RESPONSES TO COMMENTS FROM AF's SECRETARIAT FOR KARAHADA PROJECT

Review Criteria	Questions	Comments	Responses and action taken
Country Eligibility	1. Is the country party to the Kyoto Protocol?	**Yes.**	**Noted with thanks**
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	**Yes**. Changes in rainfall trends and patterns have especially significant impacts on the availability of food and water for vulnerable communities.	**Noted with thanks**
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	**Yes**, as per the Endorsement letter dated9 August 2021.	**Noted with thanks**
	2. Does the length of the proposal amount to no more than One hundred (100) pages for the fully-developed project document, and one hundred (100) pages for its annexes?	**No.** The fully-developed project document amounts to 136 pages, with 64 pages of annexes. **CAR 1:** Please address the page limits for the project document.	**CAR 1 Response** The issue of page limits has been addressed adequately to ensure the proposal document and annexes amounts to not more than 100 pages each
	3. Does the project / programme support concrete adaptation actions to assist the country in addressing	**Unclear.** The proposed activities appear to be aligned with the current main livelihood strategies of the intended beneficiaries (hunter-gatherers and pastoralists). The link	**CR Response** The government of Tanzania through The Ministry responsible for land has set aside 600 hectare of forest

	adaptive capacity to the adverse effects of climate change and build in climate resilience?	between climate change impacts and the ensuing adaptation needs is not always made very clear. The feasibility, sustainability and likelihood of acceptance by the beneficiaries are not clear for all the proposed activities. For example: Activity 1.1.2 includes the provision of at least 1,500 modern beehives and related equipment. **CR 1:** Please clarify that there is sufficient nectar and pollen within foraging distance to sustain 1,500 beehives in addition to the apiculture that is already taking place. Activity 1.5 includes identification and production of suitable traditional and modern crops for selected villages but does not specify the target group(s). It is also unclear if the 8 target villages have already been identified. **CR 2:** Please clarify the intended beneficiaries of activity 1.5 and how these are likely to adopt these potentially – to them – novel practices. **CR 3:** Please clarify which the target villages are for activity 1.5.	for vulnerable communities in Karatu District. The land is mainly for bee keeping, conservation and collection /selling of carbon credits and beekeeping. Hadzabe are known for being conversationalists and hence have abundance vegetation for bee foraging. **CR 2 Response:** The beneficiaries of activity of are women and girls who most of the times are left behind to look for children, the sick and elderly. As a result of climate change young and older men travel for men days in search of meat and roots. This activity will enable women to grow traditional crops and also introduce new crops which will enhance food security increase their security and resilience to climate change. **CR 3 Response** All the eight selected villages are targeted in this activity. Hadzabe and Datoga (blacksmith) are known for not being involved in crop or livestock production. The

		Component 3 includes the establishment of tree nurseries and planting and care of trees but it does not specify quantities or locations. **CR 4:** Please provide additional details about the activities of component 3, and show how this is reflected in the identification of risks to comply with the ESP. The activities of component 4 are only in a very limited way linked to climate change impact risks. In addition, there is no information to suggest that once built, these health resource centres will be staffed or financed or otherwise sustained. **CR 5:** Please clarify how the activities of component 4 will overcome climate change adaptation barriers, and how their operations will be funded. It is understood that boreholes will be dug in the areas where water is available, but frequent droughts due to climate change may have severe impact on this. In this context, it is not clear if the boreholes will also be used for irrigation purposes (e.g. through solar pumps) or will the water be primarily used for domestic/community consumption. If it is for irrigation, the project should explore other options also of micro lift	situation has changed now with climate change they are willing to try growing crops and keeping small animals **CR4 Response:** Component 3 is mainly for rehabilitation and restoration of degraded landscapes. It includes creating awareness to targeted communities to continue with nature conservation. Other activities will include tree planting were nurseries will be established in the three wards to provide seedlings for all eight villages. Each village will plant at least 1,500,000 trees per year throughout the project period and beyond as this is in line with the National Tree planting campaign which requires each village to plant and maintain at least 1,500,000 trees per year. **CR 5 Response:** As a result of climate change water has been scarce and force women to walk up to 30 km in search of water. This situation has consequences on human health as it

		irrigation on rivers, dug wells or creation of water bodies to supply irrigation water. **CR 6:** Please clarify how water will be used in the activities of project component 2.	interferes with sanitation and causes outbreak of diseases which can no long be cured easily by using plants roots and honey. The number of Hadzabe has been diminishing as a result of early death caused by hunger, malnutrition and lack of access to health services. Hadzabe and Datoga do not earn much to allow them to pay for Community Insurance. This project will support them to access these insurance cards for the first three years then assuming that they will be earning more income from diversified livelihoods they will be able to pay for yearly insurance subscription which are currently less that 13 dollars a year **CR 6 Response** Water obtained in component will be useful first and foremost for domestic proposes. District Rural Water Authority has

			tet to install water infrastructure as a result of nomadic way of living for Hadzabe communities. Climate change has made water and food to be scarce to these communities. Water will also be used for small scale crop and livestock production which is expected to fulfil food and nutritional security needs security and also growing of crops and keeping of small animals. Provisions for supply to support small scale irrigation will be made for up scaled interventions
	4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Unclear.** The project activities are aligned to beneficiary groups that are identified by their main occupation as a proxy for ethnicity. Whilst there are practical grounds that may justify this approach, there is also a risk that it may sustain or exacerbate issues related to this categorisation. **CR 7:** Please clarify why the main occupation approach is justified and how there is no risk of it sustaining or exacerbating related ethnicity issues. The envisaged economic and environmental benefits are listed but	**CR 7 Response** The comment is fair and true. This project has put strong emphasis of building community institutions which will be key in influencing others to adopt to different ways of living. With climate change the existing livelihood strategies are not practical and unsustainable. Diversification of livelihood strategies will need to start from local knowledge and experience of coping with

		social benefits are not described. The link with the described climate change adaptation challenges is overall weak, and the impact of past and ongoing unsustainable and/or destructive practices of forest/vegetation/NTFP/grazing/water management is unclear. As such, it is not clear how much the proposed interventions will address those in addition to providing diversified or alternative livelihoods and community services. **CR 8:** Please clarify how the project will address past and ongoing unsustainable livelihood practices and strategies. Section II.H of the proposal on consultations held includes a brief section on gender analysis that provides a mostly qualitative assessment of gender-related vulnerabilities and inequalities and barriers to adaptation. Annex 2 includes a summary of a gender analysis carried out by project component. It is unclear to what extent those findings of the gender assessment have been integrated in the project design. The results framework does not include gender-disaggregated indicators apart for the yet to be established baseline indicators for the activities	climate change impacts and how these can be improved to bring sustainability. **CR 8 Response** The experience of local knowledge and working with traditional leaders will be key in tapping the local knowledge in transforming from past livelihoods to more modified ones to cope with impacts of climate change and climate variability. Complete change of livelihoods strategies will have little positive effect. **CR 9 Response** The comment is valid. Noted with thanks. The proposal has been revised to accommodate comments put forth. Gender assessment has been done to inform project design. The amended result framework reflects on how gender issues have been taken into account. The gender disaggregated data is presented in the amended framework in both track changed document and clean document.

		specifically aiming at women (2.1.5) and those of 4.3 and 4.4. **CR 9:** Please clarify how gender considerations and the findings of the gender assessment have been taken into account in the project design and are reflected in the results framework.	
	5. Is the project / programme cost effective?	**Unclear.** The section describing the cost effectiveness of the proposed project lists several examples (including an AF-funded project) of not-so-cost effective projects, and claims cost-effectiveness of the current proposal based on 'enhanced direct access implementation', use of the 'Force Account Modality' and the 'Ujamaa spirit', without much further explanation of these concepts that are not mentioned in the description of the activities. Overall, the cost effectiveness is not supported by specific numbers, and sustainability considerations are largely lacking. In addition, the project targets are poorly or not specified. The document does not indicatetarget beneficiaries or hectares of land which will be supported for climate change adaptation.	**CR 10 Response** For cost effectiveness of proposed project interventions this project has an added advantage by using AF **enhanced direct access implementation**. This approach supports a country to cut down the cost of implementation which would have been incurred if these funds were obtained from international or multilateral financial organisation. For a developing country like Tanzania every cent counts. More funds are made available to address adaptation needs of communities. Force account modality's a method of procurement where construction work is done by using its own forces. This modality is in line with

		CR 10: Please clarify the cost-effectiveness of the project. **CAR2:** Please include target indicators as required (see also CR9).	with the amended Procurement Act as it gives an opportunity for project to have value for money while benefitting local communities with supervision from Local Government technical staff. The modality has been proven to reduce cost of construction of up to 40 percent. In this pro project the force account modality will be used to ensure more concrete adaptation interventions are realised within the shortest time possible rather than using construction companies which are more expensive and do not complete projects on time. The project beneficiary will benefit if the results of implementation will be seen at the earliest. The Ujamaa spirit is a modality of working together in a self reliance spirit. Communities contribute their labour and experience to ensure projects are successful. It simply means "*working together for the benefit of all"* The three explained concepts ensure that project

			effectiveness will be at the highest level and success is inevitable. **CAR 9 Response** Noted with thanks the comments have addressed please refer to CAR 9 response
	6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	**Yes.** The project is aligned with the country's NDC and NAPA.	**Noted with thanks**
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	**Partially.** The relevant section of the proposal is limited to a statement of intent rather than a demonstration of relevant national technical standards and how the project will comply with them. Relevant policies and processes are included in Annex 6. In particular, the project should indicate if it aligns with the Water Resources Management Act of Tanzania for compliance with	**Noted with thanks.** **CR 11 Response** According to Tanzania laws and regulations all construction is designed and built according to the Standard guideline for preparation of Water Safety Plan - Resilient Climate Change for all Rural Water Supply services (WSP-RCC RWS), 2015.

		groundwater protection rules especially during droughts. Also absent is a reference to any food standards that may apply, in particular for activities related to component 1. **CR 11:** Please clarify which national technical standards apply to the proposed activities and how the project will ensure that these are met.	The guideline requires designs for rural water supply to take account of climate indices such as drought, floods temperatures and rainfall trends, wind behaviour and climate change related water borne diseases. The proposed project will therefore consider the key climate indices to address the issue of water scarcity due to prolonged drought and to supply safe water for domestic uses. The established CBWSOs will develop monitoring plan to ensure compliance to WSP-RCC-RWS of the water supply system
	8. Is there duplication of project / programme with other funding sources?	**No.**There is no duplication. The proposal has identified relevant programs which can complement this project.	**Noted with thanks**
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	**Not cleared.** Component 5 has a clear learning and knowledge management focus. The project would benefit by more clearly defining the target beneficiaries of knowledge generation and dissemination, and accordingly	**Noted with thanks** **CR 12 Response** Most Hadzabe and Datoga communities are illiterate and cannot speak the national language well. Type of Knowledge products

		identify the knowledge management strategy. Currently, it is not very clear how the targeted communities will access and benefit from the knowledge. **CR 12:** Please clarify how resources are directed to translating knowledge products in local languages and documenting indigenous knowledge and practices.	prepared will be in English. For the project to be effective there is a need to find ways of facilitating communities and other stakeholders to easily communicate project implementation results including knowledge gained and shared including lessons learned .This can only be possible if knowledge products are translated in languages that will facilitate communication by preparing practical and more visual products that will be translated in Kiswahili and then in Hadzabe and Datoga local languages**:** These will include road shows ,radio programmes, documentary, community traditional local dances and sports .
	10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social	**Yes.** The consultation process that took place is described, and outcomes of the consultations and how those were addressed have been included. The consultation seems to have taken a gender-sensitive approach.	**Noted with thanks**

	Policy and Gender Policy of the Fund?		
	11. Is the requested financing justified on the basis of full cost of adaptation reasoning?	**Unclear.** In the absence of quantified identification of beneficiaries or quantification of some outputs, it is impossible at this stage to ascertain the cost-effectiveness of the project. InIt is likely that the support provided will include the full cost of that adaptation aspect for those involved. For each of the five components, the proposal includes statements to the effect that the AF funding will be sufficient to achieve the expected outcome and outputs. **CR 13:** Please clarify how the project will meet the adaptation objectives with the requested financing.	**Noted with thanks** **CR13 Response** All activities in this proposal are aimed at addressing really issues brought by climate change impacts. AF Funding will sufficiently achieve the expected outputs and outcomes as described in the proposed budget.
	12. Is the project / program aligned with AF's results framework?	**Yes.** However, the project indicators listed in the relevant section are not used as project indicators elsewhere in the proposal (e.g. "Number and type of ecosystems maintained and improved to enhance their functions and services under climate change and Variability- induced stress".) **CAR 3:** Please ensure consistency in project indicators.	**Noted with thanks** **CAR 3 Response** The amended indicators are consistency
	13. Has the sustainability of the project/programme outcomes been taken into	**Yes.** The participatory and community-ownership aspect of the project activities, as well as their alignment with government policy are	**Noted with thanks**

	account when designing the project?	mentioned as sources of sustainability. However, sustainability of component 4 (health systems) is not discussed or demonstrated. **CR 14:** Please clarify how the activities of component 4 will be sustained after the project will be completed.	
	14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Partially.** The activities of components 1.5, 3 and most of 4 are unidentified sub-projects (USPs) and need to be considered as such. This implies that: - the proposal needs to explain and justify why it is not possible or opportune to identify these activities prior to submission of the proposal; - the environmental and social risks associated with these activities cannot be determined at this stage, and that needs to be done during implementation, for which the proposal needs to include an adequate Environmental and Social Management Plan (ESMP). **CAR 4:** Please address the USPs, either by providing the required justification and ESMP, or by fully identifying the activities, carrying out required ESP and GP compliance measures, and updating the proposal accordingly.	**Noted with thanks** Response to CAR 4 The fully developed ESMP has taken account of the identified activities and their justification. Risks have been identifies and clearly presented. **Response to CAR 5** Addressed in the ESMP

		The identification of risks presented in section II.K of the proposal is not clearly presented and includes implementation and management arrangements. There are inconsistencies with the information provided in section III.C (e.g. in II.K the risk finding for the principle on indigenous peoples is considered moderate/high while in section III.C that same risk is considered to be 'N/A' since "According to Tanzania laws, there are no indigenous people identified in the proposed project sites"). In addition, there are issues for a number of principles with the way risks have been interpreted, or how risks identification and impact assessments are deferred to the implementation period of the project. **CAR 5:** Please list environmental and social risks in line with the ESP, providing substantiating information on the findings, and ensuring consistency with other parts of the proposal.	
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	**Yes.**	**Noted with thanks**
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the	**Yes.** Currently, the IE Management Fee amounts to 7.8% of the total budget, but the budget includes errors and figures with decimals.	**Noted with thanks** **Response to CAR 6**

	total project/programme budget before the fee?	**CAR 6:** Please adjust the budget figures throughout the document as needed to include only figures rounded to the nearest whole dollar value (no decimals). The total amount requested (USD 2,500,000) does not correspond to the total amount of financing stated in the budget tables (USD 2,499,993.15). **CAR 7:** Please adjust the amounts of financing requested to ensure consistency throughout the proposal taking into account CAR 6.	Budget adjusted and all figures rounded**.** **Response to CAR 7** All amounts have been adjusted and errors corrected
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	**Yes.** Currently, the execution costs amount to 8.7% of the total budget but the budget includes errors and figures with decimals. **Please also see CAR 7.**	
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	**Yes.** National Environmental Management Council was accredited on 13 October 2017.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	**Unclear.** The project management arrangements have the potential to be adequate but there are some uncertainties.	**Response to CR 15** Staffing of PMU is explained in the ToRs for Project Coordinator

		There are some inconsistencies in the composition of the PMU as described on p. 67 and p. 70. **CR 15:** Please clarify the envisaged staffing of the PMU. The project will be executed by two EEs, the Karatu District Council and Hakikazi Catalyst (HKC), a civil society organisation. Annex 7 provides a profile description of HKC but does not include information that details its experience and capacity to execute projects of this size and requirements. **CR 16:** Please clarify the legal status and the capacity and experience of HKC to execute efficiently and adequately the activities of the project, including reporting, M&E and compliance with the ESP and GP of the AF. The proposal does not clearly describe how the IE will supervise the EEs also in the implementation of the ESMP beyond its participation in the steering committee and PMU. **CR 17:** Please clarify how the IE will supervise the EEs.	**Response to CR16** The revised HKC Organizational profile has address this request **Response to CR17** IE supervising EE involve Monitoring EE on the implementation of the project interventions through systematic tracking of activities and actions to assess progress. Progress is measured against specific targets and schedules included in the plan. This is followed by analyzing and reporting of information to various users. This helps IE to remain alert to any short-falls or deviations and taking early corrective action.
	2. Are there measures for financial and	**Yes.**A general reference to GAAP is provided, but the project will benefit	**Response to CR 18**. Considering these ill effects,

	project/programme risk management?	from specific mechanisms to avoid any corruption or mismanagement of the funds. **CR 18:** Please elaborate how any fraud or corruption in procurement or disbursement will be controlled under the project.	still Karatu District Council will maintain zero tolerance for all acts of corruption, petty or grand, in the use of public resources, create public awareness and engage all Stakeholders in preventing and combating corruption. In addressing the implementation of the National Anti-corruption Strategy, Karatu Council has planned to promote the actions that focus on preventing and combating corruption
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	**No.**Section III.C states that an ESMP will be developed during project inception.Table 9 includes some mitigation measures but most essential elements of an ESMP are lacking. **CAR 8:** Please include a comprehensive ESMP that will address the environmental and social risks identified. In case the project USPs are maintained, the ESMP will also need to ensure compliance of the USPs with the ESP and the GP. Annex 5 (p. 153-173) is a copy of the AF Guidance document on the 15 principles of the ESP and is not specific to the project or its activities.	**Response to CAR 8** A comprehensive amended ESMP is attached **Response to CR 19** The overall management of Grievance mechanism lies with the Government Entities i.e NI and Karatu District Council. Under the laws and regulation of Tanzania each project or component is assigned a focal person for easy recognition of grievance occurrence and handling of grievance. Responsible

		Please consult this guidance document:https://www.adaptation-fund.org/wp-content/uploads/2016/07/ESP-Guidance_Revised-in-June-2016_Guidance-document-for-Implementing-Entities-on-compliance-with-the-Adaptation-Fund-Environmental-and-Social-Policy.pdf The grievance mechanism is described on p. 81 and states that the project will utilise the existing grievance mechanism 'in the United Republic of Tanzania'. The role of the IE/PMU/EE in the grievance mechanism is unclear. **CR 19:** Please clarify the grievance mechanism, including a description of the government process, and how the parties involved in the implementation of the project have a role in the process.	officers are assigned complaints to address them
	4. Is a budget on the Implementing Entity Management Fee use included?	**Yes**, however, the figures need to be rounded and be made consistent with the remainder of the proposal. **CAR 9:** Please adjust the budget on the IE Fee use accordingly.	**Noted with thanks** **Response to CAR 9** Budget adjusted as advised.
	5. Is an explanation and a breakdown of the execution costs included?	**Yes,** however the figures need to be rounded and be made consistent with the remainder of the proposal.	**Noted with Thanks** Response to CAR 10

		CAR 10: Please adjust the breakdown of the execution costs accordingly.	Breakdown of budget addressed accordingly
	6. Is a detailed budget including budget notes included?	**Yes**, a detailed budget and budget notes are included. **CAR 11:** The numbers on the cover, breakdown and disbursement schedule are not consistent. Components are financing adds to US$ 2,499,993.46, while disbursement adds to US$ 2,511,952.63. In addition, except the IE fee, the totals for project, EE cost, grand total in the proposal are incorrect. Please amend accordingly.	**Noted with thanks** **Response to CAR 11** The numbers on the Proposal cover, breakdown and disbursement schedules have been corrected to be consistent throughout the proposal and they are consistently
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	**Not adequate.** While the project does include a budgeted M&E plan including provisions for an external final evaluation,it does not address management of environmental or social risks. Apart from the activities specifically aiming at a gender group, there is little or no consideration of gender or gender-disaggregation in the monitoring and evaluation arrangements. The proposal includes very few quantified indicators or targets, and baseline figures are generally lacking.	**CAR 12 Responses** Indicators and targets haven reviewed in track changed prop to provide quantified targets. Baseline studies will be conducted at the beginning of the project and further refinement of indicators and targets will be made

		CAR 12: Please include gender-disaggregated data, targets and indicators in the proposal in a comprehensive and consistent manner.	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	The Project M&E work plan and budget is included but contains errors. **CR 20:** Please clarify the M&E Plan budget with the breakdown of IE fees for supervision of the M&E function.	**CR 20 Responses** Errors in the M&E budget have been corrected and break down of IE fees for supervision is made
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	**No.**The expected results lack quantification and are generally not gender-disaggregated. The project result framework does not include the core impact indicator "Number of beneficiaries including estimations for direct and indirect beneficiaries". A second core indicator is also lacking. **CAR 13:** Please ensure that the project results framework aligns with the AF results framework and that core outcome indicators are included as required.	**CAR 13 Responses** Revisions have been made to ensure the project results frameworks aligns with AF results and that core impact indicators including the number of beneficiaries both direct and indirect.
	10. Is a disbursement schedule with time-bound milestones included?	**Ye**s. However, the figures need to be rounded and be made consistent with the remainder of the proposal (tranches for year 2 and 3 should be revised).	**Response to CAR 14: Noted with thanks** Corrections have been made accordingly all figures are rounded and are

		CAR 14: Please adjust the disbursement schedule accordingly.	consistent throughout the proposal document. Tranches for 2nd and 3rd years have been revised The disbursement schedule has been adjusted accordingly in both track change and clean document

ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

Project/Programme Category:	***Regular Project***
Country:	***United Republic of Tanzania***
Title of Project	~~vfds~~ ***Karatu Climate Resilience and Adaptation project fo Hadzabe and Datoga communities- KARAHADA***
Type of Implementing Entity:	***National Implementing Entity***
Implementing Entity:	***National Environmental Management Council (NEMC)***
Executing Entity:	***Hakikazi Catalyst & Karatu District Council***
Amount of Financing Requested:	***2,500,000 (in U.S Dollars Equivalent)***

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Project / Programme Background and Context:

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.

1.1 Brief background on what the project aims to solve

The proposed project intends to address the climate change-induced impacts due to water scarcity and drought affecting the gatherers and hunters as vulnerable communities found along salty Eyasi Lake catchment in northern part of Tanzania. These vulnerable communities are already experiencing climate change impacts as a result of water scarcity; as the major driver of vulnerability. The water scarcity causes drought which severely affect availability and sustainability of wild animals, plant roots, and wild fruits. The insufficient numbers of wild animals and fruits which serve as the staple food results into famine to the hunters and gatherers[2]. Some vulnerable communities have transformed and are now involved in crop production and livestock keeping. Most of the Hadzabe are hunters and gatherers who tend to move in search of water and food. On the other hand the Datoga who are engaged in blacksmith do not farm or keep livestock except for few chickens which are kept by women. Therefore The Hadzabe (hunters and gatherers) are faced with limited options for their livelihoods and adaptation to impacts of climate change.

The gatherers and hunters depend on the Mang'ola River and shallow wells of which some have salty waters for their survival. Mang'ola River banks have been encroached with cultivation of major cash crops namely onion and maize which provide significant incomes for other communities. These crops use heavy pesticides of which some pollute the Mang'ola River. Present and future climate-change impacts are projected to accelerate multiple challenges across the district, affecting nearly all of the population.

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These impacts are expected to include profound decrease in water availability, temperature stresses to human, wildlife, livestock and crops, changes in farming practices, incomes and food security, ecological disruption, and human health related impacts such as introduction of new and changes of disease vectors.

1.1.1. Climate change Context

Climate change is one of the challenges to economic growth and poverty eradication in most developing countries. It affects all countries in all parts of the world but the impacts are differently distributed amongst regions, generations, age classes, income groups and occupations. The adverse impacts of climate change such as droughts and floods are already evident in almost all sectors of the economy in the country leading to major economic costs, loss of life, properties and other human capital[i].

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Climate change trends and future scenarios

There is documented evidence that the climate is changing in Tanzania and elsewhere in world. There is an increase in frequency and intensity of extreme events such as heavy rainfall, strong winds, hailstorms, and high temperatures. Between 1981 and 2020 there have been severe incidences of flooding, drought and record breaking rainfall that have been observed in many parts of our country. According to IPCC reports most of these extreme events have been observed in the last five years (2015, 2016, 2017, 2018 and 2019).This proposal will also a look at rainfall projections and anomalies and temperature projections and anomalies.

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Rainfall projections and anomalies

Rainfall projections indicates that some parts of the country may experience an increase in the mean annual rainfall of up to 28% by 2100[ii] Projections by Future climate for Africa (2017) indicates that rainfall will decrease during dry season and will increase during wet seasons giving rise to higher drought and flood risks. The north western region around Lake Victoria is projected to observe a higher amount of rainfall by 2030. By 2090 these changes can reach up to 10% of current annual rainfall averages[ii]. Rainfall distribution in Tanzania is characterized by bimodal patterns with peak in October – December. These rains are called "Vuli" and March to May rains which are called "Masika". Vuli and masika rains are more typica throughout the country for the months of October to December, January to March and April to June. Observations by TMA show that from for 2016-2017 most parts of the country recorded low rainfall in the same months. Observations from TMA show that Karatu district annual rainfall has been increasing over time.

Table 1: Annual Rainfall (mm) by Stations, 2012 – 2018

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Rainfall Regime	Station	2012	2013	2014	2015	2016	2017	2018	Mean
Bimodal Areas	Bukoba	2280.0	1863.3	2227.2	1755.1	1452.9	2676.2	1706.9	**1994.5**
	Mwanza	1307.5	1125.6	971.4	1530.7	1039.3	872.2	1153.0	**1142.8**
	Dar es Salaam	702.6	1004.4	1278.9	1038.9	782.9	1248.6	1208.4	**1037.8**
	Musoma	646.3	766.2	720.9	1038.0	627.2	622.5	1031.0	**778.9**
	Kilimanjaro	429.2	411.8	501.7	482.8	492.5	442.3	861.8	517.4
	Morogoro	646.7	551.8	993.8	587.6	587.6	762.2	1138.1	**752.5**
Unimodal	Mtwara	646.3	1157.1	1023.9	1072.0	1332.9	1369.4	1180.7	**1111.8**

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Areas	Songea	896.0	1072.7	1010.8	852.3	846.7	1226.1	1039.0	**991.9**
	Tabora	810.8	939.8	826.5	957.4	911.6	885.3	1112.9	**920.6**
	Kigoma	735.3	999.9	832.7	951.6	913.5	869.2	985.1	**898.2**
	Mbeya	508.1	1028.3	1220.3	876.0	952.6	1043.6	1731.9	**1051.5**
	Iringa	545.3	859.1	885.5	555.4	757.6	622.1	509.3	**676.3**
	Dodoma	620.9	487.4	489.7	452.2	545.2	428.0	679.3	**529.0**
	Mean	**828.8**	**872.7**	**968.8**	**934.6**	**864.8**	**1005.2**	**1102.9**	**939.7**

Source: Tanzania Meteorological Agency (TMA)

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In 2016-2018 the same months recorded relatively high rainfall. In 2019 rainfall variations reflected different trends and patterns during the same months. These changes in rainfall trend and pattern have significant impacts on the availability of food and water for vulnerable communities in Karatu District.

Temperature projections and anomalies

Global climate models predict warming in the range of 0.8 to 1.8^{0}C by the year 2040.More warming is projected over the western side of the country. A warming of less than 1.76^{0}C for 2050 and 3.2 8^{0}C for 2100 is projected over parts of the northern coast regions and north east highlands. Studies have shown trends of increased temperature over the entire country. In 2019 the annual mean temperature was 23.8^{0}C, which is 0.9^{0}C warmer than long term average (1981-2010).Temperatures in Tanzania are usually characterized by relatively less fluctuations throughout the year. Changes in temperature may have consequences on human, wildlife and livestock lives. Communities that depend on these sectors may face adaptation risks which need measures for building resilience. Table 2 and 3 shows Monthly minimum and maximum temperatures from 2012 -2018.

Table 2: Monthly Mean Minimum Temperature (°C), 2012-2018

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Year	Jan	Feb	Mar	Apr	May	Jun	July	Au	Sep	Oct	Nov	Dec	Mean
2012	19.8	20.4	19.9	19.4	18.2	16.6	15.8	16.9	18.1	19.6	19.9	20.2	**18.7**
2013	20.3	20.1	20.5	19.7	18.2	15.9	15.6	16.7	18.1	19.5	20.5	20.1	**18.8**
2014	19.9	19.9	19.8	19.4	18.3	17.9	16.4	18.1	17.9	19.7	19.7	19.8	**18.9**
2015	19.9	20	19.6	18.6	18.6	16.9	16.4	16.9	18	20.1	20.2	20.1	**18.8**
2016	19.9	20.2	20.9	20	18.3	16.7	15.8	15.6	17.3	18.7	20	18.1	**18.5**
2017	19.7	19.7	19.2	18.9	17.9	16.5	15.5	16.8	16.9	18.7	19.0	19.8	**18.2**
2018	19.2	19.4	19.2	18.7	17.7	15.6	15.5	15.8	17.3	18.6	19.5	19.7	**18.0**
Mean (2012-2018)	**19.8**	**20.0**	**19.9**	**19.2**	**18.2**	**16.6**	**15.9**	**16.7**	**17.6**	**19.3**	**19.8**	**19.7**	**18.6**
LTM (1981-2010)	**19.5**	**19.5**	**19.5**	**19.2**	**18.0**	**16.3**	**15.6**	**16.3**	**17.5**	**18.8**	**19.5**	**19.6**	**18.3**

Source: Tanzania Meteorological Agency (TMA)

Table 3: Monthly Mean Maximum Temperature (°C), 2012-2018

Year	Jan	Feb	Mar	Apr	May	Jun	July	Au	Sep	Oct	Nov	Dec	Mean
2012	29.3	29.9	29.5	28.1	27.5	27.4	27.5	28.2	29.2	30.3	29.5	28.9	**28.8**
2013	29.3	29.9	29.3	28.2	27.7	27.3	27.5	27.9	29.3	30	30	28.8	**28.8**
2014	29	28.4	28.9	28.2	27.4	27.8	27.4	28.4	28.4	29.8	29.7	29	**28.5**
2015	28.6	30	29.8	28	27.8	27.7	27.9	28.6	29.6	29.9	29	28.7	**28.8**
2016	28.4	28.9	29.8	27.9	27.9	27.3	26.8	28.1	28.5	29.9	29.6	28.5	**28.5**
2017	27.8	27.2	26.7	26.1	27.4	27.4	27.1	27.1	29.2	30.3	29.3	30.0	**28.0**
2018	27.7	30.2	28.1	27.4	27.6	27.4	26.9	28.3	29.5	29.5	30.2	29.1	**28.5**
Mean (2012-2018)	**28.6**	**29.2**	**28.9**	**27.7**	**27.6**	**27.5**	**27.3**	**28.1**	**29.1**	**29.9**	**29.6**	**29.0**	**28.5**
LTM (1981-2010)	**28.5**	**29.0**	**28.9**	**28.0**	**27.3**	**26.8**	**26.6**	**27.4**	**28.7**	**29.4**	**29.2**	**28.6**	**28.2**

Source: Tanzania Meteorological Agency (TMA)

These monthly mean maximum and minimum temperatures shows that communities can continue to undertake livelihood activities without much impact of temperature changes. Therefore, this project proposes to develop and implement concrete adaptation actions at grass root levels to increase community resilience to climate change impacts and it will align with the following sectors; water resources and supply, forestry and bee keeping, livestock production, tourism, and gender in relation to climate change. The project will apply transformative integrated environmental management, resilient rural water supply systems and climate smart agriculture practices to reduce vulnerabilities. The project will be implemented in eight selected villages in the three wards Baray, Endamaghan and Mang'ola. This approach offers practical and effective combination of Community-Based-Adaption and Nature -Based-Adaptation techniques to support transformation of livelihood system, combat poverty, enhance greater climate resilience of rural communities and gender equality while reducing emissions through long-term storage of carbon in landscapes. The resources sought from the Adaptation Fund (AF) will implement concrete and practical cost effective and multi-stakeholder's adaptation solution to improve livelihoods of the poor and vulnerable communities in the district through the following five out comes:

i) Increased food security, income and resilience to climate change impact through Climate Smart practices in selected villages in the three wards of Baray, Endamaghan and Mang'ola

ii) Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) in selected villages in the three wards of Baray, Endamaghan and Mang'ola

iii) Improved forests services and functions to sustain climate change resilient livelihoods in selected villages in the three wards of Baray, Endamaghan and Mang'ola

iv) Improved Health and sanitation infrastructure and services for Hadzabe (hunters

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and gatherers) andDatoga (blacksmith) in selected villages of the three wards of Baray, Endamaghanand Mang'ola

v) Improved capacity of Karatu District Council and Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning, implementing and monitoring climate adaption actions

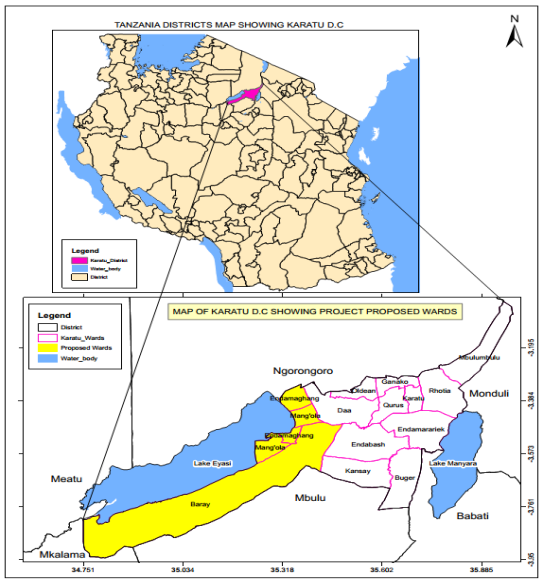
1.2 Socio-economic development and environmental context

1.2.1 Location and Topography

Karatu district is located South of the Equator between Latitudes 3º10'4º00'S and Longitudes 34º47'E-35º56'E. The district is bordered by Mbulu District to the South, Iramba and Meatu Districts to the North West, Ngorongoro to the North and Monduli and Babati Districts to the South East. Karatu District is estimated to have an area of approximately 3,300 square kilometres, with Lake Eyasi occupying about 10.6 square kilometres. Administratively, the Karatu District is divided into four divisions namely Mbulumbulu, Eyasi, Karatu and Endabash. There are 14 wards, 49 registered villages.

