Climate resilient livelihood opportunities for economic empowerment of women in Karamoja region

Technical Lead Agency

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Total Funds requested: $ 4,000,000

Project Duration: 5 years: From March 2019 to December 2023

Executive summary

Uganda has adopted and aligned its sustainable development goals to the Global 2030 Agenda, in a way that addresses inequality in economic growth, reduces poverty, and enhances social cohesion. Increasing access of women to productive resources and building their capacity in agriculture production and marketing can greatly enhance household income, food security, nutrition and community development. Women's empowerment is one of the 17 Sustainable Development Goals, but also integral to all dimensions of inclusive and sustainable development. Karamoja region is classified as one of the world's poorest areas, with high rates of malnutrition low human social and economic development indicators and the lowest per capita cash as compared to other areas in Uganda. Food insecurity is a major and ongoing challenge, and climate variability and change undermine the already limited resources and development in the region. Low employment opportunities in the region are attributed to low agricultural productivity and income from agriculture, sale of raw produce at low prices and lack of economic empowerment of women. The region therefore is in desperate need to catch up in social and economic terms. This proposed project, supported by the Food and Agricultural Organisation of the United Nations and funded by……, focuses on creating livelihood opportunities that can empower women (but all family members inclusive) economically. The project embraces value chains that can foster climate resilience given the unique climate of Karamoja. The value chains have been selected in a participatory manner with farmers, extension workers and community leaders in Karamoja. Nabuin Zonal Agricultural Research and Development Institute (Nabuin ZARDI) will take a lead role in the implementation of this project; the institute has just successfully implemented the Agricultural Technology and Agri-business Advisory Services (ATAAS), financed by the World Bank and Government of Uganda, which has to some extent increased productivity of various agricultural enterprises, increased availability of planting materials and enabled a change in the attitudes of agro-pastoralists and pastoralists regarding marketing of their produces to generate income. The ATAAS project has also improved the institutional capacity of Nabuin ZARDI and enhanced the partnership between research and extension at the Local Governments for the good of the farmers. In the proposed project, Nabuin ZARDI is putting up strong collaboration and linkage with the Local Governments of Karamoja,

farmers, Non-Government Organisations, business institutions, academic and research institutions, financial institutions, regulatory bodies and community leaders to develop and/or strengthen value chains in the agricultural production systems, that are viable for economic empowerment of women, youth and resettlers, and address the root causes of chronic poverty and improve the livelihoods of the communities. This is intended to strengthen inclusive gender response and climate resilience of rural women populations in Karamoja. The collaborators will contribute at various levels of the value chain including production, processing, marketing and utilisation. The delivery modalities include gender approaches, farmer field schools (women led groups), watershed management and value chain approaches. Building the capacity of communities through practical-based training and field demonstrations, with regard to production, processing, marketing, commercialisation and saving is an important component of this project. The three result areas encompassing this project are: (1) improving women access to and control of productive and decision making capacity; (2) improving sustainable market oriented gender responsive and climate resilient agriculture production practices; and (3) promoting bio-energy plantations, biogas models and energy saving technologies. This proposed project is in line with the Karamoja Integrated Development Plan (KIDP 2), which is a deliberate efforts by Government to intensify development interventions, by among others enhancing the production of sufficient food for households and incomes, improving livestock production and productivity and markets. The project also contributes to the second National Development Plan (NDPII) of 2015/16-2019/2020, in which the Government is embarking on increasing sustainable production, productivity and value addition. The other government strategies are employment creation through fast tracking skills development and harnessing the demographic dividend and strong Public/Private Partnerships (PPPs) for sustainable development.

General Introduction

Sustainable development has been highlighted in Uganda's second National Development Plan and Vision 2040 (NDP II, 2015); for this to be achieved, there is need to enhance sustainable wealth creation, employment and inclusive growth in the poorer regions of the country.

Karamoja region is classified as one of the world's poorest areas, with high rates of malnutrition and a disproportionate number (61 percent) of its 1.2 million people living in absolute poverty (UNFPA, 2018). The region is characterised by low human social and economic development indicators and the lowest per capita cash expenditure relative to national figures (FAO, 2015). Food insecurity is a major and ongoing challenge, and climate variability and change undermine the already limited resources and development in Karamoja through recurring droughts and prolonged dry spells (UNFPA, 2018). In the region, there are low employment opportunities, to a great extent attributed to low agricultural productivity and income from agriculture, as well as sale of raw produce at low prices. Environmental degradation is also a problem, due to overcutting of trees and prolonged droughts. The region therefore is in desperate need to catch up in social and economic terms.

It is essential to emphasise women and youth economic empowerment in Karamoja, for sustainable development. Females constitute half of the population in Karamoja, and most people are young, with an average age being 15 years (Census, 2014). Studies have shown that women often have lower income and female farmers have less access to extension than average. They, therefore, lack the skills required in agriculture, given competing demands for their time, and many fall below the poverty line (Mellor, 2017). In Karamoja, the women are largely marginalised by their male counterparts, therefore have had little economic opportunities. Efforts to provide viable opportunities to engage women in decisions and control of income generating activities can ensure a more sustainable livelihood development. Women's empowerment is one of the 17 Sustainable Development Goals, but also integral to all dimensions of inclusive and sustainable development. Studies have shown that when women are supported and empowered to increase their access to productive resources, their families are

healthier, more children go to school, agricultural yield (20-30%) and productivity improve and incomes, quality of nutrition and food security increase (FAO, 2018).

