kenya may be underutilizing international donor funds available for low-carbon development. At the domestic level, enhancing its ability to mobilize domestic funds for investment in new renewable technologies will and products will require addressing current disincentives.

Box 2.1: Access to financing remains one of the biggest challenges in transitioning to a green economy.

Easing the terms for access to finance is crucial for Kenya's adoption of greener technologies and investment in sustainable business practices. It is also crucial for supporting emerging entrepreneurs and their contribution to domestic green innovations. Financial constraints are especially high for capital-intensive sub-sectors associated with infrastructure. Moreover, new entrants into the innovation process or the green services economy are disadvantaged since they have no history of success and often only limited access to internal finance. Furthermore, in the case of green technology transfer, technological and market uncertainty are particularly high, raising risks.

Fifth, there is insufficient knowledge regarding the costs and performance characteristics of available green technologies. Many studies have shown that the costs of turning over the current fossil-fuel based technology stock in transport and power supply to green alternatives are low relative to its benefits. For example, the International Energy Agency asserts that fuel savings in transport and power supply could offset the cost of green investments (IEA, 2012). However, there are entrenched policy, market and financial barriers that prevent the transition from fossil fuel-based technology to greener options. Efforts to increase awareness of energy efficiency and renewable energy technologies can improve knowledge of best practices, promote the concept of a green economy and provide needed education and outreach.

Finally, a number of cross-sectoral barriers to transition have been identified, and need to be addressed as part of a green transition. These include:

- Inaccessibility to local/international markets;
- The growing concerns over youth employment;
- Training and skills necessary for new green opportunities;
- Insufficient awareness about green economy best practices;
- Obsolete and slow adoption of technology;
- Devolution transitional challenges regarding capacity and policy coordination;
- Capacity to leverage private sector investment;
- Insufficient incentives, low rate of return on green investment; and
- Inadequate access to information on climate and weather data, which can impact resilience.

2.4 Rationale for the GESIP

The Green Economy Strategy and Implementation Plan (GESIP) has been formulated to support national development goals for “rapid economic growth in a stable macro-economic environment, modernisation of our infrastructure, diversification and commercialisation of agriculture, food security, a higher contribution of manufacturing to GDP, wider access to African and global markets, wider access for Kenyans to better quality education and health care, job creation targeting unemployed youth, provision of better housing and provision of improved water sources and sanitation to Kenyan households” (Republic of Kenya, 2013). The strategy aims to ensure that the goals of Vision 2030 are achieved in a sustainable way. Central to the strategy are policy options that enhance and exploit synergies between economic growth, environmental sustainability, and social equity.

The strategy outlines the policy options for a green economy in the context. It takes cognizant of the several on-going green economy initiatives, policies and activities, and therefore provides a framework to consolidate and catalyse the efforts of different stakeholders. Key among the on-going initiatives include: investments in renewable energy especially geo-thermal, and various sector policies such as Energy Policy, Draft Climate Change Policy and Bill; Agricultural Sector Development Support Programme (*ASDSP*); draft National Environmental Policy, Industrialization policy and various structural reforms aimed at anchoring development efforts within the context of the Constitution of Kenya. The strategy also proposes measures to respond to emerging development challenges.

Projections show that under a green economy scenario, Kenya will realise faster economic growth in the long run; the national real GDP is projected to exceed the baseline by 6-19 per cent by 2030. In addition, carbon dioxide emissions are projected to be 15 per cent lower than under the conventional business as usual growth scenario. In agriculture, policy simulations indicate that sustainable agricultural practices are expected to result in higher yields than the conventional business as usual model. The green growth path offers opportunities for investment, employment creation and poverty reduction.

There are several positive forward-looking elements to a green transition, but they also must be considered in the framework of existing opportunities and challenges. The GESIP seeks to consolidate, re-focus and prioritize policy initiatives to address existing challenges and put the economy on the path of sustainable development.

3. PRECONDITIONS FOR GREEN ECONOMY TRANSITION

This strategy recognises that macroeconomic constraints may hamper transition to green economy. The macroeconomic framework underpinning the Green Economy Strategy requires that Kenya sustains high growth consistent with Vision 2030 and firmly embeds the principles of sustainable development in the overall growth strategy. The framework builds on the achievements realised during the implementation of the First and Second Medium Term Plans for the Vision 2030. Major achievements include restoring growth, maintaining macroeconomic stability, re-aligning public expenditure towards energy and infrastructure development and provision of social economic services, structural reforms as part of the implementation of the Constitution of Kenya 2010 and financial sector deepening.

The policy framework for green economy is designed to support a globally competitive low carbon development path through promoting economic resilience and resource efficiency, sustainable management of natural resources, development of sustainable infrastructure, and providing support for social inclusion. The policy mix is aimed at aligning national policies towards supporting and accelerating the process of greening the economy by addressing vulnerabilities to shocks. Significant achievements have been made in restoring macroeconomic stability, although recent macroeconomic performance indicators reveal that Kenya's economy remains vulnerable to external shocks emanating from adverse weather conditions, international oil and food prices, slowdown in global growth, and terrorism and insecurity. Other key national challenges include infrastructure deficits, unemployment and poverty.