The hunters and gatherers are mostly found in Baray, Endamaghan and Mang'ola wards. Karatu district has natural vegetation which is situated in Rift valley Highland zones, is known as bushed and wooded grasslands. This enables the district to practice farming systems of Maize, Wheat, coffee barley legumes, dairy and traditional livestock. Figure 1.shows the map of Tanzania and the project sites.

Figure 1: Map of Tanzania showing project location



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1.2.2 Socio-economic and development context

Karatu district is currently having a population of 233,691 of which 117,769 being males and 112,397 females and 48,345 households as per 2012 Census[1]. The District birth rate stands at 3.1%. The average population density is 73.4 persons/km^2 with low densities in the western zone along Lake Eyasi (7-10 person/km^2) and higher densities (100 persons/km^2) in Karatu and Mbulumbulu Division. The District is mostly populated by "Iraqw tribe" being the dominant, the Barbaigs(Datoga) being the minor tribe who are pastoralists and Hadzabe who are hunters and gatherers. It is believed that in the long run, Karatu Township will be the second largest tourist town after Arusha city on the Northern circuit. The District has three main ethnic groups namely: "Iraqw, Hadzabe, Datonga and barbaigs. The Iraqw is the largest community, estimated 65 % of population which occupy most of highland areas and practice mixed farming which involve cultivation, herding cattle and maintain home gardens and trees. However, there are other ethnic groups found in the district. These are Maasai, Mangati, Chaga and Warangi.

Urban-Rural differentiations are manifested in Karatu District for the year 2002 to year 2012[3]. The urbanization has increased from 5.3% in year 2002 to 6.4% in year 2012. This change indicates small movement of people especially hunters and gatherers whose livelihood depends much on natural bushes and forests found in Rift Valley near Lake Eyasi. The district per capita income is estimated to be TSh. 800,000/= per annum[3]. Other important indicators of development are as follow; literacy rate is 64, population growth rate 3.1, dependency ratio 97, employment in agriculture 61%, livestock keeping 7.49%, office 3.14%, elementary occupation 21.33%, plant operations/assemble 0.37%, Business operation 5%, hand hoes as owned by most people is 79%, while sex ratio is 108, energy consumption (electricity) is 4% and firewood is 96%.

The rural areas of Karatu District require water both for human consumption for livestock, wildlife and possibly irrigation. The majority of the rural population still rely on unprotected water sources mainly earth dams, charcoal dams and water holes in swampy areas. In the execution of rural water schemes, the District strategy is to mobilize village communities in the construction of such schemes. Thereafter, involve them in the management, maintenance and operating of these schemes through their water user committees and funds financed by user fees. Availability of infrastructure such as accommodation facilities, telecommunication services, roads, banks and tours operators is an important tool for the development of competitive tourism industry. Accommodation facilities are important in attracting tourists. Therefore, information about hotels, camp sites and lodges is vital for tourists, as it assist them to choose the type of accommodation they like as well as well as value for money. The Karatu District had at least15 campsites by the year 2008. Some Hadzabe and Datoga communities are also involved in tourism.

The district is also promoting eco-tourism in form of campsites especially in areas inhabited by the Hadzabe hunters and gatherers and Datoga (blacksmith) . Eco-tourism is therefore a good source of employment and income for Karatu District. Another boost to the tourism sector is that the district lies in the main wildlife corridor between Ngorongoro and Marang Forest to Lake Manyara to the South (in the Mbulu

District). The location of Karatu town along the road to Ngorongoro crater, serves by many tourist hotels and lodges. Likewise, There is heavy traffic of tourist through the north -east, route to Manyara National park,,Ngorongoro conservation area and Serengeti National Park. There are economic benefits to district from taxes as well as revenue from sales to visitors. Eco tourism includes walking safaris, watching safaris, specialized bird watching safaris, observing wildlife in its natural habitat and meeting local peoples without interfering with their lifestyles. There are already eco-tours operated in Hadzabe areas. The clients go mainly to the Mang'ola area for walking safaris. Tourists walk with Hadzabe to learn about traditional practices and to see wildlife. Other walking safaris come from the Ngorongoro Conservation Area to Mang'ola.T our vehicles also come from Karatu to Mang'ola where particular villages offer camping sites for small fees. There is potential for bird watching near Lake Eyasi westlands..

1.2.3 Environmental context

Karatu district has reserved area of about 35,399 hectares. On reforestation, efforts are being made by District institutions, such as individuals, Council, CBOs, NGOs to address environmental degradation. There are six tree nurseries which involve with supporting, production and planting of seedlings for afforestation projects in eight wards namely Baray ,Ganako , Qurus and Kansay, Oldeani and Rhotia.All non-protected forests are used for grazing. Particularly in the Western zone, many goats and sheep are reared taking advantage of salts found in the areas near Lake Eyas, resulting in high pressure on shrubs

The forestry sector is of importance to residents of Karatu District primarily because it supplies their needs for domestic fuel. It is estimated that 95% of residents depend on fuel wood for their domestic energy needs. Charcoal is rarely used by rural people; it is mostly produced for sale[3]. Most Charcoal produced in the in the western zone goes to the towns of Karatu, Oldeani, Mto wa Umbu and the Ngorongoro conservation area. Tree species for charcoal are Acacia and Combretum species from natural woodlands, and those planted in woodlots and public lands (E.g Acacia mearnsii,the wattle trees).Charcoal is not an efficient use of the wood as it estimated that about 80% of the heat value of wood is lost in making charcoal.

The forest resources of Western zone are unique in terms of their diversity of plants and shrubs. These resources are used by the Hadzabe for food. The baobab is the most important tree, providing staple foods. There are many natural fruiting shrubs. Among the important tuber crops are Vigna esculenta, Coccinea aurantica, and ipomoea transvalensis. These tuber crops are crucial components for survival of the Hadzabe. One hectare of Vigna esculenta can support one family foukr about 148 days. Most shrubs and trees can provide useful medicine for both human and livestock.

Beekeeping in Karatu District is carried out mainly traditionally. Some tribesmen like Tindiga and Hadzabe, live on honey, hunting and tree roots. To them honey is a staple food. Also Honey is used in making of local brew, in preparation of medicines, and is significant in traditional ceremonies and rituals, as well as in conflict resolution as a mediation symbol. There is a big potential for increased production of honey and bees wax by both traditional and modern beekeeping techniques. Beekeeping is

permitted upon request in the forest reserves. So far, the little production of honey has been for local use, while there is room for producing more for export.

Project Objectives:

This project aims to implement activities that are directed towards enabling climate resilient livelihood in climate change affected areas. The project will implement activities that will build capacity of Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in undertaking practical and innovative smart solutions that have concrete and tangible outputs. This project will specifically envisage achieving the following:

(i) To Enhance integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

(ii) To enhance climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu District

(iii) To Improve climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

(iv) To Promote climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

(v) to Enhance capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues

Project Components and Financing:

The~~is~~ table below presents the relationships among project components, activities, expected concrete outputs, and the corresponding budgets.

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Project Components	Expected Concrete Outputs	Indicative activities	Expected Outcomes	Amount (US$)
1.Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District	**1.1** Sustainable bee keeping initiative for food security and increased household income in selected village of the three wards of Baray, Endamaghan and Mang'ola improved	**1.1.1** Training hunters and gatherers on sustainable bee keeping practices **1.1.2** Provision of at least 1500 modern beehives and related equipment. **1.1.3** Building capacity on honey marketing **1.1.4** Building capacity for communities to establish honey producer's cooperative society	**1**.Increased food security, income and resilience to climate change impact through Climate Smart practices in selected wards	**534,463**~~1.00~~
	1.2 Use alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three wards of Baray, Endamaghan and Mang'ola	**1.2.1**Training Datoga (blacksmith) communities on the use of sustainable source of energy **1.2.2** Training Datoga on how to make energy saver cooking stoves for cooking and forging tools **1.2.3** Training Datoga (blacksmith) on making alternative energy products e.g briquettes **1.2.4** Facilitating Datoga (blacksmith) communities to engage into a business venture for selling energy saver cooking stoves and briquettes **1.2.5 Supporting** Datoga (blacksmith) to establish and operate energy saver community group		
	1.3 Use of local and improved breeds of rabbit and poultry for	**1.3.1** Training women men and youth on Poultry and rabbit production **1.3.2** Construction of simple poultry and rabbit houses		

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	food security and income generation for selected villages three wards of Baray, Endamaghan and Mang'ola improved **1.4** Production of diversified cultural and nature-based tourism products for Hadazabe (hunters and gatherers) and Datoga (blacksmith) women, men and youth improved. **1.5** Identification and production of suitable traditional and modern crops for enhanced food security and increased household income in selected villages of Baray, Endamaghan and andMang'ola promote	**1.3.3** Provision of startup capital in form of local pullet, cocks, does and buck to the communities **1.3.4** Provision of feed, supplements, veterinary drugs and equipment/utensils **1.3.5** Establishment and building capacity to operate poultry/rabbit producers group **1.4.1** Train women and youth on jewelry and leather quality and marketing **1.4.2** Promote the jewelry and leather business amongst women and youth **1.4.3** Provide support and capacity for women and youth to form jeweler's and leather makers groups **1 .5.1** Training of men, women and youth on production of selected traditional and modern crops **1.5.**2 Establishment of at least 10 acres as demonstration farms (Field Farm School-FFS) across 8 villages within the targeted three wards		
2.Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatheres) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in	**2.1**At least 10 boreholes drilled in Hadzabe (gathers and hunters) and Datoga(blacksmith) communities at Baray, Mang 'ola and Endamaghang Wards in Karatu District for improved water availability	**2.1.1** Conducting hydrogeological survey **2.1.2** Drill boreholes in drought prone and water scarce villages and install solar driven water pumps at Baray, Mang'ola and Endamaghang Wards	2. Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) atBaray and Endamaghang Wards	**945,893**~~**1.00**~~

Karatu District	**2.2** Water supply systems constructed in Hadzabe (gathers and hunters) and Datoga (blacksmith) communities at Baray, Mang 'ola and Endamaghang Wards in Karatu District for improved water quality **2.3** Hadzabe (hunters and gathers) and Datoga (blacksmith) facilitated, trained and supported to operate and maintain the water infrastructure. **2.4** Climate resilient behavioral change and water governance for Hadzabe and Datoga communities in the three wards of Baray, Endmagahan and Mang'ola enhanced	**2.2.1** Design and Construct water storage tanks, distribution network systems and pump system at Baray, Mang'ola and Endamaghang Wards **2.2.2** Construct community water points/ community water Kiosks for network systems **2.3.1** Conduct awareness raising meetings with community stakeholders on operation and maintenance of water infrastructure and supply **2.1..4**Conduct awareness raising meetings with community stakeholders on behavior change and water governance		
3.Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District	**3.1** Adoption of integrated climate smart forest management practiced for selected villages of Baray, Endamaghan and Mang'ola wards promoted.	**3.1.1** Creating awareness and training on integrated forest management **3.1.2**. Support the establishment and maintenance of tree nurseries by communities **3.1.3**Tree planting and maintenance **3.1.4** Establishment and building capacity for communities to form and operate tree planting group	**3.**Improved forests services and functions to sustain climate change resilient livelihoods at selected villages in baray, Endamaghan and Mang'ola wards	**128,56~~95.00~~**

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4.Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District	**4.1**Climate Vulnerability assessment for a comprehensive action plan in health sector at Karatu District Council conducted. **4.2** Climate change issues mainstreamed into health projects and programmes at Karatu District **4.3** Community awareness on climate related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District **4.4** Climate smart community health resource centres in selected villages of the three wards of Baray, Endamaghan and Maong'ola built, re- tooled and strengthened	**4.1.1** Hire consultant to conduct vulnerability assessment **4.2.1** Translate the results of the district and project plan of action **4.3.1** Create awareness to communities on health and sanitation at Boma level **4.4.1** Provide emergency health services and first aid services at community resource centers **4.4.2** Provide Improved Community Health Insurance to 600 most vulnerable Hadzabe and Datoga communities	**4.** Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages of the three wards of Baray, Endamaghanand Mang'ola in Karatu District improved	**165,32017.00**
5.Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues	**5.1** The capacity of Karatu District Council in facilitating public awareness and understanding of climate change related issues and the adoption of resilient climate livelihood practices strengthened	**5.1.1** Conduct training needs assessment **5.1.2** Develop training materials and Supporting Community Based Trainers (CBT) in training peer community members **5.1.3** Training of local government officials in Karatu district on climate resilient livelihood practices including mainstreaming of climate change into development plans and budgeting process **5.1.4** Disseminating project results and share lessons learnt to District, Regional and National stakeholders	**5.** Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning, implementing and monitoring climate adaption actions	**344,400.00**

		5.2.1 Facilitate community exchange visits/study tours		
	5.2 Community institutions to assist in collecting climate related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in three wards of Baray, Endamaghan and Mang'ola established.	**5.2.2** Build and equip community resource centers for provision of health, water and food services		
	5.3. Capacity of the hunters, gatherers and blacksmith communities in planning and decision making for undertaking climate resilient livelihood practices is strengthened	**5.3.1** train community committee members on planning and decision making for undertaking climate resilient livelihood practices		
	5.4 Upgrade Karatu District metrological services and its network and infrastructure for provision of essential data for climate service and early warning systems to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola	**5.4.1**Train Karatu District Council staff on importance of data for climate change services and early warning systems		
		5.4.2 Install automatic agro-weather station		
		6. Project Execution cost (9.5%)		201,2713~~. 05~~
		7. Total Project Cost		2,118,645~~34.00~~
		8. Project Cycle Management Fee		180,0846~~.41~~
		Amount of Financing Requested		**2,500,000~~99,993.15~~**

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project Implementation	August, 2022
Mid-term Review (if planned)	N/A
Project Closing	December 2025
Terminal Evaluation	April 2026

PART II: PROJECT / PROGRAMME JUSTIFICATION

A:Description of the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience.

All five components and indicative activities under this project are focusing to achieve concrete adaptation outcomes. All activities will be implemented on the ground in order to build resilience and improve adaptive capacity of vulnerable Hadzabe (hunters and gatherers and Datoga(Blacksmith) communities. The proposed project will also promote gender responsive climate action. The details of the five proposed project components are further described here under and how these will contribute to community's resilience.

PART II: PROJECT JUSTIFICATION

PART II A: Description of the project components, particularly focusing on the concrete adaptation activities, and how these activities would contribute to climate resilience

All five components and indicative activities under this project are focusing to achieve concrete adaptation outcomes. All activities will be implemented on the ground in order to build resilience and improve adaptive capacity of vulnerable Hadzabe (hunters and gatherers and Datoga (Blacksmith) communities. The proposed project will also promote gender responsive climate action. The details of the five proposed project components are further described here under and how these will contribute to community's resilience.

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Component 1:
Developing integrated climate resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola.

Outcome 1
Increase food security, income and resilience to climate change impact through Climate Smart practices in selected wards

Considering the fact that Tanzania's economy and the livelihoods of its people depend on climate sensitive resources, it is crucial that adaptation strategies that target climate resilient livelihoods are promoted. Livelihood integration and diversification is recommended so as to maximize the resilience. This is because reliance on only one means of livelihood may risk increased climate vulnerability if that particular livelihood activity fails. Integration of livelihoods increases cost effectiveness as may generate some co-benefits and synergies. For example, the integration of tree planting, poultry and rabbit keeping, growing traditional and modern crops and beekeeping on the same farm creates synergies. Trees protect soils and enhance water infiltration in the soil, poultry and rabbit keeping supplies manure for crop growth, beekeeping helps protect forests. Thus this kind of integration enhances productivity while ensuring cost effectiveness. Furthermore, beekeeping integration enhances pollination and increased income accruing from sale of honey. About 300 camps and farmsteads are expected to benefit from the livelihood intervention in the wards of Baray, Endmarghan and Mang'ola in Karatu district either directly or indirectly. The adoption of integrated climate resilient livelihoods diversification system is envisaged to improve the household income by at least 30 % bythe end of the project.The government has set aside 600 ha of forest to support conservation, income generation through bee keeping and collecting carbon credits.

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Output 1.
Beekeeping is one of the nature based livelihood activity with a potential to increase resilience to climate change impacts. This is output responds to the national bee keeping Policy which recognizes the importance of beekeeping sub- sector to sustainable development of Tanzania and conservation and management of natural resources. Beekeeping is a viable livelihood based enterprise benefiting communities living in and around forests particularly from the wards of Baray, Endamaghan and Mang'ola. Most importantly beekeeping can also be used a practical tool for raising the awareness of communities on the importance of forest management and conservation. Compared with cultivated crops, beekeeping is not very much affected by climate variations and can provide a more predictable income. The climate resilience of the beekeeping enterprise lies in the fact that the honey bees can tolerate high temperatures to some extent. The integration of beekeeping in a farm will facilitate crop yield through pollination. The direct beneficiaries will include 10 beekeeping groups in the three wards of Baray, Endamaghan and Mang'ola where each group can have up to 20 members including men, women and youth.

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Output 2
Use alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three Wards of Baray, Endamaghan and Mang'ola
For communities to be more adaptive to impacts of climate change they need to adopt resilient less carbon intensive and climate change smart infrastructures, tools and

products. Datoga communities use charcoal as source of fuel for forging metal tools and cooking. This project will introduce the use of alternative sources of energy and energy saving stoves. This output aims at empowering 80 communities of Datoga (blacksmith) homesteads to be able to understand climate change – energy related issues and how to make briquettes and cooking stoves. This intervention is in line with the aim of the government to ensure that at to increase least 50% use of alternative energy compared to current levels. This initiative is in line with the Tanzania Sustainable Energy for All (SE4All) Action agenda(2015).

Output 3

Rabbit and Poultry farming established/ improved

This intervention aims at facilitating communities from the three wards of Baray, Endamaghan and Mang'ola to start and improve local chicken and rabbits enterprises for food and for income generation. This is a **potential** enterprise to generate income and building resilience for the poor households and women groups. According to Tanzania Livestock master Plan (2017) which sets out livestock sector investment interventions including better genetics, feeds and livestock health services. This is also well articulated in the Agriculture Sector Development Plan II 2015-2025 which is further translated into the Karatu Agriculture development Plan – Karatu DADPs. Therefore, this project will provide some technical assistance to interested communities on how to establish and run poultry and rabbit enterprise. The project will support small scale commercial poultry and rabbit enterprises with a view of enabling farmers to produce meat and eggs in very short time. This is envisaged to bolster the income of targeted communities thus enabling them to cope with climate induced losses in hunting and gathering. The project will support 10 poultry groups and 10 rabbit groups in the said wards by each group will have at least 25 members consisting of men, women and youth.

Output 4

Women jewelry and leather making business improved

Hunters, gatherers and blacksmith communities are also involved in cultural tourism where they share their cultural experiences to tourists and they also sell jewelry, metal tools and accessories and leather pieces of clothing and ornaments. This project intends to support these communities to improve their product better make, package and display their products. This in turn will help them to have more income which can support them to buy food and other household needs, This intervention is in line with the national tourism policy (1996) which is currently under review to better address nature base tourism for the purpose of improving community livelihoods and development of quality tourism that is culturally and socially acceptable, ecologically friendly, environmental sustainable and economically viable. In this project 15 groups of jewelers, 15 groups lather tanners and 15 groups of black smith communities will be empowered to improve their enterprises for markets within the project sites and beyond.Income generated from jewelry selling supports livelihoods and ensures resilience to climate change induced stress

Output 5

The production of traditional crops for home consumption introduced

Most Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities usually do not engage in crop and livestock production. Climate change has left them food and nutrition insecure. They also face severe water shortage as result of increased activity by other community groups such as farmers and pastoralists. This project intends to listen to

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community and hear their local experiences and knowledge and what type of traditional and modern crops they think will be suitable for this community to be food and water sufficient. This is in line with the Agriculture Sector Development Programme II (2015-2025) which aims at ensuring transformation in agriculture sector with emphasis on commercialization of smallholder farmer's income for improved livelihood, food and nutrition security. This project intend to establish demonstration farms across the three wards for communities to learn, share experience on ho A total of 10 hectares will be used for different community groups of group of 20 people women, men and youth. These groups will be capacitated through training programs on good agronomic practices through farmers' field schools, Female Farmers Field Schools, Demo plots.Food security is one of the pillars of climate change adaptation. These crops will ensure nutrition security is also attained at the same ti increasing adaptive capacity of communities.

Component: 2

Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghan Wards in Karatu District

Outcome 2

Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (Gatherers and hunters) and Datoga (Blacksmith) at Baray and Endamaghan Wards

Rural communities in Karatu district depend on climate sensitive water resources which is relies heavily on climate sensitive water resources and infrastructures for their water supply. It is evident that water services in the proposed project sites are facing water security risks in various aspects such as scarcity and quality, both of which affect health and other economic development systems. Existing water sources have proved to be incapable of withstanding the effects of climate change and even increased water demands. Although quantification of water demand in these villages have yet to be well done by proper numerical models but based on villagers' view, field observation and visits paid to the community and issues raised in the planning workshops, it is clear that water shortage is a big problem especially to women and children and therefore a burden to peoples life quality, health and livelihood. In the two wards, community members are forced to fetch supplementary water about 30 kilometres away from their homesteads. The impacts of climate change can vividly be seen and this proect will enhance resilience to those impacts.

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Output 1

*At least 10 boreholes drilled in Hadzabe (gathers and hunters) and Datoga (blacksmith) communities at Baray, Mang 'ola and Endamaghang Wards in Karatu District for improved water availability***.**

The supplementary water for most villages of Baray, Endamaghan and Mang'ola wards is also obtained from traditional shallow holes and wells often along the valleys. These traditional wells dry few days after the rain season, mainly from July – November. The traditional wells are often not secure, thus hazards like floods may cover them up or contaminate them with human or livestock wastes thereby exposing people to water borne diseases (e.g. cholera, dysentery), which occurs almost every year. All supplementary water sources usually dry up during the dry season, forcing people (more often women and children) to travel longer distances looking for unsafe water wherever they are found. It is a true worry

that, most likely future climate change effects will further increase water scarcity and associated diseases problems in these hunters, gatherers and blacksmith communities. Under this output, climate resilient rural water supply and reliable water distribution networks will be established through drilling boreholes. Bore holes are the only reliable options as are considered to be more stable to climate shocks when compared to seasonal rivers which disappear every dry season. In addition, ground water in the these areas has regional recharge advantage when compared to localized recharges; hence ground water in Karatu is stable to seasonal rainfall variability, dry spells and drought. The indicative activities to be implemented under Output are:

- Drill boreholes in drought prone and water scarce villages and Install solar energy drivenwater pumps at selected villages of wards
- Construct water storage tanks and distribution network systems at Baray, Endamaghan and Mang'ola wards
- Construct community water points/ community water Kiosks for network systems in the project sites

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Output 3

Community Water Users Association (WUAs) established, facilitated and committee members trained on operational and maintenance of the water supply systems

Establishment of WUAs and capacitate them with necessary tools and expertise will empower vulnerable communities in the two wards to use their own knowledge and decision – making process to take action and active role to deliver the expected outputs of Component 2 in longer term, beyond project lifetime. The indicative activities to be implemented under this output are:

- Formula water governance structures (WUAs) and promotes equitable water allocation for all uses and revenue collection.Promote formulation of water governance/by laws to regulate effective use of water and protection of water sources
- Conduct Technical Trainings of Trainers on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of WUAs for the three selected wards.

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This output is proposed to put good and sustainable institutional structure to manage community and village climate resilient water supply system in the project sites. The output suggests establishment of WUAs which will be trained on group management and dynamics, maintenance and operations of the rural water systems.

Output 4

Climate resilient behavioral change and governance at community level enhanced

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In this component community members will be trained and given opportunity to share their local knowledge and experience on how to change behavior towards water governance at community level. This project will support communities to form representatives from traditional leader's women, men and youth. The CBWSOs are being recognized by the new Water and sanitation Act No.5 of 2019 which established "Rural Water Supply and Sanitation Agency – RUWASA" with responsibility to manage rural water supply. Under this the new Water and sanitation Act, 2019, the Village water schemes are CBWSOs. These are required to operate rural water supply in the communities in a professional way where technical managers and Accountants will be employed be employed and paid by the Government and will work with the community representatives (Village water Boards) to

sustain the water services. These CBWSOs will be backstopped by RUWASA District Managers' Office in Karatu district for technical and management issues. All CBWSOs to be formed will be responsible to set water tariffs, collect revenues from water. About 8 CBWSOs will be formed one in each of the selected villages.

COMPONENT 3:

Improve forest and environmental services and functions

Outcome 3:

Improved ecological and environmental services and function to sustain climate sensitive livelihood

For many years , ecological systems in Karatu have been impaired by a combination of both human induced and climate change related drivers. The original and natural ecosystems, covered by savannah thickets were degraded following the decision by colonial government to establish groundnut scheme. Since then, other human induced drivers for environmental degradation such as poor farming methods, deforestations, charcoal making and overgrazing are common in the area. Unless novelty approaches which integrate community and ecosystem based solutions to tackle climate change be implemented, the trend will continue endlessly, with disastrous effect to the vulnerable community. This project under component 3 proposes innovations which promote conservation measures linked to economic benefits to the people for tackling climate change in the district. The proposed activities under component 3, are also expected to provide excellent alternative income generating options, contributing to reduction of income poverty, providing adaptation benefits and building climate resilience of vulnerable communities specially women and girls through selling bee keeping products, various fruits obtained from fruit plants and selling forest products obtained from woodlots. Communities already use modern and traditional bee hives and practices. There is much room for improvement and the opportunity to link honey production to tourist market in Karatu and Arusha. The areas to be restored under this project has been pre- determined based on the inputs gathered from the field visits, community discussions, by carrying out transect walks in landscape The total areas for ecological restoration and rehabilitation are yet to be numerically quantified at this stage but expected to be about 30% of the approximately 600 hectares potential for forest restoration activities.

Output 1

Improve ecological and environmental services and functions in Baray, Endamaghan and Mang'ola wards

The ongoing degradation of environmental and ecological systems coupled with climate change issues has reduced the coverage of forests and woodlands and the availability of associated goods including accelerating land degradation and water catchments in Karatu District. Across the district, wetlands have been severely degraded as a result of inter alia:

a) Use of forestry as a source of energy
b) Intensive cultivation of crops such as maize and horticultural crops;
c) Excavation of sand and clay for brickworks;and
d) Grazing activities.

These activities are in line with the National Environmental Action Plan (NEAP (2020) which advocates for comprehensive incorporation of environmental concerns into natural resource planning and economic development. Therefore, this component and the proposed output

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activities seek to establish and implement ecological restoration and rehabilitation plans and restoration activities of hills, observed bare land, mountainous and woodland systems. All the eight villages will be engaged for restoration and rehabilitation activities including tree planting campaigns by engaging communities in tree planting on surrounding homesteads and camps, other degraded landscapes in schools and other public institutions.

Output 2

Integrate management of environmental and ecological systems implanted to sustain climate sensitive rural livelihood

The output will implement Ecosystem-based Adaptation (EbA) activities such as Promote bee keeping activities in woodland land and mountainous systems and fruit plants as income generating activities. The indicative activities to be implemented under Output 2 are:

- Establish and implement ecological and forest restoration and rehabilitation plans (hills, mountainous and woodland restored and conserved) in selected villages of Baray, Endamaghan and Mang'ola wards.
- Promote improved ecosystem based income generating activities such as improved bee keeping activities in woodland, hills and mountainous systems and fruit plants planting in selected villages of Baray, Endamaghan and Mang'ola wards.
- Mobilize enclosure systems in degraded and ecosystems to promote natural regeneration and recovery of ecological functions and explore the use of local/traditional institutions to strengthen management of sensitive ecological systems in selected villages of Baray, Endamaghan and Mang'ola wards.

COMPONENT 4:

Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

Outcome 4:

Improved health and sanitation infrastructure and services for hadzabe and Datoga(blacksmith) in three wards of Baray, Endamaghan and Mang'ola in Karatu District

This component aims at promoting, preservation and maintenance of public health with a view of ensuring of comprehensive functional and sustainable public health services to the vulnerable communities in Karatu district. This component is in line with the national health Policy (2007) which aims at improving provision of health service to all people by reducing disability, morbidity and mortality, improving nutritional status and life expectancy. The policy recognizes that good health is a major resource for poverty alleviation and economic development.This project will also be responding to the Health National Adaptation (HNAP)to Climate change 2018-2023

Output 1

Health - Climate change related risk and vulnerability assessment for strengthened capacity of health sector at Karatu District undertaken

This output intends to undertake a comprehensive District Climate change related risk and vulnerability assessment for the aim of identifying potential climate change risks and vulnerability that will be documented.Impacts of climate change are bound to bring about more health problems particulrary for women and children.

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Output 2
Staff and community awareness on climate related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District strengthened

This output will be achieved by improving knowledge to health personnel and communities at Karatu District Council on climate change related health risks through integration and strengthening climate change knowledge into health training and research.

Output 3
Mainstreaming climate change into health projects and programmes at Karatu District

Mainstreaming of climate change into Karatu District health strategies, programme and projects for the aim to promoting climate change resilience of public health systems. This output is in line with the overall goal of the National Climate Change Response Strategy (2021) and Tanzania Health NAP (2020). Mainstreaming of climate change will strengthen the capacity of health sector at district level to make climate –informed decisions.

Output 4
Climate smart community health resource centers built, re- tooled and strengthened

This project proposes to build a community resource centers in all 8 selected villages for committees to meet and exchange experience. These centers will also provide first aid emergence services, training on human nutrition and other relevant matters important to the communities

COMPONENT 5:
Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation intervention and improve level of understanding and awareness

Outcome 5:
Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning and implementing and monitoring climate adaption actions.

The outcome and output activities of this component are designed to strengthen the capacities of all actors by improving their understanding of climate change. This will support the communities to participate in implementing measures that are necessary for success of resilience capacity building and for the ongoing replication of adaptation strategies in the district; hence this component, when implemented is expected to make a lasting contribution to the sustainability of all climate change adaptation measures in the district and beyond. The output will facilitate integration of good adaptation practices into existing development planning at community levels, village and ward development plans. Enhancing knowledge management system and capacities for planning, coordination and implementation at the local level is critical to guarantee effective climate adaptation in the district.

Output 1
The capacity of Karatu District Council in facilitating public awareness and understanding of climate change related issues and the adoption of resilient climate livelihood practices strengthened

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This project will support institutional capacity building for planning and management of adaptation interventions is vital for successful implementation. The project will work in an

integrated manner on strengthening capacity of the local institutions, farmers associations and communities regarding promoting the adoption of climate smart practices. At one level, the project will seek to influence and involve local people in relation to adopting smart agriculture by developing capacities among communities. This approach will be especially effective in proposed project areas given the well-developed local organization structures that exist in local communities. Community groups and institutions will be supported (through the provision of encouragement and technical advice) to promote the adoption of climate smart livelihood practices. In addition, communities will be also capacitated to practice climate smart intervention at their camps or homesteads. The project will also promote learning and knowledge management so that the key messages from the project reach as many people as possible. This will be done by facilitating the district councils and local communities to share and communicate the project results and lesson learnt. Thus, the project will craft mechanisms by which the project results and lessons will be disseminated to the wider community of project districts and Tanzania at large. Karatu DC staff at all levels will be supported to design and implement climate change actions.

Output 2

Established Community institutions to assist in collecting climate related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in three wards of Baray, Endamaghan and Mang'ola

In this component community representatives from selected villages will be facilitated to establish their own institutions. Selected members will include elder's young people men and women

Output 3

Capacity of the hunters, gatherers and blacksmith communities in planning and decision making for undertaking climate resilient livelihood practices is strengthened.

Selected committee members will form a Community Adaptation Planning Committees CAPCs. Members of committee will be trained and capacitated to participate in planning, implementation and monitoring of climate change related interventions.

Output 4

Upgrade Karatu District metrological services and its network and infrastructure to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola for provision of essential data for climate service and early warning systems

In this project, staff of Karatu DC will be capacitated to be able to collect and use climate information in their decision.

PART II B: Description how the project provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund. (Refer to Annex 5)

All five components of this project are designed to contribute to the environmental, economic, and social benefits especially at the community level whereby local farmers and marginalized

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groups (including. women, youth and people with disabilities) will directly benefit through the improved capacity to adapt to the impacts of climate change. This project also complies with the Environmental and Social Policy of the Adaptation Fund whereby relevant risks are clearly identified, and mitigation measures are proposed.

Environmental benefits

The proposed project is expected to have multiple environmental benefits. The adoption of climate smart agriculture practices (which promotes soil and water conservation) and other best environmental conservation practices such as tree plantation will improve the natural vegetation cover thereby contributing to proper management of soil and water resources. In particular, tree planting will significantly contribute to the restoration of forests which were previously cleared for various reasons. To address water shortage challenge, the project will support the construction of boreholes and water supply system will assist in providing sustainable source of water for consumption and other uses.

Water will be managed through formation of Water Users Associations which among others will be required to ensure protection of river catchments. The establishment of integrated farming systems the project will contribute to nutrient cycling, soil fertility and crop pollination through honey bees. All these are essential for enhancing the resilience of the ecosystems and communities in the targeted project sites.

Economic benefits

The project has been designed to transform the economic situation of rural communities in the target Baray, Endamaghan and Mang'ola wards in Karatu District. The project will be supporting the availability of water which is a very vital resource in livelihood of the communities. With the availability of water in place about 300 camps and homestead are envisaged to keep poultry and rabbits, produce traditional and modern crops which will not only increase household food security but also income. The income of beneficiary households is expected to increase by at least 20% through implementing alternative livelihood strategies as explained in component 1 of the project. The activities to be implemented under components 1 and 3 will transform the economic status of communities from resource-poor and vulnerable to resource-rich and resilient to climate shocks. The implementation of livelihood-based enterprises such as beekeeping, poultry and rabbit keeping, cultivation of traditional and modern crops offers many economic benefits.

Social Benefits

The project interventions are expected to provide solutions to vulnerable communities as the benefits are multifold and are realted to economic empowerment.Acess to clean and safe water within shortest will assit in solving social rproblems. Sub project that aim at improving food security and income generating will make communitities more resilient to climate change.All five components are beneficial to communities and hence increase harmony.

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

a} Cost effectiveness from a technical perspective

It is believed that enhancing direct engagement of vulnerable communities in villages to empowers local communities to conceive and drive local adaptation responses directly, build their adaptive capacity to climate and seasonal weather shocks, foster transformation of their

livelihood systems to be more climate resilient and allow them to scale up successful climate adaptation actions. This enhanced direct implementation approach using force account modality and self-reliance spirit existing in villages is a perfect time sensitive, efficient and new cost-effective way to deliver concrete adaptation projects with direct benefits at the local level in the United Republic of Tanzania. The costly conventional way, the top-down approach of designing and implementing adaption project from central government, usually from Ministry headquarters, facilitated by multilateral -implementing entities would not permit this level of local ownership, design and implementation.

