

LOCAL GOVERNANCE BRIEFER

A Product of the Local Government Councils Scorecard Initiative

Integrate Climate Resilience Strategies In The Parish Development Model

"We have the ability to end extreme poverty even in the face of climate change, but to succeed, climate considerations will need to be integrated into development work. And we will need to act fast, because as climate impacts increase, so will the difficulty and cost of eradicating poverty."

- John Roome, Senior Director for Climate Change at the World Bank Group

By Amumpiire Anna and Phoebe Atukunda¹

Following reviews of the National Development Plan (NDP), the decentralisation policy, and the NRM Manifesto (2021-2026), the government came up with the Parish Development Model (PDM) as a last-mile strategy for service delivery, improving incomes, and welfare of Ugandans at the household level. The PDM is meant to eradicate poverty among 68 percent of households across the country. According to the ministerial statement, the PDM is a strategy for organizing and delivering public and private sector interventions for wealth creation and employment generation at the parish level as the lowest economic planning unit. The PDM is further intended to increase the commercial production of priority commodities at the parish level in so doing and to increase household incomes in the process. The PDM is made up of seven pillars that will be implemented by both public and private sector institutions at the central government and local government levels. They include production, processing, and marketing (Value Chain Development), infrastructure and economic services, financial inclusion, social services, community data (community information system),

mindset change, governance and administration.

According to the World Bank, ending poverty and addressing climate change are the two defining issues of our time. Climate change exacerbates the effects of population growth, poverty, and rapid urbanisation. Without serious adaptation, climate change is likely to drive millions further into poverty and limit the opportunities for sustainable development and poverty alleviation yet both are essential to achieving the Sustainable Development Goals and cannot be considered in isolation. Furthermore, the United Nations Intergovernmental Panel on Climate Change (IPCC) notes that the effects of climate change are already being experienced across the globe due to human activities (IPCC, 2021). Globally, extreme weather conditions brought about by climate change have resulted in fires, drought, flooding heat and cold waves (GOS, 2021).

Uganda like the rest of the world and being a developing country is vulnerable to the negative effects of climate change which threaten national economic development, fragile ecosystems and people's livelihoods (CCD, 2018). According to the ND-GAIN² index which summarizes a country's vulnerability to climate change; Uganda is ranked 167 out of 182 nations. This denotes that Uganda

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² The ND-GAIN Index, a project of the University of Notre Dame Global Adaptation Index (ND-GAIN) summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. It aims to help businesses and the public sector better prioritize investments for a more efficient response to the immediate global challenges ahead. <https://www.nab.vu/nd-gain-index-project-university-notre-dame-global-adaptation-index-nd-gain>

is highly vulnerable to climate change as well as inadequately prepared to deal with the impacts.

Also, Uganda is already experiencing major impacts of climate change such as changing weather patterns, reduced water levels, and increased occurrence of extreme weather events like floods, drought, whose social-economic impacts lead to vulnerability of communities (GOAL, 2016). Uganda's economy is vulnerable to climate change because it's highly dependent on natural resources. It is important to note that agricultural production in Uganda is almost dependant on rain which is affected by extreme weather conditions (Mubiru, et al., 2018).

In fact, the climate change impact assessment report by the Ministry of Water and Environment 2015 estimated that damages due to climate change in the agriculture, water, infrastructure and energy sectors will collectively amount to 2-4% of GDP between 2010 and 2050. This report further observes that; if no adaptive actions are taken to address climate change impacts, annual costs could be in the range of US\$3.2 - 5.9 billion within a decade, with the biggest effects being on water, energy, agriculture, and infrastructure.

Why integrate Climate Change in the implementation of the PDM?

Under the PDM, Government has identified and prioritised the development of 18 commodities considered to be highly marketable locally and internationally. These are coffee, cotton, cocoa, cassava, tea, vegetable oils/oil palm, maize, rice, sugarcane, fish, dairy, beef, bananas, beans, avocado, shea nut, cashew nuts, and macadamia nuts. Since Climate change affects sectors such as agriculture, forestry, energy, and tourism, its impacts on these sectors are interrelated for example drought affects food production, and flooding damages the ecosystems, as well as infrastructure yet these, are some of the pillars targeted by the PDM. In addition, flooding causes disease spread which increases mortality, impacts food availability, and limits worker productivity. Therefore climate change effects are seen throughout every aspect of the world we live in and cannot be ignored in the design and implementation of government programs at the lowest level (NOAA, 2019).