The macro policy framework thus identifies various key areas of focus as part of a transition to green economy:

1. Maintaining macroeconomic stability: Macroeconomic stability is one of the key foundations of a sound economic environment for private sector development. The government will pursue prudent fiscal and monetary policy to ensure price and exchange rate stability, and foster fiscal discipline. The key medium term targets include core inflation of 5 percent; gross public debt should not exceed 50 percent of GDP, the Central Bank of Kenya to support build-up of foreign exchange reserves to not less than 4.5 months of import cover. The measures will enhance macroeconomic resilience including capacity to respond to external shocks.
2. Green Economy fiscal reform: The fiscal policy framework will continue to align more resources towards infrastructure development and social services, and use policy instruments to promote goals of green economy. Public investments and public private partnerships directed at developing renewable energy sources and an efficient transport system including road, railway,

air and water transport will continue to receive priority. The government will also review and explore use of fiscal instruments such as taxation, guarantees, and expenditure tools such as 'green procurement' to promote green economy.

3. Public health reforms have been identified as a key component of green economy strategy. Both national and county governments are expected to address health problems that are associated with rapid urbanisation, and the needs of the urban and rural poor. The National Health policy provides the overall framework targeting a life expectancy of 72 years compared to about 56 years in 2013. Improvements in the public health sector also require improvement in related sectors, most notably access to clean water, housing, sanitation and food security.

Education remains the single largest sector in terms of public expenditure allocation, in developing a green economy, skills, innovation, and research and development will require increased attention.

4. Research and development for all sectors into the types of green economy practices and technologies that can be implemented is a key part of implementation. Supporting academic research as well as partnerships with the private sector can assist in developing new technologies and harnessing existing green technologies.
5. National and County governments: As counties take an increased role in governance, sound inter-governmental policy coordination is critical for implementation of GESIP. Both parties will also continue to review and implement social protection tools targeting vulnerable members of the community so as to reduce vulnerability at the household level.
6. Economic resilience and sustainable structural transformation. Good governance and regional integration to boost productivity and efficiency at the regional and national level have been identified as key for enhancing resilience. Implementation of structural reforms underlying the principles of Constitution of Kenya 2010 will continue to receive priority. Structural reforms will thus need to be geared towards strengthening management of public resources and eradication of corruption. Consistent with Vision 2030, the national and county governments will promote diversification, and transformation while at the same time ensuring high levels of resource efficiency and productivity in product value chains.
7. Deepening financial inclusion is expected to enhance economic resilience and support green economy transition. The government will, however need to explore diversification of financial instruments that support green economy such as green bonds and mortgages. Monetary authorities will also need to enhance prudential and regulatory oversight of the financial system to ensure stability and growth. There will also be need to come up with strategy to access the diverse international funding opportunities that have different requirements including CDM, NAMA and green funds, and also come up with options on financing green economy.
8. Cost of doing business: The private sector is expected to play an important role in driving green economy investments. The national and county governments should therefore ensure a competitive business environment especially administrative requirements and regulations governing the business operations. Governments and the private sector can also look at

partnerships to reduce the cost of doing business while harnessing the latest knowledge and practices in science, technology and innovation. Examples of this include supports to entrepreneurship through strengthened protection of intellectual property rights and helping entrepreneurs and innovators navigate the technology development process from concept to market.

9. Governance framework for extractive industries: The recent discoveries of oil, gas, coal and other mineral resources point to the great potential of the sector in driving the Kenyan economy. It is projected that once exploitation begins, potential for Kenya's energy self-sufficiency will be highly enhanced provided investments in value addition to the commodities is taken. A strong governance framework is required to enhance transparent and accountable sharing and utilization of natural resource rents. The Kenyan authorities will also promote use of cleaner/non-fossil energy technologies in the exploitation of natural resources. The government will also put in place mechanisms to enhance enforcement and compliance with environmental laws and regulations.
10. International trade regime: The number of technical and environmental standards meant to protect the environment and health is increasing rapidly. These include Sanitary and Phytosanitary measures, and technical standards for products and labelling covering various items such as plants and plant products, automobiles, electrical equipment and wood and wood products. The policy concerns relate to developing relevant infrastructure for calibration, testing, certification, accreditation, quality assurance and standardization. In this regard, the national government will work closely with the private sector in addressing issues related to trade facilitation.
11. Capacity building: Elements related to capacity building, including education (mentioned specifically in point four) and skills training are mentioned through the GESIP in several places explicitly. This does not minimize the fact that capacity building is an overarching focus area for the entire country. Integrating green economy concepts, programmes and actions requires that capacity is built at all levels of government and in a manner that citizens can each act, with the proper knowledge and supports, in ways individually that contribute to transition.
12. Employment/Job creation is a key policy concern for the Government which committed to creating 1 million jobs annually. Green economy will support employment creation through production and trade in green economy technologies, goods and services such as organic and conservation agriculture including production of natural inputs; manufacture and trade in recycled, re-manufactured goods, eco-labeling, production of non-timber forest products (NTFPs) for cosmetics, pharmaceuticals and food industry, ecotourism, integrated waste management, slum up-grading and renewable energy. However, as part of the transition to green economy it is important that the government addresses key skills bottlenecks.