For instance, adaptation projects such as the Adaptation Fund Project Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihood and Economy of Coastal Communities in Tanzania– which is currently under implementation in Dar es Salaam and the Least Developed Countries Fund (LDCF – GEF) project – Ecosystem = Based Adaptation for Rural Resilience in Tanzania, both implemented under the United Nations Environmental Program (UNEP); and the LDCF – project under the United Nations Development Program (UNDP) – Strengthening Climate Information and Early Warning Systems in Tanzania for Climate Resilient Development and Adaptation to Climate Change" used top – down approach and their running cost when quantified using elements like fuels costs from Ministry headquarters to project sites in villages and districts, the cost of international consultant fees extremely high are perceived to be extremely higher when compared to the proposed project. This project will enable climate finance from the Adaptation Fund (AF) to flow directly to activities what will be implemented by vulnerable communities themselves in Baray, Endamaghan and Mang'ola wards, and will provide an important complementary adaptation response to higher level in the district and the nation at large. Another example is the Africa Adaptation Program (AAP) which was also implemented through UNDP funder by JICA, has limited community involvement and engagement of Local Government Authority at district and village levels. Through has strong concrete adaptation activities, yet it appeared to be reactive and costly as it didn't tap the in-kind cost contribution from communities using the popular force account modality.

In-contrast the project funded by the African Development Bank (AfDB) = Institutional Support for Climate and Seasonal Weather Information for Adaptation Planning in Mwanga and Same Districts in Northern Tanzania, had concrete adaptation interventions which used Force Account and Ujamaa spirit to deliver activities at local levels. The cost recovery in-terms of monetary was estimate to be about 49%. However, its management is being coordinated from the Vice President's Office, more than 500 km away to the project sites in Same and Mwanga districts. This resulted into project administration/execution cost amounting to 30% of the total project cost, nevertheless this project was able to promote transformation of traditional agriculture and water supply in Jipe and Mabilioni Villages and increased adaptive capacity of local communities to current and future climate risks. This project, is learning from lessons and experience from this project while recognized that the administrative costs remains well below 9.5%, will amplify the value of requested AF resources by almost over 40%.

Cost – effectiveness of this project will also be delivered through socio-economic and income improvement in communities, efficiency way of timely delivering actions on the ground including effectiveness and sustainability of the proposed climate interventions. For example, current approach to climate related risk management and poverty reduction projects in Karatu have been mostly reactive based on time events which in most cases are not sustainable. Options like supplying food aid to communities as adaptation actions to respond on the

vagaries in climate and seasonal weather is mostly reactive and costly relative to promotion of climate resilient – water supply with the view of transforming rural livelihoods and improving income generation. Socio-economic and income generation expected from integrated forest management will be effective, efficiency and economical way to realize adaption benefits compared to traditional ecological restoration project in the United Republic of Tanzania in the 1980s, like the costly HADO program which failed due to limited integration of livelihood activities For example, preliminary socio-economic analysis on the proposed project activities (climate resilient-rural water supply, bee keeping, poultry and rabbit farming, when implemented using Force Account modalities have highest internal rates of return beyond 40 – 89% higher benefit; cost ratios, currently estimated to be up to 27:1500 for concrete actions under components 1, 2 and 3. It is therefore obvious that, the proposed project is cost – effective and the project's investment will accrue large benefit for life and livelihood quality improvement vis-à-vis the traditional and existing way of implementing adaption projects in the United Republic of Tanzania.

Table 4: Project Cost and Benefits

Component	Project Cost (USD)	Concrete adaptation benefits	Avoided losses	Trade offs
21.Enhancing climate resilient rural water supply system in vulnerable Hadzabe (gathers and hunters) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghan Wards in Karatu District	945,893	• Easy and reliable access to domestic water • Availability of water for livestock and crop production • Improved food availability • Increased food and nutrition security • Reduced time for communities to collect water, hunt and gather • Increased boma income/assets • Improved experience and knowledge on water resource management • Increased resilience to impacts of climate change	• Food and nutrition insecurity • Loss of crop and livestock produce • Loss of boma income • Increased poverty • Reduced resilience to climate change	• Lack of reliable and sufficient source of water which increases government spending • Increase government spending of humanitarian food supplies for communities that have affected by loss of water and food
12. Developing integrated climate resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola	534,463	• Reduced vulnerability to climate change impacts • Improved food and nutrition security • Improved management of forest ecosystem • Reduced income poverty • Enhanced resilience to climate change impacts	• Food and nutrition insecurity • Extreme poverty • Ill health • vulnerability to climate change impacts	• Deforestation • Increased vulnerability to climate change • Increased cost of adaptation for the government to provide food and other social amenities to vulnerable communities
43.Improving climate related health services and awareness for Hadzabe and Datoga	165,320	• Improved access to health services • Improved sanitation • Increased productivity	• Disease outbreaks • Vulnerability to climate change impacts • Food and nutrition insecurity	• High incidence of diseases outbreak • Poor health which may affect productivity of

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Component	Project Cost (USD)	Concrete adaptation benefits	Avoided losses	Trade offs
(Blacksmith) communities in 3 wards ofBaray, Endamaghan and Mang'ola		• Reduced vulnerability to climate related health incidences • Increased resilience to climate change effects	• Loss of Life	communities • Increased government spending to provide health services to vulnerable communities
34. Improve ecological and environmental services and functions	128,569	• Increased natural resource management capacity • Increased forest cover • Increased boma income • Enhanced resilience to climate change	• Degradation of natural resources • Loss of forest cover • Loss of livelihood • Loss of life due to floods and drought • Food and nutritional insecurity	• High loss of biodiversity • Increased cost of adaptation for flood and drought victims • Increased cost of providing food for hunger victims • Increased cost of health services for victims of extreme weather events • Land degradation

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Component	Project Cost (USD)	Concrete adaptation benefits	Avoided losses	Trade offs
5. .Building institutional capacity of Karatu District Council staff and Hadzabe and Datoga (blacksmith) communities in planning,implementation of climate change adaption actions	344,400	• Improved capacity of Local Government Authority and communities to plan and implement resilient climate resilient adaptation actions • Improved coordination of climate interventions at local level • Increased capacity to communicate project results and key lessons learnt • Increased resilience to climate change	• Increased vulnerability • Inability to predict future climate change impacts • Loss of livelihoods • Food and nutrition insecurity • Abject poverty	• Increase numbers of victims of effects of climate change as a result of Local government and community poor planning and limited preparedness • Reduced adaptive capacity of communities • Increased adaptation cost • Failure of adaptation interventions as a result of not integrating climate change action into District of plans and budgets

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b) Cost effectiveness from a project management perspective

The Project Management Unit (PMU) is proposed to be based in the project area at the district headquarters. As much as possible the project will utilize the existing government staff available at the district and at HakiKazi Catalyst including to be hosted in the buildings of the district headquarters. No new staff is expected to be hired; no pensions and insurances will be paid by the requested fund under this project as those costs are already covered by Karatu District Council and HakiKazi Catalyst. However, the project will pay some reasonable top up salaries only for project key staffs who will be placed in the PMU. This is viewed to be cost effective and promote best use of resources by reducing project management costs. Both Karatu District Council and Hakikazi may hire the services of other experts at reasonable rates. Utility bills of project staff will be covered by Karatu District Council and Hakikazi Catalyst. This will cut-off the project running cost by around 25 – 40%.

D: Describe how the project is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), 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 project being proposed here reflects communities, district and national issues and therefore is consistence and in -line with national vision for sustainable development, policies, plans, strategies, programs and actions. For instance this project is well reflecting top most five priorities (adaptation contributions) listed under the current Nationally Determined Contributions, the NDCs commits to : Up-scaling the level of improvement of agricultural land and water resources management; Increasing yields in an environmentally sustainable way through inter alia climate smart livelihood interventions; providing accessible mechanism for vulnerable communities such Hadzabe (hunters and gatherers) and Datoga (Blacksmith)against climate related shocks; and strengthening knowledge systems, extension services and water supply and health infrastructure to target climate actions, including through the use of climate services and traditional knowledge. For water related contributions, the NDCs indicate to: promote integrated water resources development and management practices and development and sustainable exploitation of groundwater resources. For livestock actions, the NDCs intend to promote climate resilient traditional and modern knowledge for sustainable management systems and practices; enhance climate resilient livestock infrastructure and services, promote livelihood diversification of livestock keepers; and Increasing livestock production through climate smart livelihood agriculture interventions. For ecosystem and forestry related commitments, the NDC will be safeguarding the ecosystem services, including through the promotion of alternative livelihood options to forest dependent communities. Therefore, all five components of this project and their output activities are strongly supporting implementation of the mined Contributions (NDCs, 2021) and the National Climate Change Response Strategy 2021 as all of them are consistence with the Adaptation Contributions.

In addition, this project is also well reflecting top most three adaptation priorities listed under the National Adaptation Programme of Action (NAPA, 2007), reflects the first and second priority sectors identified under the intended Nationally Determined Contributions (INDCs, 2014) and the National Climate Change Response Strategy (URT, 2021) that are

most vulnerable, which need urgent and intergrated adaptation measures. The project is also in consistence with the Tanzania Development Vision 2025, National Five-Year Development Plan (FYDP) III (2020/2021- 2026/2026), the First and the Second National Communication submitted to the the United National Framework for Convention on Climate Change (UNFCCC), the National Strategy for Growth and Poverty Reduction (MKUKUTA II), National program under the Tanzania Social Action Fund (TASAF). The Roadmap of the National Adaptation Plan (NAPs) , Karatu District Strategic Plan (2017/2018- 2021/2022). All these national and district documents take account and recognize the challenges and negative effects posed by climate change. In this way there is a need to implement climate actions at local levels, where vulnerable people, particularly women and children who suffer the most and are now being forced into deeper poverty challenges as a result of increased climate vagaries. This project is also linked to sustainable Development Goals (SDGs); particularly SDG 1: End poverty in all its forms everywhere; SDG 2; End hunger, achieve food security and improved nutrition, and promote sustainable agriculture; SDG 3: Ensure healthy lives and promote wellbeing for all ; SDG 5; Achieve gender equality and empower all women and girls; SDG 6; Ensure availability and sustainable management of water and sanitation for all, SDG 13; Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change); and SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems., sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. In the same way, the proposed project is in line with the Agenda 2023; the Africa we want which promotes issues of sustainable and inclusive economic growth and to take actions to reduce the effects of climate change in rural areas. Additionally, the linkages to the national and sub national/district policies and other poverty reduction strategies can be easily seen at each component.

The project is also consistence with the current Karatu district plans, which thrive to reduce poverty among communities in this climate impacted area, a strategy to introduce poultry and rabbit farming, production of traditional and modern crops will ensure food and nutrition security and reliable income and resilience to climate change. The project will support implementation of this strategy and a plan is sought to have satisfactory extension services.

E: Describe how the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc. and complies with the Environmental and Social Policy of the Adaptation Fund.

The proposed project is aligned with relevant national technical standards and meets requirements/standards stipulated by Environmental Management Act (Cap. 191 of 2004) and its subsequent Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations (G.N. No. 349 of 2005). Since the project is mainly aiming at improving the state of the environment in Karatu district as well, it will not generally have negative environmental impacts. It is clearly expected to have positive environmental impacts through improving the environment and ecosystems of the area, through improving the sustainable management of land, terrestrial and other environmental systems through addressing issues of community resilience to climate change and improving community livelihoods.

The project also took into consideration of the broader of the National Guidelines for the Preparation of Water Safety Plans – Resilient to Climate (2015). Other pertinent national standards for rural water supply, agriculture, forestry and beekeeping, environment, agriculture and food security and village land use planning/rural land tenure systems will be highly considered at advanced stage of designing of this project and during implementation. In that way, the proposed project will be fulfilling vital national policies, plans, strategies and programmes set by the United Republic of Tanzania including plans and bylaws formulated by Karatu District Council. Similarly, this project is relevant to the Environmental and Social Safeguard policy of the Adaptation Fund (AF) and any other Environmental and Social Safeguard Polices of International and UN agencies such as the World Bank as its intervention will enhance sustainable development benefits while avoiding unnecessary harm to the environment and communities. All activities under each component will facilitate social security of the riparian communities and veracity of the environment. However, the executing entities (Karatu District Council and Haki Kazi Catalyst) have adequately screened this project proposal and will place this Adaptation Fund. This is because there is no any component of this project which indicates any serious risk to the environment or social systems and on public health.

F: Describe if there is duplication of project with other funding sources, if any.

There is no any duplication of this project with other funding sources. This project will rather complement Any efforts geared to foster adaptation actions in Karatu district for climate resilient livelihoods thematic area. Preliminary meetings and discussions were conducted with various stakeholders at village, ward, division, district and national levels to confirm the existence of potential synergies of proposed activities with various national development and climate action, which have suffered absence of funds. The AF resources will therefore build on ongoing district development programming as operationalized through its investment and operational budgets. Karatu district like any other Local governments receive funding from the national government and ministries through core programmes as well as through more targeted projects (including donor -supported projects). The proposed project will build on core operational funding delivered to the district through the departments of agriculture, planning, environment, forestry, tourism, beekeeping and Rural Water Supply Agency (RUWASA) in Karatu. This will also build on more targeted projects or initiatives being implemented in Karatu particularly those funded by adaptation fund such as; Bunda Climate Resilience and Adaptation Project currently being implemented in Bunda Districts; Enhancing Climate Change Adaptation for Agro-Pastoral Communities currently being implemented in Karatu District, Enhancing Climate Change Resilience of Coastal Communities of Zanzibar currently being implemented in Unguja and Pemba Islands.

Other Programmes and initiatives that are currently being implemented include; Livestock Development in collaboration with IFAD which work with livestock keepers, agro-pastoralists and other land users in Tabora, Shinyanga, Ruvuma regions to support integrated dry land-based livelihoods including access to markets and income generation while providing ecologically sound strategies for resolving conflicts between farmers and pastoralists; Institutional Support for Climate and Seasonal Weather Information for Adaptation Planning in Mwanga and Same districts, Northern Tanzania the project funded by the African Development Bank (AfDB), had concrete adaptation intervention which used Force Account to deliver activities at local levels. Therefore, AF resources under this project are expected to build synergies on the ground particularly for component 1, 2, 3 with activities related livelihood improvements and ecological restorations, rather than

duplication of resources. However, there is no geographical duplications with the sited donor funded project. There is no fund which has been allocated to implement this project, except this application to the Adaptation Fund.

G: If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

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Issues of learning and knowledge management including dissemination of lessons learned are captured under component five; which aims to strengthen local institutional capacity for effective adaptation strategies and reduce risks associated with climate-induced socio-economic failures in Karatu district. Hence, this project will utilize a fraction of the requested fund to build core knowledge capacity and to disseminate results and outcomes including sharing lessons which will be generated by the project. Under Activities 5.1.3, 5.1.4,5.2.1, 5.3.1 and 5.4.1 where issues of learning, trainings and communicating results will be effectively implemented. In this way, issue on climate change education and awareness raising will be well addressed. Participatory approaches and community involvement through volunteering to implement project activities, they're in – kind contribution, trainings, tour and visits and on-site demonstrations will be conducted as part of learning and knowledge management. Sharing project results and communicating outcomes at various community and inter-village levels will also be conducted under component five. Positive project results and outcomes will be also communicated and disseminated at regional, inter district, national and international levels through progress reports, seminars, meetings, workshops, project briefs, various publications in peer reviewed journals. Other means such as newspapers, radio and video documentaries, techniques and achievements will be used as well to share and communicate lessons and outcomes of the project. Moreover, various technical training under short term basis will be conducted as part of knowledge management.

H: Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

a) Consultation during development of the KARAHADA project proposal

Stakeholder consultation for this project was done in three phases. This include consultation with Hadzabe (hunters and Gatheres and Datoga (blacksmith); consultation with Local Government officials and leaders and consultation with other actors who have been working in Karatu District or are currently working in Karatu. These consultations were preceded by national level consultation were representatives from Government Ministries and Agencies, Academia and researchers were consulted. The aim of this stage of consultation was to present the opportunity for this round of funding and agree on the sectors/ Districts to implement projects which will support to enhance resilience of Tanzanians. This meeting was in July 2021. where participants were in consensus that Karatu district be one of the targeted District and in particular the Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities. The list of participants to this workshop is attached as Annex 2

Community consultations were conducted from 12th -17th July in Karatu. This participatory process was complemented by field visits to different Hadzabe (hunters and gatherers) and Datoga (blacksmith) camps and homesteads. The areas visited include Quangdeng

Dumbechan, Mbuga Nyekundu and Mikocheni with the aim of getting more physical observations and eye witness on the full picture of the landscape, socio – economic interactions and vulnerabilities, needs and challenges of the these communities. The consultations assisted in soliciting viewpoints and to better understand the problem, it's root causes and potential interventions that would achieve greater resilience to climate change shocks in Karatu district and for Hadzabe and Datoga communities. Consultations were done to women and men separately and then joint consultations were done to give voice to the marginalized group or individuals. These meeting for pre-designing of this project assisted to perform quick analytical scanning of gender and environmental related issue as well as qualitative analysis and reviews on how climate change affects woman and men differently to facilitate proposing gender sensitive actions. The list of community members and traditional leaders consulted is attached as Annex 2.

The project formulation team conducted a two intra – and inter-departmental meetings in the district with senior officials and technical experts in Karatu as well as at Hakikazi Catalyst offices in Arusha to share and exchange views on the proposal, and to jointly identify and align priorities for the development of the full proposal. Thereafter, a series of virtual consultations among key technical and legal staffs between Karatu district council and Haki Kazi Catalyst were also conducted, The district and council leadership and head of departments were also involved in site selection of the project, Relevant face to face virtual consultations on processes involved experts from accounting, procurement, planning, agriculture, water, tourism forestry and beekeeping, land use and settlements, livestock, environment and cooperatives sections. The meetings also involved the representatives of NGOs working in Karatu. Because of COVID 19 pandemic follow up consultations were made by phone. This included consultation with Division, ward and village leaders (the list of district experts and other partners involved in the consultation process is attached as Annex 2).Further consultations continued with the staff of NEMC where the proposal was evaluated and refined to align with development polices and plans and strategies of the United Republic of Tanzania and with that of the Adaptation Funds.

Figure 4: Project Formulation Team, Technical Experts from Karatu District Council in one of technical sessions as part of consultative process conducted in Karatu District Headquarters.

Figure 5: Discussions with Hadzabe (hunters and gatherers) community members

Figure 6: Datoga (blacksmith) young men at work.

Key suggestion and concerns from stakeholders.

i) Stakeholders and beneficiaries from Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities, technical staff, from Karatu district council, government ministries, agencies and higher learning institutions indicated factors to be taken into consideration for successful planning and implementation for KARAHADA project :

- The project must adopt a use a **participatory approach** best practices from design to project implementation. This can be achieved by applying lessons from community experience and local knowledge. This in turn will assist in attaining the main goal of the project "increasing resilient of vulnerable communities at village level".

- Almost 100% of all stakeholders and individual experts proposed to apply **Force Account Implementation Modality** from the design to implementation stage of this project. Project. The approach is being widely applied by the Government of the United Republic of Tanzania and it has shown success in terms of value for money and project completion rates. This modality is now being adopted by other actors particularly for infrastructure development projects. This modality is viewed as cost effective and creates a sense of community ownership and practical involvement of communities by making themselves available for physical works with modest payments or with no payment and in kind contributions through contribution of building materials such as collection of gravels, sands and willingness for working in groups.

- The project should be hosted at Karatu district headquarters and use **existing office accommodation** and work with district technical staff together with Haki Kazi Catalyst staff. The Finance should be channeled through a special account guided by the Government Finial Standard Operating Procedures.

- The District Development Plan (DDP) is a key **local planning process** that the project needs to align with. This could be achieved by locating the project implementation unit at Karatu district and district planners will be part of the Project Steering Committee.

- Although the entire community at the project site is vulnerable to climate change impacts, the project proposal preparation team and all stakeholders agreed that it was more human and sensible to have **provisions for supporting vulnerable households** who are most vulnerable than others such as youth/ children female headed families, and people with disability and those with special needs.

Stakeholders discussed and analyzed project interventions and pointed that, project components should be addressing climate change risks, particularly on issues related water security and water resources management food security, environmental and ecosystem management, and strengthening community and local government institutions for planning and implementing climate change resilient interventions as urgent needs and priorities. Therefore, they all agreed that;

- The proposed activities/interventions for the project components in the approved full proposal are **urgently needed** and therefore reaffirmed the proposed project components, expected concrete outputs, indicated activities as well as the expected project outcomes.

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➢ For the interventions related to food security and income generating, the stakeholders and direct beneficiaries advised this project to adopt an implementation modality which supports both **on farm and off-farm livelihood activities**.

➢ Since Karatu district has in place a plan to diversify livelihood for its community members, stakeholders and district experts agreed that, the proposed interventions under component 2 should consider activities to facilitate **availability of traditional and improved seeds and stock.**

➢ For improvement of beekeeping interventions for food security and income generation, stakeholders requested that **modern beehives** are used to increase honey productivity. These bets practices can also be adopted by other neighboring communities.

Table 5: Some perceived challenges and possible solutions for project interventions as thought by the community and Karatu District Council representatives

s/n	Challenge	Solution
1.	Water scarcity and lack of water infrastructure leading to inadequate water supply	• Invest in exploration and invest and extraction of underground water resources • Improve water availability through drilling of boreholes and installation water supply system • Promote sustainable water use
2.	Food scarcity, food insecurity and Malnutrition	• Provision of humanitarian food support at Village community centres • Promote use of traditional and improve crops varieties • Promotion of beekeeping practices, • Promote climate change – resilient Promote. climate change–resilient livestock practices • Such as Poultry and rabbit farming
3.	De forestation	• Mainstream climate change into forest management practices in all villages of Karatu District. • Promote alternative livelihoods in villages particularly targeting women and youth groups/the most vulnerable community groups. • Awareness on Participatory Forest Management • Tree planting • Law enforcement
4.	Poor health services	• Enhance capacity of public health care systems. • Improve disease surveillance and design of disease – control at health centers and village dispensaries. • Improve knowledge of climate change – related occupational health risks. • Provision Community Health Insurance
5.	Limited information on climate change, impacts and associated risks including limited knowledge and information of planning with climate change in mind	• creating awareness on climate change • Sharing local knowledge and solutions • Building strong community institutions • Strengthening climate information services • mainstreaming climate change District Development Plans
6.	Gender related issues	• Promote gender equity and equality among communities in Karatu to address norms and traditional systems which expose women to struggle mostly with domestic issues and to keep domestic

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		matters of families going. • Promote and implement alternative income diversification activities such as beekeeping, poultry farming, local chickens' productions, Fruit tree planting, and home gardens for traditional crops • Promote awareness to encourage women and girls to participate in all stages of the projects implementations and meetings

Source: Field Visit 2021

Figure 7: Proposal development team visited one of the caves used by Hadzabe hunters and gatherers

(b) Gender analysis

At the stage of full proposal development, a gender scoping was done. Its findings were analyzed and discussed during consultations with Karatu district council staff and also with

other partners working in Karatu. As it is indicated at section 1.2.2 inequality related to gender, exclusion of those with disabilities and income inequality are some of the factors that contribute significantly for vulnerability of women and disabled groups to the current and future climate change impacts and even structural inequality. Such inequality predisposes women and other marginalized groups in Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities especially widows, subjects vulnerable women and girls to negative, even harmful, coping strategies, including risky behaviors such as transactional sex. The analysis on gender also indicates traditional gender roles in Karatu confer more powers to men over women, but this situation does not relieve women from burdens of house work and looking for food and water. This is mainly due to prevailing social, economic and political barriers. As a result, women constitute approximately 60 percent of rural people living in extreme poverty in Karatu District. The district is, relatively more vulnerable to climate change- induced risks, when compared to approximately only 40% percent for men. In addition, their heavy workload that combines exploitative agriculture, household and domestic works as well as earning from nonfarm activities such as intensive tasks of child-care, fetching water and food from afar distances, as well as food processing in a context where these services are either inadequate or do not exist, are multiple gender disadvantages which trigger the intergenerational transfer of poverty among women groups in the district. Therefore the proposed actions in this project should ensure early sensitization of all key decision-makers and communities to the need for and benefits of women's equal participation in activities of project components; specify targets for female and male participation at meetings and training events in order for the meeting/training to reach quorum, the target for women/men ration should be encouraged to be no less that 50/50 where possible and develop implementation plan which ensures targets for male /female participation in project activities to be at least 40% women. *See annex 1 summary on project component and gender analysis*

Justification for funding requested, focusing on the full cost of adaptation reasoning

Like most of the rural areas in Tanzania, the economy and livelihood system of communities in Karatu district are mainly driven by sensitive sectors. Negative effects due to changing weather seasons and climate variability and change have already disrupted the economy and people's lives in Karatu. Historical degradation of ecological ecosystems and through the ongoing poor livestock and farming practices and climate induced processes adversely affect the existing social-ecological and livelihood systems in the proposed project sites in Karatu district. The current climate trend and the continued global change in the climate system accelerates these effects and calls for adaptation actions in life supporting sectors such as water, agriculture and livestock. The requested funds from Adaptation Fund is viewed to support direct implementation of concrete climate smart innovations and built resilient economy and livelihoods of the people in Baray, Endamaghan and Mang'ola wards, the activities proposed by this project will be implemented to attain project objectives including its expected outputs and outcome to enhance adaptive capacity of marginalized communities in Baray, Endamaghan and Mang'ola wards and to increase their climate resilience to the adverse effects of climate change and variability without any other addition funds apart from the resources from the AFs' resources. The capacity gap relates to financial resources that existed to build concrete climate action in the project sites will be solely well addressed using the requested funds presented in this proposal. However, the resources will be amplified through the adoption of using Force Account Modality (FAM)

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Component 1: Enhancing integrated climate change resilient livelihood diversification in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

Baseline scenario **(without AF resources):** Without the AF project, rural communities at Baray, Endamaghan and Mang'ola wards in Karatu district will be forced to continue with their traditional hunting, gathering and black smith practices, which are vulnerable to climate change impacts. Limited availability of animals, leaves, seeds fruits and roots due to drought and unpredictable seasons have caused serious food insecurity and famine. Without AF resources, it means that no measures to improve existing livelihood productivity and transformation to climate resilient livelihoods for communities to be more climate resilient in Baray, Endamaghan and Mang'ola wards. This scenario will worsen the situation and the future. If this happened, vulnerable communities especially women will be more pushed into deeper poverty levels.

With AF funding: The requested AF resources will be sufficient to achieve the expected outcome and outputs including the adaptation objectives under this component. AF resources will therefore be used to facilitate improvement of existing livelihood systems and to introduce transformative livelihood systems for communities to be more climate resilient and adaptive to future effect of climate change (including increased mean annual temperatures and increased frequencies and intensity of droughts).

Component 2: Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District

Baseline scenario (**Without AF resources**): Without the AF Fund, it means that no actions will be taken to implement activities of the component 2 under this project, which means that present and future climate threats will continue to accelerates the existing water scarcity. Observed climate and weather extreme events such as droughts, and prolonged dry periods will continue to destroy livelihoods, notably water supply. In this manner, adaptation failure will be witnessed and the detrimental effects of climate change will be irreversible in the near future. Currently there are sufficient evidences that women in these areas are suffering the most and are now forced to walk longer distances searching for water. Such evidences on water scarcity driven by climate change have instigated increased social groups conflicts such as hunters and gatherers, farmers and livestock keepers including incidents of gender-based violence. Local communities in the project area have a low capacity to adapt such induced water scarcity due to poverty levels. Moreover, being a developing country; the Tanzania Government has low adaptive scarcity and inadequate financial resources to assist.

With AF Funding: the AF funding will sufficiently facilitate to meeting the expected outputs and adaptation objective of this component,) to enhance climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District. Financial resources from the AF will facilitate to build rural climate resilient water supply

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system adaptive to the current and future climate shocks in these communities and no other funds will be needed to achieve this. The empowerment of community groups, capacity building and the adoption of Force Account Modality and WUAs will provide sustainable supervision, operational, implementation and management arrangements for infrastructures to be developed to withstand the effects of the current and projected future climate change.

Component 3: Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

Baseline scenario **without AF resources:** Over years now, ecological and environmental systems in Baray, Endamaghan and Mang'ola wards have been impaired by both human induced and climate change related drivers. The original and natural ecosystems, covered by savannah thickets were degraded over the past 5-7 decades. There is continued trend of environmental degradation such as poor farming methods, deforestations, charcoal making and overgrazing in the project sites. Unless concrete adaptation approaches which integrate community and ecosystem based solutions to tackle climate change are implemented, the trend will continue with disastrous effect to the vulnerable communities.

The scenario **with AF resources**: AF resources will be used to implement concrete adaptation activities to enhance integrated management of environmental and forest systems to sustain climate sensitive rural livelihood systems in the project sites. The requested financial resources will therefore be used to establish and implement forest rehabilitation and restoration activities. Beekeeping activities including tree planting and windrows establishment will be sorely supported under this project. AF funds will also be used to facilitate campaigns on planting fruit trees as income generating activities including engaging Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in tree planting in their camps and homesteads and also around public institutions such as resource centres, schools and health facilities.

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Component 4: Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District.

Baseline scenario **(without AF resources):** Without the AF project, rural communities at Baray, Endamaghan and Mang'ola wards in Karatu district will be forced to continue with their traditional way of using local and traditional medicines for diseases and other ailments. Hadzabe (hunters and gatherers) have limited access to health service because of their livelihood style of moving from one place to another in search of water and food. It is difficult to ascertain the cause of deaths without proper diagnosis. Research shows that the leading causes of death are acute illnesses such as infectious and gastrointestinal diseases which contributed to about 70% of all deaths. About 20% of other deaths are a result of trauma including accidents and violence. These ailments require investigation and specialized treatment. Hunting, Limited availability of animals,

leaves, seeds fruits and roots due to drought and unpredictable seasons have caused serious shortage for medicinal plants roots and seeds. Without AF resources, it means that the existing measures do not reach the hunters and gatherers as they don't possess health insurance and emergency health services. If no measures will be put in place the vulnerable communities especially women and will be in danger of losing their lives.

With AF funding: The requested AF resources will be sufficient to achieve the expected outcome and outputs including the adaptation objectives under this component. AF resources will therefore be used to facilitate improvement of existing health systems particularly access to health services through provision of health insurance and emergency health services. The proposed project intends to introduce transformative health services for communities to be more resilient to health related effects of climate change.

Component 5: Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues.

Baseline scenario: **without AF resources**: At present Karatu district do not have adequate capacity to effectively support implementations and scale up climate adaptation. Without the AF project, it is likely that the pace to integrate adaptation issues into district development plans including and carrying out adaptation actions on ground will be slow and in most cases will be not possible. Without FA resources, vulnerable communities in wards of Baray, Endamaghan and Mang'ola wards in Karatu district are likely to continue with their unsustainable way of life which involves hunting, gathering and blacksmith practices which are also likely to limit their adaptive capacity in future.

With AF resources: Funds from the AF will perfectly be used to promote best practices and lessons in the course of project implementation to be effectively shared and communicated with key stake holders and decision makers in the district and beyond. This will pave a way to upscale and replicate outcomes and results in other places with similar environment. The requested AF resources are sufficient to achieve the expected outputs under this component.

J: Description on how the sustainability of the project outcomes has been taken into account when designing the project

The project's sustainability will be supported by emphasizing the active participation and other stakeholders in decision making and implementation of the project's activities and strengthening the institutional and technical capacity at community and district levels to ensure that stakeholders have adequate knowledge and skill to maintain the benefits of the project's interventions firmly in the local communities. By engaging, communities in the design and implementation of the project and creating WUAs and Cooperative societies and community groups Farmers/ beekeepers /livestock/tree planting Groups and community based enterprises; the KARAHADA project will empower and build capacity of local people to continue sharing local knowledge and adapting to climate

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change risks. Community ownership will also ensure that the environmental gains are not reversed. The proposed investment matches with government priorities set out in key national policy documents including the vision 2025, the third five years development plan, National Climate Change Response Plan strategic plan of Karatu District Council and the NAPA. Alignment with national priorities ensures Government commitment to project objectives during and beyond implementation. The operation of the project at the district authority headquarters will also ensure that district sectors and village level governments play a central role in terms of project implementation and ensuring sustainability through the irrigation of adaptation plans into district performance contracts to institutionalize and sustain community interventions.

The use of community animators to deliver project interventions will demonstrate the project's commitment to investing in local people and recognition that community members are best placed to lead the project implementation at the community level. The proposed components and interventions are rooted in the sectors that touch everyday life of communities in Karatu. By supporting adaptation measures to improve resilience to long-term and more sustainable solution to rural and vulnerable communities.

The proposed collective action, opportunities best practices, knowledge-sharing and communicating project outputs among departments, across sectors, districts and regions, and village communities in the district is viewed to accrue a disproportionately large benefit for life and livelihood quality improvement under the current and the expected future climate change effects, vis-à-vis the traditional and existing way of implementing development/adaptation projects using dis-integrated and isolated projects in the district.

The project will be implemented through the existing strong district institutions and village government structures by implementing their respective activities. Conduct technical trainings of trainers (TOTs) on maintenance and operation to selected communities members to ensure operations and maintenance of infrastructures beyond the project life time. For instance, activities under component 2 will also include training of selected members of Water Users Associations (WUAs) on operation and maintenance, revenue collection, group dynamics, accounting and financial management to ensure sustainability. Activities under component 1 and 5 will involve training of selected farmers on Farmer Field School (FFS) at Baray, Endamaghan and Mang'ola wards.

Equally, self - selected beekeepers will be trained on their maintenance and operation issues. For instance, it is designed here that, no beehives will be purchased for communities, rather experts and necessary workshop tools and equipments will be purchased and community members will be equipped with practical knowledge on modern beehives and honey processing techniques, including maintenance and operations. Activities under component 3 will also promote sustainable environmental and forest management including tree planting. The proposed investment corresponds with Government priorities set out in the District Strategic Development Plan for Karatu District. The Secretariat Strategic Development plan (2016/2021) being implemented 6 District Authorities including Karatu District, key national policy documents including the vision 2025, the third Five Years Development Plan (2021/2022- 2025/2026), climate change response strategy 2021, NDCs 2021 and the NAPA 2007.

Alignment with national priorities ensures government commitment to project objectives during and beyond implementation. The operation of project through the District Authority Headquarters will also ensure that District, sector users at the district and village level and the regional governments play a central role in terms of project implementation and ensuring sustainability through the integration of adaptation plans into District and village plans to institutionalize and sustain community interventions. This provides greater opportunity for regional government in Arusha and Central government to scale up the project outcomes after phasing out of the AF funding and interventions, through sharing and communications of the lessons learned.

