Project Information Document/ Identification/Concept Stage (PID)

Concept Stage | Date Prepared/Updated: 01-Oct-2024 | Report No: PID274

BASIC INFORMATION

A. Basic Project Data

Operation Name	Operation Short Name
Promoting Community Led Nature-based Solutions to Climate Change Adaptation in the Usangu Catchment	Usangu JSDF
Operation ID	**Financing Instrument**
P502536	Investment Project Financing (IPF)
Beneficiary country/countries	**Region**
Tanzania	Tanzania
Environmental and Social Risk Classification	
Moderate	
Date PID Prepared	**Estimated Date of Approval**
12-Oct-2023	29-Nov-2024
Borrower(s)	**Implementing Agency**
United Republic of Tanzania	Ministry of Natural Resources and Tourism

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Operation Cost	**2.80**
Total Financing	**2.80**
Financing Gap	**0.00**

DETAILS

Non-World Bank Group Financing

Trust Funds	2.80
Japan Social Development Fund	2.80

B. Introduction & Context

Country Context

Tanzania is highly susceptible to adverse climate change impacts, due to the country's heavy dependence on agriculture for employment and GDP. Average temperatures in Tanzania have risen by 1°C from 1960 to 2006 and are

expected to rise a further 1.5°C to 4.5°C by the 2090s while rainfall volumes have declined. More erratic rainfall patterns and climate extremes will likely cause heat stress and new diseases in crops and animals, increasing water scarcity in agriculture and the overall vulnerability of food systems and natural resources (Bates et al. 2008; Hartmann et al., 2013; Kassian et al 2017; World Bank 2019; 20174). Climate change has contributed to Tanzania's falling productivity in the food and energy sectors, and this impact is expected to intensify (Acre & Caballero 2015).

Sectoral and Institutional Context

The Usangu Catchment is a sub-catchment of the Rufiji Basin, lying within Mbeya and Iringa Regions of central Tanzania. The Catchment covers over 21,000 square kilometers and is bounded by the Chunya escarpment and Isukaviola highlands to the west and north, respectively, the Poroto and Kpengere Mountains to the south, and the central highlands to the south and east. The entire watershed is drained by the Great Ruaha River via the Ihefu Swamp at N'Giriama. This includes the areas drained by the Kimbi, Chimala, Ruaha, Kimani, Muwanga, Ndembera, and Mbarali Rivers and their tributaries. The catchment comprises a large portion of the Usangu Game Reserve (a protected area), the seasonally flooded Eastern and Western Wetlands, and the Ihefu Swamp. One of the main ecosystem services of the Catchment is water for rice cultivation coming from the Southern Highlands while two thirds of Tanzania's electricity is produced from hydroelectric facilities on the Ruaha River. The catchment also hosts a wide range of biodiversity and provides grazing resources and wildlife habitat. It is home to over 200 000 people, who are rural and depend for their livelihoods on the natural resources of the basin through irrigated agriculture, livestock herding, fishing, tourism, and parks and hydroelectric system maintenance.

Natural resources (land and water) in the Usangu Catchment are severely exploited in some areas, and river flows have decreased, especially during the dry seasons. Ecosystems as well as hydroelectric and agricultural outputs are being impacted by the increasing water stress. Water stress has already seriously affected the Ihefu Wetland, which is a critical habitat for many species and provides livelihood support to a significant population. In addition, the decreased water flows through the Ruaha National Park has had devastating impacts on wildlife and has severely affected tourism in the park - a critical sector for the local and national economy. In the Usangu Catchment, there are already significant trade-offs, including water disputes, associated with balancing the amount of water available between irrigated farmland, livestock herders, hydropower generation, and the environment. Due to over-abstraction, unlawful usage, and significant seasonal and inter-annual climate changes, there is evidence that renewable freshwater supplies are rapidly diminishing. Both large-scale irrigation and small-scale irrigation are widely practiced in the Catchment, and there is some evidence that water resources are not being used effectively.

Efforts to address water management issues in the Usangu Catchment have been taken by the Tanzania: Resilient Natural Resource Management for Tourism and Growth (REGROW, P150523), which, since 2018, has been implementing landscape and conservation practices upstream of the Ruaha National Park. Specifically, REGROW has been (i) financing water augmentation measures (sand dams, natural river pools, check dams, boreholes, etc.) to enhance dry season flows to the Ruaha River; (ii) constructing water supply sources along the river and tributaries to ensure increased water availability during the dry season; (iii) upstream of the Ihefu wetland, trained smallholder farmers on water-saving farming practices and financed water-efficient irrigation infrastructure; and (iv) strengthened the capacity of water user associations and irrigator organizations on integrated land and water use planning. In parallel, the Second Water Sector Development Program (P150361), since 2017, has strengthened national and basin-level institutions responsible for water resource management and national information and data on water resources.

