



ADAPTATION FUND

PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL

PART I: PROJECT INFORMATION

Country: **United Republic of Tanzania**

Title of Project: **Piloting Climate Resilience Livelihood Systems in Runyinya Village, Kyerwa District**

National Implementing Entity: **National Environment Management Council (NEMC)**

Executing Entity/ies: **Agrodiamond Limited**

Amount of Financing Requested **250,000** (in U.S Dollars Equivalent)

Project Background and Context:

Provide brief information on the problem the proposed project is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

Project background and problem statement

Communities in Kyerwa district in western Tanzania derive their livelihood and income security from climate sensitive sectors like agriculture, water and natural resources. According to the vulnerability assessment study conducted in 2019¹, the district is among the vulnerable geographical areas in the United Republic of Tanzania already impacted by climate change. The vulnerability of the district and its communities is largely driven by overdependence to rainfall for agriculture and animal grazing. As a result, the currently released NAP stocktaking report signatures the district as a hotspot area, which needs adaptation intervention urgently. Furthermore, the Vulnerability and Adaptation Assessment study for the HNAP², indicates high malnutrition level due to climate induced food shortage, water scarcity and poverty in most villages of Kyerwa, particularly Runyinya village.

The current and projected climate change effects are therefore seen to deepen poverty, water scarcity and malnutrition levels in the district. Climate indices show that, rainfall amount, seasonality, trend and timing will continue to shift from the normal trend in the district³. For instance, the drought periods have been more common and severe in the area. In 2016, 2017 and 2018 alone the district experienced devastating drought periods which resulted into crop failures and drying of water sources. Food insecurity and hunger is now a great social and economic concern. Shrinkage of pastureland and disrupted grazing land is a challenge to livestock keepers in most village of the district. The 2017 district report indicated that, the drought event in 2017 destroyed over 18.27 ha of maize of which 8.7ha were at Runyinya village. Food production and income generation by communities in most villages which in most cases are already poor is severely affected. Unfortunately the ability of the district government budget to support these communities for food

¹ NAP Stocktaking report, 2019: United Republic of Tanzania

² V&A 2018: The vulnerability and Adaptation Assessment study for the Adaptation in the Health Sector (HNAP),

³ TMA 2014: Climate projections in the United Republic of Tanzania

including financing various socio economic needs such as education, health and water supply is inadequate.

Projected climate scenarios by the Tanzania Meteorological Agency show that Lake Victoria regions in which Kyerwa district is located will experience even more temperature increase in the future while drought and dry spell periods will be intensified⁴. Future climate-change impacts are predicted to accelerate multiple challenges across villages in the district, affecting nearly all of the traditional water sources. Research suggests that by 2030, even if the drought frequency and intensity remain stable, 25% of the district's population will go hungry**Error! Bookmark not defined.**. The ecosystem resilience and capacity to support agriculture and safeguard human health will be jeopardized due to continued ecosystem and environmental degradation. The future decline in rainfall volume per season, coupled with increased variability in rainfall, is expected to cause serious water shortage, crop failures and reduced productivity of farming to about more than 30% of total food crop production in the District. Future climate change is projected to disrupt almost all life forms in the district and will intensify food insecurity and livelihood failures due to the reason that people and their life firms are heavily reliant on water resources and subsistence farming activities.

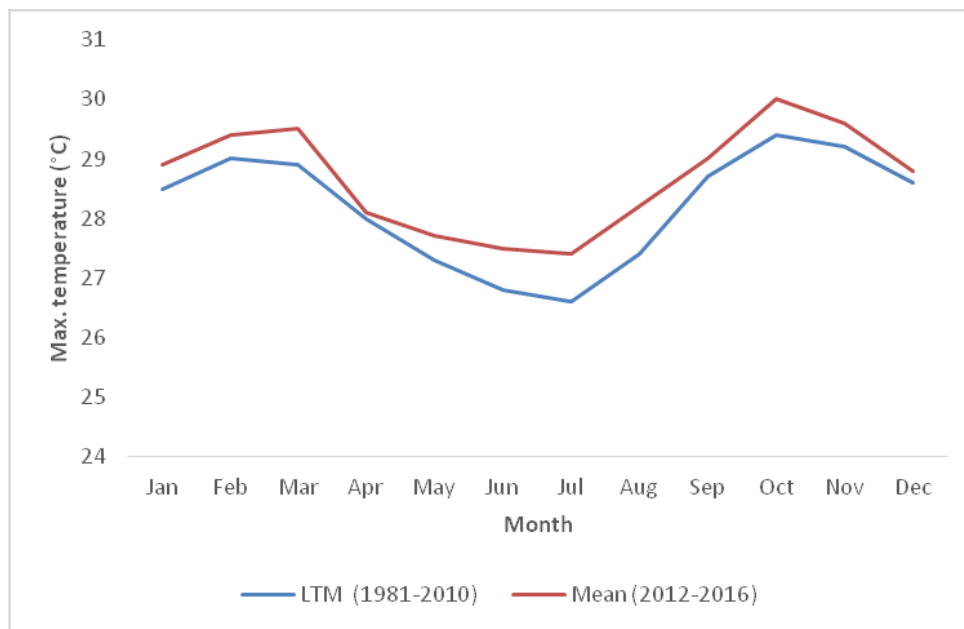


Figure 1: Monthly Mean Maximum Temperature from 2012-2016 compared to Long Term Mean Temperature (1981-2010) in Kyerwa District (Source: TMA, 2016)

More severe climate change would inevitably have far greater negative impacts to village population in Kyerwa, especially women and marginalised groups such as people with disabilities and elders. For instance, current evidence in Runyinya village already indicated that, women are forced to walk around bushes looking for water from unreliable water sources during dry periods. Consequently, they lose time and energy which could have been invested in productive activities; meanwhile children spend less time for schooling, and sometimes prompt them to drop from school completely. Unless novelty approaches which uses community based climate solutions be implemented to enhance water availability for domestic use and crop production in the area, the

⁴ TMA 2014

trend will continue endlessly, with disastrous effect to the vulnerable community groups like women and children.



