

Concept Note

Adaptation to Climate Change - Induced Water Stress Through Promotion of Small Scale Rain Water Harvesting in Selected Counties

Kenya | National Environment Management Authority (NEMA)

11 February 2018



**GREEN
CLIMATE
FUND**

Simplified Approval Process Concept Note

Project/Programme Title:	Adaptation to Climate Change - Induced Water Stress Through Promotion of Small Scale Rain Water Harvesting in Selected Counties
Country(ies):	Kenya
National Designated Authority(ies) (NDA):	The National Treasury
Executing Entities:	National Environment Management Authority (NEMA) and other identified Executing Entities
Accredited Entity(ies) (AE):	National Environment Management Authority (NEMA)
Date of first submission/ version number:	<u>[2018-02-10] [V.0]</u>
Date of current submission/ version number:	<u>[2018-02-10] [V.0]</u>



Please submit the completed form to sap@gcfund.org,
using the following name convention in the subject line and file name:
“CN-[Accredited Entity or Country]-YYYYMMDD”

A. Project / Programme Information (max. 1 page)			
A.1. Project or programme	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.2. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.3. Indicate the result areas for the project/programme	<p>Mitigation: Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p>Adaptation: Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities <input checked="" type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input type="checkbox"/> Ecosystem and ecosystem services		
A.4. Estimated mitigation impact (tCO2eq over lifespan)	N/A	A.5. Estimated adaptation impact (number of direct beneficiaries and % of population)	500,000 persons 13% among the target counties
A.6. Indicative total project cost (GCF + co-finance)	Amount: USD 7.6 Million	A.7. Indicative GCF funding requested (max 10M)	Amount: USD 9.6Million
A.8. Mark the type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity Other: specify _____		
A.9. Estimated duration of project/ programme:	a) disbursement period: 3 Years b) repayment period, if applicable: N/A	A.10. Estimated project/ Programme lifespan	25Years This refers to the total period over which the investment is effective.
A.11. Is funding from the Project Preparation Facility needed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	A.12. Confirm overall ESS category is minimum to no risk¹	<input checked="" type="checkbox"/> C or I-3
A.13. Provide rational for the ESS categorization (100 words)	The proposed intervention has no negative impact on the social, environment and economic aspects of the target counties. Moreover it poses no negative impacts to cultural heritage, indigenous people and biodiversity. It doesn't lead to excessive use of natural resources and pollution.		
A.14. Has the CN been shared with the NDA?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.15. Confidentiality²	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
A.16. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	<p>Kenya is classified by the United Nations (UN) as a water-scarce country with an annual renewable freshwater supply estimated at 647 m3 per capita that is significantly below the 1,000 m3 per capita set as the marker for water scarcity. Climate projections using climate models indicate increase in ambient air temperature, changes in evaporation and precipitation in Kenya. This will lead to further decrease in water supply, increased flooding and drought, and the resultant impact on reduced access to food amongst other life support systems.</p> <p>The objective of this project is to reduce this climate change induced water stress in 3 target counties. NEMA will employ the project management approach in implementing this project, and will identify one executing partner in each of the three targeted counties to coordinate county level activities and community mobilization.</p>		

¹ Refer to the SAP ESS Guidelines

² Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).

B. Project/ programme details (Max 3 pages)

B.1. Context and baseline (Max 1 page)

Describe as relevant the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.

The proposed project is a climate change Adaptation programme. There is scientific evidence that the frequency of droughts, floods, and other extreme climate events has increased in recent years. Climate change has led to unpredictable rainfall patterns thus distorting food production patterns and access to water resources. This has led to reduced food production and inadequate access to water at household level. In the three target counties, Wajir, Narok and Bungoma, the communities are highly dependent on rain water as a source of water for their domestic use despite the rain being erratic and inadequate.

The ASAL areas present a more unique challenge as they are characterized by erratic rain and prolonged drought periods leading to inadequate access to water, loss of livestock, resource use conflicts, insecure livelihoods and loss of life. The adaptation need is therefore to cover the extended gap in water access caused by climate change. Rain water harvesting presents an opportunity to cover this adaptation need. This intervention typically employs a simple technology that is accessible and replicable. Rainwater harvesting and storage are ideal measures to address this adaptation need. The government has prioritized rain water harvesting and fronted applicable technologies but financial and non-financial factors have remained a barrier.

Please indicate how the project fits in with the country's national priorities, action plans and programs and its full ownership of the concept.