Rationale for JSDF

The JSDF-funded project will complement these activities by centering on the interface between technology and infrastructure development using nature-based solutions, climate change response, and rural development as a means to increase vulnerable rural communities' resilience to climate change. In order to help communities adjust to the impacts of climate change in the most effective way, sustainable land and water management interventions will be identified by the community members and be designed as fit-for-purpose best management practices. The focus on nature-based solutions to adaptation will ensure the integration of development, climate, and nature into comprehensive interventions that strengthen the resilience of physical and natural capital. Nature-based solutions combined with human capital development will increase the project's development impact, reduce lifecycle costs, contribute to carbon sequestration, and improve environmental outcomes. The project will finance the building or installation of facilities for rainwater harvesting and storage and boreholes; rehabilitate small charco dams to stop river channels from eroding and gullying; conduct river training to enhance flows and reduce flooding; plant trees to reduce soil erosion; and develop locally-led village land use plans to make sure that water resources are used in a coordinated and that local development does not negatively impact the availability and quality of these resources.

Relationship to CPF

The project will support the World Bank Group Tanzania Country Partnership Framework (CPF) for the Period FY18-FY22 (Report No. 121790-TZ), Focus Area 1: Enhance Productivity and Accelerate Equitable and Sustainable Growth. In particular, it will support Objective 1.3: Manage natural resources for resilient economic growth, by taking measures to increase climate resilience in sectors threatened by climate variability and change and advancing climate resilient water investments in infrastructure for energy, agriculture, human, and environmental needs. A new CPF is currently anticipated to be completed in May 2024.

C. Development Objective

Development Objective

Promote community led nature-based solutions to climate change adaptation in the Usangu catchment

Key Results

The PDO level Indicators are:
1.People provided with access to improved water sources (total, female, rural, urban) (Number). Baseline: 0; Targets: 5,000 total, 2,500 female, 0 urban, 5,000 rural
2. Land area under sustainable landscape management practices (Ha). Baseline: 0; Target: 200,000 ha
3. Beneficiaries of job-focused interventions (total, female) (Number). Baseline: 0; Targets: 1,000 total, 500 females

D. Preliminary Description

Activities/Components

Component 1: Promoting Community Led Nature-based Solutions to Water Stress and Catchment Degradation (US$2,105,220): building/installation of facilities for rainwater harvesting and storage and boreholes; rehabilitation of small charco dams to stop river channels from eroding and gullying; river training activities to enhance flows and reduce flooding; tree planting for catchment conservation and reduced erosion; development of village land use plans

for implementation by local government authorities and RWB officers for sustainable landscape management. The component deliverables are:

1. Tree planting by hired community members, with a focus on youth and womenr
2. Village land use plans
3. Climate resilient river training of seven rivers - survey and excavation
4. Constructed climate resilient cattle troughs
5. Rehabilitated climate resilient charco dams as water sources
6. Constructed climate resilient boreholes
7. Climate resilient water harvesting and storage structures

The IRIs that will measure this component are:

1. Climate resilient nature-based solution activities for catchment conservation implemented (Number). Baseline: 0; Target: 37
2. Climate resilient nature-based solution activities for sustainable land management implemented (Number). Baseline: 0; Target: 20

Component 2: Promoting Inclusive Climate Resilient Green Jobs (US$501,000): training of local community members and other stakeholders on alternative livelihoods as a means for reducing the pressure off water resources and increasing communities' economic resilience and adaptation capacity to water shortages; and provision of training and seed money to local Conservation Community Bank groups to enable access to small loans for the alternative livelihoods in support of resilience and climate change adaptation. The component deliverables are as follows:

1. A baseline study on viable community alternative livelihood possibilities
2. Training and seed money for each local Conservation Community Bank groups
3. Livelihood and adaptation training to local community groups (beehives, handicrafts)

The IRI that will measure this component is:

1. Participants in climate change adaptation capacity building programs (Number, gender disaggregated. Baseline: 0; target: 500 total and 250 female)

Component 3: Project Management and Administration, Monitoring and Evaluation, and Knowledge Dissemination (US$193,780): incremental support for project management to ensure coordinated and timely execution of activities, oversight, and coordination; fiduciary management, including external/internal audits and accounting; quality control and assurance systems; environmental and social risk management; M&E and reporting, including a final evaluation of project impact for potential scaling up of nature-based solution approaches to other catchments.