Figure 2: The photo taken from Runyinya village in 2015 illustrating the intensity of water scarcity.



Figure 2: Photo showing crop failures and bad yield in the larger area of Runyinya village Kyerwa district.

According to reports available in the district, hunger pangs were equally felt more in the past three decades in most villages, in which more than 50% of people were reported to be facing starvation due to a poor harvest. The persistent food scarcity in most villages has led to a sharp rise in food prices in the district. For instance, traditional food inflation jumped from 6.9 per cent in 2016 to 17.4 per cent in July 2018, the highest since 2010. From 2016 up to now, prices of items such as beans have for instance peaked at Tsh 2700 for a kilogramme, twice the usual price of between Tsh 1000 and Tsh1400. These prices are not affordable to common and marginalized village communities such as those in Runyinya. This kind of weather related vagaries has sometimes

stemmed forced migration and school dropouts including deep income and food poverty⁵. The future decline in rainfall volume per season, coupled with increased variability in rainfall, is expected to cause serious crop failures. To reverse this situation and consequently improve life quality of people while achieving climate resilient livelihood improvements requires innovative, climate-centered solutions which will essentially address water scarcity and food insecurity and rural poverty. Therefore, this project will pilot community based climate-innovations to improve resilience of livelihood systems and build adaptive capacity of Runyinya villagers. The project will invest in climate smart rural water supply to improve water security, which in turn will promote small scale drip irrigation, forest and fruit trees planting, bee keeping and village environmental conservation activities. Furthermore, value addition to produces and linking farmers to internal and external market will be part and parcel of project activities. This will promote sustainability of multi-purpose climate actions, and climate resilience of the people in the pilot village.

Effects of climate change on gender issues in Kyerwa district

Research reports globally indicate that women are more vulnerable to the effects of climate change than men in most rural villages in Tanzania. Although they constitute the majority of population in villages, they still suffer high level of illiteracy. For instance, traditional systems in ethnical groups available in Kyerwa particularly Runyinya village, expose women to struggle mostly with domestic issues such as fetching water and cooking. They also suffer from myriad of social and economic barriers which contribute to their limited coping capacity⁶. The proposed project will integrate gender roles and special needs of marginalized groups in various activities/interventions.

Project objectives

The proposed project seeks to pilot practical and cost effective community rooted solution to improve livelihood of poor people, support water supply and agricultural production in Runyinya village. Hence, the overall objective of this project is to enhance resilience and adaptive capacity to effects of climate change while reducing income poverty among the selected community in Runyinya Village, Kyerwa District, Kagera Region. Specifically, the proposed project will address the following objectives:-

- i) Enhance climate proof village water supply in Runyinya village;
- ii) Implement Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village to increase community resilience and food security; and
- iii) Enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping.

Project Components and Financing:

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (USD)
1. Enhance climate proof village water supply in Runyinya village	1.1. At least 2 boreholes drilled in Runyinya village and solar driven water pumps installed. 1.2. Water storage tanks and distribution network systems installed	Enhanced climate resilient rural water supply system in selected communities at Runyinya Village, Kyerwa district.	100,000

⁵ Mkonda Y.M 2017. Are Rainfall and Temperature Really Changing? Farmer's Perceptions, Meteorological Data, and Policy Implications in the Tanzanian Semi-Arid Zone, Journal of sustainability 9: 1412;

⁶ Kyerwa district Council, 2017

	<p>at selected sites</p> <p>1.3. Community water drawing points constructed at selected sites.</p> <p>1.4. Awareness raising meetings conducted with community stakeholders to facilitate formulation of stable, effective and efficiency COWSOs at Runyinya village in accordance with the Water supply and sanitation Act,2009</p> <p>1.5. Water governance by laws formulated to regulate effective use of water and protection of water sources</p> <p>1.6. Gender considerate water governance arrangements for COWSOs established at Runyinya village</p> <p>1.7. Technical Trainings of Trainers conducted on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of COWSOs for Runyinya village</p>	<p>Reduced drudgery for women and children from long distance walk in search of water and firewood.</p> <p>Strengthened capacity on sustainable water resource management and utilization.</p>	
2. Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village	<p>2.1. Drip irrigation structures/schemes at Runyinya village established at selected sites</p> <p>2.2. Selected members of farmer and women groups trained on Operation and Maintenance of drip irrigation facilities at Runyinya village</p> <p>2.3. Tailored training on best farming practices and transformation of traditional farming system through using Farmer Field School Approach provided to farmers in the selected community of Runyinya village.</p>	Number of farmers transformed from primitive agricultural practices to climate smart and sustainable agricultural practices in Runyinya village	70,000
3. Enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping.	<p>3.1 conduct tree planting activities (trees with both environmental and socio economic values in mid-and long-term such as fruit plants and wood plants for timber) in the village</p> <p>3.2. Promote bee keeping activities as income diversification for vulnerable marginalized groups (such as women, girls, old people)</p>	Improved ecological functions to sustain climate sensitive livelihoods in the village communities of Runyinya	30,000

