



EAST AFRICAN COMMUNITY

WATER RESOURCES PROTECTION

(Pre-concept)

PROJECT SUMMARY

PROPOSAL TITLE	Building adaptive capacities and resilience to climate change through improved water security, sanitation and hygiene in vulnerable arid and semi-arid communities in East Africa.
REGION/ COUNTRIES	East African Community (EAC)- Republic of Democratic of Congo, Republic of Burundi, Republic of Kenya, Republic of Rwanda, Republic of South Sudan, United Republic of Tanzania and Republic Uganda.
PROJECT DESCRIPTION & RATIONALE	<p>Access to water and sanitation including health is recognized as a human right and has long been a central aim of international development policies and targets. The MDGs sought to “halve the proportion of the population without access to safe drinking water and basic sanitation” between 1990 and 2015 (UNGA, 2001). Great strides have since been made over the last two decades, given that about 2.3 billion people gained access to an improved drinking water source and some 1.9 billion had access to an improved sanitation facility (WHO and UNICEF, 2014). Of those gaining access to drinking water, some 1.6 billion use a higher level of service, that is, a piped water supply on premises. However, much still needs to be done, as about 748 million people do not use an improved source of drinking water and 2.5 billion still do not use an improved sanitation facility (WWAP, 2015). Moreover, not all of those using improved facilities have fulfilled their rights; for example, an estimated 1.8 billion people drink contaminated water (Bain et al., 2014) and according to the Water for Children Africa (WCA) some 30,000 children die every year after consuming contaminated water.</p> <p>None of the EAC Partner States has achieved the drinking water target</p>

of 100% in access and quality nor met the sanitation target under the MDG nor in track to meet SDG 6 which is to “Ensure availability and sustainable management of water and sanitation for all” and includes targets addressing all aspects of the freshwater cycle. In all Partner states, less than 75% of the populations in rural areas have access to safe drinking water and an even lower percentage with basic sanitation facilities.

Where there is available clean water, its provision is not keeping pace with population growth, hampering the progress towards the achievement of the SDGs. Water availability, quantity and quality face several challenges associated with increasing population with intensified socio-economic activities that exert pressure on water resources. These include the over-abstraction of water for irrigation and urban uses, as well as human encroachment on the catchment areas through settlement, cultivation, over-grazing and bush fires. Overcrowding in urban slums makes it even more difficult to control sanitation issues and disease outbreaks. Unhygienic sanitary facilities, poor management of solid and liquid wastes are responsible for a large portion of the disease burden in East Africa.

Climate change further complicates the challenge of balancing demand and supply. Water and sanitation are affected in many ways by weather and climate events (such as variability, seasonality and extreme events). This translates into negative impacts on drinking water availability and quality, and in poor performance of sanitation and hygiene services. Future climate change will put an additional stress on delivering and sustaining health and well-being related outcomes.

The deprivation in access to WASH services overwhelmingly impacts poor people, marginalized communities, women and children particularly in the arid and semi-arid zones.

The implications of lack of clean water and access to adequate sanitation are widespread. These include mortalities from diseases that are preventable and frequent illness contributing to low educational levels and low capacities to absorb training. Women and youth spend an inordinate amount of time looking for water and fuelwood, time that could be spent in more productive activities to improve livelihoods, all these issues amongst other make these populations unable to adapt to climate pressures.

A lot of work has been carried out under water and sanitation provision by governments, line ministries/agencies, local governments,

UNICEF and other bilateral partners a lot still needs to be done to build synergies and extend services to the rural poor. Most of this progress has however been made towards the relatively wealthier and middle-income classes in society most of whom reside in urban areas.

This programme/project targets the communities living in the arid and semi-arid transboundary areas (transboundary ASALs), especially women and youth. These marginal areas home to the poorest and most vulnerable to the adverse impacts of climate variability and change and are characterized by limited water availability, recurrent drought and are seriously water stressed. With high levels of population growth in the ASALs, poverty is likely to grow unless major investments are made in ASAL services and productive sectors. Due to the scattered population, the costs of providing water services are high. Coverage in these drylands outside the towns is significantly lower than the national average for rural areas and will continue to be further challenged by high population growth and climate change. The economies and current land uses of the arid areas are dominated by pastoralism, while in the semi-arid areas, pastoralism is mixed with rain fed and irrigated agriculture, and small-scale businesses based on drylands products. Access to water plays a crucial and often limiting role in most of the productive activities in the arid and semi-arid lands. Access to water and management of water resources are among the main drivers of change in the drylands. Improving water access and resources management opens new areas for drylands production and can increase carrying capacity.