Kenya's development plans and strategies are anchored on Vision 2030, which is the Country's blue print for transforming the country to a newly Industrial Middle Income country, capable of providing high quality of life to all citizens, by the year 2030. Kenya vision 2030 goal on water and sanitation under the social pillar is access to water and sanitation by all by year 2030. As part of the NCCAP, an adaptation technical analysis of various economic sectors was done and adaptation actions were prioritized. One of the prioritized actions is to employ rain water harvesting as an adaptation intervention to climate change. Further, some counties, such as Wajir, have developed climate change policies and legislation namely, the Wajir County Climate Fund Act (2016) that prioritizes rain water harvesting as a measure to meet water related adaptation needs.

Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed. Where relevant, please describe the key characteristics and dynamics of the sector or market.

The rain water harvesting technologies are available locally but they are not widely used due to underlying barriers particularly in the arid and semi-arid areas. The main barriers to the adoption and diffusion of the technologies are initial high cost of installation of the systems, lack of incentives and financial credits, inadequate technical capacity and information on technologies and their benefits, and high poverty levels.

B.2. Project / Programme description (max. 1 page)

Describe the expected set of components and activities to address the above barriers identified that will lead to the expected outcomes.

The project will be implemented through three components namely: Programme Management, development of community level rain water harvesting structures and capacity building for sustainability.

The programme management component will support effective and efficient project implementation through the development of frameworks, systems and guidelines.

Component 2 will deal with the delivery of rain water harvesting structures, establishment of skilled transfer sites and rehabilitation of existing micro community level surface water harvesting structures.

Component 3 will support institutional strengthening and capacity building of the AE, EE and other stakeholders. It will also support t measures to ensure project sustainability.

Please explain why this project or programme is ready for scaling up and having the potential for transformation. Has it been piloted in the country or region? Are the proposed interventions well documented for their costs and benefits?

The successful uptake of the interventions proposed has the potential for replication of the project in all the areas in Kenya. Rain water harvesting technologies are applicable in most contexts in Kenya and easily adopted by communities in Kenya. The flexibility of rainwater harvesting gives room for innovation. From one rainwater harvesting storage structure can arise a myriad of interrelated activities including kitchen gardens, poultry keeping, zero grazing, biogas digester installations, drip irrigation for horticultural crops production and fish farming among other economic activities. All these activities have a potential to improve adaptive capacity through increased income generation, improved nutrition status, improved sanitation and personal hygiene, creation of on-farm employment leading to poverty reduction and conservation of the environment. Rainwater harvesting is not new, as communities in Kenya have practiced it for a long time. Most rainwater harvesting technologies are simple, acceptable and replicable across many cultural and economic settings. There are many success stories that can be cited particularly in the arid and semi-arid areas of Kenya where rainwater harvesting has been replicated. Its applicability in all counties is possible as rainfall technologies are available and accessible for all, minimum treatment is required, little reticulation systems are needed and there is government backing through policy document namely Kenya National Climate Change action Plan

Describe in what way the Accredited Entity (ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity (ies) and implementing partners.

NEMA has an elaborate administrative structure at both national and county levels. The national office is located in Nairobi while other 47 County Offices are situated in all counties across the country. Through these county branches, NEMA is already mainstreaming environmental governance and climate change in all counties. NEMA has been ISO Certified since 2011 and was re-certified in November 2015. As such, the Authority has documented its standard operating procedure (SOP's) which has greatly improved its performance, There is an effective and efficient financial system guided by existing public financial tools and manuals, application of modern software as well as competent personnel with relevant expertise and competences.

NEMA will be tasked with the fund management and liaise with partners as Executing Entities in the mobilization of beneficiaries county level activities.

Please provide a brief overview of the key financial and operational risks and any mitigation measures identified.

The following are possible financial and operational risks: mis appropriation of funds, fraud, mis procurement and staff attrition. There is an effective and efficient financial and human resource management systems guided by existing public financial tools and manuals respectively that mitigate against these risks.

B.3. Expected project results aligned with the GCF investment criteria (max. 1 page)

Please describe and provide an estimate of the expected impacts aligned with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

GCF investment criteria	Expected impacts
Impact potential	The project is expected to lead to increased resilience to water scarcity and enhanced livelihoods of the most vulnerable communities in the target counties. It will assist in enhancing the capacity of communities and counties in adopting rain water harvesting technologies. The level of awareness on climate change and rain water harvesting technologies will be enhanced.
Paradigm shift	<p>The best practices will form the basis for up-scaling, replication and the formulation of similar new projects. Thus a paradigm shift will be realized through the multiplier effects of best practices within and among the counties. This will ensure continuity and sustainability towards enhancing community resilience, strengthening coping mechanisms and reducing asset and damage loss after project end.</p> <p>An adaptation M&E Framework will be established to assess implementation and generate lessons which will be used to share knowledge and influence decision-making during and beyond the project cycle.</p>