	3.3 Improve ecosystem health and delivery of ecosystem goods and services		
6. Other Operating Project cost			5,000
7. Total Project Cost			205,00
8. Institutional Administrative Cost (9.5%)			23,750
9. Project Cycle Management Fee charged by the Implementing Entity (8.5%)			21,250
Amount of Financing Requested			250,000

Projected Calendar:

Table 2: Milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	Dec 2019
Mid-term Review (if planned)	Dec 2020
Project/Programme Closing	July 2021
Terminal Evaluation	May 2021

PART II: PROJECT JUSTIFICATION

A. *Project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience..*

i. Project components focusing on the concrete adaptation activities

The proposed Project will comprise only three components focusing on the concrete adaptation activities

Project Component 1: Enhance climate proof village water supply in Runyinya village

Water availability is the key entry point in building livelihoods resilience in Runyinya village and other communities living in Kyerwa district, who entirely depends on rainfall for their traditional water sources. Water supply technology proposed in this component is the fundamental intervention where other project components will be anchored-on to build resilience of vulnerable villagers in the pilot village. The resultant outcomes from this component will lead into improved livelihoods and resilience of the villagers to climate change, improved food and nutrition security, and ecosystem services. In addition, the constructed climate proof water supply system will increase availability and access of water to village members as well as reduce labor for women and children from long distance walk in search for water. This will save time for women and children to venture into income generating activities and education respectively. To ensure sustainability of proposed water supply system, selected villagers and water committee will be trained on maintenance and operations. In addition, the local village and district authorities under the District Executive Director (DED) will be the overall authority and has the capacity to inject finances for maintenance costs of the dams after project closure.

The following are expected outputs to be achieved under this component:-

- 1.1. At least 2 boreholes drilled in Runyinya village and solar driven water pumps installed;
- 1.2. Water storage tanks and distribution network systems installed at selected sites;
- 1.3. Community water drawing points constructed at selected sites;
- 1.4. Awareness raising meetings conducted with community stakeholders to facilitate formulation of stable, effective and efficiency COWSOs at Runyinya village in accordance with the Water supply and sanitation Act,2009;
- 1.5. Water governance by laws formulated to regulate effective use of water and protection of water sources;
- 1.6. Gender considerate water governance arrangements for COWSOs established at Runyinya village;
- and 1.7. Technical Trainings of Trainers conducted on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of COWSOs for Runyinya village.

Component 2: Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village

Like in many other rural villages in Kerywa district farming system in Runyinya village is being challenged by several challenges including poor farming practices and reliance on rainfall. As already described above, now rain seasons are not reliable and unpredictable, they have shifted trends such that droughts and dry spell periods are more common than wet spells. Rains are more erratic, coming at unexpected times in and out of seasons. This causes farmers in Runyinya to suffer the most from food insecurity due to crop failures and reduced farm productivity. Therefore, under this output, the project intends to increase resilience of farmers to effects of climate change and variability by improving farming systems in pilot communities within the village. Indicative project outputs to be implemented under this component includes:- 2.1. Drip irrigation structures/schemes at Runyinya village established at selected sites; 2.2. Selected members of farmer and women groups trained on Operation and Maintenance of drip irrigation facilities at Runyinya village; and 2.3. Tailored training on best farming practices and transformation of traditional farming system through using Farmer Field School Approach provided to farmers in the selected community of Runyinya village

Project Component 3: Enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping.

This component will support climate change vulnerable farmers to manage their resources in ways, which protect ecosystems and increase resilience to climate change. Widespread degradation of forest and agro-ecosystems in the pilot village has reduced capacities for resilience and adaptation to climate change. A range of technical prototypes will be devised to address sustainable harvesting and use of resources. They will include integrated apiary sites, improved harvesting and processing of non-wood products. Encouraging ecosystem-based interventions (integrated activities) will help to improve the resilience, adaptation capacities of the villagers and for the well-being of the natural habitat. This component will lead into following expected outputs outcomes: 3.1 conduct tree planting activities (trees with both environmental and socio economic values in mid-and long-term such as fruit plants and wood plants for timber) in the village; 3.2.Promote bee keeping activities as income diversification for vulnerable marginalized groups (such as women, girls, old people); and 3.3 Improve ecosystem health and delivery of ecosystem goods and services

ii. Contribution to Climate Resilience

The proposed project see building climate resilient livelihood systems as a powerful adaptation practices for the pilot project to improve people's life quality at village levels. This project strives to improve water availability, income diversification and access to ecosystem services by human communities in the area through the three project components to enhance communities' adaptive capacity and contribution climate change mitigation measures. Measures proposed under the current project will directly contribute to household and community income generation through increased water security, increased productivity of cash and food crops from small drip irrigation schemes, selling products and services from bee-keeping, fruits with high value plants, selling products from home gardens and reduced poverty of various groups including the majority young women who are currently vulnerable to HIV/AIDS because of high levels of poverty and unemployment. Throughout the above mentioned concrete adaptation activities, there will be elements of capacity building to local communities, improved access to technical information, change of behaviour and practice, improved infrastructure, improved resource governance, enhanced ecosystem health, improved knowledge for resource management, utilisation, and market access. All these will contribute to increased capacity of rural communities for adaptation and resilience to climate change.

B. Project's economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Strategy to avoid or mitigate negative impacts, in compliance with the *Environmental and Social Policy of the Adaptation Fund*.