K: Provide an overview of the environmental and social impacts and risks identified as being relevant to the project.

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Table 6: Summary of identified environmental, social and safety issues.

Checklist of Environmental and social principles.	No further assessment required for compliance	Risk and potential Impact	requirement	Management/ measures to address risk
Compliance with the law	Review has to be done annually during implementation of project to ensure compliance with change in law and regulation, also conformity with baseline condition set.	Risk: **low,** Potential impact: **High,** -workplace accidents -Child labor and women empowerment	-induction training, workplace awareness, provide personal protective equipment -prohibit child labor and implement laws and regulations specifically Tanzania vision, 2025	-conduct detailed environmental and social impact assessment (ESIA) before starting with any activity in which EMP and monitoring plan will be implemented during project activities -Work closely with NEMC and other regulatory bodies -The full proposal will be compliant with all relevant national laws and regulation including the bylaws set by Karatu District and project sites.
Access and equity	Adherence to existing policy laws and regulations on gender equality and equity	Risk; **low** Potential impact: **Low** -Misunderstanding can arise during member selection of committee or employment	-Ensure highly motivated, skilled, and understanding members and employees /workers selected from different communities where local leaders/ government are to be consulted	-The project will ensure equitable access to project benefits by all community members. -Involve the local community in decision making

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Marginalized and vulnerable groups	No change in vulnerable groups observed and were consulted	Risk: **Moderate** Potential impact: **Moderate/High** **-**Misunderstanding and discrimination may arise	-Failure to consult marginalized and vulnerable groups may cause the project to overlook their needs and hence denying them access to project benefits.	-Vulnerable groups have to be considered and be given chance to participate/ access the project activities and adhere to policies and strategies such as Tanzania Development Vision, 2025 -Though during proposal development marginalized and vulnerable groups were consulted, more intense consultations will be done during implementation phase particularly during establishment of community institutions.
Human rights	All rights are under control of National & international laws	Risk: Low Potential impact: **Moderate /High**	Not envisaged	The project will adhere to national and international human rights standards, policies, rules and regulations
Gender equity and Women's Empowerment	Counting of number of Men and Women involved in the project implementation	Risk: **Moderate** Potential impact: **Moderate/High** **-**Failure to involve women in project implementations and decision making as well	Establish a base/ procedure of involving women	-Gender will be mainstreamed in all project components
Core labor rights	Ensuring compliance with national and international labour laws and rights	Risk: **Low** Potential impact: **Moderate/ High** **-**Recurrence of incidents and accidents -Misunderstandings between employees and employer -Workplace hazards -Child labor	-Investigate all accidents & provide protective measure -Make employee to be member of trade union -Provide workplace protective equipment -Stop child labor	-The project will adhere to core labor rights during implementation of the project by involving government and its regulatory bodies like NEMC -Employee is a dedicated person to control all risk and accidents also to conduct training and awareness during project implementation.

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Indigenous people	Control for awareness of Immigrants	Risk: **Moderate** Potential impact: **Moderate/High** **-**Destruction of the project due to lack of awareness and involvement, strike and insecurity because they are skipped	-Involve the indigenous people in the project site for the project sustainability	-The projects' main target will be to address the needs of indigenous people for that to make sure they understand the positivity of the project

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Involuntary Resettlement	Stop settlement in selected project implementation site	Risk: **Low** Potential impact: **High**	Not expected	The project design does not require involuntary resettlement.
Protection of natural habitats	Soil profile study during ESIA	Risk: **Low** Potential impact: **High**	Project interventions should not lead to destruction of natural habitats	All project interventions will be conducted in a manner that leads to significant threat to natural habitats
Conservation of Biological Diversity	Consultation with Tanzania Forest Service Agency (TFS)	Risk: **Low** Potential impact: **High** -Introduction of trees can alter behavior of microorganisms, reptiles and birds life adaptation hence leads to loss of biodiversity	-Local tree species has to be planted rather than favoring exotic species -Follow regulatory rules	The sites for construction of rainwater harvesting reservoirs and dikes will be subjected to baseline assessment to determine existing species and assess any potential risk
Climate change	Not required	Risk: **Low** Potential impact: **High**	Not anticipated	The project will contribute to climate change adaptation. No GHG emissions are anticipated.
Pollution Prevention and Resource Efficiency	Not required	Risk: **Low** Potential impact: **High** -Waste generation causing disease eruption -Oil spills leads to hydrocarbons pollution	-Follow waste management hierarchy and laws in place -Use spill kits and conduct preventive maintenance on all vehicles and machines involved in project implementations	-Adhere to established national and international pollution standards. -Develop plan and procedures for waste management. -Correct waste and dump in designated areas under government guidance

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Public health	Health Screening for Malaria, Covid 19 and STD/STIs	Risk: **Low** Potential impact: **High** -Emergence of respiratory diseases -Sexual transmitted diseases outbreaks -Water born diseases -Covid 19 transmission	-Provision of Personal Protective Equipment in project implementation -STD awareness -Boiling and chlorination drinking water - maintaining social distance, wearing masks and washing hands with running water particularly at camp sites	-The project design will ensure that public health is not adversely affected by following sanitation procedures -Abide with all requirements for Association of Tanzania for employees (ATE)
Physical and Cultural Heritage	Not required	Risk: **Low** Potential impact: **Moderate/High** -Deterioration of archeological sites without thorough and careful site selection especially during construction of water infrastructure	Conduct ESIA identify all archeological and heritage sites	Involve indigenous people during project implementation and ensure consultations with archeologists -Stop activities for the area where cultural heritage being identified and inform the authority.
Lands and soil conservation	Soil profile study	Risk: **Low** Potential impact: **Moderate/High** -Alteration and modification of soil profile and structure -Soil and land pollution/degradation	Ensure soil leveling at the end of the job -Soil grouping respect to structure and profile during striping and or pushing/dozing -Sensitize the use of fertilizer	The project will promote conservation of soil and land resources - Proper fertilizer and pesticides applications

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PART III: IMPLEMENTATIONARRANGEMENTS

PART IIIA: Project Management Arrangements

The National Implementing Entity (NIE):

The project will be implemented by the National Environment Management Council (NEMC). NEMC has a significant experience in implementing projects and programs of this nature, with dedicated groups/unit for climate change adaptation and executions of the NIE mandate relate to the AF operations in the United Republic of Tanzania. The following are the implementation services that will be provided by NEMC under this project:

- Overall coordination and management of NIE functions and responsibilities
- Facilitate interactions with AF secretariat and other related stakeholders at global scales
- Oversight of project implementations and reporting on budget performance
- Quality assurance and accountability for outputs and delivery during project development, implementation and on completion phase;
- Receipt, management and disbursement of the AF's funds in accordance with the financial standards of the AF:
- Oversight and quality assurance of evaluation processes for project performance and ensuring that lessons learned/ best practices are incorporated to improve future projects in the United Republic of Tanzania; and
- General administration and support costs including legal services, procurement and supply management, IT and human resources management

The Executing Entities: Karatu District Council and

Karatu District Council and Haki Kazi Catalyst (HKC) will be the overall coordinators of the project, through the services of a project management unit (PMU), which will be staffed with a project coordinator , an assistant project coordinator, a project driver and a project accountant are referred here as project personnel and will be sourced from the existing staff within Karatu district council except the project coordinator will be sourced within the existing staff within NEMC. Strong participation of other District staff will be at project implementation level as activities involve cross- sectoral coordination. A project steering committee of Karatu District Council. The secretariat of the committee will be the PMU through the District Executive Director (DED) and the Executive Director of HKC. The members of project steering committee will be the DED of Karatu District Council, District Planning Officer, one representative from each of the following sector ministries: ministry responsible for Local governments, the ministry responsible for livestock, ministry responsible for agriculture, the ministry responsible for environment and climate change, the ministry responsible for forestry and natural resources. Other members will be an officer from the National Environmental Management Council (NEMC), one member from HKC, one from Tanzania Meteorological Agency, one member from RUWASA Karatu. Heads of Departments from Karatu District Council and HKC will be invitees. The following table presents the list of proposed project partners.

Table 7: Summary of analysis of possible project partners.

STAKEHOLDERS	RESPONSIBILITIES
PRSIDENT'S OFFICE REGIONAL ADMINISTARTION AND LOCAL GOVERNMENT(PORALG)	PORALG is mandated for Administration and Management of Regional Secretariats and Local government Authorities. PORALG will be responsible for Coordination of Regional and District Climate Change Interventions. PORALG will be part

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STAKEHOLDERS	RESPONSIBILITIES
	of the Steering Committee
VICE PRESIDENT'S OFFICE (VPO)	The Vice President's Office and the NDA to the Adaptation Fund and is the Focal Point to the UNFCCC. The VPO is also responsible for coordination and overseer of all climate change activities in Tanzania. Thus this project will use the VPO to ensure its implementation which contributes to the objectives articulated in the climate change strategy, NDCs, NAP and NAPA documents. VPO will chair the Steering Committee
MINISTRY OF FINANCE AND PLANNING	MoF will be responsible to ensure all project components and in-line with national development plans, visions and strategies. MoF will be part of the Project Steering Committee.
MINISTRY OF WATER	MW is responsible for water supply, water resources management and irrigation issues. This project will utilize.MW will be part of the Project Steering Committee
MINISTRY OF AGRICULTURE(MoA)	MoA is responsible for agriculture development issues in Karatu. All agricultural related activities will be implemented under MoAs guidance. MoA will be part of the Project Steering Committee
MINISTRY OF LIVESTOCK ANDFISHERIES DEVELOPMENT (MOLF)	This project will utilize experiences and technical capacity of MoLF to implement livestock activities. MoLF will be part of the Project Steering Committee
ARUSHA REGIONAL ADMINISTRATION SECRETARIAT (RAS) OFFICE	Arusha Regional Administration Secretariat (RAS) office widely involved in a project design will be involved in the implementations and providing policy guidance to the management unit of the project. RAS will be part of the Project Steering Committee and various reports during the designing and implementations will be communicated to the RAS.
TANZANIA METEOROLOGICAL AGENCY (TMA)	Responsible for weather and climate related information, and will be key stake holder during the implementation and post implementation stages of the project. TMA will be part of the Project Steering Committee
TANZANIA FOREST SERVICE AGENCY (TFS)	Tanzania forest service agency is seen as a potential and strategic stakeholder for tree planting, afforestation and ecological rehabilitation and restoration activities. TFS will be part of the Steering Committee.
RURAL WATER SUPPLY AGENCY-RUWASA (Karatu Office)	This is National Authority responsible for water supply in rural areas; RUWASA is a technical arm of the government for management and development of water supply infrastructures in rural areas. RUWASA in KARATU will be responsible to implement some activities related to underground water drilling and supply system activities.
HAKI KAZI CATALYST	Haki Kazi Catalyst is a key stakeholder for providing training and support for Karatu District Council. They have experience of building community institutions amongst Nothern highlands tribes. They have worked in Karatu district in other projects. HKC will be part of the steering

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STAKEHOLDERS	RESPONSIBILITIES
	committee
LAKE EYASI OPEN SCHOOL AND HELP OTHER PEOPLE TO EXCEL TANZANIA FOUNDATION	This school offers integrated Post primary Education (IPPE) through Open and distance learning will be a key stakeholder in provision of training to communities. It will be used for tailor made courses as agreed by communities and stakeholders. The school has learning facilities and accommodation and provides health services to communities within lake Eyasi and beyond.
LOCAL NGOS, SOCIAL GROUPS AND CBOs	Non-governmental organizations, community-based organization are very few in number, and most of them are not active. However, few of them such as World Vision and Convoy of Hope operates in the project area. Informal and community-based organizations such as farmers, livestock and other social organizations exist in Karatu. These are key partners for developing and operate to the project. Additionally, are key beneficially of results and outcomes of the project.
PRIVATE SECTOR PARASTATAL AND GOVERNMENT AGENCIES.	This project will attempt to maximize linkages of beekeepers, farmers and livestock keepers, jewelers and black smith to markets and financial institutions and buyers of agricultural and non-agriculture products.
DIRECT BENEFICIARIES	Direct beneficiaries of the KARAHADA project are the vulnerable and marginalized communities in Karatu district, Particularly Hadzabe (hunters and gatheres) and Datoga (blacksmith) communities. These are key stakeholders and will be widely involved widely during plan, implementation and monitoring of the KARAHADA project.

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Project Management Unit:

The project Management unit will be established and hosted at the headquarters of the Karatu District Council, which will be responsible for day to day management of the project activities and facilitate stakeholders and engagement. The PMU will be comprised with full time Project Coordinator (PC), full time M & E officer, full time financial and accountant (FA) and full-time driver and personal secretary (PS). The project coordinator main responsibility is to ensure that the project produces the results specified in the project document to the required standard of quality and within the specified constraints of time and cost. The annual work plan is prepared by the project coordinator, presented to the District Executive Director (DED) and to the HKC management and approved by the Project Steering Committee. However, NEMC will be in the

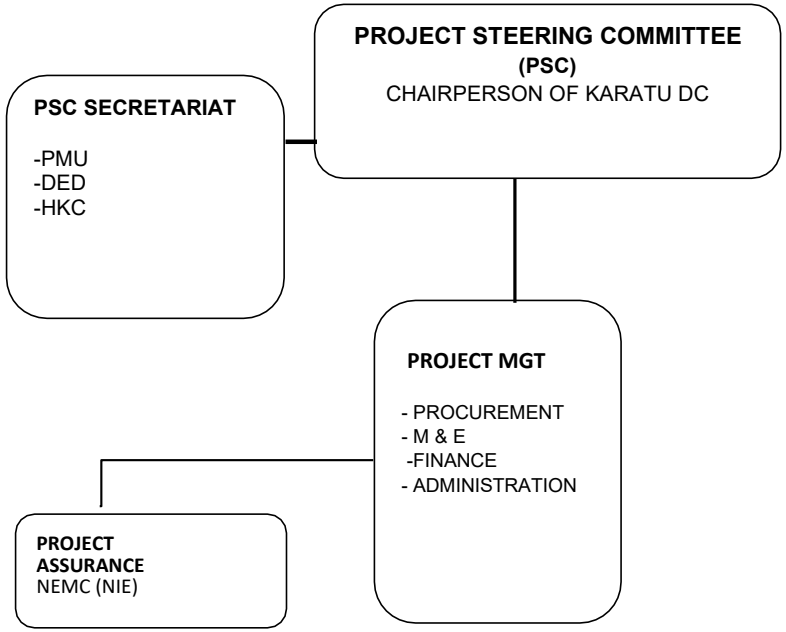
steering committee to ensure its quality assurance role, provides and be part of the final approval. The project coordinator is also responsible for managing and monitoring the project risks initially identified and submit new risks to the Project Steering Committee for consideration and decision on possible actions if required and updates the status of these risks by maintaining the project risks log according to the AFs guidelines. The key functions of the PC will be the following:

- Oversee and manage project implementation, monitor work progress, and ensure delivery of outputs and within the specified constraints of time and cost as outlined in the project document.
- Report to Karatu district / HKC and PSC regarding project progress
- Develop and facilitate implementation of a comprehensive monitoring and reporting system
- Ensure timely preparation of detailed annual work plans and budgets for approval by the PSC
- Assist in the identification, selection of consultants and other experts as required;
- Supervise, coordinate and facilitate the work of the administrative/ technical team (consisting of the assistant coordinator, finance/ administration staff and consultants)
- Provide input to management and technical reports, and other documents as described in the M & E plan for the overall project. Reports should contain assessments of the progress in implementing activities, including reasons for delays, if any and recommendations on necessary improvements.
- Inform the Karatu district Authorities/ HKC and PSC without delay of any issue or risk which might jeopardize the success of the project.
- Liaise and coordinate with NEMC on a regular basis

*See Annex 3 for the summarized Terms of reference of the **Project Coordinator***

Because most activities are field work and will involve extensive services and training on FFS and FFFS, purchasing one field vehicle will be necessary in order to ensure that the PMU has required capacity to monitor and supervise project activities.

Figure 8: The management arrangements for the project are summarized in the chart below.



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PART IIIB: Describe the measures for financial and project risk management.

a) Financial and project risk management

Describe the measures for financial and project risk management

The project anticipates various risks during the implementation phase as summarized in table 9. Strict precautionary measures for the identified financial and project risk management have been formulated to force those risks before they open. The risk categories are related to delayed time for project implementations and conflict management are pertinent risks of the proposed project. These are rated low, but those risks related with limited stake holder's involvement and natural and environment hazards are rated low to medium.

Table 8: Risks and management measures.

S/No	Identified Risks	Level of Risk -Low - L -Medium - M - High-H	Mitigation Measures
1	**Competing interests between different stakeholders regarding accessing and use of project benefits and related resources**	L	Establish multi-stakeholders' forum to discuss and deliberate on accessing and us e of project benefits and related resources
2	**Local communities with limited participation and willingness to promote project initiatives**	L	Increase awareness campaign about the importance of communities at village community levels to actively participate and own the project , working with available set up of village government and community structures, active involvement of community organizations in project implementation

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3	**High expectations for quick investments on the ground and resources beyond the available project resources**	M	Continue with awareness raising campaign to foster more understanding about the project objectives and activities under the components and implementation arrangements
4	**Project financial management**	L	The project will have clear separation of roles and strengthen accountability and auditing
5	**Delay in project implementation due to government bureaucracy, long and inefficient procurement processes**	L	Detailed Implementation Plans (DIPs) and Project Annual Plans (PAP) will be developed and be approved by both the Project Steering Committee (PSC) and National Implementing Entity (NIE). The project monitoring and evaluation plan will also be developed and implemented effectively. Developing a procurement plan and use flexible procedures under HKC and Negotiate with Government at Karatu district to get special treatment that can fast-truck implementation
6	**Limited Stakeholders Involvement**	L	All stakeholders were widely involved in all phases of the project from early stages of the project design, and will continue to be involved during implementation, monitoring and evaluation. Involvement of key stakeholders at community level and inclusion of marginalized communities and groups such as women, local leaders, and community beneficiaries, Karatu DC and other public service organizations will facilitate to mitigating any risks related to stakeholders' involvement.

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7	**Low adoption rate of proposed innovations and adaptation technologies by communities**	M	Promotion and demonstration of new technologies and practices
8	**Financial Risk**	L	There are clear financial management structures in the district that will be followed. These structures follow national laws and regulations governing public financial expenditures and transactions. Therefore, this project will adhere to all Generally Acceptable Accounting Principles (GAAP) regarding control, transparency and documentation, and have procedures and necessary infrastructure in place for an appropriate audit system by the Office of Auditor General or any other internationally accepted auditing firm. Approved regulations, procedures and guidelines on costs for services & goods of the United Republic of Tanzania including the Adaptation Fund Standards will be strictly followed
9	**Conflict Management**	L	Although it is not expected that any conflict will rise during implementation of this project, the NIE management and conflict resolution structure/mechanism and its oversight and support role will be followed and respected to management any unforeseen conflict which may rise during lifetime of the project phases. Additionally, the PSC and the PMU will put strong early warning structure to foresee and management both financial and management risks before they happen

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

Environmental and social impacts and risks have been identified for the proposed project (Section II K). Following this, a broader view of Environmental and Social Management Plan (ESMP) for the proposed project will be developed in collaboration with relevant stakeholders and authorities including NEMC Further detailed ESMP for anticipated intervention will be formulated during the inception workshop.

Table 9: Anticipated Environmental and Social impacts and risks management

Environmental and social principle	Identified potential impacts and risks	Level (H, M, L)	Mitigation measures
Compliance with the law	Some activities under component 1 and 2 which are currently not fully itemized/ designed there might be a risk that such activities will not comply with certain laws	L	Environmental and Social Management Plan (ESMP) will be prepared and will be adhered to monitor implementations of on the ground concrete activities such as water supply and micro- irrigation
Access and equity	Given that the beneficiaries are rural people and marginalized poor families who are not often integrated in the village politics and decision-making processes, there could be a risk of insufficient access of the project resources by these people	L	Clear and transparent criteria have been put in place including selection of participants the trainings ad workshop. Measures have been put in place to enable this project to closely monitor all targeted beneficiaries to assure equal access of men, women, youth and the most vulnerable groups. Indicators in this regard will be included in the monitoring and evaluation plan

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Marginalized and Vulnerable Groups	It is probable that project activities may exclude marginalized/ and vulnerable groups at various project sites or may have insufficient access to project resources and total involvement to execute project activities durin g implementations thus preventing them from accessing benefits – both in terms of resources and trainings	M	The prepared ESMP will be followed and monitored strongly during the implementation of all interventions to ensure all marginalized and vulnerable groups have adequate access to and benefit from the project interventions. In addition, the project design has ensured that benefits accruing from the project interventions – including technology transfer and awareness-raising activities – reach marginalized and vulnerable groups in the rural villages. The design of this project ensures that all components enhance the adaptive capacity of marginalized and vulnerable groups including

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			Transforming their social life to better levels especially for women and girls
Human rights	Project objectives promote basic human rights for equitable access to service and safe drinking water, access to food and quality and health environment	N/A	The proposed project respect and adhere to all relevant convections on human rights, national and local laws in relation to human rights
Gender equity and women's empowerment	It is likely that women will be inadequately represented during the implementation of this project, thus making the project not benefiting men and women equally	H	This project has put measures to include … % ratio for gender consideration during implementation of all project activities under the four components. Fair and equitable selection of beneficiaries will be done and a list of all beneficiaries to each project activities will be maintained and monitored by the PMU and NIE on quarterly basis
Core labor rights	There is a possibility of communities/ beneficiaries who will be involved to implement activities using force account modality components 1, 2 and 3, to be exposed to the risk of minor and unforeseen accidents	L	The PMU will ensure compliance with the National and international labor laws and standards required relevant protection gears will be adequately provided
Indigenous peoples	According to Tanzania laws, there are no indigenous people identified in the proposed project sites	N/A	ESMP will be monitored to ensure equitable access to project benefits and resources by local people and to the most extent communities at grass- root and relevant marginalized community groups are included in community consultation and during participatory planning activities
Involuntary resettlement	No identified risk	N/A	The project design does not include voluntary or any involuntary resettlement

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Protection of natural habitats	There is a low risk that the interventions of concrete adaptation actions such as boreholes, rural water supply network, water tanks and micro- irrigation system could result in destruction of small areas of natural habitat.	L	ESMP has been prepared to monitor executions of such interventions. Activity based resettlement will be conducted during implementation phase
Conservation of Biological Diversity	Execution of concrete adaptation actions under components 1, 2 and 3 may	L	ESMP has been prepared to guide and monitor executions of such interventions. Activity based

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	Result in negative impacts biodiversity		Mitigation measures has also been developed under the ESMP to be followed during the implementations
Climate change	No identified risk	N/A	None of the project activities will enhance significant emissions of green house gases
Pollution prevention and resource efficiency	No identified risk	N/A	The proposed project is visualized to cause no any harm or pollution.
Public health	No identified risk	N/A	The proposed project enhances the quality of public health. Indeed, through components 1, 2 and 3, contribution of this project to the general public health is clear. During the implementation of the project awareness rising activities will be undertaken on malnutrition related diseases, malaria and water related diseases including cholera and promote WASH issues through implementation of activities under component 1, 2, 3 and 4.
Physical and cultural heritage	None anticipated	N/A	No physical and cultural heritage sites which exists in the project sites
Lands and soil conservation	None anticipated	N/A	The ESMP recognized that, most of activities of this project is designed to enhance and promote conservation of soil and land resources. The continued degradation of the land resources will be reserved through small interventions for components 2 and 3

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It should be clearly understood that, this project is designed in consistence with Environmental and Social Policy of the Adaptation Fund. However, the proposed activities will be reassessed and monitored as per the ESMP at every stage for potential social and environmental risks to ensure that potential adverse impacts are avoided, or where avoidance is not possible, minimized, mitigated, and managed. Although the AF's Environmental and Social Policy, a project can be categorized as either A, B or C, it has been revealed by initial discussions that, this project is unlikely to pose any significant adverse social and environment impacts. The already identified social and environmental risks are expected to be localized and minimal as most of proposed

interventions are largely considered “green”. Thus, this project is classified to be under Category B in the classification of the AF’s Environmental and Social Policy.

Grievance mechanism

Grievance mechanisms are proven tools in helping institutions minimise harm to communities and ecosystems by protecting the existing rights, obligations and standards. The proposed project has included a mechanism to manage conflicts/grievances. The Project will utilize the existing grievance mechanism in the United Republic of Tanzania to allow affected to raise concerns that the Project is not complying with its social or environmental policies or commitments. It will be the responsibility of the Project Coordinator, PMU and the Karatu District Council/HKC to ensure that all relevant stakeholders are adequately informed of the grievance mechanism.

The United Republic of Tanzania has established grievance mechanism through the Employment and Labor Relation Act, 2004 and the Environmental Management Act, 2004 through the Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) for all climate change related projects. Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) inform and guide all Actors and persons affected by any projects on bringing forward and responding to stakeholder concerns.

In this regard, the Project Manager/executing partners (in this project the PMU at Karatu District Council Headquarters) are usually the first point of contact for any project-related complaints from stakeholders. The Project Manager and project team should respond promptly and appropriately to a complaint with the goal of avoiding escalation to the Higher Authorities for Stakeholder Safeguard- related Response.

The Project Coordinator can direct the complainants to write a letter explaining through relevant organs established from the village levels. The concerns cam be submitted it to the District Executive Director’ Office for Stakeholder Safeguard-related Response if the issues cannot be resolved at the project level. The PCr should advise complainants to provide complete information, so that the DED’s Office can properly assess and address the complaint. If the DED’s Office for Stakeholder Safeguard- related Response finds that the complaint is eligible, s/he forms a team composed of internal experts to investigate the case and propose options for the complainant to consider.

PART III D: Description of the monitoring and evaluation arrangements and provide a budgeted M&E plan, in compliance with the ESP and the Gender Policy of the Adaptation Fund.

The project will comply with formal guidelines, protocols and toolkits for quality assurance issued by the AF and NEMC. NEMC will develop a supervision plan during the projects inception phase which will be distributed and presented to all stakeholders during the inception workshop. The emphasis of the supervision plan will be an outcome monitoring, learning and sustainability and financial management. Project risks and assumptions will be regularly monitored by NEMC. Risk assessments and rating will be an integral part of the project implementation Review (PIR). The quality of the projects M& E will also be reviewed and rated as part of the PIR. Appropriate financial parameters will be monitored semi- annually to ensure the cost-effective use of financial resources.

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An independent final evaluation will take place three months prior to the project’s end date in accordance with the available guidance of NEMC as the NIE. The final evaluation will focus on the delivery of the project’s results as initially planned- and as corrected after the mid-term evaluation, if any such correction took place. The final evaluation will assess the impact and sustainability of results, including their contribution to capacity development and the achievement of adaptation benefits. Both expected and un expected impacts will be investigated to inform the situation before and after project implementation.

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An annual project progress review (PPR) will be undertaken and its results will be used for improving planned activities for the next financial year and phase. PPR will be prepared to monitor progress made since the project's start and in particular for the previous reporting period. The annual reviews will cover performance, outcome and output of the activities. Generally, the PPR will include but is not limited to reporting on the following

- Progress on the projects' objectives and outcomes – each with indicators, baseline date and end -of project targets (cumulative);
- Project outputs delivered per project outcome (annual)
- Lessons learned/good practice
- Annual work plan and expenditure reports; and
- Project risks and adaptive management

Quantitative and qualitative approaches will be used for quantification and qualification of information gathered. A solid monitoring and evaluating system will be put in place and will base on the indicators and means of verification defined in results framework. Monitoring and evaluation system will be linked to results framework, annual work plans and budgets. In addition the project will commission an audit (to be certified auditor) of project accounts to ensure compliance with the AF and the government rules and procedures. Table 11 summarizes the budget of the M &E plan

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Table 10. Project monitoring and evaluation work plan and budget

Activity	Responsibility	Budget in US $	Timeframe													Notes
			2022	2023				2024				2025				
			Quarters	Quarters				Quarters				Quarters				
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Inception and annual workshops	Project Manager M& E officer/ project management unit (PMU)	10,000														Will be done soon after receiving funds
Initial studies to improve baseline, gender analyses, environmental and social impact assessment	National consultant, Project Coordinator and M & E officer	10,000														Will be done at the beginning of the project implementation
Monitoring project outputs by project management team and reporting	Project manager and monitoring and evaluation officer	18,000														Will be done quarterly and the need basis
Visits to field sites for joint review of status and project progress and reporting	Project team	20,000														Will be done on need basis
Independent final evaluation	National consultant	15,000														Will be done at least two months before project closure
Audits and final project audit	Chief Auditor General	8,000														Will be done at least two months before the end of the project
Total M & E costs		71,000														

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PART 111 E: Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.

The results framework of the project defines success indicators for project implementation and the respective means of verification. A monitoring and evaluation system for the project will be established, based on the indicators and means of the means verification, will be confirmed during the launching event expected in October 2022

Any changes to be done to the results framework will require approval by the Project Steering Committee. The inception workshop is crucial for enhancing understanding of the projects and its implementation, building ownership for project results and agreeing modalities of project execution, documenting mutual agreement for proposed execution arrangements amongst stake holders and beneficiaries.

Table 11: the results framework with indicators to output level, baseline, targets, sources of verification and assumptions

Project component	***Project outcome***	***Project output***	***Output activities***	***Baseline indicators***	***Means of verification***	***Baseline levels***	***Project outcome indicator***	***Results/ gets***
	Project goal; To contribute to building adaptive capacity to manage climate related risks and to reduce vulnerability of Hadzabe (hunters and gatherers) and Datoga (black smith) rural communities of Karatu district							
1..Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District	Increased food security, income and resilience to climate change impact through Climate Smart practices in selected wards	1.1 Improved bee keeping initiative for food security and increased household income. .	1.1.1 Train communities on bee keeping practices 1.1.2 Provide modern beehives and related equipment. 1.1.3 Build capacity on honey processing and marketing 1.1.4 facilitate community to establish cooperative beekeepers association	- number of communities trained on bee keeping practice - Number o -Number of communities trained on processing, marketing and group formation - Number of communities capacitated	-Number of modern bee hives made -Number and gender of community trained on modern beekeeping including honey processing and packaging -Number of cooperatives established	…% required beehives …% of communities with bee keeping skills Beekeepers cooperative societies	%of Hadzabe (hunters and gatherers) and Datoga Communities transformed to adopt to diversified climate smart and sustainable livelihoods.	~~…% of communities undertaking climate change livelihood diversified systems~~ Population 30596 people of which 60% are female and 40% male Increased food security in Karatu District by 70% benefitiing about 60% females and 40% male 200 hadzabe and Datoga community

Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
				to establish cooperative society		exist		members will be trained in farming practices of which 60 % are women and 40 % male 1500 bee hives will be installed in the community forest with beneficiaries being 60% male and 60 % female 60 families of Datoga blacksmiths will be enabled to make energy saver stoves and briquettes.
		1.2 Use alternative source of biomass energy promoted	**1.2.1**Training Datoga (blacksmith) communities on the use of sustainable source of energy	- Number of communities trained on sustainable use of alternative source of energy	Number and age of communities trained on sustainable use of alternative energy	Knowledge and skills on alternative sources of energy exists		
			1.2.2 Training Datoga for cooking and forging tools on how to make energy saver cooking stoves	- Number of communities trained on how to make energy saver cooking stoves	Number and gender of communities trained on making energy saver stoves	Number of stoves made		
			1.2.3 Training Datoga (blacksmith) on making alternative energy products e.q briquettes	- Number of communities trained on how to make alternative energy products	Number and gender of communities trained on making alternative energy products	Number of products made		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
			1.2.5 Supporting Datoga (blacksmith) to establish and operate energy saver community group	-Number of communities capacitated to establish community group	- Number of community groups established	Community groups exists		
		1.3 Introduction of improved breeds of rabbit and poultry for food security and income	**1.3.1** Training women men and youth on Poultry and rabbit production	- Number of communities trained on Poultry and rabbit keeping	-Number and gender of communities trained	Poultry and rabbit keeping skills exists		
			1.3.2 Construction of simple poultry and rabbit houses	- Number of communities facilitated to construct poultry and rabbit houses	- Number and gender of communities facilitated	-Number of poultry and rabbit houses - Construction skills exists		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
			1.3.3 Provision of startup capital in form of local pullet, cocks, does and buck to the communities	- Number of communities supported with startup capital	- Number and gender of communities supported to start production of chicken and rabbit	-Number of communities keeping chicken -Number of communities keeping rabbits		
			1.3.4 Provision of feed, supplements, - veterinary drugs and equipment/utensils					
			1.3.5 Establishment and building capacity to operate poultry/rabbit producers group	- Number of communities capacitated to establish community group	-Number of community groups established	- Community groups exists		
		1.4 Production of diversified cultural and nature-based tourism products for Hadazabe (hunters and	**1.4.1** Train women and youth on jewelry and leather quality and marketing	-Number of communities trained of quality jewelry and leather making	- Number and gender of communities with improved skills	- quality jewelry and leather making skills exists		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
		gatherers) and Datoga (blacksmith) women, men and youth improved	**1.4.2** Promote the jewelry and leather business amongst women and youth	- Number of communities facilitated to motivated to engage in jewelry and leather business	- Number and gender of communities operating jewelry and leather making business	- Business skills for jewelry and leather product exists		
			1.4.3 Provide support and capacity for women and youth to form jeweler's and leather makers groups	-Number of communities capacitated to establish community group	-Number of community groups established	- Community groups exists		
		1.5 Identification and production of suitable traditional and modern crops for enhanced food security and increased	**1.5.1** Training of men, women and youth on production of selected traditional and modern crops	- Number of communities trained in crop production	Number and gender of communities trained in crop production	- Crop production skils exist		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
		household income in selected villages of Baray, Endamaghan and Mang'ola improved	**1.5.**2 Establishment of at least 10 acres as demonstration farms (Field Farm School-FFS) across 8 villages within the targeted three wards	- number of communities participating in demonstration farm	- Number of hectares of used as demonstration farm	- ..% of communities undertaking crop production activities		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
2.Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatheres) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu District	Enhanced climate resilient rural water supply system in vulnerable communities in Karatu district	Climate resilient rural water supply system established in Hadzabe (hunters and gahthrers) and Datoga (blacksmith) communities in Karatu district	2.1.1. Drill boreholes in drought prone and water scarce villages and install solar energy driven water pumps	- Number of borehole and number of solar pumps installed	-Number of boreholes drilled -Number of purchased and installed solar energy driven water pumps	…% of required boreholes …%– water pump driven by solar energy	…% coverage of climate resilient rural water supply system in Hadzabe(hunters and gatherers) and Datoga (blacksmith) communities in Karatu Districts	~~…% e vulnerable agro- pastoral communities of Karatu district have access to climate resilient rural water supply system~~ Atleast 30,596, people of which 60% are female and 40% male for Hadzabe and Datoga communities and beyond in the project areas of Karatu