Consequently, the PDM must integrate climate change by incorporating climate-smart agricultural practices. This should be undertaken especially while implementing the different pillars of the PDM. Pillars critically affected by climate change include production, processing, and marketing (Value Chain Development), infrastructure and economic

services, financial inclusion, social services, mindset change, governance, and administration. climate change should be integrated into these pillars due to the following reasons:

- The agricultural sector in Uganda heavily depends on physical structures such as roads, bridges, communication networks, storage, and market places that are essential to support the production of goods and services, the distribution of finished products to the market, and access to basic social services by the population. Infrastructure is critical to economic performance, growth, and development. A report by OXFAM notes that during weather-related emergencies, the damage to transport, storage, bridges, fuel supplies, and other vital agriculture-related infrastructure results in numerous factors including weak markets and high transaction costs.
- A report by OXFAM alludes to the fact that agriculture performance in Uganda fluctuates with changes in climate because of low adoption of climate change adaptation technologies. The agricultural sector is experiencing climate change effects manifested through, frequent and severe dry spells, floods, high temperature, and increased incidence of pests and diseases. Drought in 2016 reduced agricultural output, which slowed economic growth to 3.9% and pushed up poverty levels to 21.4% in 2016/17 compared to 19.7% in 2015/16 (OXFAM, 2008).
- The agriculture sector is a major contributor to greenhouse gas (GHG) emissions in Uganda (MFA, 2020). Climate change-related risks such as prolonged dry seasons, poor seasonal distribution of rainfall as well reduced rainfall, increasing diseases, and pest incidences, reducing water sources, bush fires, hailstorms, changes in crop flowering and fruiting times affect agricultural production and lead to poor yields, reduction in crop varieties (Mubiru, et al., 2018).
- An economic analysis commissioned by the Government of Ugandan in 2015 predicated that due to climate change, production of coffee will halve by 2050 hence leading to an economic loss worth \$1.2 billion. Too much rain reduces flowering, which in turn reduces coffee production. In addition, it hinders farmers' ability to dry the beans properly, as such the quality is also reduced. It also increases diseases, pests, and mould, which affects both production and quality as well as reduces soil fertility. Almost all of Uganda's coffee is produced by small-scale farmers therefore climate change impacts remain a hardship for

many of them (OXFAM, 2008). Similar impacts are predicted for tea and cotton yet they are also among the 18 commodities prioritised by the PDM

- Smallholder farmers depend on their crops for both food and income. Climate change events such as droughts, natural disasters push them off their land, they often sink deeper into poverty. Livelihoods in developing countries tied to subsistence like farmers are threatened by climate change and the people who fall into these categories often don't have the resources to become climate resilient (McCarthy, 2020).

What should be done then?

The NDP III highlights climate change as one of the challenges that will affect development. Climate change and development are closely intertwined. Therefore, the following recommendations should be considered to ensure that the PDM achieves its intended goals and objectives given that it focuses on the agriculture sector yet it's the most affected by climate change:

- Climate Change Department and Department of Meteorology should ensure there is adequate climate information services and early warning systems to help farmers plan their farming activities preferably in the local dialect. The government needs to invest in meteorology and ways to disseminate the resulting reliable data promptly. Arrangements with media such as local radio stations as well as agricultural extension workers to communicate that data and to advise farmers in real-time is critical.
- The Ministry of Agriculture, Animal Industry and Fisheries, and Local Governments should strengthen and support communities to adapt to their local market systems and secure economies that can thrive in a changing climate. This can be through the implementation of specific strategies for addressing policy priorities for adaptation in agriculture as provided in the National Climate Change Policy e.g. promoting and encouraging highly adaptive and productive crop varieties in drought-prone, flood-prone, and rain-fed crop farming systems to increase resilience to climate change.
- The Climate Change Department should be an integral part of the PDM operationalization. The Department can support the implementation of climate change strategies in collaboration with the other key Ministries Departments and Agencies like the Ministry of Local Government.
- The Ministry of Agriculture, Animal Industry and Fisheries, and the National Agricultural

Research Organisation should widely promote eco-friendly farming techniques such as climate-smart agriculture. To ensure that the agriculture sector copes or adapts to climate change, practices or technologies have to be climate-smart. In addition, adaptation interventions should be tailored to specific regions and crop varieties.

- The Office of the Prime Minister should ensure that climate change-related indicators are included in the monitoring and evaluation framework for the Parish Development Model.
- The Ministry of Works and Transport and the National Roads Authority should develop and implement a climate change strategy for the transport sector. This will go a long way in ensuring that road construction projects take into account climate change risks such as flooding.

Conclusion

The world Bank has noted that ending poverty and fighting climate change cannot be done in isolation – the two will be much more easily achieved if they are addressed together. Considering climate-related risks and opportunities while planning for the Parish Development Model will go a long way to ensure that its intended goals are achieved.

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