



**Green Bonds
Programme**
— KENYA —

PREPARED BY:



STUDY SUPPORTED BY:



SUMMARY ASSESSMENT OF GREEN INVESTMENT OPPORTUNITIES IN THE AGRICULTURE, LIVESTOCK AND FORESTRY SECTOR IN KENYA



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Introduction & Background

The research project “Assessment of Green Investment Opportunities in Kenya” was carried out in partnership between the Green Bonds Program Kenya and WWF Kenya. The project was funded by WWF Kenya and the research was conducted by Strategic Business Advisors (SBA) Africa. The program aspires to contribute to the national agenda by helping achieve Vision 2030, the Kenya Green Economy Strategy and Implementation Plan, as well as Kenya’s climate change commitments as outlined in the National Policy on Climate Finance, the National Climate Change Act, the Climate Change Action Plan and the Nationally Determined Contributions under the Paris Climate Agreement.

The overall objective of the study is to quantify the investment opportunity for green investments in Kenya, to identify barriers and to propose solutions for creating bankable projects for the Green Bond.

Agriculture has been identified as a major

source of GHG emissions second only to Electricity and Heat Production.¹ The European Environment Agency reports that between 2001 and 2011, global emissions from crop and livestock production grew by 14 per cent. This growth has been attributed to a rise in agricultural output because of increased global food demand as well as changes in food-consumption habits in certain developing countries due to rising incomes. According to the Kenya GHG emissions report, the year 2000 saw emissions by the agriculture sector reach 22,539 or approximately 23 million tons of carbon dioxide. This was against a total recorded emission of 54,955 or approximately 55 million tons of carbon dioxide. In 2010, emissions in agriculture had risen to 30 million tons of carbon dioxide out of 70 tons representing 43 per cent of total emissions. In 2015, emissions in agriculture again rose to 32 million tons of carbon dioxide out of 80 tons. The forecast for 2020 puts emissions in agriculture at 34 million tons out of 96 million tons by 2030.

Key Findings

Agriculture is a key driver of Kenya’s economy contributing 30% of GDP and over 50% of employment. Key emission sources as well as climate mitigation and adaptation opportunities have been identified within the agriculture sector and have been selected as the focus areas for investment and financing opportunities. These sources include²:-

- Deforestation
- Livestock
- Agricultural Soils
- Increased Yields - improved inputs
- Disease Management – both livestock and crops improved pesticides
- Energy Use/Waste Management
- Irrigation and other Water Efficiency

¹<https://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change>

²Based on review of climate smart investments in other countries as well as discussions with key informants

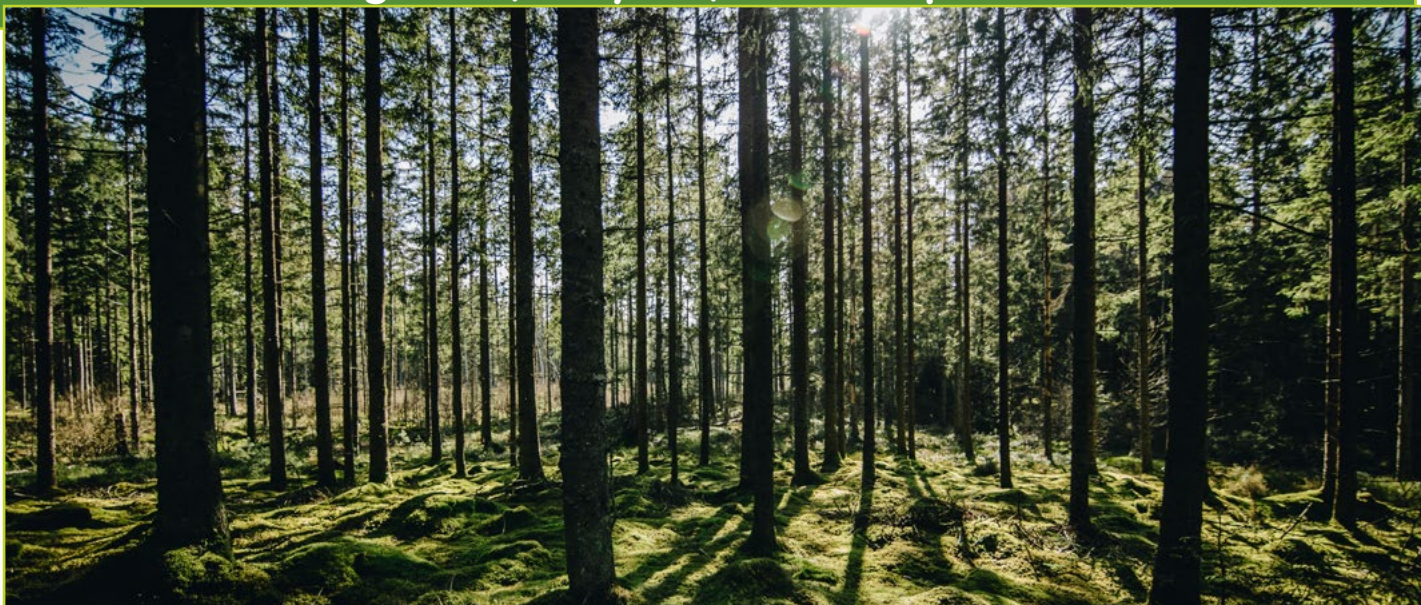
Immediate and Long-Term Financing Needs

Based on the opportunities identified the short-term investment opportunities are approximately \$35 million dollars per year growing to over \$180 million dollars per year in 5-10 years across the various subsectors in Agriculture. Immediate financing estimates for climate smart projects are about 3.5% of current bank financing of Agriculture.³ These are conservative estimates that can grow significantly with targeted support to the sector. Within each of the categories identified there are significant opportunities for SMEs to invest or participate in the value chain.