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
			2.1.2. Construct water storage tanks and distribution network systems at selected wards in Karatu district	Number of water tanks constructed ; kilometers/ meters covered by water networks	number of water storage structures and distribution networks constructed	… %water networks		District will have access to clean and safe water at the beginning of the project About 1,500 people of which 60% are female and 40% male will benefit from crop production and livestock keeping for improved food securuity and climate resilienc. 8 WUAs from every selected village COWSOSwill
			2.1.3 Construct community water points/ community water kiosks for network systems	Number of water kiosks constructed	Number of community water points/ community water kiosks	… % of community water points/community water kiosks exist		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
								be established , well manged and with atleast 50% of members being female 10 boreholes and supply systems will be constructed and put in place
		2.2 establishment of community Water User Associations (WUAs) facilitated and their functional committee members trained in maintenance and operation	2.1.1. Establish and/or strengthen water governance structures/arrangements for Water User Associations(WUAs)s tobetter manage water source	-.Number of WUAs established	-Number of WUAs established	…% committees exist and has effective management structure at the Karatu district		
				-Number of WUAs	Training reports			

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
				member trained on the effective water uses and manage ment	Number of by laws on the effective water uses and management	… by laws exist		
			2.1.5 Establish women-based gardens and poultry houses and trainings on FFFS (female farmer field school) provision of seeds and tools to diversity gender-based livelihood system	Number of gardens established women. Number of women attended FFFS and training	Number of gardens established by women Number of women who attended FFFS	More than …% of women engage in traditional agriculture		
		2.3 Improved market value chain of agro-pastoral products on farm and off farm products to strength their competition power in the	2.3.1 Facilitate and train farmers and livestock keepers on value addition and packaging techniques of their agricultural products and link them to markets and finance institutions	Number of local farmers and livestock keepers' access improved market	Number of local farmers trained on market and financial issues, Number of local farmers and livestock keepers' access to improved market	Availability of farmers and livestock keeps organized in informal groups		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
		market and diversify livelihood systems in the project sites	2.3.2Facilitate provision of Value addition and packaging tools, equipment's and machines	Training Reports and equipment for improving quality and packaging of agricultural products	Number of Machines and equipment for improving quality and packaging of agricultural products	… machines and equipment		
3. Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District	3: Improved forest services and functions to sustain climate sensitive rural livelihoods in Karatu district	3.1.Integrated forest management systems implemented in Karatu district to sustain climate sensitive rural livelihoods in vulnerable communities	3.1.1 Establish and implement forest restoration and rehabilitation plans (such as tree planting in selected wards in Karatu District	Number of trees planted, woodlots established	Number of hectares restored	Number of villages with forest rehabilitation restoration plans	Number and type of forest maintained and improve to enhance their functions and services under the climate and weather seasons	~~Restore a~~ ~~rehabilitate at least …% hectares of the defrosted forest in Karatu district to sustain climate sensitive rural livelihoods~~
			3.1.3 Promote tree planting activities in residential areas, along streets and roadsides and in the degraded areas.	Number of trees planted, number of kilometers or acres covered by	Number of trees planted	Availability of some tree nurseries in local communities		Atleast 100 hactares of degraded ecosysytem will be rehabilitatat

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
				planted trees				ed and resored in project sites Atleast 20 community groups involved in tree planting activities of which 60% are women will be formed Atleast 1500,000 trees will be planted in the three wards of Baray, Mang'ola nad Endamargh an
			3.1.4 Promote best available techniques (BAT) and best available practices (BAP) on the use of efficient firewood and charcoal stoves in rural villages	Number of improved charcoal and firewood stoves	Number of improved charcoal and firewood stoves	…% of improved charcoal and firewood stoves available in the project sites		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
4.Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District	Improved Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in Karatu District improve	Resilient health systems strengthened at Karatu District to be able to with stand health related impacts of climate change and variability	**4.1.1** Conduct Climate Vulnerability assessment for a comprehensive action plan in health sector at Karatu District Council	Potential health and climate change risks and vulnerabilities documented	Number of Risks and vulnerability identified and assessed	Availability of compressive vulnerability plan for Karatu District council	Number and type of health services provided to enhance resilience of communities against climate change health related impacts	~~Improve a~~ ~~restore health and sanitation of ..% communities in Karatu District to sustain climate sensitive rural livelihoods~~ Atleast 600 community members will be supported with improved community health insurance for prevention and treatment of climate change releted health problems 8 Community resources centres will be established and supported to provide community services including emergency health services
			4.1. 2 Mainstream Climate change issues into health projects and programmes at Karatu District	% of informed District health related guidelines or action plans integrated	Number of guideline/action plans/intervention integrated	Availability of guidelines/action plans /intervention on climate and health		
			4.3 Create Community awareness on climate related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District	-Number and types of awareness materials -Number and type of knowledge dissemination pathways -number and gender of beneficiaries	-Number of awareness materials Prepared -Number of beneficiaries	% of women and men benefitting from health services		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
								Atleast 16 youngpeople will be trained to volunteer to provide support in the resource centres of which 50% will be females and 50% males
			4.4 Climate smart community health resource centres in selected villages of the three wards of Baray, Endamaghan and Maong'ola built, re- tooled and strengthened	- Number of community centres built and furnished - Number and gender of communities with improved Health Insurance - number and gender of communities supported at community Centres – Type of services provided at community	Number of communities supported in health services	Number of insurance cards provided		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
				centres				
5.Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate	5.Strengthened institutional and technical capacity to reduce risks associated with climate induced livelihood failures in Karatu district	5.1 Institutional and technical capacity of the district and communities in Karatu District strengthened to be able to with stand impacts of climate change and variability	5.1.1 Develop detailed training plan to guide the capacity building program for the project.	Number of communities and district staff trained	Number of communities and district staff trained	Available staff at the district and communities' women and men to be trained	At least …% of district staff and local communities trained on climate change management issues	~~Over …~~ ~~knowledge products (IEC) developed and distributed …~~ ~~radio talk shows on project implementation and adaptation issues~~ ~~Web portal for interactions on project success and challenges~~ Over 250 knolwdge
			5.1.2 Develop training modules to build capacity of stakeholders on a continuous basis in all project sites	Training reports, number of training materials developed	Training reports, number of training materials developed	… relevant training modules available at the district,		
			5.1.3 Established community adaptation committees	Number of committees established and trained	Number of registered committees, Number of topics/areas trained	Selected communities committee members women and men trained		

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
change adaptation interventions and improve level of understanding of climate change related issues			5.1.3 Review and mainstream climate change adaptation measures into sustainable development plans at district village levels	Number of development plans reviewed to integrated climate change issues	Number of development plans reviewed to integrate climate change issues, number and type of climate related risk reduction strategies developed at district level	Available district development plans, even at ward and village levels		products will be produced , translated and distributed . 36 radio talk shows in both Kiswahili and Hdza/Datoga local languages will prepared to bradcast on project implementation and climate adaptation issues, making sure 50% of participants are women -A web portal within Karatu District Website will be put in
			5.1.4 Document and disseminate lessons learnt and best practices from project interventions through video and other documentaries, public media, meetings and public websites	Number of new outlets in the local press and media Number of awareness meetings conducted and reports	Number of news outlets in the local press and media that have covered the topic number of awareness meetings conducted	Available media and communication experts		
			4.1.5 Facilitate provisional of project monitoring and evaluation facilities, tools and equipment	Monitoring reports and other publications	Number of tools and equipment purchased			

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Project component	*Project outcome*	*Project output*	*Output activities*	*Baseline indicators*	*Means of verification*	*Baseline levels*	*Project outcome indicator*	*Results/ gets*
								plave for interaction and communicati on on project success, lessons and challenges - A documentary film will be prepared for project stories to be shared within Karatu District, Arusha region and at national level

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

Table 12: alignment with the AF results framework

Project objective(s)	*Project objective indicators(s)*	*Fund outcome*	*Fund outcome indicator*	*Grant amount (USD)*
1. To Enhance integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District	…% increased resilience and adaptive capacity to climate induced water scarcity in the selected agro-pastoral communities of Karatu district	**Outcome 6:** Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas **Outcome 4:** increased adaptive capacity within relevant development and natural resource sectors	2.1. Number and type of targeted institutions with increased capacity to minimize exposure to climate variability risks	534,,463434~~61~~
			3.2. Modification in behavior of targeted population	
			4.1. Development sectors' services response to evolving needs from changing and variable climate	
			6.1 Percentage of households and communities having more secure (increased) access to livelihood assets	
			6.2. Percentage of targeted population with sustained climate resilient livelihoods	
2.. Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghan gWards in Karatu District	…% agricultural infrastructure improved to withstand climate change and variability-induced stresses in selected communities in Karatu district	Outcome 6:: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas Outcome 5: Increased ecosystem resilience in response to climate change and variability Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors	2.1. Number And type of targeted institutions with increased capacity to minimize exposure to climate variability risks	945,893~~1~~
			3.2. Modification in behavior of targeted population	
			4.2. Physical infrastructure improved to withstand climate under climate change variability-induced stress	
			5.1 Ecosystem services and natural Assets or improved under climate change variability-induced stress	
			6.1 Percentage of households and communities having more secure (increased) access to livelihood asset	
			6.2. Percentage of targeted population with sustained climate resilient livelihoods	
3.Improving climate change	Paradigm shift of small-scale	**Outcome 4:** Increased adaptive	2.1 Number and type of targeted institutions with increased	

Project objective(s)	*Project objective indicators(s)*	*Fund outcome*	*Fund outcome indicator*	*Grant amount (USD)*
resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District	fishers for sustainable income resilience livelihoods through aquaculture innovations in fishing communities strengthened in response to climate change and variability induced stress.	capacity within relevant development and natural resource sectors **Outcome 5:** Increased ecosystem resilience in response to climate change and variability **Outcome 6**: Diversified and strengthened livelihoods and income for vulnerable people in targeted areas	capacity to minimize exposure to climate variability risks	128,5695
			3.2. Modification in behavior of targeted population	
			4.1. Development sectors' services responsive to evolving needs from changing and variable climate:	
			4.2. Physical infrastructure improved to withstand climate under climate change variability-induced stress	
			6.1 Percentage of households and communities having more secure (increased) access to livelihood asset	
			6.2 Percentage of targeted population with sustained climate resilient livelihoods	
4.Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District	Number and type of ecosystems maintained and improved to enhance their functions and services under climate change and Variability-inducedstress.	Outcome 4:Increased adaptive capacity within relevant development andnatural resource sectors Outcome 5: Increased ecosystem resilience in response to climate change and variability	3.2. Modification in behavior of targeted population	165,32017
			4.1. Development sectors' services responsive to evolving needs from changing and variable climate:	
			5.1 Ecosystem services and natural Assets or improved under climate change variability-induced stress	
			6.1 Percentage of households and communities having more secure (increased) access to livelihood asset	
5. .Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan	Number and type of knowledge products developed and disseminated	Outcome 2: Strengthened institutional capacity reduce risks associated with climate induced Outcome 6: Diversified	Output 2.1: Strengthened capacity of national and regional centers and networks to respond rapidly to extreme weather events	344,400
			3.2. Modification in behavior of targeted population	

Project objective(s)	*Project objective indicators(s)*	*Fund outcome*	*Fund outcome indicator*	*Grant amount (USD)*
and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues	Number of district community population trained for effective project and adaptive initiative implementations	and strengthened livelihoods and sources of income for vulnerable people in targeted areas Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors	Output 2.1: Strengthened capacity of national of national and regional centers and networks to respond rapidly to extreme weather events	

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Table 13: Detailed budget for the proposed project

Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
Component 1: Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District								
Outcome 1: Increased food security, income and resilience to climate change impacts through climate smart practices in selected wards								
1.1 Sustainable bee keeping initiative for food security and increased household income in selected village of the three wards of Baray, Endamaghan and Mang'ola improved	**130,720~~18~~**	1.1.1 Training hunters and gatherers on sustainable bee keeping practices	*-Training materials -and related services*	1	16,997~~.46~~	11,332~~1.64~~	5,670~~69.82~~	**33,995~~95~~**
		1.1.2 Provision of at least 1500 modern beehives and related equipment.	Provision of beehives and related services	2	20,895	13,930	6,965	**41,790**
		1.1.3 Building capacity on honey marketing	Building capacity on honey making	3	12,905~~4.8~~	8,603~~.2~~	4,302~~1.6~~	**25,810**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
		1.1.4 Building capacity for communities to establish honey producer's cooperative society	Train communities on formation of cooperative societies	4	14,561~~456.46~~	9,70887.64	4,8543.82	**29,123~~291~~ ~~23~~**
1.2 Use alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three wards of Baray, Endamaghan and Mang'ola	**106,57~~56~~**	1.2.1 Training Datoga (blacksmith) communities on the use of sustainable source of energy	*Training on climate change and renewable energy*	5	10,2433.5	6,829	3,4154.5	**20,487~~7~~**
		1.2.2 Training Datoga on how to make energy saver cooking stoves for sale, cooking and forging tools	*Trainings on how to make energy server stove.*	6	16,5100.5	1,007~~100~~ ~~7~~	5,5045503.5	**33,021~~330~~ ~~21~~**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
		1.2.3. Training Datoga (blacksmith) on making alternative energy products e.q briquettes	*Training on making briquettes*	7	6,972.~~48~~	4,648.~~32~~	2324.~~16~~	**13,944~~5~~**
		1.2.4. Facilitating Datoga (blacksmith) communities to engage into a business venture for selling energy saver cooking stoves and briquettes	*Facilitate market access for cooking stoves and briquettes*	8	14,561.~~46~~	970~~87.64~~	485~~43.82~~	**29,123**
		1.2.5 Supporting Datoga (blacksmith) to establish and operate energy saver community group	Train communities on formation of cooperative societies	9	5,000~~4999.98~~	3333.~~32~~	166~~76.66~~	**10,000**
1.3. Use of local and improved breeds of rabbit and poultry for food security and income generation for selected villages three wards of Baray,	**135,310~~09~~**	**1.3.1** Training women men and youth on Poultry and rabbit production	*Training communities on rabbit and poultry production*	10	12,593~~1~~	8,394	4,195~~3~~	25,182~~82~~
		1.3.2 Construction of simple poultry and rabbit houses	*Construction of simple poultry house*	11	21,166~~5.96~~	14,111~~0.64~~	7,055~~5.32~~	42,332~~32~~

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
Endamaghan and Mang'ola improved		**1.3.3** Provision of startup capital in form of local pullet, cocks, does and buck to the communities	*Provision of breeding stock*	12	7,67665.98	5,117.32	2,55598.66	15,352
		1.3.4 Provision of feed, supplements, veterinary drugs and equipment/utensils	*Provision of feeds, equipments and drugs*	13	11,69332.5	7,795	3,8987.5	23,38665
		1.3.5 Establishment and building capacity to operate poultry/rabbit producers group	Train communities on formation of cooperative societies	14	14,529	9,686	4,843	29,058
1.4 Production of diversified cultural and nature-based tourism products for Hadzabe (hunters and gatherers) and Datoga (blacksmith) women, men and youth improved.	**106,4255**	**1.4.1** Train women and youth on jewelry and leather quality and marketing	*Train communities on quality jewelry and leather making and marketing*	15	15,24443.48	10,162.32	5,081.16	30,4877
		1.4.2 Promote the jewelry and leather business amongst women and youth	*Facilitate market access for quality jewelry and leather products*	16	24,912	16,608	8,304	49,824
		1.4.3 Provide support and capacity for women and youth to form jeweler's and leather makers groups	Train communities on formation of jewelry and leather cooperatives	17	13,05776.96	8,7054.64	4,352.32	26,114

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
1.5 Identification and production of suitable traditional and modern crops for enhanced food security and increased household income in selected villages of Baray, Endamaghan and Mang'ola	55,4331	**1 .5.1** Training of men, women and youth on production of selected traditional and modern crops	*Training on production of selected traditional and modern crops*	18	13,9002.48	9,268.32	4,634.16	27,8042
		1.5.2 Establishment of at least 10 acres as demonstration farms (Field Farm School-FFS) across 8 villages within the targeted three wards	Preparation of demonstration farms	19	13,814.46	9,21009.64	4,6054.82	27,629
Sub total								**534,4643**
Component 2: Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghan Wards in Karatu District								
2 **Outcome 2**: Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) at Baray and Endamaghan Wards								
2.1 Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District	**173,2254**	2.1.1 Conducting hydro-geological survey	Conducting hydro-geological survey	20	11,548.32	17,3232.48	5,774.16	**34645**
		2.1.2 Drill boreholes in drought prone and water scarce villages and install solar driven water pumps at Baray, Mang'ola and Endamaghang Wards	Drilling boreholes	21	46,193	69,2908 9.5	23,0976.5	**1385807 9**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
2.2 Water supply systems constructed in Hadzabe (gatherers and hunters) and Datoga (Blacksmith) communities at Baray, Mang'ola and Endamangang communities		**2.2.1 Design and construct water storage tanks, distribution network systems and pump at Baray, Mango'ola and Endamangang wards**	Design and construct water storage tanks and distribution networks and pump systems	22	119,367	477,468	119,367	**716202**
		2.2.2 Construct community water points/ community water Kiosks for network systems	Construct community water points/ kiosks for network systems	23	36.~~16~~	145~~4.64~~	36.~~16~~	**217**
2.3 Hadzabe (hunters and gathers) and Datoga (blacksmith) facilitated, trained and supported to operate and maintain the water infrastructure	3~~5~~**6,249**	**2.3.1** Conduct awareness raising meetings with community stakeholders on operation and maintenance of water infrastructure and supply	Conduct awareness raising meetings on operation and maintenance of water supply and infrastructure.	24	12,083~~2.96~~	12,083~~2.96~~	12,083~~2.96~~	**36,249**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
2.4 Climate resilient behavioral change and water governance for Hadzabe and Datoga communities in the three wards of Baray, Endmagahan and Mang'ola enhanced	20,000	**2.1..4**Conduct awareness raising meetings with community stakeholders on behavior change and water governance	Conduct awareness raising meetings on behavior change and water governanc e	25	10,000~~999 9.96~~	666~~76.64~~	3333~~.32~~	20000
Sub total								**945,893~~1~~**
Component 3: .Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District								
Outcome 3*:* Improved forests services and functions to sustain climate change resilient livelihoods at selected villages in baray, Endamaghan and Mang'ola wards								
3.1 Adoption of integrated climate smart forest management practiced for selected villages of Baray, Endamaghan and	**128,56~~95~~**	3.1.1 Creating awareness and training on integrated forest management	*Training on forest manage ment*	26	11,456~~4.48~~	7,636~~.32~~	3,818~~.16~~	**22,91~~009~~**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
Mang'ola wards promoted.		3.1.2 Support the establishment and maintenance of tree nurseries by communities	*Establishing tree nurseries*	27	25,329	16,886	8,443	**50,658**
		3.1.3 Tree planting and maintenance	*Tree planting and maintenance*	28	15,8721~~.5~~	10,581	5,2910~~.5~~	**31,7443**
		3.1.4 Establishment and building capacity for communities to form and operate tree planting group Outboard engine for the farmers at both Baray and Mang'ola villages	*Establishment community groups for tree planting*	29	11,6287~~.46~~	7,7521~~.64~~	3,8775~~.82~~	**23,2575**
Sub total								**128,5695**
Component 4: Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District								
Outcome 4.1: Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District improved								
4.1.Climate Vulnerability assessment for a comprehensive action plan in health sector at Karatu District Council conducted	17,409	**4.1.1** Hire consultant to conduct vulnerability assessment for the whole district	*Hire consultant to conduct vulnerability assessment for the whole district*	30	11,151	-	-	**11,151**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
		4.1.2 Translate the results of the district and project plan of action	*Translate project results and project plan of action*	31	6,258	-	-	**6,258**
4.2 Climate change issues mainstreamed into health projects and programmes at Karatu District	**117,973~~2288~~7**	**4.2.1** Integrate climate change issues into district health action plan	*Integrate climate change issues*	32	98,311~~09.9~~	9,831~~0.99~~	9,831~~0.99~~	**117,973~~2~~**
4.3 Community awareness on climate related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District	4,916	**4.3.1** Create awareness to communities on health and sanitation at Boma level	*Create awareness on health and sanitation at Boma level*	33	4,096~~5.5~~	410~~09.58~~	410~~09.58~~	4,916~~5~~
4.4 Climate smart community health resource centres in selected villages of the three wards of Baray, Endamaghan	**25,022~~1~~**	**4.4.1** Provide emergency health services and first aid services at community resource centers	*Provide emergency health services and first aid services*	34	8,000	2,000	2,000	12,000
		4.4.2 Provide Improved Community Health	*Provide improved community health*	35	8,682~~0.64~~	2,170~~.16~~	2,170~~.16~~	13,022~~1~~

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
and Maong'ola built, re- tooled and strengthened		Insurance to 600 most vulnerable Hadzabe and Datoga communities	*insurance.*					
Sub total								**165,32017**
Component 5: Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues								
Outcome 5: Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning, implementing and monitoring climate adaption actions								
5.1 The capacity of Karatu District Council in facilitating public awareness and understanding of climate change related issues and the adoption of resilient climate livelihood practices strengthened	70,32793,508	*5.1.*1 Conduct training needs assessment	Training needs assessment	36	18,47776.64	4,619.16	4,619.16	**27,715**
		5.1.2. Develop training materials and Supporting Community Based Trainers (CBT) in training peer community members	Community training	37	5,582.64	1,396153522.26	1,396153522.26	**8,374**
		5.1.3 Training of local government officials in Karatu district on climate resilient livelihood practices including mainstreaming of climate change into development plans and budgeting process	Local government training	38	7,371.28	1,8432.82	1,8432.82	**11,057**
		5.1.4 Disseminating project results and share lessons learnt to District, Regional and National stakeholders	Disseminating project results	39	15,4534	3,8643.5	3,8643.5	**23,181**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
5.2 Community Institutions to assist in collecting climate related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in three wards of Baray, Endamaghan and Mang'ola established.	**200,767**	**5.2.1** Facilitate community exchange visits/study tours	Facilitating community exchange visits and study tours.	40	86,666.64	21,6676.66	21,6676.66	**130,000**
		5.2.2 Build and equip community resource centers for provision of health, water and food services	Build community resource centers for provision of health	41	47,1778	11,7954.5	11,7954.5	**70,767**
5.3. Capacity of the hunters, gatherers and blacksmith communities in planning and decision making for undertaking climate resilient livelihood practices is strengthened	30,000	**5.3.1** train community committee members on planning and decision making for undertaking climate resilient livelihood practices	Training on decision making for undertaking climate resilient livelihood practices	42	10,000	10,000	10,000	**30,000**
5.4 Upgrade Karatu District metrological services and its network and infrastructure for provision of essential data for climate service and early warning systems to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola	**473,306**	**5.4.1**Train Karatu District Council staff on importance of data for climate change services and early warning systems	Training on importance of data for climate change services	43	5,384.32	21,5387.28	5,384.32	**32,306**
		5.4.2 Install automatic agro-weather station	Install auto agro-weather station.	44	1,833.32	7,3343.28	1,833.32	**11,000**

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Expected Outputs	Output budget (USD)	Activities	Inputs	Notes	Y1 (US$)	Y2 (US$)	Y3 (US$)	Total amount (US$)
Sub total								**344,400**
Total project cost								**2,118,634**

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Table 15: Executing fee Breakdown

Activities	Year 1	Year 2	Year 3	Total	Notes
Project Execution costs					
Staff salary top ups					
• Project Coordinator	4200	4,200	4,200	12,600	
• Assistant project (HKC)	4,000	4,000	4,000	12,000	
• M& E officer	3,600	3,600	3,600	10,800	
• Accountant	3,600	3,600	3,600	10800	
• Driver		900	900	1,800	
Technical committee meetings	2,400	2,400	2,400	7,200	Travel and DSAs
Steering committee meetings	2,400	2,400	2,400	7,200	Travel and DSAs
Monitoring visit by technical Committee	3,000	3,000	3,000	9,000	
Monitoring visits by steering committee	3,000	3,000	3,000	9,000	
Computers, printer and accessories	6,500			6,500	
Office consumables	1,000	1,200	1,200	3,400	
Communication	600	600	600	1,800	
Transport costs	6,000	6,000	6,000	18 ,000	Fuel
Transport cost	52,1703.05			52,1703.05	Project vehicle
4 Baseline studies	12,000			12,000	Consultancy
Inception workshop	6,000			6,000	Consultant
Publishing and translation of Project results	3,500	3,500	3,500	10,500	Consultant
Final project Evaluation			7,500	7,500	
Bank charges	1,000	1,000	1,000	3,000	
Total Project Execution Cost	**118973.05**	**42400**	**46900**	**201,2713.05**	

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Table 16: KARAHADA Project Management Budget for NIE

Component	Activities	Year 1	Year 2	Year 3	Total	Notes
Management Fees	NEMC staff allowances	13,3477.73	13,3477.73	13,3477.73	40,0443.20	
	Monitoring and Evaluation visits	41,681.07	51,695.48	31,6676.67	125,043.21	(Travel cost + per diems)
	Bank charges	5000	5000	5000	15,000	
Total Project Management Fees		**60,028.80**	**70,043.21**	**50,014.40**	**180,0846.41**	

H. Disbursement schedule with time-bound milestones.

Table 17: Disbursement Schedule

	After Signing the Implementation Agreement	*After Year 1(US $)*	*After Y2 (US$)*	*Total*
Scheduled tentative date	**June 2022**	**June 2023**	**June 2024**	
Project Funds	*8459,57928.48*	*9126,254403,01*	*360,8124,961.67*	***2,118,64534.00***
Execution Fee	*100,803636.53*	*67,257091.02*	*33,211045.51*	***201,2713.05.***
Implementing Entity Fee	*60,0298.80*	*70,043.21*	*50,0124.40*	***180.0846.41***
Total	***1,010,393.81***	***1,073537.24***	***428,021.58***	***2,500,000449,993.15***

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

A. Record of endorsement on behalf of the government[1] *Provide the name and position of the government official and indicate date of endorsement. The endorsement letter should be attached as an annex to the project proposal.*

Prof. Peter Lawrance Makenga Msoffe, Deputy Permanent Secretary, Vice President's Office ~~Mohammed Khamis Abdulla, Deputy Permanent Secretary, Vice President's Office~~	Date*: August, 8th, 2025*~~Date: 9th August 2021~~

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 2021, Tanzania Vision 2025 and in the National Adaptation Programme of Action (NAPA) 2007) 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	
Date: 9th August 2021	Tel. and email: Tel. and email: **+255 753 240 517**, nieaf@nemc.or.tz /kasigazi.koku@gmail.com
Project Contact Person: Ally Mdangaya	
Tel: +255767407200 Email: ally.mdangaya@karatu.go.tz	

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.

ANNEXES

Annex1: Government Endorsement Letter

THE UNITED REPUBLIC OF TANZANIA
VICE PRESIDENT'S OFFICE

Telegrams: "MAKAMU"
Telephone: +255 026 2329006
Fax: +255 026 2329007
Email: ps@vpo.go.tz
In reply, please quote

Government City,
Mtumba Area,
Vice President Street,
P.O. Box. 2502,
40406 DODOMA.

Our Ref. No: CBA.78/90/03

08th August, 2025

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

SUBJECT: ENDORSEMENT FOR KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES (KARAHADA)

Please refer to the above subject

2. In my capacity as the designated authority for the Adaptation Fund in Tanzania, I confirm that the above national grant 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 Karatu District.

3. Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by National Environment Management Council (NEMC) and executed by Tanzania Environmental Protection Organization (TAEPO) in collaboration with Karatu District Council.

4. Thank you for your continued support.

Prof. Peter L.M. Msoffe
NATIONAL DESIGNATED AUTHORITY- DEPUTY PERMANENT SECRETARY

Letter of Endorsement by Government

UNITED REPUBLIC OF TANZANIA
VICE PRESIDENT'S OFFICE

Telegraphic address: "MAKAMU",
Telephone: **+255 26 2329006**
Fax. No.: **+255 26 2329007**
E-mail: km@vpo.go.tz

In reply please quote:
Ref. No: **BA.90/201/01/101**

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

9th August, 2021

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

Subject: Endorsement for *Karatu Climate Resilience and Adaptation Project for Hadzabe and Datoga Communities (KARAHADA)*

In my capacity as designated authority for the Adaptation Fund in United Republic of Tanzania, I confirm that the above national 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 country.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by National Environment Management Council (NEMC) and executed by Hakikazi Catalyst in collaboration with Karatu District Council.

Sincerely,

Mohammed Khamis Abdulla
Deputy Permanent Secretary, Vice President's Office

Annex 2: Budget Notes

S/N	Description	Notes
1.	*Training materials and related services*	**Training of selected communities on bee keeping** • Meeting venue • Fuel and ground transport • Teaching materials (banners, flip charts, marker pens, beehives, honey harvesting kit, honey pressing and packaging materials) • Conference facilities • Catering services • Mobile charges • Professional allowance • Casual laborers Local experts
2.	*Provision of beehives and related equipments*	**Provision of beehives to communities** • Fuel and ground transport • Per diem local • Production materials (beehives, honey harvesting kit, honey pressing and packaging and labeling materials) /workshop sessions • Catering services • consumables • Mobile charges • Casual laborers
3.	*Building capacity on honey making*	**Capacity for honey making** • Per diem local

		• Diesel and ground transport • Professional allowance • Catering services • consumables • Mobile charges
4	*Train communities on formation of cooperative societies*	**Training on formation of cooperative societies** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts, marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
5	*Training on climate change and renewable energy.*	**Training on climate change and renewable energy** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts and marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
6	*Trainings on how to make energy saver stove.*	**Training for making energy saver cooking stove**

		• Fuel and ground transport • Per diem local • Training materials (cooking stove mould, clay) • Catering services • Conference facilities • Facilitation fee/ professional allowance
7	*Training on making briquettes*	**Training on making briquettes** • Fuel and ground transport • Per diem local • Training materials (rice husks, plant remains) • Catering services • Conference facilities • Facilitation fee/ professional allowance
8	*Facilitate market access for cooking stoves and briquettes.*	**Market access for briquettes** • Fuel and ground transport • Per diem local • Market venue • Demonstration on the use of energy saver cooking stove and briquettes/rice husks/firewood.
9	Train Datoga communities on formation of cooperative societies	**Training on formation of cooperative societies** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts, marker pens) • Catering services

		• Conference facilities • Consumables • Facilitation fee/ professional allowance
10	*Training communities on rabbit and poultry production*	**Training of communities on rabbit and poultry production** • Meeting venue • Fuel and ground transport • Teaching materials (banners, flip charts, marker pens, sample poultry breeds, tools and feeds) • Conference facilities • Catering services • Mobile charges • Professional allowance
11	*Construction of simple poultry house*	**Construction of materials.** • Stones • Interlocking blocks/ bricks • Cement • Sand • Ropes • Wire • Timber • Iron sheets • Water storage tanks • Water gutter drain
12	*Provision of breeding stock*	**Breeding stock**

		• Supply of pullets (female chicken) • Supply of rooster (male chicken) • Does (Female rabbits) • Buck (male rabbits) • Per diem • Transport • Cages • Telephone charges • Diesel
13	*Provision of feeds, equipment's and drugs*	**Poultry feeds, equipment's and drugs** • Animal feed raw materials • Pelletize • Feed mixer • Feed supplements • Vaccines • Veterinary drugs • Brooders • Drinkers • Feeders • Chicken Perch • Pallets • Egg trays • Record books, charts • Fuel and ground transport

		• Per diem local
14	Train communities on formation of poultry and rabbit keepers cooperative societies	**Training on formation of poultry and rabbit keepers cooperativ** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts, marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
15	*Train communities on quality jewelry and leather making and marketing*	**Training on quality jewelry and leather products** • Fuel and ground transport • Per diem local • Training materials (local jewelry materials, leather and tree barks, beads, wire, thread, patterns, labels and packaging material, needles, working benches, scissors, old newspapers) • Catering services • Conference facilities • Facilitation fee/ professional allowance
16	*Facilitate market access for quality jewelry and leather products*	**Market access for jewelry and leather products** • Fuel and ground transport • Per diem local • Market venue
17	Train communities on formation of jewelry and leather cooperatives	**Training on formation of jewelry and leather cooperatives**

		• Fuel and ground transport • Per diem local • Training materials (banners, flip charts, marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
18	*Training on production of selected traditional and modern crops*	**Training on production of selected traditional and modern crops** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts, marker pens, sample traditional and modern crop products) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
19	Preparation of demonstration farms	**Preparation of demonstration farms** • Community Land • Per diem local • Traditional vegetables and seeds • Consumables • Wheel barrow • Spade

		• Watering can • Rake/hoe • Manure casual laborers • Diesel • transport
20	Conducting hydro-geological survey	**Conducting hydro-geological survey** • Contract (lump sum)
21	Drilling boreholes	a) costs associated for contractual issues for hydro-geo-physical surveys, physical, chemical and drilling of four boreholes in selected communities b) Costs associated with purchasing solar panels and solar pumps for relevant boreholes in selected villages. The details of specification of the boreholes will be provided in the inception workshop
22	*Construct water storage tanks and distribution network systems and pump system*	**Construction for**; • Storage tanks • Distribution networks • Solar and pump system
23	Construct community water points/ kiosks for network systems	**Construction for;** Water points
24	*Conduct awareness raising meetings on* operation and maintenance of water supply and infrastructure	**Conduct awareness raising meetings on operation and maintenance of water supply and infrastructure** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts and marker pens) • Catering services

		• Conference facilities • Consumables • Facilitation fee/ professional allowance
25	*Conduct awareness raising meetings on behavior change and water governance*	**Conduct awareness raising meetings on behavior change and water governance** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts and marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
26	*Training on forest management*	**Training on forest management** • Fuel and ground transport • Per diem local • Training materials (banners, flip charts and marker pens) • Catering services • Conference facilities • Consumables • Facilitation fee/ professional allowance
27	*Establishing tree nurseries*	**Establishing tree nurseries:** • Per diem local • Tree seeds and fruit seedlings • Consumables • Polythene tubes • Wheel barrow • Spade