These areas of focus are considered through the individual sectoral strategies that are presented in the following section.

4. GREEN ECONOMY STRATEGIC MODEL

4.1 Strategic Areas

The strategy is developed around five focus areas, which align with on-going development efforts and plans, including Kenya Vision 2030 and MTP2, and inform future policy direction. The focus areas form the foundation of GESIP and are intended to support the continued transition to a greener economy.

Each of the focus areas has emerged from a range of scoping activities, assessments and stakeholder consultations that were held throughout the process of developing the strategy. These are: Promoting sustainable infrastructure; Building resilience; Sustainable natural resource management; Promoting resource efficiency; and Social inclusion and sustainable livelihoods.

4.1.1 Strategic Area 1: Promoting Sustainable Infrastructure

Infrastructure is the key to creating a healthy and thriving economic climate for expansion of economic activity. It is important for economic transformation and plays a critical role in creating and enhancing sustainability. Infrastructure development is a key foundation of Vision 2030, and the government is already implementing major projects aimed at up-grading infrastructure including railway, road, air and water infrastructure and transport services. Promoting sustainable infrastructure entails ensuring that the design, implementation and operations take into account climatic considerations as well as expected socio-economic changes such as urbanisation, population growth and economic diversification. Sustainable infrastructure design is not just about new infrastructure. It is about rehabilitation, reuse or optimisation of existing infrastructure, which is consistent with the principles of urban sustainability and global sustainable development. This encompasses infrastructure renewal, long-term economic analysis of infrastructure, energy use and reduced infrastructure costs, the protection of existing infrastructure from environmental degradation, material selection for sustainability, quality, durability and energy conservation, minimising waste and materials, the redesign of infrastructure in light of global climate change and the remediation of environmentally damaged soils and water. Infrastructure management also entails balancing natural and built infrastructure in optimal combinations for large and small-scale developments.

Sustainable infrastructure development applies to a number of sectors including energy, transport, agriculture, water and sanitation and irrigation, waste management, and public health. Priority areas include increased investment in renewable energy resources; promoting energy access in remote areas; improved infrastructure targeted at reducing post-harvest losses and waste focusing on areas such as storage, processing and packaging; diversifying energy sources; housing and access to clean water and sanitation; water harvesting, storage and distribution infrastructure; promoting public transport and mass transport systems such as railways; and promoting integration of energy systems at the regional level.

Strategic Objectives

Objective 1.1: Integrate GE principles / technologies in transport infrastructure development

Strategic Actions:

- Establish rapid mass transit in 3 cities (Nairobi, Mombasa, Kisumu)
- Promote non- motorized transport

Objective 1.2: Enhance sanitation at county level

Strategic Actions:

- Construct and upgrade Sewerage Infrastructure in the counties
- Rehabilitate drainage systems in urban centers

Objective 1.3: Increase the share of Renewable energy in the energy mix to 75%

Strategic Actions:

- Review Feed-in-Tariff (FiT) policy to include more off- grid generation and net-metering
- Establish large-scale Community Biogas /Solar PV/ wind-farm generating systems in off-grid areas

Objective 1.4: Promotion Energy efficiency and conservation

Strategic Actions:

- Roll out energy centers to counties
- Promote energy efficiency appliances and technologies (LPG, LED lamps, improved cook-stoves)

Objective 1.5: Promoting green technologies in construction industry

Strategic Actions:

- Enhance enforcement of the building codes
- Integrate green technologies in design and construction

Objective 1.6: Align capital markets policy on financial Infrastructure with green economy priorities

Strategic Actions:

- Promote financial instruments, including debt financing (bonds), to direct capital to green economy infrastructure initiatives driven by the private sector.
- Establish a sovereign bond program targeting government infrastructure projects within the priority industries, agriculture, transportation, energy, ICT and water.

- Address policy, regulatory and legal framework bottlenecks which restrict flow of capital to green economy initiatives and public private partnership (PPP) projects, including introduction of tax incentives

Objective 1.7: Promote integrated waste management in all the counties by 2020

Strategic Actions:

- Roll out pollution prevention programs across manufacturing and service industries
- Roll out recycling and industrial symbiosis projects through private public partnerships

Objective 1.8: Increased food security

Strategic Actions:

- Irrigation for enhanced food production
- Road construction to improve food production and reduce post-harvest waste

4.1.2 Strategic Area 2: Building Resilience

Kenya's resilience building efforts will focus on ensuring that the economy and livelihoods are less vulnerable to risks and challenges of climate change and changing growth dynamics. In recent years, Kenya's growth has been adversely affected by external shocks including slowdown in global economic growth, drought, and fluctuations in global energy prices. The aim of this building block is to embed resilience in the growth strategy. This is not a new concept, and indeed a part of this task is deepening resilience actions and programmes that are already in place, as well as implementing new, additional measures. At the macroeconomic level, priority areas include good governance, and a stable macroeconomic environment underpinned by stable prices including inflation, interest rates and exchange rate as well as sustainable management of public finances; and promoting diversification. In addition, resilience building is intended as a proactive approach to reduce vulnerability by integrating emerging climate change and variability risks into sectoral development strategies. Another key priority area will involve continued use of social protection tools such as cash transfers to vulnerable members of the society, livelihood diversification schemes, and pension reforms. This will compliment the work done under the National Climate Change Action Plan (NCCAP 2013-2017) and the National Adaptation Plan on issues of resilience to climate change.