All three components of this project will considerably contribute to economic, social and environmental benefits at village, district, national and at the international level. The proposed interventions under this project will improve adaptive capacity of the most vulnerable communities in Tanzania. Each component activities are well linked to both environmental and socio-economic to improve the wellbeing of the people and their supporting natural ecosystems. Equally, the project is well informed by the Environmental and Social Policy of the Adaptation Fund to avoid and mitigate unseen negative impacts including considering gender issues. The following description below entails how economic, social and environmental benefits have been integrated in the designing of this project: **a) Social benefits** - The project inspires to improve rural water systems, foster food security, and transform farming practices and improved livelihood systems. All these have multiple benefits and positive contribution to the existing social systems in the project site including solving climate driven social and gender related problems. For instance, gender based challenges linked to climate change effects such as water scarcity, food shortage and challenges for drop out of school girls due to inadequate water supply and food insecurity; **b) Economic benefits** -The proposed project will extensively contribute to economic benefits as it is design to promote transformation of livelihood systems and quality of life among villagers through stimulating drivers of key economic activities the pilot project site. In particular, the activities outlined in each output of the components will lead to increased water security and agriculture production and move vulnerable communities beyond subsistence farming to selling excess crops and fruits and bee keeping products. This project will also build sustainable market and will link villagers to financial services as well as promoting credit cooperatives (SACCOs); and **c) Environmental benefits** – The project will have several environmental benefits, including contribution to climate change mitigation, ecosystem management, biodiversity conservation, land management and conservation agriculture. This project have special component on promoting tree planting, ecosystem restoration and bee keeping. Environmental benefits of this project is also expected to contribute to climate resilience of rural communities through improved ecological functions and services, reversed land degradation weather amelioration, creation of alternative income of vulnerable communities specially women and girls through selling bee keeping products such as honey, timber, fruits from fruit plants and other forest products. environment including climate change mitigation potentials, biodiversity and human communities.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project

In 2007 under NAPA and 2019 under the NAP stock taking and the NDC development in the United Republic of Tanzania multiple climate change vulnerable sectors analysis to prioritize adaptation actions were conducted according to their potential for positive effects on economic development, social capital and environmental management. Cost-effectiveness of the interventions was a criterion used to measure their contributions to adaptation and economic development. As such, the interventions proposed under NAPA, INDC and the NDC are the most urgent and were assessed to be cost-effective. The activities proposed in the current project to be funded by the AF is well in line with those priorities identified under NAPA, INDC and in the NAP stock taking report as described in Part II.D and as such are already identified as cost-effective by the United Republic of Tanzania. The proposed project addresses the water, agriculture and forestry and natural resource sectors which were identified as the most vulnerable to climate change; ranking number 1, 2 and 4 respectively being the priority areas for adaptation interventions by NAPA and recently by the NDC and the NAP stock taking report. The proposed interventions in this project are also of top priority for each of the 3 sectors mentioned above. NAPA and the NGD emphasize establishment and development of small scale drip irrigation systems and innovation of alternative farming systems as the top priorities in the agriculture sector. In the water sector, priority is on drilling boreholes to established village water schemes and promotion of water harvesting interventions. Afforestation, which is also a component in this project, is given top priority in the forestry sector by these policy documents. Also, due to the fact that

this project will be implemented in one village, its operational costs will also be reduced through the involvement of the local villagers, government authorities where the interventions will be implemented to support in some aspects of the project including Monitoring and evaluation.

D. Project consistency with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The National Climate change Strategy (2012) priorities and objectives:

Water is conceived being among the main source of livelihoods, harnessed for domestic, agriculture, industrial use. Climate change is negatively impacting water sources, therefore addressing these climate change induced impacts will allow continuous availability for these elements which are important for sustaining livelihoods, economic growth and social development. In response, as due to the growing concerns over negative climate changes and climate variability, Tanzania like many other countries has vested into several initiatives to curb the situation include developing the National Climate Change Strategy⁷. National Climate Change Strategy was devised seeking for enhancing the technical, institutional and individual capacity of the country to address the impacts of climate change. In order to achieve this, the National Climate Change Strategy has identified several strategic interventions (SI), among which are proposed by this project: G) – facilitate access to water resources; J)– enhancing decentralization of water sources management.

Agriculture: In Tanzania, the agricultural sector is reckoned being among the economic development pillars of which more than 80% of population within the country depending on climate sensitive rain-fed agriculture as source of livelihood⁸. However, adverse effects of climate change have also been recorded within different government reports⁹ ¹⁰ as cited from CIAT and World Bank. The dependence of agriculture on rainfall increases risks of droughts and floods. Therefore, reducing vulnerability of the sector to climate change will significantly contribute to socio-economic development and ensure food security. Cognizant of the situation, Tanzanian government has set several priorities, of which the current project will also thrive to make its contribution to enhance the resilience of the communities to climate change induced impacts, through: a) Assessing crop vulnerability and suitability (cropping pattern) for different Agro-ecological zones; c) Promoting appropriate irrigation systems; d) Promoting early maturing and drought tolerant crops; e) Enhancing agro-infrastructural systems; f) Promoting appropriate indigenous knowledge practices; i) Strengthening post harvest processes and promote value addition; j) Addressing soil and land degradation by promoting improved soil and land management practices/techniques; k) Strengthen integrated pest management techniques; l) Promote use of pest/disease tolerant varieties; and m) Strengthen early warning systems for pest surveillance.