		• Watering can • Rake/ hoe • Manure • Transport • Casual laborers • Telephone charges • diesel
28	*Tree planting and maintenance*	**Tree planting and maintenance;** • Transport • Per diem local • Diesel • Telephone charges
29	*Establishment community groups for tree planting*	**Establishment of community groups for tree planting** • Per diem local • Transport facilities • Catering services • Conference facilities • Consumables • Diesel
30	*Hire consultant to conduct vulnerability assessment for the whole district*	**Hire consultant to conduct vulnerability assessment** • Consultant fee • Per diem domestic • Telephone charges • Diesel • Conference facilities
31	*Translate project results and project plan of action*	**Translate project results and project plan action** • Consultancy fee • Telephone charges • Per diem domestic • Diesel • Consumables • Conference facilities
32	*Integrate climate change issues*	**Integrate climate change issues**

33	*Create awareness on health and sanitation at Boma level*	**Training on health and sanitation at Boma level** • Per diem • Domestic facilitation • Catering services • Conference facilities • Transport • Consumables • Diesel • Professional allowance • Telephone charges
34	*Provide emergency health services and first aid services*	**Provide emergency health services and first aid services** • Emergency medicine • Telephone charges
35	*Provide improved community health insurance*	**Provide improved community health insurance** • Improved CHI card • Per diem • Domestic facilities • Catering services • Professional allowances • Conference facilities
36	Training needs assessment	**Training needs assessment** • Per diem local • Domestic facilitation • Catering services • Professional allowances • Conference facilities • Transport • Consumables • Diesel • Telephone charges

37	Community training	**Community training** • Professional allowances • Per diem domestic • Telephone charges • Diesel • Conference facilities Consumable
38	Local government training	**Training the local government official** • Consultancy fee • Per diem local • Telephone charges • Diesel • Conference facilities
39	Disseminating project results	**Disseminating project results** • Per diem local and foreign • Catering services • Conference facilities • Transport • Consumables • Diesel • Telephone charges
40	Facilitating community exchange visits and study tours	**Facilitating community exchange visits and study tours** • Per diem domestic and foreign • Consumables • Transport • Catering services • Conference facilities • Professional allowances • Diesel • Telephone charges
41	Build community resource centers for provision of health	**Build community resource centers for provision of health** • Build resource

		• Hardtop • Motorcycle • diesel
42	Training on decision making for undertaking climate resilient livelihood practices	**Training on decision making on climate resilient livelihood practices** • Per diem domestic • Telephone charges • Diesel • Conference facilities • Consumables • Professional allowance
43	Training on importance of data for climate change services	**Training on importance of data for climate change services** • Per diem domestic • Telephone charges • Diesel • Conference facilities • Consumables • Professional allowance
44	Install auto agro- weather station	**Install auto agro- weather station** Procurement of automatic weather station

Annex 3: Summary of gender analysis against project components

Project Components	Gender Risks/Challenges	Proposed mitigation strategies	Benefits

1.Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District	• Low adoption rates of the transformative agricultural interventions by all gender groups • Elites hijacking the transformativeand climate sensitive agricultural interventions • Women and children especially orphans suffer the most and are morevulnerable to food insecurity whenever crop failure happened due to drought and prolonged dry spell periods when compared to men	Proper guideline forselection members offarmer and women groups	• Enable improved access to Agricultural tools and technologies with aim of transforming exploitive their agricultural practices • Establish women based gardens and poultry houses and trainings on FFFS (Female Farmer Field School) – provision of seeds and tools to diversity gender based livelihood systems
		Improve knowledge on best farming practices and transform traditional farming system through solid farmers tailored trainings using Farmer Field School Approach andsmart micro- irrigation practices	• Increased use of climate smart crops and promoting intercropping with drought resistant varieties like, sunflower, cassava, cereals, sweet potatoes and early maturing crops to increase resilience farming systems

2. Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District	• Climate induced challenges related to water scarcity are forcing people (more often women and children) to travel longer distances looking for unsafe water • The existing un-protected traditional wells in villages wards expose mostly children and women mostly to water borne diseases especially cholera and dysentery when compared to men. • Gender based conflicts including incidents of abandonment or separation of couples linked to climate change issues such as water scarcity and food shortage • Low level of representation of gender groups in water management system as the current system in the district is dominated by men.	Proper guidelines to establish gender sensitive water governance system to guide representation of women, youth and vulnerable groups in the village water management institutional structure Enable improved access to rural water supply systems and technologies	• Gender sensitive water management institutional structures strengthened /established and functioning • Water governance/by laws to regulate effective use of water and protection of water sources formulated and functioning
Component3; Improving climate change resilience of forests and non- timber products for selected villages of the three wards	• Inactive and low participation of women and girls in ecological and environmental based activities and ecological based income generating activities especially marginalization of	Clear guidelines and by laws on management of the environment and village ecosystems Ensure that all groups are equally represented on managing ecological and	• Increased alternative income generating options, contributing to reduction of income poverty and building climate resilience of

of Baray, Endamaghan and Mang'ola in Karatu District	Women, youth and vulnerable groups	environmental quality and involved in restorationactivities Proper and inclusive criteria for selection of beneficiaries to ensure 50% of all people involved to implement activities under this component are women	vulnerable communities specially women and girls
4. Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District	• Lack of access to health services particularly for women, children and the elderly and marginalization in service provision for vulnerable community.	Proper and inclusive criteria for selection of beneficiaries to ensure 50% of all people involved to implement activities under this component are women	• Improved awareness and services for vulnerable communities on climate change related diseases
5. Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation	• Existence of social, economic and political barriers that limit women to actively engage in climate change adaptation activities which make them to suffer the most whenever climate calamities happen • Low participation by vulnerable groups due to low literacy levels and existence of groups with special/individual interest over others	Proper guidelines on participation of vulnerable groups in capacity building and other project activitieswill be put in place andadhered to ensure selectionof at least 45% of womenas beneficiaries for participation in Capacityand knowledge management and other project interventions	• Improved knowledge of village communities, technicalstaff in Karatu District Council and civil societies on climate change, its impacts and adaptation strategies • Capacities of beneficiaries to implement concrete adaptation actions for climate resilient and sustainablelivelihood systems strengthened

interventions and improve level of understanding of climate change related issues			• Demonstration centers, eco-schools and eco-villages for ecosystems management and alternative income generating activities established

Annex 2: List of institutions and stakeholders consulted

STAKEHOLDERS REGISTRATION FORM DURING SITE VISIT FOR COLLECTION OF PROJECT FORMULATION INFORMATION IN KARATU DISTRICT COUNCIL

S/N	NAME	TITLE/OCCUPATION	MOBILE NUMBER
1.	LIGHNESS GINGANYI	BLACKSMITH -REVENUE COLLECTOR	0628107372
2.	GUDO MAHIYA	HADZABE-REVENUE COLLECTOR	0743726636
3.	NYERERE SAMAEL	CHAIR-HADZABE	
4.	LAJA GISUSI	HADZABE	

5.	MKUNZUVU	HADZABE	
6.	TARMO JANUARI	HADZABE	
7.	MARUKA SABENA	HADZABE	
8.	ITAMBI HADZA	HADZABE	
9.	MAYU MARTINI	HADZABE	
10.	PANDA MLEKWA	HADZABE	
11.	ELIZA SHIMBI	HADZABE	
12.	HELENA MANJANO	HADZABE	
13.	ELIZABETH SALIBOGO	HADZABE	
14.	ALIMU MASKATI	HADZABE	
15.	SABINA SIAGT	HADZABE	
16.	JUMBE KINYANYI	BLACKSMITH	
17.	LAFAELI KINYANYI	BLACKSMITH	
18.	GINYANYI	BLACKSMITH	
19.	ADE KINYANYI	BLACKSMITH	
20.	DAINGKENI KINYANYI	BLACKSMITH	
21.	SABINA KINYANYI	BLACKSMITH	

STAKEHOLDERS REGISTRATION FORM DURING SITE VISIT FOR COLLECTION OF PROJECT FORMULATION INFORMATION IN KARATU DISTRICT COUNCIL

S/N	NAME	TITLE/OCCUPATION	MOBILE NUMBER
1.	GODFREY G. LUGUNA	AG.DED KARATU DC	0756045323
2.	ALLY J. MDANGAYA	DEMO-KARATU DC	0767407200
3.	FELIX D. SULLE	DCDO KARATU DC	0764229090
4.	CHRISTOPHER O. KITUNDU	AG.DANRO	0754959428
5.	SAUDA LEVERY	HEALTH OFFICER	0754761246
6.	TWILAMBA NGWALE	AG.DAICO	0756660708
7.	ENG.MBARAKA M. KILANGAI	DM-KARATU	0755293780
8.	DENNIS BUBERWA	DLFO	0764886684
9.	RESTIEL HHAYUMA	TASAF	0754828227

10.	EVANCE ABDALLAH MVAMILA	HAKI KAZI CATALYST	0754055565
11.	GODLISTEN DIDAS	CONVOY OF HOPE	0692390032
12.	BERNADETTE BACHUBILA	HAKI KAZI CATALYST	0754369812
13.	RICHARD MESSAI	WORLD VISION	0787505357
14.	ANNE LEMA	HAKI KAZI CATALYST	0754310346

Annex 3: Karatu District Profile
Annex 4: Haki Kazi Catalyst Organizational profile

Annex 7: Haki Kazi Catalyst Organization profile.

HAKIKAZI CATALYST

Knowledge. Action. Change.

PREPARED BY:
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Arusha
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1.0 DESCRIPTION ON PROFILE OF HAKIKAZI CATALYST

1.1 WHO WE ARE

Hakikazi Catalyst (HKC) is a civil society organisation, with no political, religious or regional affiliation founded and registered in 2000 under the Act No.212.. HKC was re-registered on July 29th 2019 under the NGO Act No. 24/2002 Section 11(1) and 17(2) and acquired Certificate of Registration No. OONGO/R2/000204 to operate in Tanzania Mainland. The HKC Office is in Arusha City, Sombetini ward, Mawalla St, Plot No. 578.

1.2 OUR VISION

Our vision is that all people are conscious of their social and economic rights and empowered to participate in, and enjoy, just, inclusive and sustainable development.

1.3 OUR MISSION

Our mission is to facilitate the empowerment of poor and marginalised people so that they can engage effectively to demand their social and economic rights and benefit from meaningful development for all.

1.4 OUR VALUES AND BELIEFS

Commitment to justice
•We believe that everyone has the right to justice and fair treatment.
Respect for pluralism and diversity
•We believe that everyone has a contribution to make towards a better world, and that this can be achieved through inclusive political processes. Pluralism and diversity are also opportunities for shared growth and development.
Respect for human dignity
•We believe that people have the potential to develop themselves, and that the most complex ideas can be explained in simple ways that anyone, regardless of their level of education, can understand.
Integrity, honesty, and the responsible stewardship of resources
•We believe that we are stewards of resources intended for others. We therefore commit unequivocally to account for everything entrusted to us, and to disassociate ourselves, both individually and collectively, from all forms of malpractice.
Commitment to excellence
•We aim to deliver quality programmes and use working methods that optimise efficiency and achieve positive results, thereby maintaining public trust in us.
Embracing and managing change
•We believe that we can learn from change, and from new technologies and challenges, and that these are opportunities to grow.

1.5 OUR GOAL

Our **goal** is to facilitate processes that support the initiatives of poor and marginalized communities to influence change in national and local level policy and practice and also to promote good governance, transparency and accountability that fosters eradication of poverty for sustainable livelihoods. In order to achieve this goal, we focus on the following three strategic goals:

1.5.1 Strategic Goal 1: Policy Analysis, Information and Public Engagement

We aim to generate a shared understanding between communities and decision-makers, particularly at national level, about poverty reduction policies and practices. We will carry out action research and share information to ensure that decisions are evidence-based and evidence-led. This will help government become more responsive to citizens' needs and aspirations, and citizens become more engaged in policy, governance and development processes. Public participation in policy development is undermined by the nature of the language used in policy and legal documents, which is something our work will address.

1.5.2 Strategic Goal 2: Good Governance and Accountability

We want to see vibrant communities whose members actively seek information about what is going on in their area and take part in decision-making processes. We aim to mobilise citizens to ensure the accountable governance of national resources for rights-based development. We believe that accountable governance is achieved when people are empowered to know their rights and duties as responsible citizens and to hold leaders accountable when those rights are denied. We will therefore provide marginalised communities and their representatives with tools to help them monitor the inputs, outputs and outcomes relevant to poverty reduction.

1.5.3 Strategic Goal 3: Sustainable Livelihoods

Empowerment puts down deeper roots when awareness-creation is complemented by concrete economic activities. The livelihoods of marginalised communities are increasingly threatened by rapid population growth, environmental degradation, a rise in resource-based conflict, and more frequent and intense droughts. We will implement an integrated development programme that protects and promotes rural and urban livelihoods, strengthening the food security of households and their security of tenure over land use and water use and forest management. We will help communities build their resilience to climate change, natural resources management and work towards the

economic empowerment of youth and women.

2.0 OUR BENEFICIARIES AND GEOGRAPHICAL FOCUS

The ultimate beneficiaries of our work are the general public in Tanzania, particularly vulnerable women, children, youth and men. Our direct beneficiaries include our partners and other organisations working on the issues that concern us, as well as community members and their representatives in our programme areas. Our geographical focus is the whole country depending on the need and nature of the projects.

3.0 Our skills, competencies and experiences

3.1 Overall experience and competency

We have a long history of taking the meaning of complicated official documents to the people who need to understand them. We do this in a neutral way that is free from bias and stays true to the original source, in both word and spirit. We are known for pioneering the production and use of popular versions of policies and legislation. These build shared understanding between citizens and decision-makers, creating a friendly policy environment where people can engage constructively with the issues that affect their lives. In this process, knowledge moves in two directions: downstream, to inform lower levels of government and communities about the content of key policies and reforms, and upstream, to help decision-makers understand the impact of policy and practice on poor and marginalized people and what could be done to improve their livelihoods.

We pride ourselves on our ability to produce clear and simple documents that can immediately be understood by someone reading them, or hearing them read aloud. We use a range of visual tools, including cartoons, to make them comprehensible and enjoyable. We believe that more organizations, including government bodies, are starting to use plain language in their written documents in order to strengthen shared understanding and popular participation. We pioneered the use of community score cards in public expenditure tracking as a way of making service providers more accountable for public resources. We have produced a branded version – the PIMA Card – which we feel is particularly suitable for the Tanzanian environment,[2] and which we have now used with communities in half the 21 mainland regions.

3.1 HKC experience on the proposed interventions

In 2017/2018 HKC coordinated and facilitated implementation of the Decentralized

[2] 'Pima' means 'measure' in Swahili.

Climate Financing for Climate change Adaptation projects in 3 districts of Monduli, Ngorongoro and Longido as well as capacity building of District and Divisional Adaptation Planning Committees. These initiatives were implemented through consortium of various actor from government and non-governmental institutions led by the President's Office Regional Administration and Local Government (PORALG), Hakikazi Catalyst, International Institute for Environment and Development (IIED), United Nations Capital Development Fund (UNCDF), Ministry of Finance and Planning, Vice President Office (Environment), National Environmental Council (NEMC), Tanzania Meteorological Agency (TMA), Local Government Training Institute (LGTI) Hombolo - Dodoma, Institute of Rural Development Planning (IRDP) Dodoma, Tanzania Natural Resources Forum (TNRF) and Local Government Authorities (District Councils) of Monduli, Ngorongoro and Longido in Arusha region. A total of 36 (Monduli 13), Longido 13, Ngorongoro 10) projects were implemented as response towards climate change adaptation. In this project HKC had specific roles/activities as follows:

1. *Facilitated formation and strengthening of 10 community based adaptation entities* (3 in Monduli, 3 in Ngorongo and 4 in FLongido) at the division level known as Division Adaptation Planning Committees (DvAPCs) in three districts of Monduli, Ngorongoro and Longido. In order to ensure efficiency, and sustainability of the DvAPCs' operational at community level HKC used participatory approaches in selection of the DvAPCs members. During the selection process a thorough vetting were carried out as well as adhering to gender balance in composition of the committee members.
2. *Capacity building to the DvAPCs*: HKC facilitated various trainings to the 10 DvAPCs. The trainings aimed at imparting knowledge and skills to strengthen their capacity. Some of the specific themes include the roles and responsibilities of the DvAPCs, conceptual understanding on climate change and its effects, funds management, group dynamics, asset management and project proposal development.
3. *Formation of the District Adaptation Planning Committees (DAPC)*: HKC coordinated and facilitated formation of the District Adaptation Planning Committees in three districts of Monduli, Nhorongoro and Longido. The Committee comprised of the key district officials (Heads of Departments) particularly the specific sectors affected by the climate change such as Agriculture, Livestock, Infrastructure, Environment, Natural Resources, planning

and Community Development

4. *Coordinated the community Resilience Assessment:*
   HKC facilitated the Resilience Assessment carried out in three district in order to study and assess the community wellbeing and nature of their livelihoods that contribute to their wellbeing. The resilience assessment is a participatory tool which allows community members to articulate their livelihood strategies. It assesses factors that support resilience to the impacts of climate change, constraints undermining those factors, and recommendations for community intervention that will improve the adaptive capacity and wellbeing of the community.
5. *Facilitated Community Needs Assessment*: Through the DvAPCs Hakikazi Catalyst facilitated the process of community needs assessment and priority interventions to address the effects of climate change. The assessment based on the recommendations from the Resilience Assessment of the particular division in the three districts of Monduli, Longido and Ngorongoro Provided support to the DvAPCs on the climate change community project prioritization, designing and funding proposal writing: HKC facilitated the process of prioritization, design and funding proposal writing of the community projects that address effects of climate change in their locality.
6. *Formation and capacity building of community based management committees*:
   HKC facilitated formation and trainings of the community management committees which were formed by community after project completion. The committees were formed as exit and sustainability strategy. After formation it was necessary to train the committees on their roles and responsibilities, governance and operational modalities of the community projects. The committee were formed depending on the nature of the community project executed in a particular community such as dip committees and water committees as Community Owned Water Supply Organizations (COWSOs).
7. *Facilitated Monitoring, Evaluation and Learning (MEL) of the DCF project*
   Being the DCF Consortium member, HKC were mandated with Monitoring, Evaluation and Learning of the DCF project. The role involved planning and reporting on the progress of the project implementation, results and learning. It also focused on assessing quality assurance, cost tracker and Value for Money (VfM) of the interventions. The HKC team had opportunity to share and learn

monitoring approach of Tracking Adaptation and Monitoring Development (TAMD)

8. Project Funds management and administration:

I) HKC had a role of managing the project funds and project administration. This included the management and administration of funds allocated for execution of 36 climate change community projects in three districts of Monduli, Ngorongoro and Longido. The total project funds managed by HKC were **US$ 2,070,027 (equivalent to Tanzanian shillings 4,800,000,000).**

9. *Organize and facilitate all project meetings, workshops and forums*

HKC also played a role of organizing and facilitating all meetings, forums and workshops for the DCF consortium.

3.2 HKC's experience in water governance

Since 2018, HKC has been a national cluster leader coordinating the Public Expenditure Tracking Survey (PETS) in water interventions within the FCS partnership to promote governance in water sector. The main role of HKC is to build capacity and provide technical support to the implementing CSOs to enable them to learn and improve performance and project delivery. Other activities include training to PETS Committees and Community Based water management entities on their roles and responsibilities under the Water Act No. 5/2019 and accountability tools; Conduct national level advocacy through influencing policy and governance changes within the government structures by meeting and present issues to the key decision makers at ministry level (Ministry of Water, PORALG) and Rural Water Supply and Sanitation Agency (RUWASA). Through these interventions Hakikazi Catalyst has facilitated capacity building to 18 CSOs from 11 regions in Tanzania namely Dodoma, Dar es Salaam, Kigoma, Mtwara, Lindi, Iringa, Tanga, Shinyanga, Mara, Simiyu and Kagera.

3.3 HKC's experience of working in Karatu district

For the past 10 years, HKC has worked with communities in Karatu district on the following interventions:

i) Councilors Oversight Training: In 2011/2012 HKC facilitated the councilors oversight training to 22 councilors in Karatu district. The training which comprised members of the Council Water and Sanitation Team (CWST) aimed at building councilors capacity on planning, budgeting and implementation oversight, on the use of (baseline) data, on

comparative analysis and on fact-finding. The 5 days training used water-specific issues as case studies and focus specifically on the Water Point Mapping within the district. The interventions were implemented in collaboration with Karatu District Council through the District Water Engineer and the CWST Team.

ii) Participatory Democracy for Public Accountability in Agricultural Sector

In 2012/2013 HKC implemented a 12 months project on Participatory Democracy for Public Accountability in Agricultural Sector. The project focused on building the capacity of communities on the District Implementation Manual (DIM) for the District Agricultural Plans (DADPs) through trainings to the Village Agricultural Facilitation Teams (VAFTs), PETS Committees and Village Government leaders. The project covered a total of 15 villages in 5 wards of Mbulumbulu, Baray, Mang'ola, Endmarariek and Karatu. The project were implemented in collaboration with the Karatu District Council through the Agriculture and Livestock department.

iii) Enhancing Good Governance for Sustainable Livelihoods

In 2016/2017, HKC implemented a 12 months project that focused on promoting good governance and accountability by ensuring effective youths participation in policy development and implementation. The initiatives were implemented through formation of youth platforms in two villages in Mang'ola ward namely Mang'ola Barazani and Laghangareri. The projects were implemented in collaboration with the Karatu District Council through the Community Development Department.

3.4 HKC's expected contribution in the proposed interventions

In this project Hakikazi Catalyst (HKC) will contribute by broadening governance and accountability mechanisms within the climate change framework in strengthening community resilience. HKC will also facilitate capacity building to the Community Based Entities such as CBWSOs on sustainable management of water resource use as well as the forest management entities for sustainable forest management. HKC has built trust,

linkages and strong relationship with the government at all levels as well as engagement with national, regional and International networks such as Policy Forum (PF), Agricultural Non State Actors Forum (ANSAF), Tanzania Water and Sanitation Network (TAWASANET), Tanzania Education Network (TEN/MET), Jukwaa la Katiba Tanzania (JUKATA), East African Civil Society Organizations Forum (EACSOF), Decentralized Climate Financing (DCF) Alliance and Global Network for Disaster. We are grateful that most of the proposed components in the project are within the HKC strategic objectives in the 5 years Strategic Plan (2019 – 2023). We expect to utilize our 15+ years' strong experience and capacity in organizing and implementing community programmes as well as funds management and administration to contribute in empowering and strengthening resilience of communities in Mang'ola, Endamaghan and Baray wards in Karatu district..

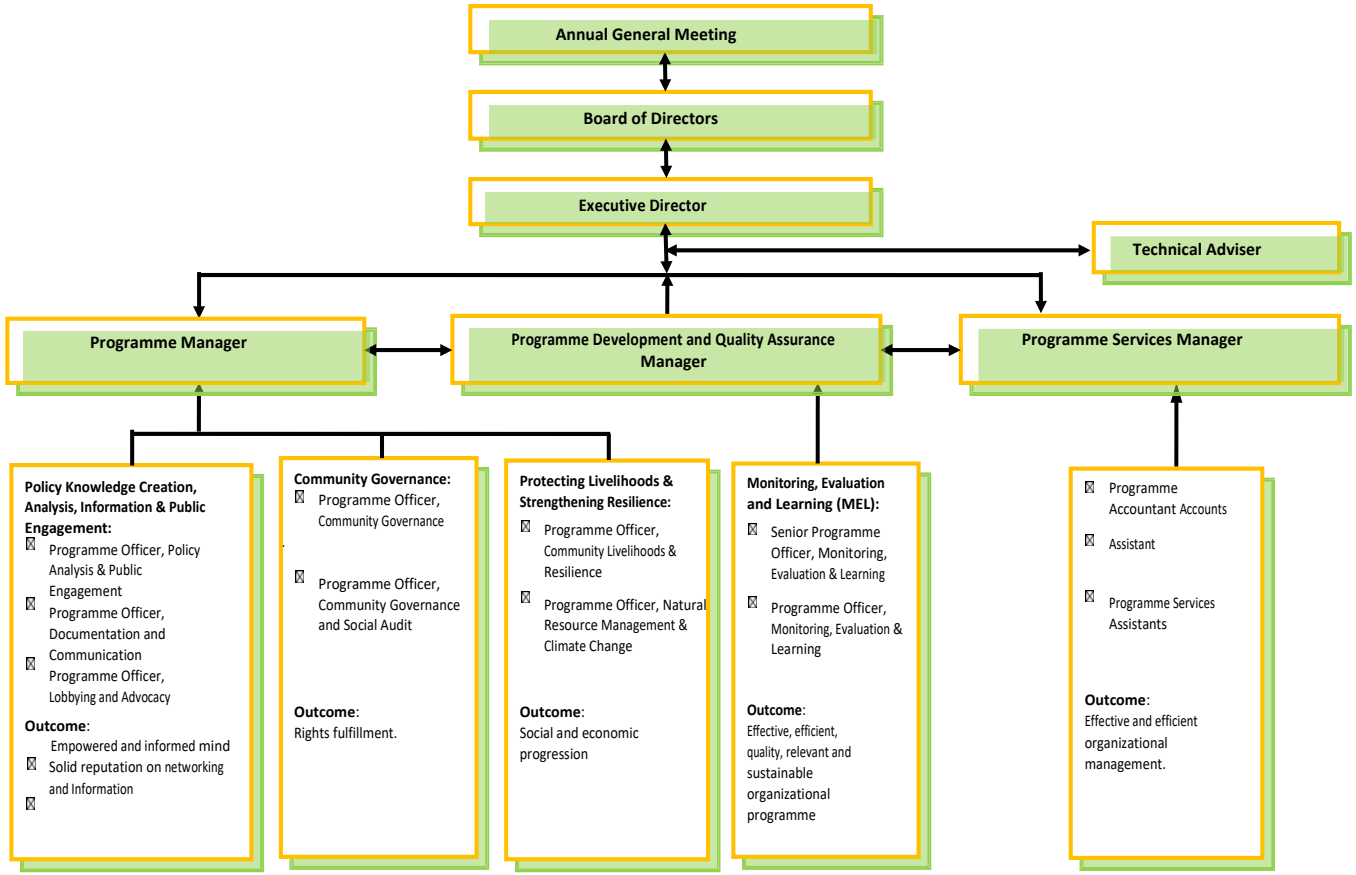
4.0 HAKIKAZI CATALYST PROGRAMMES, MANAGEMENT UNIT TEAMS AND ORGANOGRAM

Unit	Goal	Objectives	Key Functions	Head of Unit
Strategic Programme Management	To enable HKC promote effective participation of the marginalized and vulnerable groups in policy processes to secure economic and social justice	1. Provide strategic management that is effective and efficient to Hakikazi Catalyst programme.	1. Manage performance of HKC according to its vision, mission, and values of the Memorandum of Understanding and Articles of Association. 2. Represent HKC for high visibility engagement. 3. Lead process of formulating, implementing and monitoring performance of HKC strategic plans. 4. Manage programme quality and performance that conform to stakeholders (including grassroots partners) required standards. 5. Managing the overall budget of HKC 6. Secretary to the Board 7. Implement resolutions of Board of Directors 8. Build strategic alliances with donors and peer partners to sustain HKC resource mobilization. This includes managing processes of internal income generation. 9. Authorize financial, capital and human resource requirement through different management levels	Executive Director
Programme Services Unit	Develop and maintain an effective institutional capacity which is responsive to strategic and operational needs	1. Implement a staff development strategy to include formal and informal training, networking and exchange visits 2. Strengthen organizational systems and procedures which include financial, human resources capital, and management of contractual obligations for effective performance 3. Support processes of programme planning and fundraising.	1. Overall responsible in managing systems and procedures including work place policies. 2. Overall responsible in generating financial information for Management decisions. 3. Managing contracts according to agreed terms of reference for grants, services and consultancies. 4. Managing staff working with HR and Finance units. 5. Managing approval processes of accounts, budget lines, codes, petty cash, procurement, bank transactions and reconciliation. 6. Maintain and update inventory of HKC movable and immovable assets. 7. Work with Auditors when auditing HKC finances and asserts. 8. Generate budgets 9. Promote efficient and effective work environment	Programme Services Manager (Units teams involved include: Finance Administration, Human Resource Management, Logistics)

Monitoring and Evaluation Unit	To build and maintain a culture of formulating plans on a rolling basis and apply participatory methodologies to monitor and evaluate programmes and activities	1. To promote accountability in project management. 2. To use reports produced on status of project/programme implementation to help HKC make adjustments	1. To organize office reflection sessions to review progress and lessons learned from HKC programmes. 2. To ensure that during reflections HKC's key partners including donors, collaborating NGOs and CBOs and government partners are invited to participate and advise. 3. To work with HKC Management in organizing and commissioning specific independent evaluations and assessments.	Coordinator M&E
Policy Analysis Unit	To enable citizens to have increased access to policy and decision making information	1. Conduct policy analysis which enables poor communities to influence meaningful changes on poverty-related policies and decisions. 2. Conduct research on national and international policies that aim at revealing the risk of promoting an unsustainable development.	1. Policy profiling to produce HKC position and early warning messages 2. Monitoring policy reforms through participatory research 3. Conducting training on policy inputs, outputs and outcomes. 4. Network and engage with lobby processes on national and international policies.	Policy Analyst
Unit	**Purpose**	**Objectives**	**Key Functions**	**Head of Unit**
Information and Public Engagement	Citizens have increased access to policy and decision-making information	1. Information on poverty-related policies and decisions accessible to citizens in user-friendly formats 2. Participatory community debates on poverty-related policies and decisions are taking place.	1. Engage with the implementation of HKC 4D model processes involving design, digest/ demystify, disseminate and dialogue of policies. 2. Generate materials for policy participation during formulation, monitoring and implementation 3. Provide technical input in producing illustrations, cartoons, message boxes, captions, and quotes related to policy knowledge 4. Establish a solid reputation for Hakikazi as a reliable source of information on development issues in general and as an organization able to provide detailed insights regarding issues in its operational area. 5. Ensure that Hakikazi has the capacity to produce quality media materials on a regular and sustainable basis and to reply promptly and efficiently to requests for information. 6. Manage the documentation and resource centre for Hakikazi Catalyst. 7. Identify and liaise with other information sources at regional, national, and international levels in respect with acquiring and sourcing knowledge materials. 8. Produce communication products such as press releases, newsletters and upload to website 9. Coordinate public events including conferences, print media, TV,	Information and Public Engagement Manager

			radio shows, and exhibitions. 10. Build relations with like minded institutions through different forums and networks.	
Unit	**Purpose**	**Objectives**	**Key Functions**	**Head of Unit**
Accountable Governance for Economic and Social Rights Unit	To influence the government to be more responsive to the economic and social rights of vulnerable groups.	1. Democratic systems and practices strengthened 2. Improved ethics and integrity of public leaders 3. Effective implementation of frameworks through which communities engage with governments 4. Positive attitude of government officials to the needs and rights of the vulnerable groups	1. Provide civic education on Citizenry Rights, Roles and Responsibilities. 2. Build capacities of community groups to monitor and report on performance of democratic lower governance statutes – e.g. village statutes. 3. Build capacity of community groups to promote inclusive and equitable development. 4. Promote processes that address cultural impediments e.g. women empowerment, capacity to address Gender Base Violence. 5. Facilitate Economic and Social Justice civic education through adult literacy. 6. Build capacity of community dialogue platforms to analyze and provide interface feedback on good governance issues. 7. Facilitate active functioning of Centres for Development Learning and Action (CEDLA) to share information, express opinions, promote events, announce decisions and communicate on topics related to local development. 8. Provide training to community groups on the use of resource kits produced by other HKC units on democratic governance. 9. Facilitate processes which enable citizens to monitor and feedback on Ethics and Integrity of Public Leadership e.g. monitor anticorruption strategy, response of leaders to issues addressed by communities etc. 10. Work with government leadership to bridge governance knowledge gap between communities and government.	Accountable Governance Manager (Unit Teams involved include: Governance, Civic Education and Capacity Building of Vulnerable Groups e.g. Pastoralists, PLHAs)

Unit	Purpose	Objectives	Key Functions	Head of Unit
Social Audit Unit	To make contribution to the Poverty Monitoring Master Plan by providing evidence on whether or not poverty is changing and how Government's efforts to reduce poverty are making an impact	1. To give an indication of how Poverty Reduction Policies are working. 2. To ensure good governance and exact more accountability and transparency in resources allocated for poverty reduction strategy. 3. To ensure the sharing of information in order to encourage greater transparency in terms of resource allocation versus actual expenditure 4. To enable communities assess satisfaction on public service delivery.	**1.** Establish and strengthen participatory monitoring of public resources and evaluation capacities of focal NGOs/CBOs, and community based monitoring Committees. Tools to be used include Poverty Audit, PETs and Local Governance Barometer. **2.** Organise independent budget analysis & tracking of central government transfers to local government authorities. **3.** Facilitate economic and budget literacy training. 4. Facilitate Service Delivery Satisfaction Surveys using participatory approaches.	Social Audit Coordinator
Livelihoods and Resilience Unit	Enhance the capacity of vulnerable groups for social protection and change.	1. Effective and transparent engagement between citizens and government 2. Strengthen formal and informal networks that promote social protection systems for vulnerable groups 3. Increase capacity of communities to organise groups to secure their rights, including the right to a fair reward 4. Build the resilience of communities to manage climate change	1. Promote both intra and inter livelihoods diversification intervention for vulnerable groups (small producers and pastoralists) through training and linking 2. Facilitate participation of vulnerable groups by strengthening their voices and choices in policy reforms 3. Training, linking, stimulating dialogue and advocacy for small vulnerable producers to take action on livelihood constraints and opportunities. 4. Build capacity of vulnerable groups to claim and own priority capital asserts (human, social, political, natural, and financial). 5. Build capacity of vulnerable groups to strengthen social capital and other protective safety nets	Livelihoods and Resilience Coordinator


Annual General Meeting
Board of Directors
Executive Director
Technical Adviser
Programme Manager
Programme Development and Quality Assurance Manager
Programme Services Manager
Policy Knowledge Creation, Analysis, Information & Public Engagement:
Programme Officer, Policy Analysis & Public Engagement
Programme Officer, Documentation and Communication
Programme Officer, Lobbying and Advocacy
Outcome:
Empowered and informed mind
Solid reputation on networking and Information
Community Governance:
Programme Officer, Community Governance
Programme Officer, Community Governance and Social Audit
Outcome:
Rights fulfillment.
Protecting Livelihoods & Strengthening Resilience:
Programme Officer, Community Livelihoods & Resilience
Programme Officer, Natural Resource Management & Climate Change
Outcome:
Social and economic progression
Monitoring, Evaluation and Learning (MEL):
Senior Programme Officer, Monitoring, Evaluation & Learning
Programme Officer, Monitoring, Evaluation & Learning
Outcome:
Effective, efficient, quality, relevant and sustainable organizational programme
Programme Accountant Accounts
Assistant
Programme Services Assistants
Outcome:
Effective and efficient organizational management.