Strategic Objectives

Objective 2.1: To promote efficient management of public finances

Strategic Actions:

- Build capacities for national and county institutions on effective public finance management in planning and implementation of resilience building projects
- Mobilize resources for building resilience

Objective 2.2: To promote alternative income generating activities for communities vulnerable to impacts of climate change

Strategic Actions:

- Harness opportunities in invasive tree species for commercial purposes
- Growing of fast-growing, high value perennial trees that have multiple commercial uses
- Expand Social protection schemes to cushion vulnerable members of the society

Objective 2.3: To enhance disaster risk reduction measures by 2030

Strategic Actions:

- Mainstream disaster management and climate change in sectoral development strategies
- Establish an integrated national early warning system for disaster risk management
- Expansion of road network in ASAL and other food-scarce areas.

4.1.3 Strategic Area 3: Sustainable Natural Resource Management

Sustainable natural resource management refers to effective management of natural wealth (biological and physical) which supports about 42 percent of GDP. The sector's importance is expected to increase following the discovery of oil, gas and other minerals. This focus area covers sectors such as agriculture, forestry, water, fisheries, wildlife, land use, fossil fuel extraction and mining. The key priority areas include strengthening natural resource governance institutions; ensure fair and transparent taxation and sharing of natural resources rents; improving natural capital accounting through resource mapping; supporting standards and certification of natural resource products; and promoting sustainable land and water resource management practices.

Strategic Objectives

Objective 3.1: To ensure inclusion of Natural Resources in the calculation of GDP

GDP values in the county are prepared using the System of National Accounts (SNA). There is need to expand SNA to ensure adequate incorporation of the environment and natural resources into national economic planning. In addition, to ensure a more accurate depiction of GDP, it can allow the country to monitor depletion of natural resources that can threaten ecological integrity as well as economic productivity and thereby trigger needed policy responses.

Strategic Actions:

- Effect the environmental policy that fosters payment for ecosystem services in Kenya's water towers.
- Adopt Natural Resources accounting system

Objective 3.2: To catalyse the achievement of 10% tree cover by 2020

Strategic Actions:

- Roll out “trees for pay” program for youth
- Enhance the reforestation of degraded lands

Objective 3.3: To increase per-capita water by 200m³ availability by 2025

Strategic Actions:

- Reduce non-revenue water by half
- Promote rain water harvesting (at household and institutional) level through increased water collection and storage’

Objective 3.4: Upscale wildlife conservation programmes

Strategic Actions:

- Promote establishment of conservancies to secure wildlife migration corridors and dispersal areas
- enforcement of anti-poaching regulations as stipulated by the wildlife act

Objective 3.5: To adopt best practices in the extractives (Oil and Gas, mining) sector

Strategic Actions:

- Implement global best practices such as Extractive Industry Transparency Initiative(EITI)
- Adopt clean technologies
- Value addition-strict guidelines on local content

4.1.4 Strategic Area 4: Promoting Resource Efficiency

Promoting resource efficiency is an important pillar for the strategy and seeks to identify ways in which our current resource usage can be optimized, minimizing costs and impacts. Increasing resource productivity requires that over time, higher output is realized per unit of resource inputs including land, water, mineral ores, construction materials and fuels. Transition to green economy also entails support for green and eco-friendly technologies and related research and innovation activities. Investment inefficiency can lead to increased resources available to invest in green economy transition, fewer harmful emissions and less waste generation. Resource efficiency is applicable at different levels of the economy including the production supply chains. At the macroeconomic level, green economy should support high Total Factor Productivity (TFP) or GDP to Domestic material consumption ratio. At the sector level, respective measures of efficiency and productivity apply. In this regard, to support green growth, the government will develop efficiency and productivity targets and indicators. Specific opportunities and activities related to resource efficiency are identified in the relevant sector strategies.