Forestry: With regards to the forestry sub-sector, climate change is reported to have affected many of forest and ecosystem processes. Expanding forest cover and use of adaptive species as well as linking conservation areas is pivotal in adapting to climate change and ensuring continuity in the availability of ecosystem goods and services hence improving the livelihoods of rural communities. All the same, the proposed project will further strengthen efforts invested by the Government particularly on the following areas of emphasis: a) Enhancing control of forest fire, disease and pest breakout; b) Enhancing conservation of forests

⁷ UNDP (2007). Human Development Report 2007/2008: Fighting climate change: human solidarity in a divided world. Palgrave Macmillan, New York

⁸ United Republic of Tanzania - URT (2009a). Climate change and agriculture policy brief. Vice President's Office, Division of Environment, Dar es Salaam

⁹ United Republic of Tanzania - URT (2008). State of the environment report 2008. Vice President's Office, Division of Environment, Dar es salaam.

¹⁰ CIAT; World Bank. 2017. Climate-Smart Agriculture in Tanzania. CSA Country Profiles for Africa Series. International Center for Tropical Agriculture (CIAT); World Bank, Washington, D.C. 25 p.

biodiversity and control of invasive species; c) Supporting alternative livelihood initiatives for forest dependent communities; d) Promoting establishment of woodlots; and f) Strengthening and up scaling of community based forest management best practices.

NAPA: Similarly, the Government further recognizes the extreme vulnerability of communities to climate change as the aspect of poverty, which needs to be addressed from different perspectives include instituting the National Adaptation Programme of Action (NAPA) in 2007. NAPA underscores that Agriculture, Water and Forestry are of high priority sectors that requires interventions for adaptation to climate change. The proposed project is in consistent with the NAPA as it is contributing to the following NAPA emphasized activities in order to enhance climate resilience to the vulnerable rural communities in Tanzania.

Agriculture Sector: i) Increase irrigation to boost crop production in all areas; ii) Introduce alternative farming systems; iv) Create awareness on the negative effects of climate change; v) Increase the use of manure and fertilizer; vi) Range management for livestock production; and vii) Control pests, weeds, and diseases.

Water Sector: i) Develop alternative water storage programs and technology for communities Promote water harvesting and storage facilities; ii) Develop reservoirs and underground water abstraction; iii) Community based catchments conservation and management programs – partially addressed; iv) Develop new water serving technologies in irrigation.

Forestry sector: i) Increase irrigation by using appropriate water efficient technologies to boost crop production in all areas; iii) Develop water harvesting and storage programs for rural communities particularly those in dry lands; vii) A forestation programmes in degraded lands using more adaptive and fast growing tree species; and xii) Water harvesting and recycling. Based on this, the proposed project project recognizes remarkable efforts made by the Tanzanian Government, include other stakeholders, whereas these initiatives must be sustained and deepened by enhancing resilient capacities of communities to climate change across all targeted areas of intervention, and the nation at large.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

Executing Agency: Agrodiamond Limited will be the overall executor of the project, through the services of a Project Management Unit, which will be staffed with a Project Coordinator, an Assistant Project Coordinator, and a Project Accountant who will also serve as Project Administrative Support Staff. The Project Coordinator, the Assistant Project Coordinator, the Accountant are referred here as project personnel. The executor will work in close collaboration with the village and district government where necessary deploy the service of district professionals in the necessary fields such as agriculture, apiculture etc.

Implementing Entity: National Environment Management Council (NEMC), which is also, the National Implementing Entity (NIE) of the Adaptation Fund (AF) in Tanzania will be responsible for the overall management of the project and monitoring of project outcomes/outputs.

Description: The project shall be implemented for the period of two and half years (30 Months) from Dec 2019 to June 2022.

Procedures			
Phase	Steps	Start Date	Completion Date
First: Before Project	Submission of the Concept Note to NEMC	08/07/2019	19/07/2019
	To introduce the project to the Government Institutions/Agencies and other stakeholders for collaboration initiatives.	09/08/2019	10/10/2019
	To conduct feasibility studies in order to collect data for Construction and establishing drip irrigation structures/schemes and preparation of project work plan	15/10/2019	15/11/2019
	To invite and provide parts of project works to Sub Contractors	25/11/2019	31/11/2019
Second: During Project	To conduct advocacy campaigns to selected communities who shall participate in the implementation of the project	15/12/2019	05/01/2020
	Construction and establishing drip irrigation structures/schemes	15/01/2020	15/05/2020
	To construct water storage facilities for vulnerable small scale farming communities	01/06/2020	30/12/2020

	To train community for improving farming knowledge for various small scale farming options	02/01/2021	02/03/2021
	To promote bee keeping activities in woodland, hills and mountainous systems and fruit plants as improved ecosystem based income generating activities	15/03/2021	15/05/2021
	To engage farmers in fruit plants and timber-tree planting in residential areas, along streets and roadsides and degraded landscapes and establish ecological schools in selected villages	01/06/2021	30/07/2021
	To install surface and subsurface irrigation systems including overhead galvanized storage tanks and pumping facilities.	09/08/2021	09/12/2021
Third: After Completion of the Project	To conduct monitoring, coaching and mentoring for the project sustainability involving neighboring communities of the project.	10/01/2022	Continuous
	To conduct evaluation sessions of project to determine its relevance and value for money	01/05/2022	Quarterly
	Finally to hand over the project to the village and district authorities.	15/10/2022	31/12/2022

B. Describe the measures for financial and project / programme risk management.

Precautionary measures for financial and project risk management will be formulated to foresee those risks before they happen. The risk categories on delayed fund disbursement for project implementations and procurement processes are pertinent risks of the proposed project, which all together have mitigation measures. The table below summarizes mitigation measures for financial and project/programme risk management.