Therefore the programme/project seeks to address provision of water and sanitation services and management of water resources in the poorest and most underserved arid and semi-arid lands in East Africa. These services are key aspects in building the adaptive capacities of the target communities through activities that address poverty reduction, inclusive green growth and sustainable management of natural resources. Droughts are frequent and impact of climate change significant. Improving water access and water resources management in these regions can contribute to improved resilience and socio-economic development of the target communities. Improved access to water for human and livestock uses as well as provision of sanitation, benefit communities including the poorer segments, and it provides opportunities for promoting green growth.

PROJECT OBJECTIVES	<p>The overall objective of this project/programme is to reduce vulnerability, strengthen the resilience and build the adaptive capacities of the poor, vulnerable communities, particularly those living in the transboundary ASAL areas where water, sanitation, water related diseases and health challenges are greatest, through an integrated adaptation approach focusing on provision of WASH services.</p> <p>The project/ Program will adopt community led and gender sensitive interventions, focussing on:</p> <ul style="list-style-type: none"> i) early warning and response systems. ii) Technology transfer including water technology and engineering solutions in provision of water security through climate smart water, sanitation and hygiene integration. iii) climate resilient livelihood diversification and iv) Dissemination of lessons learnt and policy recommendations to facilitate scaling up and replication.
IMPLEMENTING/ EXECUTING INSTITUTION	<p>East African Community (EAC) Secretariat, Department of Environment and Natural Resources PO Box 1096 Arusha, Tanzania Email: skiarie@eachq.org ; eac@eachq.org</p>
PRESENTED TO	
IMPLEMENTATION SCHEDULE	5 years
BUDGET	USD 60 Million

Project / Programme Objectives:

List the main objectives of the project/programme.

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The project components are as follows: -

Component 1: Early warning and response systems improve forecasting for flood and drought response, preparedness and adaptive capacity of poor, vulnerable and local communities living in the marginal, arid and semi-arid areas in the transboundary zones, drawing on and integrating scientific and local knowledge.

Outcome1: Local capacities and tools for guiding responsive action triggered by hydro-climatological information reduce exposure, vulnerabilities and strengthen adaptive responses.

Output 1.1 Project intervention sites identified, and capacity of the communities strengthened on early warning, preparedness and response mechanisms.

Indicative activities

- 1.1.1 Using the vulnerability maps (USAID/PREPARED), identify project sites in all the 6 countries.
- 1.2.1 Work with the communities at the project sites using the C3A2 tool to develop Community based climate change adaptation plans.
- 1.2.2 Community disaster management systems/plans developed for proactive response to floods, droughts and other extreme events.
- 1.2.3 In partnership with the communities, local meteorological agency offices and Disaster management Authorities, FEWSNet, ICPAC and RCMRD, develop capacity building programs for provision of early warning to communities.

Output 1.2: Early warning systems enhanced, and hydro-climatological warnings supplied in time and in appropriate format for use by communities and relevant disaster response agencies and officials.

The combination of the outputs under this component will enhance the targeted communities' capacity to adapt to risks and hazards posed by climate related extreme events including floods, droughts and mudslides. This will be achieved by working with the NMHSs and augmenting their capacities in providing early warning to the target communities in time, increasing their capacity for adaptation by implementing comprehensive warning systems which in combination with the disaster preparedness and response plans will reduce their exposure to climate variability and change. To facilitate a largely automated process of disseminating warnings, a public-private partnership (PPP) will be established between the NMHSs and a national mobile telecommunications provider to provide a low-cost and efficient solution to reach communities at risk. USAID/ PREPARED program used a similar system successfully while working with the Kenya meteorological department and the State Department of Agriculture in piloting crop insurance to small-holder farmers. The system was used to provide advisories to farmers including onset of rains and commencement of planting season.

The capacity to collect and monitor the relevant data will be strengthened by equipping the NMHSs with automated weather stations and water –level gauges to support the work on derivation of risk indicators from observed data as basis for triggering respective warnings. Appropriate MOUs will be drawn up to facilitate work under PPP, using this data for early warning to the communities.

Workshops and training of the partners in the establishment, maintenance and use of the early warning systems will be undertaken alongside the implementation of activities and in cooperation with the relevant stakeholders including community leaders, local administration officials, and Disaster management centers, NMHSs and the national mobile telecommunication companies and the media.

Indicative activities to be implemented under this output include: -

- 1.2.4 Augmentation of early warning systems in the administrative unit, develop climate decision support systems to provide early warning system information in a form that is useful for local administration and local communities.
- 1.2.2 Develop partnerships with institutions working in early warning and remote sensing to enhance the effectiveness and use of decision support tools to build and strengthen the capacity of local officials and communities to respond to extreme events. Partners to include national mobile phone service providers to enable the development of stronger early-warning systems that would lead to timely and effective response to extreme events.

Output 1.3: Early warning systems empower local administration officials and communities to respond in a timely manner to seasonal forecasts and potential disaster events.