Strategic Objectives

Objective 4.1: Increase Total Factor Productivity

Strategic Actions:

- Labour productivity increased by 20%
- Increase factor productivity by 4

4.1.5 Strategic Area 5: Social Inclusion and Sustainable Livelihoods

Social inclusion focuses on ensuring that all citizens have a place in an economy, and that they have the ability to obtain knowledge, training and skills necessary to support their families and communities through gainful employment that contributes to their health and well-being for societal growth and development. Leveraging the opportunities and achieving a just transition which buffers the downside risks associated to transitioning to a green economy requires social and labour market policies that complement economic and environmental policies. This includes ensuring that all segments of society, including youth, and the disadvantaged have access to proper social services, and ensuring that job retention and creation is a central element of a green economy. Efforts are needed to strengthen social protection and labour market policies, invest in education and skills development, and target programmes for disadvantaged groups. There is also an inherent need to respect the role of gender in the development of a green economy, and that the disadvantaged are provided with opportunities to contribute effectively. The key priorities thus include retention and creation of employment especially exploiting green growth opportunities, while providing existing and new workers with the education and skills to meet the demands of new, green jobs. Additionally, it includes focusing on critical areas within sectors where Kenya can develop green labour intensive work. Further, tracking green job development, including monitoring growth in green jobs over time, in terms of numbers, gender balance and which sub-sectors are performing best can help identify areas where policies are having a positive impact(best practices) and where more attention is needed. Green economy and green jobs actions must respect labour standards, laws and practices, wage minimums, safety, worker rights, and other elements of fair and decent work.

Strategic Objectives

Objective 5.1: Mainstream Green Economy issues into all levels of Education by 2020

Strategic Actions:

- To institutionalize education sector policy on Education for Sustainable Development(ESD)
- To re-orient GE issues into the education curriculum at all levels of education to empower people with transformative skills by 2020
- Build the capacity of educators, Trainers and health trainers and practitioners to deliver GE training pedagogy and andragogy

Objective 5.2: Promote employment creation and employability especially for youth, women and persons with special needs

Strategic Actions:

- Promote partnerships with the private sector to map and fill skills gap in the GE
- Strengthen technical and vocation skills development including apprenticeship schemes with industry along select industry value chains
- Promote creation of work hours through labour intensive public infrastructure works
- Increase attractiveness of green jobs by increasing access to social protection benefits and better working conditions.

Objective 5.3: Support growth and Establishment of MSEs

Strategic Actions:

- Promote greener management practices in established enterprises
- Promote creation of green-tech start-ups through innovation and replication
- Establish Green MSE financing mechanisms
- Promote MSEs procurement incentives
- Promote Green value chains
- Promote and support Small and Micro eco-innovative enterprises for Youth and women

Objective 5.4: improved Public health

5. IMPLEMENTATION ARRANGEMENTS

5.1 Governance and Coordination

In order for green economy implementation to be successful, it must be mainstreamed in policy planning and budgeting processes both at the national and county level. This entails embedding green economy policies and initiatives in County Integrated Development Plans (CIDPs) as well as Sector plans linked to the annual budget process. The national government has been implementing the multi-year medium term expenditure framework (MTEF) since 2000/01. This provides the framework for linking the green economy strategy, planning, policies and the budget process. MTEF Sector Working Groups should be allowed to mainstream green economy initiatives in sector plans and linked to the budgets. The Sector Working Groups (SWG) will play an important role in prioritization of green economy initiatives in the sector plans and budgets.

The mainstreaming of green economy implementation must take into account other relevant policy initiatives that are being implemented. Some of the relevant initiatives include the National Climate Change Action Plan 2013-2017 that aims to build a low carbon resilient economy, Energy Policy, Climate Change Policy, Master Plan for Conservation and Sustainable Management of Water Catchment Areas in Kenya, and Environment Policy. Ensuring that these policy initiatives and processes are complementary and not in conflict or duplicated is essential to success. Synergies will smooth implementation, reduce the potential for conflict, and generate efficiencies.

There are a wide range of sectors and stakeholders that will be involved in the implementation of the initiatives that have been identified in this strategy. It will be essential for the national government to play a prominent role given the need for leadership and coordination between different layers of government and other stakeholders including private sector and civil society.

5.2 Role of Different Actors

Responsibility for transitioning to a green economy rests with many stakeholders operating at different level and scale. This makes co-ordination a big challenge. The specific roles of different stakeholders in facilitating, synergising and supporting the transition process need to be defined and nurtured. The government will play a facilitative role and to provide an enabling environment (institutional, legal, infrastructure etc.) to upon which green economy will be based. Already a few players spread are actively engaged in green economy initiatives in limited scale but this is expected to change as more players come on board.

Counties will be key implementation bodies for actions under the GESIP. Addressing intra-and inter-governmental policy coordination is important in building synergies and avoiding duplications that lead to waste. Following implementation of devolution, various such challenges have been reported in various counties.

A key aspect of implementation going forward will be the integration of green economy actions into County Integrated Development Plans and sector plans that are linked to the annual budget process. There are many opportunities for green economy at the county level but effective coordination between levels of government and required support for implementation actions at the county level will be a prerequisite for success.

Private sector will play an important role in implementing this through adoption on green economy technologies and practices in a self-sustaining way.

The public benefit organization has a comparative advantage and capacity over the public or private sectors in catalysing action at the local level. They will be required to participate in information dissemination to towards green economy practices at the local level and in linking national/county level to the local level.