SN	FINANCIAL AND PROJECT RISKS	MITIGATION MEASURES
1.	Delay of fund	Submit funds in time (NEMC)
2.	Reluctance of some community members and stakeholders to cooperate among themselves	Involvement of all stakeholders from the beginning and improving the individual involvement in terms of personal values, connectivity between community members, enhancing social relations and new skills and knowledge.
3,	Destruction of projects infrastructures	Proper construction and installations Provision of security systems and guards
4	Procurement processes	Public Procurement procedures should be clearly adhered
5	Exchange rates fluctuations	Bank of Tanzania rates will be followed
6	Reluctance of stakeholders to adopt ecological based and climate resilient livelihood systems and conservation practices	Sensitization of communities to influence peoples knowledge and attitudes and, hence the actions they take to adapt to climate change impacts and define their contribution to global mitigation efforts.

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

Kyerwa District Council will address both social and environmental opportunities and risks in an integrated manner, recognizing the interrelatedness of social and environmental issues at early stages during the designing and implementation phases. This project is designed in consistence with Environmental and Social Policy of the Adaptation Fund. Proposed activities will be reviewed at every stage for potential social and environmental risks and will ensure that potential adverse impacts are assessed and avoided, or where avoidance is not possible, minimized, mitigated, and managed.

SN	ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT	MITIGATION MEASURES
1.	Willingness of the communities to engage in the project	Involvement of the community in project design and implementation to realize tangible benefits.
2.	Lack of understanding of the project details	Awareness Creation

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

NEMC will be responsible for managing the mid-term review/evaluation and the terminal evaluation. The Project Coordinator and his Team will participate actively in the process. The project will be reviewed or evaluated on bi-annual basis (mid-year and end of the year basis). The purpose of the review/evaluation is to provide an independent assessment of project performance at mid-term, to analyse whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes in the most efficient and sustainable way. In addition, it will verify information gathered through the Adaptation Fund tracking tools. An independent terminal evaluation (TE) will take place at the end of project implementation. The evaluation report will be publically disclosed and will be followed by a recommendation compliance process. The direct costs of reviews and evaluations will be charged against the project evaluation budget.

Activity	Responsible person	Timeframe
Inception meeting	Executing entity project coordinator	Within 2 months of project starting
Baseline survey	Executing entity project coordinator	Within 2 months of project starting
Mid-term review	NIE/ External consultant	15 months
NIE annual visits	NIE project coordinator	Annual
Annual meetings	Executing entity project coordinator	Annual
Final evaluation report	External consultant	30 months
Audit reports	External auditor	Annual
TOTAL		

E. Include a results framework for the project proposal, including milestones, targets and indicators.

Expected results	Indicators	Baseline	Targets	Means of verification	Milestone
The overall objective is to enhance resilience and adaptive capacity to effects of climate change while reducing income poverty among the selected communities in Runyinya Village.					
Resilience and adaptive capacity to effects of climate change while reducing income poverty in the selected communities of Kyerwa District Council enhanced.	<p>Percentage of people with improved livelihoods and resilient to climate change</p> <p>Number of households disaggregated by gender with improved food and nutrition security.</p> <p>Number of people adopted diversified sources of income generation activities</p> <p>Number of female and male headed HHs having access to water supply</p>	To be established during the baseline study	<p>At least 30% increase in crop and livestock productivity at the end of the project.</p> <p>At least 50 ha of land planted with adapted fruits/forest tree by the end of the project.</p> <p>At least 50% of adopted diversified sources of income generation activities 60 female and 40 male headed HHs having access to water supply</p>	<ul style="list-style-type: none"> • End of project M&E reports • Journal articles published • Quarterly, annual, Mid-term and final project evaluation reports 	Within and beyond the project life
Component 1: To enhance climate proof village water supply in Runyinya village					
Climate proof village water supply in Runyinya village enhanced.	<p>1.1. At least 2 boreholes drilled in Runyinya village and solar driven water pumps installed.</p> <p>1.2. Water storage tanks and distribution network systems installed at selected sites</p> <p>1.3. Community water drawing points constructed at selected sites.</p> <p>1.4. Number of constructed water supply channels .</p> <p>1.5. Awareness raising meetings</p>		<p>At least 10 irrigation schemes established in Runyinya Village</p> <p>Increased agroforestry trees, crop, fish and livestock productivity, biodiversity and vegetation cover.</p> <p>Improved governance on water use rights and management of forest resources.</p> <p>Reduced drudgery and time for women</p>	<p>Periodic project reports.</p> <p>Project annual impact assessment reports.</p> <p>Mid-term project reports</p> <p>final project evaluations.</p>	Within year one of the project implementation

Expected results	Indicators	Baseline	Targets	Means of verification	Milestone
	<p>conducted with community stakeholders to facilitate formulation of stable, effective and efficiency COWSOs at Runyinya village in accordance with the Water supply and sanitation Act,2009</p> <p>1.6. Water governance by laws formulated to regulate effective use of water and protection of water sources</p> <p>1.7. Gender considerate water governance arrangements for COWSOs established at Runyinya village</p> <p>1.8. Technical Trainings of Trainers conducted on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of COWSOs for Runyinya</p>				
Component 2: Implement Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village to increase community resilience and food security					
Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village to increase community resilience and food security implemented.	<p>2.1. Drip irrigation structures/schemes at Runyinya village established at selected sites</p> <p>2.2. Selected members of farmer and women groups trained on Operation and Maintenance of drip irrigation facilities at Runyinya village</p>	To be established during the baseline study	- Number of farmers transformed from primitive agricultural practices to climate smart and sustainable agricultural practices in Runyinya village	Periodic project reports surveys, studies Project annual impact assessment reports Mid-term project reports final project evaluations	At the end of the project implementation