Development of viable agricultural value chains (advisory, production, processing, commercialisation, marketing and utilisation) for women economic empowerment, enhancement of climate resilience has the potential to increase productivity and address poverty and chronic food insecurity that characterise Karamoja. This can also create decent work and employment prospects for the communities. The value chains considered include dairy, beekeeping, aquaculture, animal traction, crops and natural resources management. Livestock is an important component of food security, providing protein locally and regionally. With regard to crop, there is strong potential for increase crop productivity in the agricultural zones of Karamoja, especially for varieties that are drought tolerant and early maturing. Creation of crop value chains will reduce overreliance on food aid, create local market for food items and encourage more production. Development of the value chains can be achieved by increasing availability of planting and breeding material, building the capacity of farmers to increase production, access better markets and improve utilisation of the products. There is also need to build the capacity of communities to manage and conserve valuable trees, in terms of environmental conservation and animal feeding, as well as utilisation and commercialisation of the products from the trees. Due to fast degrading rangelands in Karamoja, thousands of people are at risk of losing their livelihood (IUCN, 2014). In some areas, around 25% of the total rangeland area is facing degradation. The trees are important in erosion control for crops, and enhance restoration of the vegetation and rehabilitation of rangelands. This impact on microclimate modification is very vital in these times when heat and moisture stress are likely to be more prevalent in the face of climate change, which poses a serious threat to food security. Strengthening linkage with the private sector, farmer based field schools and cooperatives, and facilitating labour saving and postharvest technologies are also an important areas that comprise the creation of viable value chains in Karamoja.

Nabuin Zonal Agricultural Research and Development Institute (Nabuin ZARDI) takes a lead role in implementing the proposed project; there will be a strong collaboration and linkage with the Local Governments in Karamoja, Non-Government Organisations, business people/institutions, academic and research institutions, community leaders, farmers, and regulatory bodies. Nabuin ZARDI is one of the 16 semi-autonomous Public Agricultural Research Institutes (PARIs) under the National Agricultural Research Organisation (NARO) established by the National Agricultural Research (NARS) Act (2005). The mandate of Nabuin ZARDI is to conduct and manage applied and adaptive agricultural research and facilitate the development and dissemination of appropriate technologies that address specific needs of the agro ecological zone. The institute has got good technical, infrastructural and administrative capacity, with 10 scientists and 10 research technicians in the fields of animal resources research, and crop & natural resources management. The ZARDI has for the last 13 years grown into a hub for agricultural technologies and services to the communities in the zone with partnership with other stakeholders. Between 2012 and 2018, Nabuin ZARDI successfully implemented the Agricultural Technology and Agri-business Advisory Services (ATAAS) project, with the aim of to increase agricultural productivity and incomes of participating households. With the ATAAS project, farmers have appreciated and taken on new crops such as cassava, which previously was thought to be a wild plant. This has improved food security and incomes among communities through sales of cassava cuttings and the tubers. Beekeepers have realised the importance of producing good quality apiary products, due to better market opportunities and higher prices for superior well managed products. In just two sub-counties of Amudat and Nakapiripirit Districts, honey production increased from 243 to 2,056 kgs in one season, each of the 20 farmers earning an average of 2 million Uganda shillings in one season. Nabuin ZARDI is now a collection and processing centre for apiary products, colleting, processing, packaging and selling 2 metric tonnes of honey, 20 kgs of propolis, 40 kgs (from 0) of beeswax in just one year. Artificial insemination in cattle, which was thought not feasible in Karamoja region, has been introduced and adapted by the farmers. Semen from improved dairy and beef breeds, Sahiwal, Friesian, Ayrshire and Jersey was used to cross-breed the indigenous short-horned East African Zebu cattle (n=2340) in 15 districts (now 16) of Teso and Karamoja. With the support of the ATAAS project, the communities can now harvest natural

pastures or the introduced *Chloris gayana*, in the wet season, and conserve it as hay for dry season feeding. There has been increase in milk production (about 700%) among hay-fed cattle in the dry season. The ATAAS project has improved the availability of planting material for improved varieties to the farming communities. A total of 7,890 improved mango seedlings, 6450 improved citrus seedlings and 640 bags of cassava cuttings were availed to farmers. The quantities of maize, sorghum (seso3) and beans (Nabe15) disseminated to farmers were 2.75 metric tonnes (MT), 4.0 MT and 1.8 MT, respectively. The use of soil fertility technologies from leguminous trees increased sorghum yields by 33%. The use of bio-pesticide from indigenous plants, *Tephrosia*, neem, latana and moringa, increased the yield of orange and mango by up to 45% and 40%, respectively.