Research and innovation is essential in facilitating green economy. To this end, research institutes will be called upon to reorient their research, innovation and training towards activities that target priority green economy initiatives. It is especially important to ensure that innovations are actually reaching practitioners to be transformed from research results into something functional.

Banks and financial institutions including insurance companies, savings and credit co-operative organisations (SACCO) and microfinance institutes will be required to develop and provide innovative products and services that support green economy. Such facilities will be critical in encouraging green economy entrepreneurs and enterprises.

Media and information and communication technology (ICT) will also play a crucial role in awareness rising on green economy. This will bring about the much needed behaviour and attitudes towards green economy particularly on green employment opportunities.

5.3 Resource Mobilization

Both costing and financing of the implementation plan for Kenya's Green Economy Strategy have been considered. In the recent past, Kenya has produced various policy documents that provide indicative budgetary requirements for implementing a green economy strategy. The Green Economy Assessment Report uses an estimate of about 2 percent of GDP per annum to investments in green economy scenarios. The total investment cost identified was approximately Ksh. 1.2 trillion between 2012 and 2030 or roughly Ksh. 70 billion annually. The results indicate that such levels of investment in green economy would generate higher growth than the case of business as usual.

The National Climate Change Response Strategy (NCCRS) produced in 2010, puts the cost of implementation of a low carbon growth path at an average annual cost of Ksh. 235 billion for the next 20 years. According to the Master Plan for the Conservation and Sustainable Management of Water Catchment Areas in Kenya, the costs associated with various outputs that contribute to green economy are Ksh. 942 billion over the period 2012-2032. The resource requirements for MTP 2013-

2017 period are estimated at Ksh. 353.5 billion. Some of the output areas identified in GESIP and whose costs are included in the Master Plan are:

- Water Resource Conservation and management – Ksh. 332,190million;
- Water storage infrastructure developed and maintained– Ksh. 220,000 million;
- Improved management of urban and industrial waste and sanitation harmonised and enforced – Ksh. 134,000million; and
- Renewable energy technologies– Ksh.151, 420 million.

Realistic costing and development of a feasible financing framework on nationwide scale as in the case of GESIP is usually hampered by various challenges. Simplifying assumptions have to be made regarding the sources, supply and availability of funds, as well as the capacity to implement and absorb planned financial allocations. In addition, the feasibility of the underlying macroeconomic framework is usually not considered. In this regard, in-depth costing associated with prioritisation needs to be considered within the MTEF budget process. The GESIP provides high level information on costing. A potential next step may be sectoral costing of specific green economy initiatives taking into account on-going activities and programmes. Another option is the development of specific strategies such as renewable energy strategies, each with their own detailed costing exercises and financing analysis.

Combinations of various financing options have been identified. However, the key channel of financing green economy initiatives will remain the MTEF budget process both at national and county government level. Other financing tools include concessional grants and loans; public private partnerships, and government-led investment, as well as mobilizing international sources of funding. Access to international climate financing will entail continued Kenyan engagement in international climate financing mechanisms; demonstrating transparency and sound fiscal management, as well as facilitating private sector investments through appropriate tools.

Other innovative financing options include establishing Green Funds or sovereign wealth funds; developing stronger partnerships with emerging economies (e.g. BRICs); co-financing with other funds and banks; and stronger focus on leveraging existing funds to new opportunities. The financing windows that could be open to Kenya are wide especially climate change related funds. This underscores the need for close integration of green economy and climate change plans. Given the diverse nature of funding opportunities which may have different requirements, it is important that Kenya adopts a clear strategy on resource mobilisation and funding.

Figure 5.1: Key sectors identified in the GESIP, and potential funding windows

	Energy	Transport	Water/Sanitation	Public Health	Waste	ICT	Forests	Water Resources	Fisheries	Land Use	Fossil Fuel Extraction	Human capital	Gender	DRR	Education	Ecosystems Mgmt	Manufacturing/Industry	Agriculture	Mining	Tourism	Buildings
Adaptation Fund																					
AfDB Sustainable Energy Fund for Africa																					
Africa Enterprise Challenge Fund																					
Climate Finance Innovation Facility																					
ClimDev-Africa Special Fund																					
DEG - Deutsche Investitions																					
EIB Post-2012 Carbon Credit Fund																					
Global Energy Efficiency and Renewable Energy Fund																					
Global Environment Facility																					
Global Facility for Disaster Risk Reduction and Recovery																					
Green Climate Fund																					
Hatoyama Initiative (Japan)																					
International Climate Fund (UK)																					
International Climate Initiative (Germany)																					
International Development Association																					
KfW Development & Climate Finance																					
Nordic Climate Facility																					
Private Infrastructure Development Group																					
Seed Capital Assistance Facility																					
Special Climate Change Fund																					
UN-REDD																					
UNDP Green Commodities Facility																					
UNDP/MDG Carbon Facility																					
World Bank Carbon Partnership Facility																					
CIF Clean Technology Fund																					
World Bank Forest Carbon Partnership Facility																					
CIF Forest Investment Program																					
CIF Pilot Program for Climate Resilience																					
CIF SREP for Low Income Countries																					