	2.3. Tailored training on best farming practices and transformation of traditional farming system through using Farmer Field School Approach provided to farmers in the selected community of Runyinya village			Village data	
Component 3: Enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping.					
Expected results	Indicators	Baseline	Targets	Means of verification	Milestone
Nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping enhanced.	<p>-3.1 conduct tree planting activities (trees with both environmental and socio economic values in mid-and long-term such as fruit plants and wood plants for timber) in the village</p> <p>3.2.Promote bee keeping activities as income diversification for vulnerable marginalized groups (such as women, girls, old people)</p> <p>3.3 Improve ecosystem health and delivery of ecosystem goods and services</p>	To be established during the baseline study	<p>-Twelve model vegetable gardens with diversified vegetable crops established</p> <p>-At least 30% of households within target community are integrated in aquaculture, horticulture, livestock and apiculture.</p> <p>Improved ecological functions to sustain climate sensitive livelihoods in the village communities of Runyinya</p>	<p>Periodic project reports.</p> <p>Project annual impact assessment reports</p> <p>Mid-term project reports</p> <p>final project evaluations</p> <p>Village data</p>	At the end of the project implementation

F. Demonstrate how the project / programme align with the Results Framework of the Adaptation Fund.

<i>Project Objective(s)</i>	<i>Project Objective Indicator(s)</i>	<i>Fund Outcome</i>	<i>Fund Outcome Indicator</i>	<i>Grant Amount (USD)</i>
To enhance Climate proof village water supply in Runyinya village.	1.1. At least 2 boreholes drilled in Runyinya village and solar driven water pumps installed. 1.2. Water storage tanks and distribution network systems installed at selected sites 1.3. Community water drawing points constructed at selected sites. 1.4. Number of constructed water supply channels . 1.5. Awareness raising meetings conducted with community stakeholders to facilitate formulation of stable, effective and efficiency COWSOs at Runyinya village in accordance with the Water supply and sanitation Act,2009 1.6. Water governance by laws formulated to regulate effective use of water and protection of water sources 1.7. Gender considerate water governance arrangements for COWSOs established at Runyinya village 1.8. Technical Trainings of Trainers conducted on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of COWSOs for Runyinya	Outcome 1: Increased adaptive capacity within relevant development and natural resource sectors	-Physical infrastructure improved to withstand climate change and variability-induced stress. Enhanced climate resilient rural water supply system in selected communities at Runyinya Village, Kyerwa district. Reduced drudgery for women and children from long distance walk in search of water and firewood. Strengthened capacity on sustainable water resource management and utilization.	<u>100,000</u>
To Implement Climate	2.1. Drip irrigation structures/schemes at Runyinya village established at	Outcome 2: Increased	-Ecosystem services and natural	<u>70,000</u>

<p>Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village to increase community resilience and food security .</p>	<p>selected sites</p> <p>2.2. Selected members of farmer and women groups trained on Operation and Maintenance of drip irrigation facilities at Runyinya village</p> <p>2.3. Tailored training on best farming practices and transformation of traditional farming system through using Farmer Field School Approach provided to farmers in the selected community of Runyinya village</p>	<p>ecosystem resilience in response to climate change and variability-induced stress</p> <p>Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level</p> <p>Outcome 4: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas</p>	<p>assets maintained or improved under climate change and variability-induced stress</p> <p>Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses</p> <p>Modification in behavior of targeted population</p>	
<p>To enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping</p>	<p>3.1. Conduct tree planting activities (trees with both environmental and socio economic values in mid-and long-term such as fruit plants and wood plants for timber) in the village</p> <p>3.2. Promote bee keeping activities as income diversification for vulnerable marginalized groups (such as women, girls, old people)</p> <p>3.3 Improve ecosystem health and delivery of ecosystem goods and services</p>	<p>Outcome 5: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas</p> <p>Outcome 6: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level</p>	<p>Percentage of households and communities having more secure (increased) access to livelihood assets</p> <p>Percentage of targeted population with sustained climate-resilient livelihoods</p> <p>Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses</p> <p>Modification in behavior of targeted population</p>	<p><u>30,000</u></p>

Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
<p>1.1 Improved livelihoods and resilience to climate change of the rural communities, improved food and nutrition security, and ecosystem services</p> <p>1.2 Reduced drudgery for women and children from long distance walk in search of water and firewood</p> <p>1.3 Strengthened capacity on sustainable water resource management and utilization</p>	<ul style="list-style-type: none"> • Number of people with increased resilience to climate change • Number of households with increased food and income security • Proportion of people with enhanced social security (by improved literacy and health) • Increased number of people with knowledge on sustainable management and utilization of water resources 	<p>Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change Impacts, including variability</p> <p>Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities</p>	<p>4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)</p> <p>1.1 No. and type of risk reduction actions or strategies introduced at local level</p> <p>3.1.2 No. of news outlets in the local press and media that have covered the topic</p>	<u>100,000</u>
<p>1.1 Improved ecosystem health and delivery of ecosystem goods and services</p> <p>1.2 Increased sources of employment opportunities resulting from fruits and forestry venture</p> <p>1.3 Reduced land and forest degradation in the community</p>	<ul style="list-style-type: none"> • Percentage increase in forest resources for resilience to climate change • Number of people sustainably using fruits and forest products • Proportion of land and forest rehabilitated • Increased number of people with knowledge on establishment, 	<p>Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability</p> <p>Output 3: Targeted population groups participating in</p>	<p>5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)</p> <p>3.1.1 No. and type of risk reduction actions or strategies introduced at local level</p> <p>3.1.2 No. of news outlets in the local press and</p>	<u>70,000</u>