The enhanced capacity to collect hydro-climatological information, monitor and map hazards and the ability to make informed decisions through the measures underlined under component one will be useful in informing the disaster preparedness and response system to be implemented.

The target areas for this AF intervention are increasingly being hit by extreme climatic events and have inadequate disaster management arrangements. Training will be provided to the target communities and local administration officials in gender –sensitive and participatory processes to enable them to build their capacity to participate meaningfully in the programme’s detailed design. This will include focus on environmental and social risks management and the project’s environmental and social risk management plan. They will also be supported to develop, implement and pilot appropriate response measures in disaster management that integrate scientific and traditional knowledge including the local administration officials to build capacity to adopt and implement the disaster preparedness and response plans. The contingency plans will include emergency water storage facilities and the setting up/ strengthening of evacuation centres and the coordination mechanisms for dealing with the extreme events.

Although targeting different regions in East Africa and addressing different hazards, there will be a systematic exchange among the different components to ensure the incorporation of knowledge and lessons learnt especially in regard to the effectiveness, communication and coordination among the various stakeholders.

Indicative activities include: -

- 1.3.1 Train communities on the use of seasonal forecasts and disaster management related skills.
- 1.3.2 Identify shelters and equip for use in emergencies.
- 1.3.3 Pilot community-based disaster management and response system for extreme events in the ASAL and/or marginal areas. A capacity building program, based on the manual

prepared in concert with the communities will be initiated so that the communities can take part practically in making use of forecasts and dealing with and managing disasters.

Output 1.4: Access to seasonal weather forecasting improves the resilience of small-scale farmers and pastoralists to climate variability and change.

This output will seek to strengthen agro-meteorological early warning systems for small-holder farmers and pastoralists through dissemination of short-term and seasonal forecast information, mainly on temperature and rainfall and the anticipated impacts on range and on agriculture.

Activities:

- 1.4.1 Mainstream hydro and agro-meteorological early warning systems into community and agricultural extension services across the province/county/district
- 1.4.2 Communities are facilitated in accessing seasonal weather forecasts their resilience to climate variability and change.

Capacity of extension officers will be built to enable them to provide improved agro-meteorological information to pastoralists and small-scale farmers.

Short-term and seasonal downscaled meteorological forecasts will be integrated with improved crop and livestock modelling results to provide forecasts at the level of the community. This work will be done in consultation with local institutions responsible for agriculture and livestock development and marketing.

Component 2: Transfer of climate adaptation technologies and engineering solutions including water storage technologies and water management in the improvement of delivery of local of water supply, sanitation and public health services through community-based initiatives.

Increasing access to water, sanitation and hygiene contributes significantly to improving health outcomes, and is particularly important to efforts aimed at reducing the burden of disease and malnutrition, as well as relieving pressure on the healthcare system (#everyone 2030).

This component seeks to build the climate resilience and adaptive capacity of the target communities through water infrastructure development (water delivery) and hygiene promotion.

Data from least developed and low-income countries, a categorization that captures EAC member states, indicates that in 2011 only 51% of schools had adequate water source and only 45% had adequate sanitation facilities (#everyone 2030).

One of the activities under this component is to improve water, sanitation and hygiene in schools with the aim of reducing absence due to illness and keeping children in education throughout primary and secondary years and provide transgenerational benefits.

The water infrastructure to be built will provide resilience against increased intensity of floods through technologies under water augmentation, storage, efficiency and demand management. The component will support job-creation in the target communities through

labour intensive construction methods. Mobilization of community labour enhances buy-in and builds local capacity for the sustainable management of the community water projects.

Outcome 2:

Increased resilience and adaptive capacity to manage current and future climate risks through sustainable and climate smart investments in the water sector improved.

Output 2.1 Built water, sanitation infrastructure in the target communities, schools and administrative centres including public health facilities to enhance resilience and reduce vulnerability to risks associated with climate variability and change including extreme events.

Activities

- 2.1.1 Increased awareness, understanding and ownership of climate risk reduction processes, adaptation technologies to be transferred to increase resilience and adaptation planning and adaptive capacity building at all levels.
- 2.1.2 Building on the CBAAPs, develop climate smart livelihoods and WASH development plans, covering climate proofing of public infrastructure and construction of climate resilient water facilities and sanitation.

Output 2.2 Implementation of climate smart development plans including provision of potable water using current adaptation technologies.

Activities

- 2.2.1 Coverage of potable water supply, sanitation facilities and health centres increased in the target area.
- 2.2.2 construction of water storage facilities and provision of potable water using current and appropriate adaptation technologies and provision of potable water using current and appropriate adaptation technologies
- 2.2.3 Irrigation infrastructure for agriculture and livestock watering designed and developed to withstand climate change.

Output 2.3

Community settlements, services, infrastructure and homes strengthened and stabilised to buffer vulnerable communities against extreme climatic events.

