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KENYA

Snapshot: Mandera County

Climate change and land degradation in Mandera

In the northeastern part of Kenya, the residents of Mandera County have historically been pastoralists but Mandera County is now being plagued with droughts. Arable lands have declined and food security in the region (including neighbouring Ethiopia) is at crisis/ emergency levels (*Integrated Phase Classification (IPC)*).

In December 2019, desert locusts entered Kenya from Somalia through Mandera and Wajir Counties and quickly spread to additional counties in Kenya. The locusts pose a significant threat to ongoing cash crop production and the cereal production season that begins in February and March. Based on conducive ecological conditions for breeding and spreading, the FAO Locust Watch warns that the infestation is likely to persist through to June 2020. The drought-related loss of livestock and decline in farming conditions has led to different settlement patterns emerging. Pastoralists are settling and taking on a more sedentary lifestyle. Paradoxically, this change in lifestyle, which is a coping strategy, further exacerbates land degradation. Communities must clear vegetation for space to settle and gather wood for daily cooking fuel. These direct and indirect impacts of climate change are driving rapid desertification across the County.

Adaptation efforts on the ground

Throughout the water sector, Mandera County has many “climate-proofing” projects designed to attenuate the effects of the changing climate. There is a strategic dual programme focus on adapting to climate change through drought and flood mitigation. One measure includes the use of water pans and dams that help retain water between rain seasons. At the same time, these structures are designed in a manner to withstand floods without collapsing. During drought crises, the County supplies water to the communities most in need, a system referred to as water tracking. Concurrently, the County also supplies nutritional supplements to lactating mothers and children under five years old.

Groundwater is a key resource in Mandera County and there are approximately 155 boreholes, with about ten new ones added each year. Borehole pumps are diesel-powered. Recently, Mandera County has been working to integrate solar photovoltaic (PV) power across the borehole systems' network, creating hybrid power water pumping systems. PV powered pumps run for seven hours a day, which cuts down on the usage of diesel-powered pumps and the associated operating costs. Greenhouse gas (GHG) emissions and exhaust pollution is also reduced. Such initiatives reduce the use of fossil fuels and contribute to Kenya's Nationally Determined Contribution (NDC) GHG emission reduction targets. However, **the County has no Monitoring, Reporting and Verification (MRV) programme that calculates nor quantifies the GHG emission reduction levels.**

In the energy sector, there are about eight principal towns that utilize PV solar street lights, and ten institutions (mainly schools and hospitals) that have been provided with off-grid PV solar systems by the County Government. At the local level, solar PV panels are promoted and sold to residents.

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Opportunities for improved integration of climate governance

One challenge Mandera County faces to strengthen these climate action investments is the **absence of functional linkages between the national and county government**. For instance, the National Climate Change Action Plan includes the NDC with a 30% GHG emission reduction target. However, this has yet to be translated to the county level. This makes it difficult for counties to understand emission mitigation opportunities and define their own specific targets. This is needed for counties to be able to properly identify infrastructure and climate actions for investment so that Kenya can achieve the important national development target.

A national mechanism to account for and monitor ecosystem-based restoration and the associated carbon storage benefits would be beneficial, so as to account for and reward county government efforts. For example, Mandera County has planted numerous trees and distributed seedlings to residents to facilitate reforestation efforts. A national carbon offset model, or a carbon credit transfer mechanism, could support this work at the county level. However, there is currently no national policy present to determine a pathway for financial support through a price on carbon or a credit transfer mechanism, for example. Support from the national government is needed to act expeditiously in response to the climate change crises, as per the climate change indicators, to support investments and early mitigation actions, rather than only responding to crises or delivering aid once county governments are in desperate need.

The hybrid PV water pump boreholes and solar street lighting systems are distributed across different sub-counties. Mandera town has the greatest concentration, as it is the headquarters of the County. To date, Mandera County and the *Kenya Off-grid Solar Project* (KOSAP) are responsible for the successful implementation of these projects. **Currently, only 15% of the boreholes have PV solar pumps.** The remaining inventory of boreholes, and ten new wells constructed annually, creates an important opportunity for more collaboration and financing to scale up investment in the solarization of the boreholes and installation of street lights. This is an important investment priority within Mandera County.

Solutions put forward by the County

The County has established a monitoring and evaluation department. The main purpose is to create checks and balances and track progress in meeting development goals, including, climate change intervention measures. The Mandera County has **identified climate MRV training as a priority** to build capacity for calculating county inventories of GHG and short-lived climate pollutants (SLCPs) as well as to track mitigation activities. Most importantly, this **information is needed to improve decision making and public investments**. This is one important way that Mandera County seeks to enable mainstreaming of climate change in the various sectors as it will provide more clarity on the targets to be met and the investment opportunities and strategies to achieve them.

Capacity building at Mandera County could be met with human resources and official development support from other countries. National government could help to support this. Mandera County has already published and shared their CIDPs with the Council of Governors. The County has also provided the same information within its regional county bloc to establish the particular projects that are investment ready.

Special thanks to the Technical Consultation Rapporteurs for their dedicated work to compile this information.

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For More Information:

- SouthSouthNorth (SSN) - IKI Mobilizing Investment for NDC Implementation
- Aligning County Integrated Development Plans to the National Climate Change Action Plan
 - Part A: Institutional Mapping Report
 - Part B: County Technical Consultation
- Mandera County Integrated Development Plan
- Mandera County Presentations at the County Technical Consultation