<p>landscape</p> <p>1.4 Strengthened knowledge and skills on establishment, propagation and management of fruits and forest tree species</p>	<p>propagation and management of fruits and forest tree species (1000 farmers per village anchored on 50 focus youths)</p>	<p>adaptation and risk reduction awareness activities</p>	<p>media that have covered the topic</p>	
<p>3.1 Improved household livelihoods and income generation of local communities from crop, livestock and domestic water use.</p> <p>3.2 Improved equitable water use for multiple agroecological needs by the community;</p> <p>3.3 Improved governance of water and use of forest resources for climate resilience in target village communities</p> <p>3.4 Improved capacity on governance of water and use of forest resources for climate resilience in target village communities</p> <p>3.5 Enhanced capacity of people with knowledge on integrated and</p>	<ul style="list-style-type: none"> • Percent increase in income, • Reduced nutrition related illness • Increased number of households in food and nutrition security n face of climate change • Number of farmers, students and policy makers with improved capacity in strategies in climate change adaptation • Number of people adopted to technologies for adaptation and mitigation of impacts of climate change • Increased number of people with knowledge on integrated and diversified technologies for fish, crops and livestock production 	<p>Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability</p> <p>Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities</p> <p>Output 7: Improved integration of climate-resilience strategies into country development plans</p>	<p>3.1.2 No. of news outlets in the local press and media that have covered the topic</p> <p>7.1. No., type, and sector of policies introduced or adjusted to address climate change risks</p> <p>7.2. No. or targeted development strategies with incorporated climate change priorities enforced</p> <p>3.1.1 No. and type of risk reduction actions or strategies introduced at local level</p>	<p><u>30,000</u></p>

diversified technologies for crops and livestock production				
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G. Detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Component Budget	Personnel	Consumable	Equipment(Solar pump ,pipes etc)	Transport	Consultancy	Bore holes and water storage tanks establishments	Maintenance costs	M&E	Training	Total Cost (USD)
Component 1 Enhance Climate proof village water supply in Runyinya village	9,880.00	400	15000	4,000.00	5,600.00	50,490.00	5,000.00	1,500	3,630.00	95,500
Component 2: Implement Climate Smart-Community-Based (CSCB) - small scale irrigation scheme at Runyinya village to increase community resilience and food security	9,800.00	2,500.00	9,920.00	5,223	4,220.00		15,757.00	2,900.00	25,080.00	75,400
Component 3: Enhance nature based climate actions in local communities at Runyinya village through forest and fruit tree planting and bee keeping.	5600.00	1,800.00	2600.00	3000.00	3,600.00	0.00	1,000.00	4210.00	16,000.00	37,810
Total Project operation costs	25280.00	4,700.00	27,520.00	12,223.00	13,420.00	50,490.00	21,757.00	8,600	44,710.00	208,710.00
Administrative cost of NIE (8.5%)										23,750
Institution Administrative costs (9.5%)	22,727.00	0	0	0	0	0	0	1,000	2,080.00	21,250
Total Fund request										250,000

Personnel: Per diem during travels, Coordination allowance, Special task honoraria, secretary and attendance, financial and admin assistance, Supporting staff, dissemination, Staff time, farmer and local GOVT facilitation and Research assistants time

Consumables: Fuel and lubricants, Stationery, Printing and publication, animal feeds, tree seeds, scions and rootstocks, fertilizers, approved natural pesticides

Equipment: irrigation, livestock infrastructure, shade screen nets, nursery equipment

Transport and Vehicle: Fuel

Consultancy: Irrigation structures designing, construction, nursery establishment, surveys,

Contractors and service providers: construction and commissioning of water irrigation structures, nursery and screen houses and irrigation infrastructures

Maintenance Costs: Materials, labour, irrigation facilities and replacement of defaulted facilities

Monitoring & Evaluation: Field visits per diems, facilitation for local government, farmers, and VEO special task allowance,

Training: Technical staff, local government, farmers and VEO facilitation allowance,

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

- A. Record of endorsement on behalf of the government¹¹** *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Ambassador Joseph E. Sokoine Deputy Permanent Secretary Vice President's Office	<i>Date: 31st July 2019</i>
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- B. Implementing Entity certification** *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (National Strategy for Growth and Reduction of Poverty 2010-2015; National Climate Change Strategy 2012, Tanzania Vision 2025 and in the National Adaptation Programme of Action (NAPA) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.



Fredrick F. Mulinda
Implementing Entity Coordinator

⁶. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

Date: <i>3rd August 2019</i>	Tel. and email: +255 753 240 517, nieaf@nemc.or.tz / kasigazi.koku@gmail.com
Project Contact Person: Denis Kiwali	
Tel. And Email: +255 756 444 133, deniskiwali@gmail.com	

UNITED REPUBLIC OF TANZANIA

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Government City,
Mtumba Area,
Vice President's Office
Building,
Ihumwa,
P. O. Box 2502,
DODOMA

In reply please quote:

Our Ref: BA. 90/201/01/3

31st July, 2019

The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

**Re: Endorsement for Piloting Climate Resilience Livelihood Systems
in Runyinya Village, Kyerwa District**

In my capacity as designated authority for the Adaptation Fund in Tanzania, I confirm that the above project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the United Republic of Tanzania.

Accordingly, I am pleased to endorse the above proposal with support from the Adaptation Fund. If approved, the project will be implemented by National Environment Management Council and executed by Agrodiamond Limited.

Sincerely,


Ambassador Joseph E. Sokoine
For Permanent Secretary

*All correspondences should be Addressed to **Permanent Secretary**,*