Activities

- 2.3.1 Climate proof-built infrastructure including schools, other shelter and settlements in the targeted arid and semi-arid areas in transboundary zones including providing access to sanitation and equipping of dispensaries.
- 2.3.2 Equip public health dispensaries and public health workers for hygiene campaigns.

Output 2.4 Restored and protected water catchment areas and critical ecosystems that maintain ecosystem resilience, provide buffering from climate change impacts and provide freshwater to local communities.

Activities

- 2.4.1 Integrated watershed management approach used to restore and protect degraded watersheds and rehabilitation of critical watersheds and ecosystems to improve capacity to mitigate the effects of climate change including effects of extreme climatic events.

Output 2.5 County/district/ Provincial officials including community leaders empowered to mainstream climate change adaptation into relevant planning and infrastructure development plans.

Activities

2.5.1 Build the vulnerability index mapping and adaptation planning capacities of the relevant officials to mainstream the decision support tools developed.

Component 3: climate resilient livelihood diversification

Smallholder farmers, pastoralists particularly women and youth facilitated in business start-ups to improve resilience and adaptive capacity through private sector investment opportunities in climate smart sustainable water services, agriculture and natural resources management.

Output 3.1 Investments in climate smart practices in the WASH sectors contribute agricultural productivity co-benefits and contribute to building the adaptive capacities of the poor, vulnerable groups including women and youth. Opportunities include opening of opportunities in water provision, agriculture and livestock marketing including value addition and marketing dryland products.

Indicative activities.

3.1.1 Climate smart sustainable water practices enhanced, and potable water supply increased in target areas.

3.1.2 Increased agricultural and livestock yields through climate smart practices.

3.1.3 Irrigation infrastructure for agriculture and livestock watering designed and developed to withstand climate change.

3.1.4 Improved knowledge, understanding and awareness of livelihood opportunities.

3.1.5 Increased capacity of target communities to participate in climate resilient, market-oriented enterprises.

3.1.6 Link of community cooperatives to existing and new markets

Output 3.2 National and regional agencies responsible for WASH, transboundary affairs, mainstream adaptation practices into their extension services, small-holder farmer and pastoral communities support programs.

Indicative activities

3.2.1 Enhance the capacity of extension staff to mainstream climate change considerations into their activities, particularly in support to the communities in the transboundary ASAL communities.

3.2.2 Mainstream climate smart practices into ongoing community support.

Output 3.3 Pilot diversified financing and income source models implemented by vulnerable groups, with special attention to women and youth.

Component 4: Capacity building and knowledge management for improved water and sanitation in the face of the environmental pressures. To include dissemination of

adaptation lessons learned and policy recommendations to facilitate scaling up and replication.

This component is to enable effective and gender-sensitive participation in the programme/project, capturing learning and support for the sustaining, scaling up and replication of successes.

Output 4.1 Members of the target communities including women and youth, leaders and staff from local administrative authorities are empowered to participate in the project/program activities.

Indicative activities

4.1.1 Build the capacity of local target community leadership and administration to mainstream climate change adaptation responses into planning, budgeting and policy development processes.

4.1.2 Develop and disseminate educational and awareness materials on climate change adaptation.

This output will support the production and dissemination of awareness raising and educational materials on climate change adaptation. It will include using innovative mechanisms such as (i) environmental clubs in schools to create awareness and action around climate change adaptation and environmental sustainability in their schools, communities and homesteads, (ii) performance art (iii) essay writing and painting competitions.

Output 4.2 Project outputs and experiences are shared and captured.

This output will provide opportunities of sharing lessons learned within and between the project /programme communities as well as decision makers at all levels. University students will be provided with opportunities to engage with the development and implementation of the project, work with the target communities and come up with case studies on different aspects of the project. The case studies, as well as various tools developed, will be shared locally and regionally through various EAC platforms.

Indicative activities

4.2.1 Development of partnerships with tertiary institutions that support students to study project interventions.

4.2.2 Stakeholder workshops and regional learning events where best practice approaches can be observed and captured.

4.2.3 Provide platforms for project stakeholders to share experiences regionally and internationally.

Output 4.3 Policy recommendations support sustaining, scaling up and replicating project successes.

This output will support project partners to share policy recommendations and best practices that emerge during the implementation of the project/Programme in scientific and policy-based fora, including at a regional learning event which will have the participation of relevant and appropriate institutions drawn from both public and private sectors, academia civil society and other community-based organizations.

Activities:

- 4.3.1 Convene regional policy conferences to share outcomes of project/programme and promote linkages between the work carried out under this project with AF support and relevant regional and national processes.
- 4.3.2 Develop in consultation with partners a sustainability plan to scale up and replicate project/programme outcomes.
- 4.3.3 End of project report and sustainability plan presented to EAC organs for approval and implementation.