Sustainable development	<p>The targeted counties will be supported to improve their livelihoods and enhance resilience to climate change. The targeted counties are largely ASAL and are therefore more prone to negative effects of climate change mainly droughts and flooding with populations that are largely dependent on rain-fed livestock and crop production.</p> <p>The envisioned interventions at community level are expected to address challenges related to water access for domestic, livestock and productive uses. It is expected that this will result in increased access to water and reduced conflicts over water resources. These interventions will reduce the burden of fetching water over long distances for women and thus saving their time for other productive uses. The project contributes to the attainment of SDG no.6; Clean Water and Sanitation and SDG13, Climate Change.</p>
Needs of recipients	Project financing will go towards the implementation of Kenya's medium term plans, the NCCAP which is anchored in Vision 2030.
Country ownership	Kenya launched a National Climate Change Response Strategy (NCCRS) in 2010; and a National Climate Change Action Plan (NCCAP) in 2013. The NCCAP emphasizes that adaptation is the main priority for the country due to the adverse socio-economic impacts related to climate change and the ever increasing vulnerabilities of the different sectors. It also regards climate change as a cross-cutting issue and emphasizes its mainstreaming in the national medium term plans (MTP) and County Integrated Development Plans (CIDPs) in order to cushion development against the impacts of climate change.
Efficiency and effectiveness	NEMA will contribute in kind, through availing of the human resource, infrastructure through office space and vehicles and any other logistical support. This project is replicating best practices in rain water harvesting technologies that have been piloted before.

B.4 Stakeholders engagement in the project or programme (max ½ page)

Please describe how engagement among the NDA, AE, EE and/or other relevant stakeholders in the country has taken place so far and what further engagement will be undertaken as the concept is developed into a funding proposal.

There have been preliminary discussions undertaken among the National Treasury, National Environment Management Authority (NEMA), Ministry of Environment and Natural Resources (MENR), selected county government departments responsible for water resources and local communities over NEMAs GCF programming work. Further engagement are planned to further refine the project scope and implementation framework.

B.5 Monitoring and Evaluation and reporting plans (max ¼ page)

Please explain how the M&E will be conducted as part of the project or programme (routine and concurrent monitoring, interim and final evaluations, and annual reports)

A participatory evaluation, monitoring and evaluation system will be put in place. This will include a quarterly monitoring system to identify planned outputs, achievements and challenges of technology up-take and diffusion. A mid-term evaluation and end of project evaluation will be undertaken. This will form a basis for lessons learnt and project replication

C. Indicative financing / Cost information (max. 2 pages)

C.1. Financing by components (max ½ page)

Please provide an estimate of the total cost per component and disaggregate by source of financing.

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Programme management	600,000	600,000	Grant			

Infrastructure development	8,000,000	8,000,000	Grant			
Capacity building and sustainability	1,000,000	1,000,000	Grant			
Indicative total cost (USD)	9,600,000					

For private sector proposal, provide an overview (diagram) of the proposed financing structure.

C.2. Justification of GCF involvement (max 1/2 page)

Explain why the Project/ Programme requires GCF funding, i.e. explaining why this is not financed by the public and/ or private sector(s) of the country.

Kenya's climate change Technology Needs Assessment report under the United Nations Framework Convention on climate change, 2012, identified financial barrier as a constraint to the adoption of rain water harvesting technologies. The target Counties have high poverty index.

This project requires GCF involvement in order to upscale adaptation benefits to communities who are already experiencing the impacts of climate change. The rain water harvesting technology has been piloted in the target counties and more resources are required to scale up the interventions so that more community members benefit.

Without the Green Climate Fund the momentum of implementing Kenya's NCCAP, INDC and NAP will remain slow due to competing application of resources by National Treasury. With Green Climate Fund resources there will be enhanced implementation of actions that bring positive impacts to community resilience and livelihoods in the targeted counties. Additionally, the focus on ASAL areas which have high levels of vulnerability and fragile ecosystems will be highlighted. These areas have been marginalized in development since independence. Thus GCF financing will contribute to faster economic growth and development in the targeted counties leading to the realization of the aspirations of national climate change policies as detailed in the NCCAP and the NAP.

C.3. Sustainability and replicability of the project (exit strategy) (max. 1/2 page)

Please explain how the project/programme sustainability will be ensured in the long run and how this will be monitored, after the project/programme is implemented with support from the GCF and other sources.