Total

Immediate (next 1-2 years): \$35.5 million

Medium to Long-Term (5-10 years) annual requirement: \$182 million



Sub-sector: Forestry

Immediate (next 1-2 years): \$2.5 million

Medium to Long-Term (5-10 years) annual requirement: \$7 million

Opportunities identified for SME's:

Large opportunities to invest in tree nurseries and to provide tree management services

³ Estimated total lending to agriculture in 2017 was about Kshs 100 billion or \$1 billion (Central Bank 2018).



Sub-sector: Livestock

Immediate (next 1-2 years): \$11 million

Medium to Long-Term (5-10 years) annual requirement: \$75 million

Opportunities identified for SME's:

Opportunities for investing in hay farming as well as production of climate smart animal feed industry.

Significant investment opportunities to enter sustainable aquaculture - production of fingerlings, cage farming.



Sub-sector: Agro-Inputs

Immediate (next 1-2 years): \$6 million

Medium to Long-Term (5-10 years) annual requirement: \$50 million

Opportunities identified for SME's:

Some opportunities to manufacture and sell organic pesticides as well as produce improved seeds but for larger SME's.

Opportunities in the marketing and distribution of these products as well.
DEMO farms, agrovets etc.



Sub-sector: Waste/Energy

Immediate (next 1-2 years): \$13 million

Medium to Long-Term (5-10 years) annual requirement: \$45 million

Opportunities identified for SME's:

Some opportunities for larger SMEs to invest in production and distribution of biogas and organic fertilisers.



Sub-sector: Irrigation

Immediate (next 1-2 years): \$3 million

Medium to Long-Term (5-10 years) annual requirement: \$5 million

Opportunities identified for SME's:

Significant opportunities for smallholder investments in drip irrigation.



Key Challenges Identified to Growing the Portfolio Include:

- Penetrating the smallholder market – A key challenge in introducing climate smart interventions to smallholder farmers is convincing them to adopt to new practices. The capital required to provide education and extension services is significant and, in many cases, particularly for SME's not available. For processors and other larger players aggregating smallholders into viable commercial entities is also a challenge and very expensive.
- Initial capital required to start investments is a barrier for many new entrants; risk perception of the sector and long payback periods for some investments also limits access to capital.
- For some products, government subsidy impacts the investor potential – particularly the input markets.
- For some products, particularly waste management, access to consistent supply may limit the scale of the investment opportunity.
- Competing cheap imports limits growth of local production of some products like LPG and aquaculture.

Emerging from the Challenges, Key Recommendations Include:

- Given the risk element of financing projects in this sector, a combination of different forms of funding – grant, equity, early stage and commercial bank funding – will be needed to grow investments in the sector. This is already occurring in the Kenyan market – there are several impact and grant funds that have been set up specifically targeting climate smart investments in agriculture and other sectors.⁴ There is no synergy however between different initiatives to achieve scale. This is recommended going forward.
- In line with the recommendation above, capital requirements for new market entrants is quite high and in many cases not available. **There is need for more support for business incubation and early stage funds to allow for more investment in this segment.** For the GBPK a possible entry point could be through existing funds that already have a track record and are looking to expand.⁵
- **Smallholder farmers need to receive much more funding to allow them to adopt new technologies at scale.** At present, limited funding is available through banks and microfinance institutions due to the risk perception and inability to ring fence cash flows. Effort needs to be made to provide risk sharing mechanisms to enhance scale. For microfinance institutions some may require additional capital as deposit mobilisation is still low.⁶ In addition, support to aggregators and other value chain players like co-operatives can help to increase access to finance. This funding needs to be supported by public investments in extension that will make smallholders more aware of the benefits of climate smart technologies.
- To open-up agricultural input markets since government is a key player, **government interventions need to be reduced or aligned more closely to private sector requirements for growth.**
- **Channel funds raised through green bond issuance to professional fund management vehicles** that thereafter seek and specifically invest in green investments.
- **Provide incentives for companies that invest in green bonds.** These could include tax incentives or recognition on national platforms.

⁴ See for example Kenya Climate Change Venture Fund established with the support of the World Bank. The African Enterprise Challenge Fund has been operating a climate change window for several years and has provided repayable grants to several companies (see examples in the annex).

⁵ The National Enterprise Development Fund supported by GOK and SIDA is actively involved in incubation and is looking for scale up – KCVCF and AECF could also be potential partners.

⁶ Several pilot projects including one funded by IFAD supporting growth of agricultural finance through MFIs identified access to capital as a constraint for MFIs.

ANNEX - REFERENCES

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