The Project Implementation Unit (PIU) of REGROW, which will manage the JSDF project, will be responsible for M&E and reporting for the project. M&E will be structured around the project's results framework and will be informed by field truthing of activities and engagement with the beneficiaries. The PIU will submit semi-annual progress reports to the World Bank, as well as detailed mid-term and completion reports, assessing project results and impacts. The semi-annual and mid-term reports will be used by the World Bank in consultation with JDSF to inform adjustments during implementation and agree on risk mitigation measures as needed. The component deliverables are:

1. Project launch
2. Progress reports
3. Annual Audits
4. Final impact evaluation and Implementation Completion Report preparation
5. Knowledge sharing events
6. Communication and project publicity activities through Ruaha Marathon event

Sustainability. To ensure the sustainability of the grant outcomes and benefits the project design will have the following features:

Financial and economic sustainability. The use of NBS in catchment conservation and land management investments is expected to reduce their operation and maintenance costs. The use of solar panels where needed will reduce energy costs, and planting will be carried out in areas not requiring irrigation infrastructure.

Institutional sustainability. The project is grounded in existing institutional plans and decision-making processes to ensure that capacity built is retained in the Usangu Catchment area. The REGROW project's PIU will also manage this project and after the closing of REGROW (expected in March 2025), the PIU staff will be retained by the JSDF project to ensure continuity and further local institutional strengthening.

Social sustainability and inclusion. Beneficiaries will sit at the forefront of prioritizing, planning, implementing, and monitoring project interventions and they will be the key beneficiaries of job-focused interventions, including skill training. This will secure ownership and buy-in, as well as commitment to the use and maintenance of project investments. Interventions are also expected to reduce the occurrence of water-borne diseases like malaria, cholera, and typhoid, due to reduced flooding and availability of improved water services, further enhancing the social sustainability of the project.

Ecological sustainability. The project directly addresses the continued watershed degradation, forest loss, and exposed water infrastructure in Usangu Catchment. The measures proposed for improving water availability will enhance water security, enhance infrastructure resilience, reduce greenhouse gas emissions, and increase carbon sequestration. Additionally, project activities will contribute to managing the water-energy nexus, preserving wetlands and forests for carbon sequestration, water flow regulation, and hydropower generation. There will also be improvements in water quality through sediments control, which will generate withdrawal benefits for water supply, irrigated agriculture, livestock watering, and other local livelihood activities. Vegetation planted will be endemic to the Usangu Catchment area to ensure a solid survival rate and avoid introduction of invasive species.

Paris Alignment. The project is expected to be aligned with the goals of the Paris Climate Change Agreement on both mitigation and adaptation. As noted, Tanzania is highly susceptible to adverse climate change impacts, due to the country's heavy dependence on agriculture for employment and GDP, and the Usangu Catchment area is exposed to inter-annual climate changes that affect renewable freshwater supplies. Tanzania's 2021 Nationally Determined Contributions (NDC) to the Paris Climate Agreement commits to reducing GHG emissions economy-wide between 30 and 35 percent by 2030. The project will contribute to the NDC mitigation commitments by investing in carbon sink enhancement and carbon sequestration through planting and sustainable landscape management and to the NDC adaptation priorities by helping Catchment communities adapt to climate change, specifically drought and flooding. Climate change risks to project activities include flooding, which will be mitigated by locating and designing investments in a way that reduces such risks.

Environmental and Social Standards Relevance

E. Relevant Standards

ESS Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Not Currently Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

Legal Operational Policies

Safeguard Policies	Triggered?	Explanation (Optional)
Projects on International Waterways OP 7.50	No	
Projects in Disputed Area OP 7.60	No	The project's location is outside the park in the southern catchments area of Usangu. Livelihoods grants will extend support to communities only in the southern Usangu catchment area.

Summary of Screening of Environmental and Social Risks and Impacts

This project is classified as moderate risk, based on the type of project and nature of the financed activities which will include the building of facilities for rainwater harvesting and storage; rehabilitation of small check dams to stop river channels from eroding and gullying; river training activities to enhance flows and reduce flooding; implementation of catchment conservation strategies (agri-ecological technologies and water sources restoration techniques, such as tree planting and river bank zoning); implementation of sustainable land management best practices (cover cropping,

erosion control, village land use plans, terracing, gully control, livelihood activities, and climate-smart agricultural techniques and technologies); capacity building to local communities and other stakeholders on environmental conservation and climate change issues, cash-for-work catchment management activities and micro-enterprises for women and youth employment, and promotion of the use of rice husks for energy to reduce deforestation. Most of these activities aim at conservation and will enhance environmental and social risks and impacts management. Based on the preliminary information any indirect or long-term impacts are not anticipated.

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