Sustainability of the project will be assured by the following:

- Kenya is in the process of establishing the Kenya Climate Change Fund under the new Climate Change Act (2016) at the national level. GCF funding will establish county climate finance structures that are sustainable as legislation will be passed to establish the county fund where various donors can contribute to, and after the end of the project the county climate finance structure can be linked to the national one.
- With respect to financing implementation arrangements at the county level, legal provisions, standardized guidelines, M&E frameworks by counties will have been finalized through the project, and counties will be able to attract and monitor other climate funds from other sources.
- The project will create other partnerships from both public and private sectors for sustainability and replicability of adaptation interventions in the same target counties or in new counties.
- Through regular reviews e.g. annual and midterm evaluations, gaps will be identified and lessons learnt documented for further resource mobilization.
- With institutionalized climate change structures at county level, a sustainable project management cycle of climate change adaptation interventions will be realized in the long term as the mechanism of channeling adaptation resources to benefit the most vulnerable will have been established.
- Adaptation benefits to communities will lead to communities self-financing some of the interventions they know will reduce their vulnerability and exposure to climate shocks.

For non-grant instruments, explain how the capital invested will be repaid and over what duration of time.

D. Annexes

- Environmental and Social Safeguards screening check list (Annex 1)
- Map indicating the location of the project/programme (as applicable)
- Evaluation Report of previous project (as applicable)

Annex 1: Environmental and Social Screening Checklist

Part A: Risk Factors

The questions describe the “risk factors” of activities that would require additional assessments and information. Any “Yes” response to the questions will render the proposal not eligible for the Simplified Approval Process Pilot Scheme. Proposals with any of the risk factors may be considered under the regular project approvals process instead.

Exclusion criteria	YES	NO
Will the activities involve associated facilities and require further due diligence of such associated facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities involve trans-boundary impacts including those that would require further due diligence and notification to affected states?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities adversely affect working conditions and health and safety of workers or potentially employ vulnerable categories of workers including women and children?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities potentially generate hazardous waste and pollutants including pesticides and contaminate lands that would require further studies on management, minimization and control and compliance to the country and applicable international environmental quality standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities involve the construction, maintenance, and rehabilitation of critical infrastructure (like dams, water impoundments, coastal and river bank infrastructure) that would require further technical assessment and safety studies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the proposed activities potentially involve resettlement and dispossession, land acquisition, and economic displacement of persons and communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities be located in protected areas and areas of ecological significance including critical habitats, key biodiversity areas and internationally recognized conservation sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities affect indigenous peoples that would require further due diligence, free, prior and informed consent (FPIC) and development of inclusion and development plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		
Will the activities be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Remarks/additional information, if any:</u>		

Part B: Specific environmental and social risks and impacts

Assessment and Management of Environmental and Social Risks and Impacts	YES	NO	TBD
Has the AE provided the E&S risk category of the project in the concept note?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Has the AE provided the rationale for the categorization of the project in the relevant sections of the concept note or funding proposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Are there any additional requirements for due diligence and management plans by the country (e.g., EIAs, EMPs, etc)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Are the identification and assessment of risks and impacts based on recent or up-to-date information?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Labour and Working Conditions	YES	NO	TBD
Will the proposed activities expected to have impacts on the working conditions, particularly the terms of employment, worker's organization, non-discrimination, equal opportunity, child labour, and forced labour of direct, contracted and third-party workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will the proposed activities pose occupational health and safety risks to workers including supply chain workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Resource Efficiency and Pollution Prevention	YES	NO	TBD
Will the activities expected to generate (1) emissions to air; (2) discharges to water; (3) activity-related greenhouse gas (GHG) emission; and (5) waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will the activities expected to utilize natural resources including water and energy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will there be a need to develop detailed measures to reduce pollution and promote sustainable use of resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Community Health, Safety, and Security	YES	NO	TBD
Will the activities potentially generate risks and impacts to the health and safety of the affected communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will there a need for an emergency preparedness and response plan that also outlines how the affected communities will be assisted in times of emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will there be risks posed by the security arrangements and potential conflicts at the project site to the workers and affected community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Land Acquisition and Involuntary Resettlement	YES	NO	TBD
Will the activities likely require further due diligence and consultation to ascertain consistency with the ESS standard requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Biodiversity Conservation and Sustainable Management of Living Natural Resources	YES	NO	TBD
Will the activities likely introduce invasive alien species affecting the biodiversity of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will the activities have potential impacts on or dependent on ecosystem services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Indigenous Peoples	YES	NO	TBD
Will the activities likely to have impacts on indigenous peoples and communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		

	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will continuing stakeholder engagement process and grievance redress mechanism be integrated into the management / implementation plans?	Remarks/additional information, if any:		
Cultural Heritage	YES	NO	TBD
Will the activity hinder continuous access to the cultural heritage sites and properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		
Will there be a need to prepare a procedure in case of discovery of cultural heritage assets or physical cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarks/additional information, if any:		

Sign-off: *Specify the name of the person responsible for the environmental and social screening and any other approvals as may be required in the accredited entity's own management system.*

Prof. Geoffrey Wahungu

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Map indicating the location of the project