5.4 Monitoring, Evaluation, and Knowledge Management

Monitoring and Evaluation

An appropriate monitoring and evaluation system linked to the National Integrated Monitoring and Evaluation System (NIMES) should ensure that tracking of progress takes place and help inform future policy. Clear targets and indicators will help measure progress and can take a number of forms including the review of specific activities to ensure that they are having intended consequences. There are also more indirect forms of monitoring such as the development of a set of economic, social, and environmental indicators specifically crafted to represent the type of green growth green economy transition that Kenya desires. These indicators will be a combination of traditional sustainable development indicators such as poverty, employment and emissions, as well as more complex indicators such as emissions per unit of GDP, representing a decoupling of economic growth and GHG emissions. The GESIP has already identified several indicators that can provide a basis for M&E.

Knowledge Management

The buy-in and support of stakeholders and the broader public is a key component of success, which is achieved through active engagement, facilitation of public participation and both broad and targeted communications efforts. The engagement strategy should also involve active consultations and involvement of county governments. The roles and responsibilities of each of these actors with respect to the implementation of a Kenyan green economy should be clear.

Hand-in-hand with issues related to transparency and engagement is the need for information sharing. Key options to be considered include:

- **Online knowledge platforms:** One of the best ways to develop a strong information distribution network is to build a GESIP portal for public information and its associated policies and actions. This platform can also be used to communicate incentive programs, educational information (for both informal use and potentially for the formal education system), and public actions that can be taken to spur green transition. This should help bring together communities on green economy including relevant non-state actors
- **Public awareness campaigns:** An online knowledge platform is a key tool for information distribution regarding the GESIP, but will be accompanied with a public awareness campaign to ensure that the widest possible audience is reached. A public awareness campaign can incorporate both traditional media platforms as well as new media, including use of social media platforms to promote the GESIP, its benefits, and why a transition to a green economy is the preferred national development approach; and
- **Access to, and distribution of, information** through various levels of public representation and communications tools: Central to this is the cooperation of both the national government, as well as counties in the promotion and distribution of information about the GESIP.

Annex 1: Implementation Matrix

Strategic objective	Strategies / Actions	Outcomes Indicators	Timeframe (Years)	Actors	Costs (Kasha Million)
Strategic Area 1: Promoting Sustainable Infrastructure					
Integrate Green Economy principles / technologies in transport infrastructure development	<ul style="list-style-type: none"> Establish rapid mass transit in 3 cities (Nairobi, Mombasa, Kisumu) Promote Non- motorized transport 	<ul style="list-style-type: none"> Use of railway for inland cargo transportation instead of heavy commercial trucks Kilometres of railway line built No of passengers using MRT No/ kilometres of bicycle lanes & footpath constructed % of population using 	5-10	MoTI; MOLH; Nairobi, Mombasa and Kisumu Counties; KEPSA	
Enhance sanitation at county level	<ul style="list-style-type: none"> Construct and upgrade Sewerage Infrastructure in the counties Rehabilitate drainage systems in urban centres 	<ul style="list-style-type: none"> % of households/industries connected to sewer line / using bio-latrines / Eco-san / soak-pit / septic tank No. of households/industries accessing sanitation 		MWI; WRMAS; WSBs; County Governments	
Increase the share of Renewable energy in the energy mix to 75%	<ul style="list-style-type: none"> Review FiT policy to include and more off-grid generation and net-metering Establish large-scale Community Biogas /Solar PV/ wind-farm generating systems in off-grid areas 	<ul style="list-style-type: none"> FiT Policy Reviewed Renewable energy mix as portion of total energy generation increased 	5-10	MOE&P; Treasury; County Governments; Private Sector	
Promotion Energy efficiency and conservation	<ul style="list-style-type: none"> Roll out energy centres to counties Promote energy efficiency appliances and technologies (LPG, LED lamps, improved cook-stoves) 	<ul style="list-style-type: none"> No. of Energy centres established % of population adopting energy efficiency methods % of energy saved 	5-10	MOE&P; ERC; County Governments; KEPSA/KAM; MOI&ED; KEBS	
Promoting green technologies in construction industry	<ul style="list-style-type: none"> Enhance enforcement of the building codes Integrating green technologies in design and construction 	<ul style="list-style-type: none"> No. of houses built using environmentally sustainable materials (e.g., bamboo, recyclable material) No. of houses using solar water and heating technologies No. of buildings with rain water harvesting facilities 	5-10	MOL, H&UD; Construction Authority; County Governments	
Align capital markets policy on financial Infrastructure with green economy priorities	<ul style="list-style-type: none"> Promote financial instruments to direct capital to green economy infrastructure Establish a sovereign bond program targeting government infrastructure 	<ul style="list-style-type: none"> Issue of private sector (company) bond programs raising more than USD 150 million annually in capital targeting priority green initiatives 	2	<ul style="list-style-type: none"> National Treasury Capital Markets 	