Summary of the DCF Project 2016 - 2018

The Decentralized Climate Finance (DCF) Project was being implemented by the Tanzanian President's Office – Regional Administration and Local Government (PO-RALG) which was the National Coordinator in collaboration with the Vice President's Office, Ministry of Finance and Planning, Institute of Rural Development Planning (IRDP), Local Government Training Institute (LGTI), Tanzania Meteorological Agency (TMA) and Hakikazi Catalyst. The project was funded by UKAID with technical support from International Institute of Environment and Development (IIED) and United Nations Capital Development Fund (UNCDF).

The project aimed at providing technical and financial support to the government of Tanzania to build its capacity to mainstream climate change into local government planning and financial systems and to prepare PO-RALG to be accredited as a National Implementing Entity (NIE) to the Green Climate Fund (GCF). The expected outcomes of the project after 5 years of its implementation were;

i. PO-RALG to become a National Implementing Entity of the GCF, giving it Direct Access to climate finance

ii. Establishment of an operational Performance-Based Climate Resilient Grant system – A Mechanism established for accessing and managing global/national climate finance and channeling to LGAs

iii. Establishment of a functional decentralized climate finance and planning mechanisms in 15 LGAs – A Mechanism established for LGAs to mainstream climate change into planning & budgeting

iv. Implementing public goods investments that build climate resilience of climate vulnerable people in 15 LGAs

v. Generation of evidence and learning on the effectiveness of devolved climate finance investments for improving community resilience, differentiated by gender and used to inform policy

The project was designed as a pilot study in Monduli, Longido and Ngorongoro district councils and expected to scale up to other 12 district councils in Tanzania mainland.The following is a summary of DCF projects invested/implemented in the district councils of Monduli, Longido and Ngorongoro.

Some pictures showing the types of projects implemented through the decentralized climate funds. The projects were identified and prioritized by the communities.

Figure 9: Monduli District Council

Water storage tank constructed at Meseranijuu Village through a decentralized climate funds.

Water storage tank, water delivery points (DPs) and cattle trough in Irerendeni Village, Engaruka

Figure 10: Longido District Council

Rehabilitated cattle dip in Lerangwa village.

Food storage warehouse at Mairowa ward

The rehabilitated Mairowa veterinary laboratory.

Figure 11: Ngorongoro District Council

The Installed Meteorological Stations at Ngaresero Primary School, Digodigo Secondary School, district Council Headquarter, Ololosokuan and Malambo.

Annex 5: Proposed Memorandum of Understanding for EE

PROPOSED MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING FOR EXECUTING THE KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES" (KARAHADA)

BETWEEN

HAKI KAZI CATALYST of P.O.Box781 Arusha- Tanzania
and
KARATU DISTRICT COUNCIL of P.O.Box190 Karatu- Arusha

NOW THIS AGREEMENT WITNESSES THE FOLLOWING:

1. That, the parties shall jointly execute the project titled "Karatu Climate Resilience And Adaptation Project for Hadzabe and Datoga Communities" (KARAHADA)
2. The parties of this agreement shall establish the Project Steering Committee (PSC) which will consist fifteen members and among of these members two shall come from the Principle Executing Entity, two from the Co-executing entity, four members shall come from public institution such as Regional Administrative Secretary's office, National Environment management Council, Sector ministries involved in the project and one member shall come from Tanzania Civil Society Forum on Climate Change.
3. That, the main function of the committee shall be to oversee project implementation.
4. That, the chairperson of Co-Executing Entity shall be the chairperson of the Committee whereas the Executive Director of the Principal Executing Entity shall be the Secretary of the Committee, while the Executive director of the Co-Executing Entity shall be the Co-secretary of the Committee
5. That, in this agreement the Principal Executing Entity shall lead and coordinate project implementation
6. That, the Co-Executing Entity shall provide staff for project implementation.

7. That, the parties in this agreement shall open a special bank account for the project.
8. That, such special project bank account shall consist of four signatories whereby two shall come from the Principal Executing Entity and the other two shall come from the Co-Executing Entity.

In witness, therefore the two parties have executed those present on the date and in the manner hear after appearing

Annex 4: Proposed Terms of Reference for KARAHADA Project Coordinator.

1. Introduction

Karatu District Council and Haki Kazi Catalyst HKC through NEMC are implementing the project titled "Karatu Climate Resilient and Adaptation project for Hadzabe and Datoga Communities"(KARAHADA) project funded by the Adaptation Fund (AF). This project will be implemented for three (3) years. The project seeks to reduce the vulnerability of Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in Karatu district to climate change, focusing on the five key issues, water scarcity, tourism, forest restoration, diversified livelihoods and good governance. Climate change in Karatu is manifested in increased mean annual temperatures and increased variability in rainfall patterns. Climate change projections predict that mean annual temperatures will continue to increase in the district and that variability in rainfall patterns will be exacerbated. Over the past decades, the seasons appear to have been reduced in number of days and patterns, such that what was termed as good seasons has disappeared. Currently, experience shows that seasons are progressively being replaced by a more simplified pattern of events whose characteristics are predominantly hot (hotter) and wet. Rains are more erratic, coming at unexpected times in and out of the seasons. In particular, there is less predictability as to the start of rainy seasons. In most cases rainy seasons are shorter. Dry periods have increased in length and drought is more common. With recognizable seasons, unusual and "unseasonable" events are occurring more frequently, including heavy rains in dry seasons, dry spells in rainy seasons, and storms at unusual times and temperature fluctuations. It is now common to witness rains which are more violent and intense and punctuated by longer dry spells within the rainy seasons. The

impacts of such shift in seasonality and climate trends, have already severely disrupted food availability, led to the displacement of communities, loss of life and assets, and caused an overall reduction of community resilience.

The project will increase climate resilience of rural communities and will therefore reduce the impacts of climate change for communities in Karatu district particularly in Baray, Endamaghan and Mang'ola wards. This will be achieved through implementation of integrated concrete adaptation measures covering the following sectors: water, agriculture, livestock and forest management. In this way the project will adopt a comprehensive integrated approach in order to tackle the multiple effects of climate change as well as to enhance the population's adaptive capacity through the following five components:

(i) Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

(ii) Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghan Wards in Karatu District

(iii) Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

(iv) Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

(v) Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues

2. Objectives of the Assignment

The objectives of the project coordinator will be to ensure well coordinated and effectively implemented project within the Tanzanian context but taking into

account AFs financial management rules. The PC will be responsible for the overall management of the project, including the mobilization of all project inputs and the supervision of project inputs and the supervision of the project staff, consultants and sub contractors. The PC will report to the District Executive Director (DED) for day to day project activities and for all of the projects substantive and administrative issues. From the strategic point of view will report on a periodic basis to the Project Steering Committee. The PC will perform a role with relevant district technical departments, NEMC implementing partners (activity/ sub project contractors) and other stakeholders. Additional details are in the approved project document.

3. Duties and Responsibilities

The project coordinator (PC) will lead the project team and provide overall operational management for the successful execution and implementation of the project. The PC has the daily responsibility for management, coordination and supervision of the implementation of the project and delivery of the result in accordance with the full project proposal and agreed work plans. The PC will report to the Project Steering Committee (PSC). The responsibilities of the PM will include the following:

- Oversee and manage project implementation, monitor work progress and ensure delivery of output and within the specified constraints of time and cost outlined in the project document.
- Report to Karatu District/ HKC and PSC regarding project progress.
- Developandfacilitateimplementationofacomprehensivemonitoringandreportingsystem.
- Ensure timely preparation of detailed annual work plans and budgets for approval by the PSC.
- Assist in the identification, selection of consultants and other experts as required.
- Supervise, coordinate and facilitate the work of the administrative/ technical team (consisting of the assistant coordinator, finance/ administration staff and consultants).
- Control expenditures and assure adequate management of resources.
- Establish linkages and networks with on-going activities by other government and non- government agencies in the United Republic of Tanzania.
- Provide input to management and technical reports, and other documents as described in the M & E plan for the overall project. Reports should contain assessments

of progress in implementing activities, including reasons for delays and recommendations necessary improvements.

- Inform the Karatu District Authorities/ HKC and PSC, without delay, of any issue or risk which might jeopardize the success of the project.
- Liaise and coordinate with NEMC on a regular basis.

4. Qualifications and experience

• Master's degree in environment and natural resource management, agriculture, climate change adaptation or a closely related discipline.

• A minimum of 10 years' relevant working experience with 5 years specific experience in climate change adaptation projects.

• Demonstrated solid knowledge of climate change adaptation management techniques, practices and technologies.

• Demonstrated solid knowledge of environment and ecological restoration with an emphasis on water resource management.

• Experience in the public participation and development process associated with environmental and sustainable development and asset.

• Demonstrated working experience with Adaptation Fund or other similar donor funded projects.

Skills and competencies:

i) Experience in working and collaborating within governments is an asset.

ii) Effective communication skills both written and oral in English.

iii) Creative and in dependent report writing skills and ability to structure persuasive arguments in a diplomatic way is highly desirable.

iv) Excellent interpersonal skills

v) Strong IT skills and should be computer literate in MS Office and project management software

vi) Strong team leadership skills.

vii) Good moderating skills (in workshops, facilitation and policy making skills), presentation (I high level meeting), communication (with flair and enthusiasm), in project and time management advisory skills and experience in empirical work.

viii) Ability to build consensus, collaboration and maintain effective working relationships within internal and external stakeholders, at all levels including in an international and cross- cultural context.

Annex 7: Environmental and Social Management Plan (ESMP) for Karatu District Council

THE UNITED REPUBLIC OF TANZANIA
KARATU DISTRICT COUNCIL

Karatu Climate Resilience and Adaptation project for Hadzabe and Datoga communities (KARAHADA)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES (KARAHADA)

September 2021

1. INTRODUCTION

1. 1 Project Background

The project will specifically target the most vulnerable groups who have less resource to adapt to climate change in Karatu and is built on the principles of local empowerment through engagement of vulnerable and grassroots communities such as Hadzabe (hunters and gatherers) and Datoga (blacksmith) tribes and village governments and community groups. The overall objective of this project is to enhance resilience and adaptive capacity to effects of climate change while reduce vulnerability of selected communities in Karatu District. Specifically, the project will address the following objectives:-

(i) To Enhance integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

(ii) To enhance climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu District

(iii) To Improve climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

(iv) To Promote climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

(v) To Enhance capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues

The project has the following five (5) components:

Component 1: Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

Component 2: Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatheres) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu District

Component 3: Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

Component 4: Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

Component 5: Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues

The following are expected outcome of the project:

a) Increased food security, income and resilience to climate change impact through Climate Smart practices in selected villages in the three wards of Baray, Endamaghan and Mang'ola

b) Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) in selected villages in the three wards of Baray, Endamaghan and Mang'ola

c) Improved forests services and functions to sustain climate change resilient livelihoods in selected villages in the three wards of Baray, Endamaghan and Mang'ola

d) Improved Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages of the three wards of Baray, Endamaghan and Mang'ola

e) Improved capacity of Karatu District Council and Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning, implementing and monitoring climate adaption actions

1. 2 Project Coordination and Implementation Arrangements

1.2.1 The National Implementing Entity (NIE):

The project will be implemented by the National Environment Management Council (NEMC). NEMC has significant experience in Implementingprojects and programs of this nature, with dedicated Unit for climate change adaptation and executions of the NIE mandate related to the AF operations in the United Republic of Tanzania. The following implementation services will be provided by NEMC under this project:

i) Overall coordination and management of NIE functions and responsibilities;
ii) Facilitate interactions with AF secretariat and other related stakeholders at global scales;
ii) Oversight of project implementations and reporting on budget performance;
iii) Quality assurance and accountability for outputs and deliverables during project development, implementation and on completion phases;
iv) Receipt, management and disbursement of the AF's funds in accordance with the financial standards of the AF;
v) Oversight and quality assurance of evaluation processes for project performance and ensuring that lessons learned/best practices are incorporated to improve future projects in the United Republic of Tanzania; and
vi) General administration and support costs including legal services, procurement and supply management, IT and human resources management

1.2.2. The Executing Entities:

Haki Kazi Catalyst (HKC) jointly with Karatu District Council will be the overall coordinator of the project, through the services of a Project Management Unit (PMU), which will be staffed with a Project Coordinator, Monitoring and evaluation officer, a Project Driver and a Project

Accountant who will also serveas Project Administrative Support Staff. Strong participation of other District staff will be at the project implementation level as activities involve cross-sectoral coordination. A Project Steering Committee will be set up to steer the project execution. The Committee will be chaired by the Chairperson of Karatu District Council. The Secretariat of the Committee will be the PMU through the District Executive Director and the Executive Director of HKC. The members of Project Steering Committee will be District Executive Director of Karatu,Chairperson of the Karatu District Council, one representative from each of the following sector ministries: the ministry responsible for rural water supply (RUWASA) , the ministry responsible for local governments ministry responsible for agriculture, the ministry responsible for livestock, the ministry responsible for environment and climate change, the ministry responsible for forestry and natural resources, ministry responsible for energy, ministry responsible for industries, ministry responsible for tourism. Other members will an officer from National Environment Management Council (NEMC), two members from HKC, one member from the Tanzania meteorological Agency, and one member of Tanzania Forest Services Agency.

1. 3 Project Beneficiaries

The targeted project beneficiaries include mainly the local communities. Such communities include hunters and gatherers, blacksmith farmers, schools, health facilities, vocational college, other rural communities who are vulnerable to climate change effects in Karatu district council. The vulnerable groups including women, youth, the elderly, the physically challenged, flood and drought victims and HIV/AIDS orphans form a special category of beneficiaries whose interest should be safeguarded by the project implementation team/institutions.

2. COMPONENTS OF THE ESMP FOR THE KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES-KARAHADA

The ESMP for the KARAHADA-Project includes the following components:

(a) Subproject activity;

(b) Potential adverse effects/impacts;

(c) Proposed mitigation measures;

(d) Institutional responsibility for mitigation (including enforcement and coordination);

(e) Monitoring requirements;

(f) Responsibility for monitoring and supervision;

(g) Implementation schedule; and

(g) Cost estimates.

A template of the Environmental and Social Management Plan to guide implementation is provided as Table 2 ***Table 6***

3. PREVAILING POLICY LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL IMPACT MANAGEMENT

This section highlights the policies, legal and institutional frameworks for environmental and social impacts management of the proposed projects in the United Republic of Tanzania..Generally, the implementation of this project will be governed by several national guidelines, policies and regulations including National Environmental Policy, 1997, National Water Policy, 2002, Forestry Policy 2002, the National Environmental Management Act 2004, Water Resource Management Act, 2009, National Agriculture Policy 2013, Livestock policy 2004, The National Gender Policy, 2002, Community Development Policy, 1996, The Supply and Sanitation Act, 2009, The HIV and AIDs (Prevention and Control) Act of 2008, Occupational Health and Safety Act, 2003, National Climate Change Response Strategy 2021, National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020, Water Safety Plan – Resilient to Climate Change for Rural Water Supply Services (WSP-RCC-RWS) 2015, Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) and Water Quality Management Standards Regulations 2007.

The National Environmental Management Act 2004 have provisions that protect and enhance the quality of natural and cultural environment of Tanzania for the benefit of both present and future generations, and assures all citizens a sound and safe environment adequate for their health and wellbeing. It is the overall guiding document on administration and management of environment matters and social safeguards. It provides for legal and institutional framework for sustainable management of environment in Tanzania. It outline principles for management, impact and risk assessment, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance and enforcement. Sections 82(1) and 230(2) (h) and
(q) of EMA Cap.191 0f 2004 EIA and AE Regulations, 2005 provide for the procedures to conduct EIA and Audit; and identifies/categorizes projects which are mandatory and non – mandatory to conduct EIA. According to the National Environmental Management Act (2004) and the Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) and Sectorial Regulations and Guidelines of the United Republic of Tanzania, this project do not do not fall within the First Category of projects that require full EIA, as the proposed interventions of the project possess no significant negative impacts on the environment and to the community. There is no activity under any component which require full EIA as magnitude of impacts are small and location of the interventions to do not require further assessments. However, Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) will guide implementation of ESMP during executions of project activities under component 1 to component 5.

The National Water Resource Management Act, 2009, National Environmental Management Act 2004 , National Water Quality Management Standards and Regulations, 2007 and Water Safety Plan –Resilient to Climate Change for Rural Water Supply Services (WSP-RCC-RWS) 2015 , which provide for "Water Use Rights and Permit Standards". The project shall comply with the relevant sections of the Acts, Standards and regulations to ensure sustainable utilization and conservation of water with regards to water supply and micro-irrigation related activities under component 2 as water supply activities will largely be dominated with construction of boreholes and development of supply systems. It is expected that, water user permits shall be required to be processed. Probable project micro-irrigation-related activities may require some letters and permits for water users, but this will easily processed by the Karatu District Authority through the Karatu Rural Water Supply Agency (RUWASA) Irrigation interventions in Tanzania are required to adhere to the National Irrigation Act, 2013 (No. 5 of 2013). The Act provides detailed standards and guidelines for farmers and block farming groups to form "Water User Associations) stressing the need for communities to work together and manage water resources sustainably. The project will abide to these standards and guidelines.

The project will abide to Forest Act, 2002 (Act No. 7 of 2002) as well and the Environmental management Act 2004 which provide guidance for reforestation, tree planting, restoration, reclamation and rehabilitation of ecosystems and all activities that involve planting of trees and environmental conservation. The project shall apply the standards under the Long term Perspective Plan 2010-2025 and its Five year development Plans particularly the Third National Five Year Development Plan 2020/21-2025/26. Community Development Policy 1996, National Water Policy 2002 and Cooperative Development Policy, 2002 for establishment of community cooperative their operational procedures and relevant gender policies, as well as other standards that protect women, the elderly, children and most vulnerable households. The project will also align with financial planning, management and audit guidelines of the United Republic of Tanzania.

Table below provides key policies, legislation and strategies which will guide the implementation of this ESMP.

Table 1: National Policies, legislation and strategies which implementation of this ESMP

Name of Policy	**Relevance to the proposed project**
National Environmental Policy, 1997	Although, the proposed project is viewed to promote social and environmental integrity, its implementation need to be guided by environmental management tools which promote environmental friendly technologies to support actions under component 2,3 and 1; and for stakeholders involved and gender considerations
National Water Policy, 2002	The policy identifies the importance of water resources to promote social and economic development including for irrigation and water supply for domestic use. It addresses the need to have strong institutional to ensure standards and guidelines are adhered for rural water supply in construction and service. The policy is more relevant to activities under component 2 and 1
The National Land Policy,1997	The policy statement provides for the strategic planning and rapid appraisal identification of key planning issues in land and environmental management, and in the provision of housing, infrastructure and services through participatory manner. The policy is more relevant to all activities described under component 1,2 and 3
The National Investment Promotion Policy, 1996	The policy identifies the need to conserve and protect the environment for sustainable development; but also the pledge for provision of environmental standards to be subscribed by all investment projects.
The National Energy Policy 2003	The Policy requires investors to promote environmental impact assessment as a requirement for all energy programmes and projects. Promote energy efficiency and conservation as a means towards cleaner production and pollution control measures. Promote development of alternative energy sources including renewable energies and wood fuel end-use efficient technologies to protect woodlands and biomass energy.
National Sustainable Industrial Development Policy, 1996	The policy advocates sustainable industrial production and wasteminimization through cleaner production options
National Strategy for Growth and Poverty Reduction (MKUKUTA The NSGRP, 2008	The NSGRP paper recognizes the roles of industries in poverty eradication, therefore should strategically be established in that order bigger vision with mainstreaming environment as a crosscutting issues.
Tanzania Vision 2025	The Vision recognizes that, Tanzania's economy is highly dependent on the climate, because a large proportion of GDP is associated with climate- sensitive activities, particularly agriculture. It elaborates that, extreme weather related events such as droughts and floods have already led to major economic costs in the country, reducing long- term growth and affecting millions of people and their livelihoods and calls for adaptation actions
Community Development Policy, 1996	Community development is realized when people are enabled with strong and sustainable adaptive capacity to climate change effects and identify their climate related problems and plans ways toward solving them. Therefore community member should be involved in planning, decision– making and implementation of development and adaptation initiatives

The National Gender Policy, 2002	The Policy provides for guidelines in establishing and development of gender sensitive plans and strategies in all projects, sectors and institutions; while ensuring that there are equal and quality opportunities for both men and women. This project takes policy guidance on gender to foster its implementation in-line with the AF's environment and social policy
The National Health Policy, 2003	The document addresses the National goals on universal access to safe and clean water; with reduction of malnutrition diseases burden, infant and maternal mortality while increasing life expectancy by promoting environmental health and sanitation. For this to be realized improved environmental cleanliness and monitoring of water quality and safety are a key requirement.
National Agriculture Policy2013	The objective of the Agriculture policy is to improve food security and alleviate poverty, while promoting integrated and sustainable use and management of natural resources such as land, soil, water and vegetation. It also recognizes and put guidance to promote adaptation and resilience actions in the sector. Activities under component 1,2 and 3 much very much with the directives of this policy.
Livestock policy 2004	Recognize that Tanzania is a low-income rural economy, with livestock contributing 30% to agricultural value added and 7% to and to Poverty reduction, and 99% of the livestock stock is in the hands of small farmers and pastoralists who are vulnerable to impacts of climate change. Activities under component 2 and 3 will be implemented in line with directives of this policy.
Forestry Policy 2002 underreview	The policy recognizes that, climate change impacts affect many forest and ecosystem processes. Is guides to protecting and conserving biodiversity through application of best practices in soil and water conservation; expanding forest cover and use of adaptive species as well as linking conservation areas as vital measures in adapting to climate change and ensuring continuity in the availability of ecosystem goods and services hence improving the livelihoods of Tanzanian. It also promotes bee keeping and tree planting as potential alternative for livelihood improvement as adaptation measures
National Climate Change Response Strategy 2021	This Strategy has been developed with a Vision to enhance climate resilience in Tanzania and reduce the vulnerability of natural and social systems to climate change. The Mission is to establish efficient and effective mechanisms to address climate change adaptation and achieve sustainable national development through mitigation actions with enhanced international cooperation. The goal of this Strategy is to enable Tanzania to effectively adapt to and participate in global efforts to mitigate to climate change with a view to achieving sustainable economic growth in the context of the Tanzania's national development blueprint, Vision 2025; Five Years National Development plans; and national cross sectoral policies in line with established international policy framework. The strategy aims to build the capacity of the nation to adapt to climate change impacts and to enhance resilience of ecosystems to the challenges posed by climate change including enhance public awareness on climate change issues

NDCs 2020-2025	Guided by the Paris Agreement Work Programme adopted at COP24 focusing on the NDCs of the Tanzania intends to contributing to reductions in climate vulnerability and enhance long-term resilience to theadverse impacts of climate change; In doing so, it will significantly reduce the impacts of spatial and temporal variability of rainfall including droughts and floods which have long-term implications to all productive sectors and ecosystems, particularly the agricultural sector. It puts, adaptation measures which are expected to significantly reduce the risks of climate related disasters compared to the current situation and enhance access to clean and safe water from 60% to above 90% of the totalpopulation in both rural and urban areas and call the government to put in place adaptation plans to all levels of government structures including at village levels
National Environmental Management Act Cap 191of 2004 (EMA, 2004)	An overall guiding document on administration and management of environment matters and social safeguards. It provides for legal and institutional framework for sustainable management of environment in Tanzania. It outline principles for management, impact and risk assessment, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance and enforcement The Act, further provides the basis for implementation of international instruments on environment. The proposed project do not conflict with any provisions of this Act. However, EMA, 2004 will guide its implementations as it promotes actions geared to enhance climateresilient in Tanzania
National Biodiversity Strategy and Action Plan(NBSAP) 2015-2020	Tanzania is one of the twelve mega-diverse countries of the world endowed with different natural ecosystems that harbor a massive wealth of biodiversity. The country hosts 6 out of the 25 world renowned biodiversity hotspots hosting more than one-third of the total plant species on the continent and about 20% of the large mammal population. The Biodiversity wealth contributes significantly to the sociocultural, economic and environmental goods and services to the country and peoples` livelihood. The NBSAP 2015-2020 highlights the value and contribution ofbiodiversity to human well-being; the causes and consequences of biodiversity loss; legal and institutional framework; lessons learned; national biodiversity targets; strategies and actions needed to mainstream biodiversity into development, poverty reduction and natural resource management plans. NBSAP 2015-2020 has goals to: a) *Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; b) Reduce the direct pressures on biodiversity and promote sustainable use c); To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; d) Enhance the benefits to all from biodiversity and ecosystem services; and* *e) Enhance implementation through participatory planning, knowledge management and capacity building. This project will promote ecosystem and biodiversity conservation through actions under component 1,2,and 3*

Water Resource Management Act, 2009	The Act provides for the principles of integrated sustainable water resources management (precautionary approach, polluter pays principle, principle of ecosystem management, principle of public participation, principle of international cooperation and the principle of common but differentiated responsibilities). The Act, in Sect.8 and Sect.9 further provides for Strategic Environmental Assessment and Environmental Impact Assessment practice with respect to EMA Cap.191 of 2004. It also identifies the importance of water resources to promote social and economic development including for irrigation and water supply for domestic use. It addresses the need to have strong institutional to ensure standards and guidelines are adhered for rural water supply in construction and service. Water Resource Management Act, 2009 is more relevant to activities under component 2 and 1
The Water Supply and SanitationAct, 2009	This Act has several provisions on the right of every citizen to have access to efficient, effective and sustainable water supply and sanitation services; while taking into account the need to protection and conservation of water resources. It also addresses provisions of safe and clean water for rural villages and combat the effects of climate induced water scarcity in vulnerable communities.
Employment and Labor Relation Act, 2004	Prohibits employment of children less than 18 years of age, stipulated types of contracts that can be entered with employees. The Act makes provisions for core labor rights; establishes basic employment standards, provides a framework for collective bargaining; and provides for the prevention and settlement of disputes. Activities under Component 1,2,3 and 4 will involve employment of communities hence this Act will be adhered and obeyed by the Project Management Unit
Occupational Health and Safety Act, 2003	The law deals with the protection of human health from occupational hazards. Among other provisions, it requires the employer to ensure safety of workers by providing appropriate safety gear at work place. Part V of the Act emphasizes the provision of adequate clean, safe and wholesome drinking water, sufficient and suitable sanitary conveniences and washing facilities in work places. This project will adhere to all relevant provisions of this Act
The National Land Act Cap113, 2002	The administration of land, land allocation and occupation in to public land and general land, village land and reserved land. The Act provides that hazardous land is characterized of danger or degradation of or environmental destruction, if developed. Under this Act, the right to occupancy is liable; though require prompt payment fees or compensationin case of acquisition from owner. The proposed project will not occupy any land for investments. It is not planning to resettle any person during its implementations or its any phase of its lifetime.

The HIV and AIDs (Prevention and Control)Act of 2008	Employer is required to coordinate a workplace programme on HIV and AIDS, for the purposes of prevention the spread but also serving the already infected without stigma. Activities under component 1, 2, 3 and 4 empowers vulnerable and marginalized groups and girls who arevulnerable for new HIV and AIDS affections. This project improve thelife quality and living standards of those community groups through income generating activities, water supply and improved farming systems
Workers Compensation Act No.20, 2008	The Act provides for compensation to employees for disablement of deathor injuries or resulting from injuries or diseases sustained or contracted in the course of employment. Workers may be exposed to unforeseen hazards or environment risk during execution of activities underComponent 1, 2 and 3, therefore the Act is relevant to this project and will guide executions of project activities.
EIA and Audit Regulations,2005	Made Under Sections 82(1) and 230(2) (h) and (q) of EMA Cap.191 0f 2004, these Regulations provides for the procedures to conduct EIA and Audit; it categorizes the EIA mandatory and non – mandatory projects EIA. The Regulations, further depicts the writing and contents of EIS document. However, since this project has no significant negative impacts on the environment and to the community, no EIA is proposed to be conducted.
Environmental Hazardous Waste Regulation, 2009	The Regulations provides that hazardous wastes should be managed properly during storage, packaging, labeling, transport and disposal processes. It should be treated at factory level before disposal or discharge. This project will not use any hazardous materials to attract any disposal attentions.
Water Quality Management Standards Regulations 2007	These Regulations sets procedures for protecting human health and conservation of the environment; enforce minimum water quality standards prescribed by the National Environmental Standards Committee(NESC); enable NESC to determine water usages for the purposes of establishing environmental quality standards and values for each usage; and ensure all the discharges of pollutants take account the ability of the receiving water to accommodate without detriment to the uses specified for the waters concerned. The proposed water supply is expected to meet the standards described in these regulations

Table 3: Relevant regional and International Conventions

Name of International Conventions , Protocols and Agreement	Relevance to the proposed project

United Nations Convention on Biological Convention (UNCBD)	The United Nations Convention on Biological Diversity (CBD) was negotiated under the patronage of the United Nations EnvironmentProgramme (UNEP). It was opened for signature at the June 1992 UN Conference on Environment and Development (UNCED) and entered into force on 29 December 1993, ninety days after the 30th ratification. As of October 1998, more than 170 countries had become Parties. The three goals of the CBD are to promote the conservation of biodiversity,the sustainable use of its components, and the fair and equitable sharingof benefits arising out of the utilization of genetic resources. All partnerSates are signatory of this convention which was ratified by the government in 1993. The convention calls for the adoption of national strategies, plans and programmes for the conservation and sustainable use of biologicaldiversity into their relevant sectoral and cross-sectional plans, programmes and policies. One of the tools that are prescribed for the management of biodiversity is environmental assessment. Article 14 of the convention deals with impact assessment and minimizing of adverse impacts of activities that are likely to cause significant adverse effects on biological diversity (Glowka, L, et al, 1992). The Convention contains a number of provisions of particularimportance to indigenous peoples. These provisions are contained in Articles 8(j), 10(c), 17.2 and 18.4. Of these, Article 8(j) is regarded as the core provision. It calls upon Contracting Parties to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity, subject to national legislation. The Convention encourages Parties to promote the wider application of such knowledge, innovations and practices with the approval and involvement of the indigenous peoples concerned. Article 8(j) also requires that benefits arising from the application of traditional knowledge, innovations and practices should be shared equitably with the indigenous communities concerned. The Convention does not use the term “indigenous peoples”, but refers to them in terms of “indigenous and local communities embodying traditional lifestyles”. This phrase is interpreted to include the people around the world who have not adopted industrialized practices toexploit agricultural, forest, animal and fisheries resources. Article 10, which deals with the sustainable use of components of

	biological diversity, requires that each Contracting Party protect and encourage the use of biological resources in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirements. This Article has important implications for cultural survival, since particular species form the spiritual and economic focus of many indigenous cultures. The continued customary use of such species is therefore essential to the existence of such cultures. This project is expected to conserve biodiversity and promote improved ecosystem functions and services, mainly through the proposed actions under component 3 and 4
United Nations Framework Convention on Climate change(UNFCCC)	The United Nations Framework Convention on Climate Change (UNFCCC) provides the basis for global action "to protect the climate system for present and future generations". The Convention on Climate Change sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. The convention promotes parties to take both adaptation and mitigation actions. The proposed project is well in line with actions proposed under the UNFCCC
United Nations Convention to Combat Desertification	The objective of the United Nations Convention to Combat Desertification (UNCCD) is to combat desertification and to mitigate the effects of droughts in seriously affected countries, especially those in Africa. It seeks to achieve this objective through integrated approaches to development, supported by international cooperation and partnership arrangements, in affected areas. It lays emphasis on long term strategies to focus on improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level. The proposed project is designed to implement the requirements of the UNCDD)

The Paris Agreement	The Paris agreement Acknowledge that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity and promotes actions towards adaptation and mitigation contributions, and establishes the Nationally Determined Contributions (NDCs). This project is well reflecting the needs and guides of the Paris Agreement through Components 1,2,3,4 and 5. It is contributes to global adaptation and mitigation efforts.

3. GUIDANCE FOR IMPLEMENTING ENTITIES ON COMPLIANCE WITH THE ADAPTATION FUND ENVIRONMENTAL AND SOCIAL POLICY

The Adaptation Fund (AF) has developed guidance on Environmental and Social Policy (ESP), approved in November 2013 and revised in March 2016, which ensures that projects and programmes supported by the Fund promote positive environmental and social benefits, and mitigate or avoid adverse environmental and social risks and impacts. "Managing these risks is integral to the success of the projects/programmes and the desired outcome". The guideline has 15 principles. Out of these 15 principles; this project found the following 11 principles are relevant to the proposed project. These are Principle 1: Compliance with the Law; Principle 2: Access and Equity; Principle 3: Marginalized and Vulnerable Groups; Principle 5: Gender Equality and Women's Empowerment; Principle 8: Involuntary Resettlement; Principle 9: Protection of Natural Habitats; Principle 10: Conservation of Biological Diversity; Principle 11: Climate Change; Principle 12: Pollution Prevention and Resource Efficiency; Principle 13:Public Health; Principle 14: Physical and Cultural Heritage; and Principle 15: Lands and Soil Conservation. This ESMP describes how this project will address and be compliance to the AF guidelines. The Adaptation guidelines and Principles are elaborated in detail in **Table 4.**

Table 4: Principles to Guide screening and Management of Environmental and SocialImpacts of planned activities for the proposed activities

Principle 1: Compliance with the Law	Projects/programmes supported by the Fund shall be in compliance with all applicable domestic and international law. In this regards, the Implementing Entity (IE) will ensure that the project/programme comply with applicable domestic and international law as described at section 2 above. In support of the Proposal, the IE will provide, when relevant, a description of the legal and regulatory framework for any project activity that may require prior permission (such as planning permission, environmental permits, construction permits, permits for water extraction, emissions, and use or production or storage of harmful substances). For each such a requirement, the IE will describe the current status, any steps already taken, and the plan to achieve compliance with relevant domestic and international laws.
Principle 2: Access and Equity	Projects/programmes supported by the Fund shall provide fair and equitable access to benefits in a manner that is inclusive and does not impede access to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, and land rights. Projects/programmes should not exacerbate existing inequities, particularly with respect to marginalized or vulnerable groups. The process of allocating access to project/programme benefits should be fair and impartial. A fair process treats people equally without favoritism or discrimination, and an impartial process treats all rivals or disputants equally. Furthermore, the project/programme will be designed and implemented in a way that will not impede access of anygroup to the essential services and rights mentioned in the Principle. Possible elements that may be considered The IE can demonstrate compliance of the project/programme by describing the process of allocating and distributing project/programme benefits, and by showing how this process ensures fair and impartial access to benefits. It may also state clearly that there will be neither discrimination nor favoritism in accessing project/programme benefits. The IE may demonstrate that the project/programme does not impede access of any group to the essential services and rights indicted in the principle. ESP Guidance document 7 In addition, the project/programme can use a risk analysis to identify and assess the risk of impeding access to essential rights and services, and of exacerbating existing inequalities. The IE may conduct stakeholder mapping in order to identify the potential beneficiaries, rivals, disputants, marginalized, or vulnerable people.