Strategic objective	Strategies / Actions	Outcomes Indicators	Timeframe (Years)	Actors	Costs (Kasha Million)
	projects	<ul style="list-style-type: none"> Partnership between the Government and multilateral development finance institutions to raise USD 1.2 billion towards priority green economy projects and initiatives Introduction of incentive based policies specific to green economy finance and promoting the national agenda 	3 1	Authority <ul style="list-style-type: none"> Nairobi Securities Exchange Kenya Bankers Association 	
Implement integrated waste management	<ul style="list-style-type: none"> Roll out pollution prevention programs in manufacturing and service industry Scale up recycling and industrial symbiosis 	•	2020	<ul style="list-style-type: none"> PPPs 	
Increase food security and distribution	<ul style="list-style-type: none"> Increase land under irrigation Improve road network to facilitate flow of agricultural commodities and services 	•			
Strategic Area 2: Building Resilience					
To promote efficient management of public finances	<ul style="list-style-type: none"> Build capacities for national and county institutions on effective public finance management Mobilization of resources for building resilience 	• •		The National Treasury; MEWNR	
Livelihood Diversification for vulnerable communities	<ul style="list-style-type: none"> Harness commercial opportunities in invasive tree species Growing of fast-growing, high value perennial trees that have multiple commercial uses Expand Social protection schemes to cushion vulnerable groups 	• •		Ministry of Devolution & Planning; Line Ministries; Ministry of Devolution & Planning	
To enhance disaster risk reduction measures by 2030	<ul style="list-style-type: none"> Mainstream disaster management and climate change in sectoral development strategies Establish an integrated national early warning system for disaster risk management Expansion of road network in ASAL and other food-scarce areas. 	• •		Ministry of Interior coordination; MEWNR	
Strategic Area 3: Sustainable Natural Resource Management					
To apply market based instruments in Natural Resources Management	<ul style="list-style-type: none"> Payment for ecosystem services in Kenya's water towers. Adopt Natural Resources accounting system 	• •			

Strategic objective	Strategies / Actions	Outcomes Indicators	Timeframe (Years)	Actors	Costs (Kasha Million)
To catalyse the achievement of the 10% forest cover by 2020	<ul style="list-style-type: none"> Roll out “trees for pay” program for youth Enhance the reforestation of degraded lands 	<ul style="list-style-type: none"> 			
To increase per-capita water by 200m ³ availability by 2025	<ul style="list-style-type: none"> Reduce non-revenue water by half Double rain water harvesting at household level through increased water collection and storage 	<ul style="list-style-type: none"> 			
Upscale wildlife conservation programmes	<ul style="list-style-type: none"> Promote establishment of wildlife conservancies Wildlife migration corridors, protected areas enforcement of anti-poaching regulations as stipulated by the wildlife act 	<ul style="list-style-type: none"> 			
Pursue sound governance in the extractives industries	<ul style="list-style-type: none"> Implement best practices such as Extractive Industry Transparency Initiative(EITI) Adopt clean technologies Embrace Value Addition-develop and enforce strict guidelines on local content 	<ul style="list-style-type: none"> 			
Strategic Area 4: Promoting Resource Efficiency					
Raise Total Factor Productivity	<ul style="list-style-type: none"> Increase Labour productivity by 20% Increase factor productivity by 4% 	<ul style="list-style-type: none"> 			
Strategic Area 5: Social Inclusion and Sustainable Livelihoods					
Mainstream Green Economy issues into all levels of Education by 2020	<ul style="list-style-type: none"> Institutionalize education sector policy on Education for Sustainable Development(ESD) Re-orient GE issues into the education curriculum at all levels to empower people by 2020 Build the capacity of educators and Trainers to deliver GE training pedagogy and andragogy 	<ul style="list-style-type: none"> 	5	MOEST; Universities; Colleges; High schools; primary schools; ECD TSC; KICD; Research Institutions	
Promote employment creation and employability	<ul style="list-style-type: none"> Promote Partnerships with the private sector to map and fill skills gaps in the GE Strengthen technical and vocation skills development including apprenticeship schemes with industry along select industry value chains Promote creation of work hours through Intensive Public infrastructure works Increase attractiveness to green jobs by increasing access to social protection 	<ul style="list-style-type: none"> Types of skills no of skills curricula developed No. of institutions delivering curricula No of Intensive labour works technologies No. of formalized MSEs 	10	MOLSS; MOEST; NITA; MODP; COTU; FKE; KAM; Directorate of Youth; MEWNR	

Strategic objective	Strategies / Actions	Outcomes Indicators	Timeframe (Years)	Actors	Costs (Kasha Million)
	benefits and better working conditions				
Support growth and Establishment of MSEs	<ul style="list-style-type: none"> Promote greener management practices in established enterprises Promote creation of green-tech start-ups through innovation and replication Establish Green MSE financing mechanisms Promote MSEs procurement incentives Promote green value chains 	<ul style="list-style-type: none"> Sectors with greener management practices No of start-up % of start-ups by women No of Financing window developed No of value chains promoted 	5-10	MODP; MOLSS; ILO; FKE	
Improved Public Health	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 			

Note: Column for Expected Outcomes Indicators to be refined / completed