Principle 3: Marginalized and Vulnerable Groups.	Projects/programmes supported by the Fund shall avoid imposing any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS. In screening any proposed project/programme, the implementing entities shall assess and consider particular impacts on marginalized and vulnerable groups. Impacts on marginalized and vulnerable groups must be considered so that such groups do not experience adverse impacts from the project/programme that are disproportionate to those experienced by others. Marginalized groups are groups of people who are excluded from the normal economic and social fabric of societies, thus lacking access to basic essential services and facilities. Furthermore, they lack the means to improve themselves (motivation, social capital, skills and knowledge) and have low resilience. Vulnerable groups are groups of people unable or withdiminished capacity to anticipate, cope with, resist, and recover from the impacts of (external) pressures, facing a higher risk of poverty and social exclusion than the general population. Vulnerability can stem from belonging or being perceived to belong to a certain group or institution, and is a relative and dynamic concept. Using accepted methods based on disaggregated data, where possible, the IE should identify and quantify the groups mentioned in the principle (children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS) as well as any groups identified additionally such as seasonal migrants or illegal aliens. If any are present, the IE should: • Describe the characteristics of the marginalized or vulnerable groups. Identify adverse impacts that each marginalized and vulnerable group are likely to experience from the

	project/programme, taking into consideration the specific needs, limitations, constraints and requirements of each group. Forexample, a small detour or the construction of a minor obstacle for most able-bodied people could be an insurmountable obstacle to wheelchair users or persons with certain disabilities. These are examples of disproportionate adverse impacts. • Describe how the impacts are not disproportionate compared to no marginalized and non-vulnerable groups, or how they can be mitigated or prevented so as not to be disproportionate. These mitigation measures could be design or operational features of infrastructure, or access guarantees to ESP Guidance document 8 project benefits for those without complete administrativefiles such as refugees and internally displaced persons or tribal groups. • Describe monitoring that may be needed during project/programme implementation for the possible occurrence of disproportionate adverse impacts on marginalized andvulnerable groups, as situations may change over time (e.g. the arrival of refugees or internally displaced persons).
Principle 4: Human Rights	Projects/programmes supported by the Fund shall respect and where applicable promote international human rights. The Universal Declaration of Human Rights (UDHR) of 10 December 1948 provides a common standard of achievements for all peoples and all nations by setting out fundamental human rights to be universally protected. A number of human rights bodies were created based on the UN Charter, including the Human Rights Council, and under the international human rights treaties to monitor their implementation. The Office of the High Commissioner for Human Rights (OHCHR) supports the different human rights monitoring mechanisms in the United Nations system.8 Promotion of human rights in the project/programme will be achieved by creating awareness with all involved in the project/programme operations, including design, execution, monitoring, and evaluation, about the Universal Declaration of Human Rights as an overarching principle in the implementation of the project/programme. The text of the UDHR is freely available in 438 languages.9 Possible elements that may be considered Information that the IE may consider when assessing the project/programme potential risks with regard to this principle: • When the host country or countries of the project/programme are cited in any Human Rights Council Special Procedures, be they thematic10 or country11 mandates, the IE may provide an overview of the relevant human rights issues that are identified in the Special Procedures and describe how the project/programme will address any such relevant human right issues.

	• Human rights issues should be an explicit part of consultations with stakeholders during the identification and/or formulation of the project/programme. The findings on human rights issues of the consultations should then be included in the project/programme document, and details of the consultations added as an annex. 8 The Human Rights Council uses so-called Special Procedures, which are mechanisms to address either specific country situations or thematic issues in all parts of the world. Special Procedures' mandates usually call on mandate-holders to examine, monitor, advise and publicly report on human rights situations in specific countries or territories, known as country mandates, or on major phenomena of human rights violations worldwide, known as thematic mandates. There are 30 thematic mandates and 8 country mandates. All report to the Human Rights Council on their findings and recommendations. 9 http://www.ohchr.org/EN/UDHR/Pages/SearchByLang.aspx 10 http://www.ohchr.org/EN/HRBodies/SP/Pages/Themes.aspx 11 http://www.ohchr.org/EN/HRBodies/SP/Pages/Countries.aspx ESP Guidance document 9 • Even if the country or countries where the project/programme will be implemented is not a Party to any of the nine core international human rights treaties, 12 compliance with UDHR, at a minimum, will be monitored.
Principle 5: Gender Equality and Women's Empowerment.	Projects/programmes supported by the Fund shall be designed and implemented in such a way that both women and men 1) have equal opportunities to participate as per the Fund gender policy; 2) receive comparable social and economic benefits; and 3) do not suffer disproportionate adverse effects during the development process. In many societies, different roles are allocated to men and women based on cultural, traditional, religious, or other grounds. Gender equality refers to the equal rights, responsibilities, opportunities and access of women and men and boys and girls as well as the equal consideration of the respective interests, needs, and priorities. To ensure gender equality, measures often need to be taken to compensate for or reduce disadvantages that prevent women and men from otherwise operating on an equitable basis. Gender equality and women's empowerment must be applied in the project/programme design and its implementation regardless of the legal and regulatory framework in which the project/programme is set. Principle 5 is guided by Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC), which refers to "anthropogenic interaction" — therefore interaction of women and men — within the climate system. The UNFCCC has adopted a number of decisions on gender since 2001. The Paris Agreement acknowledged that Parties in their climate actions should be guided by respect for human rights, gender equality and the empowerment of women in its Preamble while stressing the importance of following "a country-driven, gender-responsive, participatory and fully transparent approach" for adaptation

	action in Article 7(5). Principle 5 is intended to be consistent with otherinternational conventions, in particular with the Universal Declaration of Human Rights (UDHR), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the International Labour Organization (ILO) core conventions, the Millennium Development Goals (MDGs) and follow-up Sustainable Development Goals (SDGs), and the 2030 Agenda for Sustainable Development. The design and implementation of the project/programme should ensure that it: 1) Does not include elements that are known to exclude or hamper a gender group based on legal, regulatory, or customary grounds 2) Does not maintain or exacerbate gender inequality or the consequences of gender inequality. For example, unequal access to education based on gender may result in lower literacy rates among the disadvantaged group. This lack of literacy may, as a secondary effect of gender inequality, limit access to benefits or increase adverse effects of the project for thatparticular group. Possible elements that may be considered Information that may be considered by the IE when assessing the potential risks with regard to thisprinciple: 12 http://www.ohchr.org/EN/Profession alInterest/Pages/CoreInstruments.aspx 13 https://sustainabledevelopment.un.org/post2015/transformingourworld ESP Guidance document 10 • An analysis of the legal and regulatory context with respect to gender equality and women's empowerment in which the project/programme will take place will identify any obstacles to compliance. In addition, analysis of the cultural, traditional, religious, or any other groundsthat might result in differential allocation of benefits between men and women, or of the disproportionate adverse impacts from the project/programme may be appropriate. • Actively pursue equal participation in project/programme activities and stakeholder consultation. Ensure that all positions in the project/programme are effectively equally accessible to men and women, and that women are encouraged to apply and take up positions. • The project/programme design and implementation arrangements will ensure equal access to benefits and that there are no disproportionate adverse effects. This may be achieved by any appropriate means, including, e.g. ▪ Conducting a gender analysis of the sector the project/programme will support; ▪ Describing the current situation of the allocation of roles and responsibilities in the project/programme sector or area; ▪ Showing how the project/programme will pro-actively take measures to promote gender equality e.g. by organising separate working groups or conducting separate stakeholder consultations at times and locations conducive to soliciting opinions of all.
Principle 6: Core Labour Rights.	Projects/programmes supported by the Fund shall meet the core labour standards as identified by the International Labour Organization. The ILO core labour standards are stated in the 1998 ILO Declaration of Fundamental

	Principles and Rights at Work. 14 The Declaration covers four fundamental principles and rights, which are further developed in eight fundamental rights conventions: 15 ▪ Freedom of association and the effective recognition of the right to collective bargaining (conventions ILO 87 and ILO 98); ▪ Elimination of all forms of forced or compulsory labour (conventions ILO 29 and ILO 105); ▪ Elimination of worst forms of child labour (conventions ILO 138 and ILO 182); 16 ▪ Elimination of discrimination in respect of employment and occupation (conventions ILO 100 and ILO 111). Regardless of whether the countries where Fund's projects/programmes are implemented have ratified the conventions, in the context of the Fund's 14 More information on the core labour rights can be found at http://www.ilo.org/declaration/lang-- en/index.htm 15 The full text of the eight conventions (ILO Conventions 29, 87, 98, 100, 105, 111, 138 and 182) is available from the ILO information system on international labour standards http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:1:0 16 ILO 182 includes not employing children in forced, economically exploitive or hazardous work; or in a way that interferes with educations or is harmful to health or physical, mental, spiritual, moral, or social development. ESP Guidance document 11 project/programme operations the IE will respect, promote, and realize in good faith the principles mentioned above and ensure that they are respected and realized in good faith by the EE and other contractors. Where applicable, the project/programme will incorporate the ILO core labour standards in the design and implementation of the project/programme and create awareness with all involved on how these standards apply. The IE will summarize in the Proposal how they are ensuring that the EE is implementing the ILO core labour standards. Possible elements that may be considered Information the IE may consider when assessing the project/programme potential risks with regard to this principle: • If the project/programme host country has ratified the eight ILO core conventions, the risks involved may be smaller. National compliance makes it more likely that a project/programme can and will achieve compliance. • The latest ILO assessments of application of the standards in the project/programme country is available in the reports of the two ILO bodies, The Committee of Experts on the Application of Conventions and Recommendations and The International Labour Conference's Tripartite Committee on the Application of Conventions and Recommendations. Other assessments by reputable sources (e.g. the World Bank or regional development banks) may also be used. • Past/present/planned ILO assistance to meet the standards through social dialogue and technical assistance. • Information on any ILO Special procedures relevant to the Member nation or to the project/programme, including details on the triggering representation or complaints. • Demonstration on how the ILO core labour standards will be incorporated in the design and the implementation of the project/programme, as appropriate. • In the case of problematic assessments by ILO of compliance or in the case of Special procedures at the national level, the IE will provide information on how these issues will be addressed, if they are relevant to the project/programme. Reference may be made to a monitoring process during project/programme implementation for future possible problematic ILO assessments or new Special procedures

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Principle 7: Indigenous Peoples	The Fund shall not support projects/programmes that are inconsistent with the rights and responsibilities set forth in the UN Declaration on the Rights of Indigenous Peoples and other applicable international instruments relating to indigenous peoples. The 2007 UN Declaration on the Rights of Indigenous Peoples (UNDRIP) has its legal foundation in ILO Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries. As part of the system of thematic Special Procedures, the Human Rights Council has appointed a Special Rapporteur on the rights of indigenous ESP Guidance document 12 peoples. The Special Rapporteur promotes good practices, reports on the overall human rights situations of indigenous peoples in selected countries, addresses specific cases of alleged violations of the rights of indigenous peoples, and conducts or contributes to thematic studies. "Other applicable international instruments relating to indigenous peoples" means any treaties, conventions, protocols, or other international instruments related to indigenous peoples to which the project/programme country is a party and that are currently in force. These include but are not limited to the following United Nations (UN) conventions: 17 ▪ Convention against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment; ▪ Convention on the Elimination of All Forms of Discrimination against Women; ▪ Convention on the Rights of the Child; ▪ International Covenant on Civil and Political Rights; ▪ International Covenant on Economic, Social, and Cultural Rights; ▪ International Convention on the Elimination of All Forms of Racial Discrimination. If indigenous peoples are present in the project/programme implementation area the IE will: 1) Describe how the project/programme will be consistent with UNDRIP, and particularly with regard to Free, Prior, Informed Consent (FPIC) 18 during project/programme design, implementation and expected outcomes related to the impacts affecting the communities of indigenous peoples. 2) Describe the involvement of indigenous peoples in the design and the implementation of the project/programme, and provide detailed outcomes of the consultation process of the indigenous peoples. 3) Provide documented evidence of the mutually accepted process between the project/programme and the affected communities and evidence of agreement between the parties as the outcome of the negotiations. FPIC does not necessarily require unanimity and may be achieved even when individuals

	or groups within the community explicitly disagree. 4) Provide a summary of any reports, specific cases, or complaints that have been made with respect to the rights of indigenous peoples by the Special Rapporteur and that are relevant to the project/programme. This summary should include information on subsequent actions, and how the project/programme will specifically ensure consistency with the UNDRIP on the issues that were raised. Possible elementsthat may be considered 17 Links to these conventions are available at www2.ohchr.org/english/law. The ratification status of each convention by country is available at http://treaties.un.org/Pages/Treaties.aspx?id= 4&subid=A&lang=en 18 Free, Prior, Informed Consent (FPIC) is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use. ESP Guidance document 13 Information that the IE may consider when assessing the project/programme potential risks: • Status of ratification of ILO Convention 169 by the country or countries in which the project/programme will be implemented. • Project/programme consistency with the UNDRIP may further be enhanced by creating awareness about the rights of indigenous peoples and how it is a general principle in the implementation of the project/programme.
Principle 8: Involuntary Resettlement.	Projects/programmes supported by the Fund shall be designed and implemented in a way that avoids or minimizes the need for involuntary resettlement. When limited involuntary resettlement is unavoidable, due process should be observed so that displaced persons shall be informed of their rights, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation. Involuntary resettlement refers to both physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood). Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement because of either: 1) lawful expropriation or temporary or permanent restrictions on land use, and 2) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail. This principle does not apply to resettlement resulting from voluntary land transactions in which the seller is not obligated to sell and the buyer cannot resort to expropriation or other compulsory processes sanctioned by the legal system of the host country if negotiations fail. The IE should determine if physical or economic displacement is required by the project/programme and if it is voluntary or involuntary. If it is involuntary, the IE will: 1) Provide justification for the need for invlontary resstlement by demonstrating any realistic alternatives that were explored, and how the proposed involuntary resettlement has been minimized and is the least harmful solution. 2) Describe in detail the extent of involuntary resettlement, including the number of people and households involved, their socio-economic situation and vulnerability, how their livelihoods will be replaced, and the resettlement alternatives and/or the full replacement cost compensation required whether the displacement is temporary or permanent.

	3) Describe in detail the involuntary resettlement process that the project/programme will apply, and the built-in safeguards to ensure that displaced persons shall be informed of their rights in a timely manner, made aware of the grievance mechanism, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation. This also should include an overview of the applicable national laws and regulations. 4) Justify the conclusion that the involuntary resettlement is feasible. ESP Guidance document 14 5) Describe the adequacy of the project/programme organisational structure to successfully implement the involuntary resettlement as well as the capacity and experience of the project/programme management with involuntary resettlement. 6) Build awareness of involuntary resettlement and the applicable Principles and procedures of the project/programme.

Principle 9: Protection of Natural Habitats.	The Fund shall not support projects/programmes that would involve unjustified conversion or degradation of critical natural habitats, including those that are (a) legally protected; (b) officially proposed for protection; (c) recognized by authoritative sources for their high conservation value, including as critical habitat; or (d) recognized as protected by traditional or indigenous local communities. The Convention on Biological Diversity defines a 'habitat' as theplace or type of site where an organism or population naturally occurs. "Critical natural habitat" refers to habitats that are not man-made and that fulfila critical role for an organism or a population that in the absence or disappearance of that habitat might be severely affected or become extinct. Specific knowledge about a habitat (either common knowledge, traditional insights, or the result of formal scientific research) is always the basis for identifying critical natural habitats. Often, but by no means always, this has resulted in assigning a protected status to such a critical habitat. The principle refers to legal protection at all levels of governance. The absence of legal protection alone cannot be used to conclude that a habitat is not to be considered a critical natural habitat. Reference is made to knowledge about the importance and intrinsic value of a habitat. The precautionary principle prevails where such knowledge is inadequate or inconclusive. The IE will identify: 1) the presence in or near the project/programme area of natural habitats, and 2) the potential of the project/programme to impact directly, indirectly, or cumulatively upon natural habitats. If such habitats exist and

	there is a potential of the project/programme to impact the habitat, the IE will: 1) Describe the location of the critical habitat in relation to the project and why it cannot be avoided, as well as its characteristics and critical value. 2) For each affected critical natural habitat, provide an analysis on the nature and the extent of the impact including direct, indirect, cumulative, or secondary impacts; the severity or significance of the impact; and a demonstration that the impact is consistent with management plans and affected area custodians. Possible elements that may be considered Information that may assist the IE in decision-making include: • The laws and regulations within the country that protect natural habitats, including the different forms of protection, and the institutional arrangements for their implementation and enforcement that apply to the habitat. ESP Guidance document 15 • The critical natural habitats nationwide, their location, characteristics and critical value. These areas may be identified based upon their actual or proposed legal protection status, on common knowledge or traditional or indigenous knowledge, or on scientific information on their value. The legal protection refers to all levels of government, as well as international conventions and agreements like the Convention on Wetlands (Ramsar, Iran, 1971). Scientific knowledge may be in the form of peer-reviewed, published scientific research, or inventory lists prepared by authoritative sources like the UNESCO Man and the Biosphere Programme, the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme (UNEP). Large non-governmental conservation organizations like the World Wide Fund for Nature, BirdLife International, and Conservation International may also be sources of useful information.
Principle 10: Conservation of Biological Diversity.	Projects/programmes supported by the Fund shall be designed and implemented in a way that avoids any significant or unjustified reduction or loss of biological diversity or the introduction of known invasive species. The Convention on Biological Diversity (CBD) defines biological diversity as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems." This definition implies that biological diversity concerns not only living organisms of all taxa but also ecosystem processes, habitats, hydrological cycles, processes of erosion and sedimentation, landscapes, etc. The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international treaty governing the movements of living modified organisms (LMOs) resulting from modern biotechnology from one country to another. The IE will identify: 1) the presence in or near the project/programme area of important biological diversity; 2) potential of a significant or unjustified reduction or loss of biological diversity, and 3) potential to introduce known invasive species. If important biological diversity exists and will be significantly or unjustifiably impacted or if the project/programme will introduce known invasive species, the IE will: Biological diversity • Describe the elements of known biological diversity importance in the

	project/programme area, using any relevant sources of information, such as protection status, status on the IUCN Red List of Threatened Species19 and other inventories, recognition as a UNESCO Man and the BiosphereProgramme reserve20, Ramsar site, 21 etc. • Describe why the biological diversity cannot be avoided and what measures will be taken to minimize impacts. 19 International Union for Conservation of Nature, www.iucnredlist.org 20 United Nations Educational, Scientific and Cultural rganization,www.unesco.org/new/en/naturalsciences/environment/ecological -sciences/man-and-biosphere-programme 21 Convention on Wetlands of International Importance, called the Ramsar Convention, www.ramsar.org ESP Guidance document 16 Invasive Species • Describe the invasive species that either may or will be introduced and why such introduction cannot be avoided.Provide evidence that this introduction is permitted in accordance with the existing regulatory framework 22 and the results of a risk assessment analysing the potential for invasive behaviour. • Describe the measures to be taken to minimize the possibility of spreading the invasive species
Principle 11: Climate Change.	Projects/programmes supported by the Fund shall not result in any significant or unjustified increase in greenhouse gas emissions or other drivers of climate change. The main drivers of climate change that are considered here are the emission of carbon dioxide gas from the use of fossil fuel and from changes in land use, methane and nitrous oxide emissions from agriculture, emission of hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, other halocarbons, aerosols, and ozone. Compliance with the principle may be demonstrated by a risk-based assessment of resulting increases in the emissionsof greenhouse gasses or in other drivers of climate change. Projects/programmes23 in the following sectors require a greenhouse gas emissions calculation using internationally recognized methodologies: 24 energy, transport, heavy industry, building materials, large-scale agriculture, large-scale forest products, and waste management. The calculations will be used as a basis for a substantiated evaluation of the significance and justification of any increase. Other projects/programmes may demonstrate compliance by carrying out a qualitative risk assessment for each of the mentioned drivers of climate change, plus any impact by the project/programme on carbon capture and sequestration capacity.
Principle 13: Public Health.	Projects/programmes supported by the Fund shall be designed and implemented in a way that avoids potentially significant negative impacts on public health. Possible public health impacts of a project/programme can be determined by assessing its impact on a range of so-called determinants of health. 25 Public health is determined not just by access to medical care and facilities and lifestyle choices, but also by a much broader set of social and economic conditions in which people live. Possible elements that may be considered The project/programme may demonstrate that it will not causepotentially significant negative impacts on public health by screening for possible impacts and including the results of the screening in the Proposal. Health impact screening is a process of rapidly and

	systematically identifying the project/programme's potential impacts on public health. It will typically also elucidate the risk of such effects and determine if a further thoroughpublic health impact assessment and the development of a management plan is needed to prevent potentially significant impacts and to demonstrate compliance with the principle. This screening can thus be the first step in a full health impact assessment, depending on the outcome of the screening. A range of health impact assessment and screening tools exist. For the purpose ofdemonstrating compliance, a checklist for health impact assessment screening may be used. Such a checklist considers the potential impact of the project/programme on a comprehensive range of health determinants for the population as a whole and for groups within the population. A health impact- screening checklist should include at least the following sections: 1) a section on the background and context of the project/programme; 2) a section with an adequate list of health determinants, with space for a nuanced assessment, for each determinant, the likelihood of impact occurring; and 3) a section identifying the group(s) most likely to be affected by each health determinant 25 Further information on determinants of health is available e.g. from the World Health Organization website http://www.who.int/hia/evidence/doh/en/ ESP Guidance document 18 If the outcome of the screening is that no potentially significant negative impacts on public health are likely, then the screening may be used to demonstrate compliance. If on the other hand the screening concludes that further health impact assessment is needed, then the outcome of that process may be used to demonstrate compliance. Both screening and possibly health impact assessments must comply with the relevant WHO recommended practices.

Principle 14: Physical and Cultural Heritage	Projects/programmes supported by the Fund shall be designed and implemented in a way that avoids the alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level. Projects/programmes should also not permanently interfere with existing access and use of such physical and cultural resources. The reference forinternational recognition of physical and cultural heritage is the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage. Convention Articles 1 and 2 provide definitions of what is considered cultural27 and natural28 heritage. The List of World Heritage in Danger29 (Article 11 (4) of the Convention) also provides a reference. The IE will identify the presence of cultural heritage in or near the project/programme. If cultural heritage exists, the IE will: • Describe the cultural heritage, the location and the results of a risk assessment analyzing the potential for impacting the cultural heritage; and • Describe the measures to be taken to ensure that cultural heritage is not impacted, and if it is being accessed by communities, how this access will continue. Possible elements that may be considered Information that may assist the IE when assessing the project/programme potential risks include: • Status of ratification and entry intoforce of the Convention Concerning the Protection of the World Cultural and Natural Heritage by the country or countries in which the project/programme will be implemented. 26 http://www.who.int/hia/en/ 27 monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science; groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science; sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view. 28 natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty. 29 http://whc.unesco.org/en/danger ESP Guidance document 19 • National legal and regulatory framework for recognition and protection of physical and cultural heritage in the country or countries where the project/programme is implemented. • Inventory of the physical and cultural heritage present in the wider project/programme area that enjoys recognition at community, national, or international levels.
Principle 15: Lands and Soil Conservation.	Projects/programmes supported by the Fund shall be designed and implemented in a way that promotes soil conservation and avoids degradation or conversion of productive lands or land that provides valuable ecosystem services. Principle 15 concerns the stewardship of land to either be maintained in its natural state, where possible, or if it is converted to promote and protect its functioning. Soil conservation refers to a set of measures to prevent,

	mitigate or control soil erosion and degradation. 30 There are two aspects to the principle: promotion of soil conservation and avoidance of degradation or conversion of valuable lands. This applies to soils and lands directly affected by the project/programme as well as those influenced indirectly, or as a secondary or cumulative effect. Soil conservation should be incorporated in project/programme design and implementation. Soil conservation The IE will identify: 1) the presence of fragile soils (e.g. soils on the margin of a desert area, coastal soils, soils located on steep slopes, rocky areas with very thin soil) within the project area or 2) project/programme activities that could result in the loss of otherwise non-fragile soil. If such soils exist and potential soil loss activities will take place, the IE will: • Identify and describe: o Soils that may be impacted by the project/programme; o Activities that may lead to loss of soils; o Reasons why soil loss is unavoidable and o Measures that will be taken to minimize soil loss. • Describe how soil conservation has been promoted to the EE. Valuable lands The IE will identify: 1) productive lands and/or lands that provide valuable ecosystem services within the project/programme area. If such lands exist, the IE will: • Identify and describe: o The lands; o Project/programme activities that may lead to land degradation; o Reasons why using these lands is un-avoidable and the alternatives that were assessed, and o Measures that will be taken to minimize productive land degradation or ecosystem service impacts. 30 The Food and Agriculture Organization of the United Nations defines soil degradation as a change in the soil health status resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries. ESP Guidance document 20 4. Demonstrating compliance with the ESP in the project/programme proposal document This section describes how the IE can present the relevant environmental and social risk information in the funding proposal to the Board, at both concept and fully developed proposal stages. In the Proposal Section II.K, from the concept stage, the IE will document and summarize the findings of the screening/assessment process and categorization, including completing the checklist provided in that section of the proposal. Detailed information on the screening process and findings should be made available as an annex. Categorization The outcome of the screening and assessment process is used to determine the environmental and social categorization of the risk for the project/programme. This should be done at the concept stage. The criteria for categorization are described in paragraph 8 of the ESP. 31 The IE may present the findings of the screening/assessment process to substantiate and support its determination of the category for a project/programme. It is not possible to provide universal reference points to quantify severity of environmental and social impacts. Therefore, the IE will provide rationales to support their determination of severity and acceptability so that the determination can be reviewed as necessary. Category C projects/programmes are those for which

	no adverse environmental or social impacts are anticipated at the time ofscreening, and that do not require further impact assessment. Nevertheless, during the implementation of category C projects/programmes, low-level monitoring for unexpected environmental or social impacts will be included in the project/programme design and will be reported on annually. Conducting environmental and social assessments As a general rule, the IE, when required, should conduct impact assessment before submitting the fully-developed project/programme document. Environmental and Social Management Plan Risks and/or impacts that are identified and determined as unavoidable in the assessment process should be captured in an environmental and social management plan. This may be a single plan or a collection of plans. This plan should be submitted at the fully-developed proposal stage. The environmental and social management plan should describe the risk mitigation measures that will be taken to ensure consistency with the ESP Principles and applicable hostcountry laws and regulations. Much of the content of an environmental and social management plan will consist of the specific management plans and related activities that have been identified during the impact assessment in accordance with the separate Principles. The Instructions provide additional detail on management and monitoring plans. In some Category B projects/programmes, where the proposed activities requiring an environmentalor social assessment represent a minor part of the project, and when the assessment and/or management plan cannot be completed in time or where 31 See footnote 2 supra. ESP Guidance document 2

THE ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK

The Environmental and Social Management Plan outlined here below consists of a set of measures for: (a) screening (i.e. determination of potential adverse environmental and social impacts); (b) mitigation; (c) monitoring; and (d) institutional arrangements to be undertaken during planning, design, procurement, implementation stages of the planned activities to be financed out of proceeds of the project, to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

Some of the projects interventions / investments to be supported may have adverse environmental and social impacts that must be addressed before they are implemented. This ESMP is necessary to prescribe project arrangements for the preparation, review, approval and implementation of activities to adequately address AF and national environmental and social safeguards issues and principles. It provides distinct arrangements for addressing environmental and social issues associated with the implementation of the project. ***Table 5*** provides a template for developing an ESMP that includes the actions needed to implement proposed mitigation measures.

OBJECTIVES OF THE ESMP FOR KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES (KARAHADA)

The overall objective of this ESMF is to provide an Environmental and social screening for the projects. It is intended to be used as a practical tool during project implementation. It explicitly describes the steps to be undertaken in the implementation of the planned subprojects under the project. This will ensure that the implementation of the sub-projects is carried out in an environmentally and socially sustainable manner. It will also provide a framework to enable communities/beneficiaries screen sub-projects, identify measures and implement measures to address adverse environmental and social impacts.

Specifically, the ESMP will aim to:

i) Establish clear procedures and methodologies for environmental and social planning, review, approval and implementation of activates to be executed under the project;

ii) Assess the potential environmental and social impacts of envisaged projects activities;

iii) Propose mitigation measures which will effectively address identified negative impacts;

iv) Specify appropriate roles and responsibilities, and outline the necessary reporting procedures for managing and monitoring environmental and social concerns related to this projects; and

v) Determine the training, capacity building and technical assistance needed successfully implement the provisions of the ESMP by the various stakeholders.

GENERAL VIEW OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

a) Positive Impacts:- Implementation of the proposed project is expected to have the followingpositive environmental and social impacts:

i. Integration of livelihoods system i.e. small animal keeping, more improved varieties agricultural crops, modern bee keeping and improved jewelry and blacksmith as well as supply and access of water profoundly reduces the supply and demand pressure on natural resources

ii. Establishment of FFFS demonstration center will facilitate learning and experience sharing across all project components, which in long-term increase capacity of extension services and rural institutions while promoting decentralized service provision andinnovation

iii. Provision of water supply and access, will contribute to climate resilience and sustainable diversified livelihood strategies and better management of natural resources.

iv. Rehabilitating fragile areas such as degraded lands, forests and riverbanks, will contribute to ecosystems and ecological restoration hence increase the resilience to climate change events

v. Provision of health services to vulnerable communities will contribute to increasing resilience to climate related health problems

vi. Training and awareness raising on environmental and climate change issues willcontribute to better management of environment for both communities and Karatu district council staff

b). **Negative Impacts:-** The following are negative environmental and social impacts likely tohappen if the project is implemented:

i. Delineation of degraded areas for rehabilitation may shift the pressure to non-degraded areas

ii. Water supply and access at household level if not well addressed may result into borve malaria cases in the study area.

iii. Presence of large spectrum of project beneficiaries may cause conflict, if not well handled.

iv. Promotion of exotic trees plantations in natural forest thickets

v. Overall activities related to project implementation may contribute to disturbance of natural systems

Enhancement and mitigation measures

While measures will be taken to promote the positive impacts of the proposed project, similarly, negative impact will be given equal attention to ensuring adverse impacts likely to happen are minimized as much as possible, the matrix below provides detail on mitigation and enhancement program

Table 4: Enhancement and mitigation measures

Item	Environmental	Enhancement/Mitigation	Responsibility	Site of	Implementation	Responsibility	Monitoring
Enhancement of Program Positive Impacts							
1	Increased alternative livelihood opportunities	Introducing livelihood systems that will contribute to reduction of pressure onnatural resources	HKC Kongwa district council and the project management unit	Project sites associated withthe benefiting communities	Throughout the project cycles	Project management Unit, HKC and Karatu District,	Improved incomes Livelihoods created
2	Enhanced availability of water sourcesand access	Improved livelihood systemsand food security	Karatu District Council, HKC and NEMC,	In all villages involved in theproject	Throughout the projectcycle	Project management Unit,District environmental, water and agricultural officers	Number of structures established
3	Rehabilitation of degraded environmentalsystems	Rehabilitating degraded areassuch as forests, wetlands, riverbanks, will contribute to ecosystems restoration and reduce the risk of floods and landslides	Karatu District Council, HKC and NEMC	Project sites	Throughout theprogram cycle	Project management Unit,District environmental, water and agricultural officers	acresof the areas restored and rehabilitated
4	Reduction of deforestation	Introduction of closure and planting trees to reduce deforestation	Karatu District Council, HKC and NEMC	Project sites	Throughout theprogram cycle	Project management Unit	Rehabilitated andrestored areas

Table 5: Environmental and social impacts of the different activities under project has been identified as summarized in the table below.

PROJECT COMPONENTS/ ACTIVITIES	EXPECTED IMPACTS ON THE EF PRINCIPLES											
	Compliance with the Law	Access and Equity	Marginalized and Vulnerable	Gender Equality and Women's Empowerment	Involuntary Resettlement	Protection of NaturalHabitats	Conservation of BiologicalDiversity	Climate Change	Pollution Prevention andResource Efficiency	Public Health	Physical and CulturalHeritage	Lands and Soil Conservation
. **Component 1.** Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District												
Outcome 1. Increased food security, income and resilience to climate change impact through Climate Smart practices in selected wards												
Output 1.1. Sustainable bee keeping initiative for food security and increased household income in selected village of the three wards of Baray, Endamaghan and Mang'ola improved												
1.1.1 Training hunters and gatherers on sustainable bee keeping practices	√	X	X	X	N/A	√	√	X	X	√	X	√ X
1.1.2 Provision of at least 1500 modern beehives and related equipment.	√	X	X	X	N/A	√	√	X	X	√	X	√
1.1.3 Building capacity on honey marketing	√	X	X	X	N/A	√	√	X	X	√	X	√ X

1.1.4 Building capacity for communities to establish honey producer's cooperative society	√	X	X	X	N/A	√	√	X	X	√	X	√
Output 1.2 Use alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three wards of Baray, Endamaghan and Mang'ola												
1.2.1 Training Datoga (blacksmith) communities on the use of sustainable source of energy	√	X	X	X	N/A	X	X	X	X	X	X	X
PROJECT COMPONENTS/ ACTIVITIES	**EXPECTED IMPACTS ON THE EF PRINCIPLES**											
	Compliance with the Law	**Access and Equity**	**Marginalized and Vulnerable**	**Gender Equality and Women's Empowerment**	**Involuntary Resettlement**	**Protection of NaturalHabitats**	**Conservation of BiologicalDiversity**	**Climate Change**	**Pollution Prevention andResource Efficiency**	**Public Health**	**Physical and CulturalHeritage**	**Lands and Soil Conservation**
1.2.2. Training Datoga on how to make energy saver cooking stoves for cooking and forging tools	√	X	X	X	N/A	X	X	X	X	X	X	X

1.2.3. Training Datoga (blacksmith) on making alternative energy products e.g briquettes	√	X	X	X	N/A	X	X	X	X	X	X	X
1.2.4 Facilitating Datoga (blacksmith) communities to engage into a business venture for selling energy saver cooking stoves and briquettes	√	X	X	X	N/A	X	X	X	X	X	X	X
1.2.5 Supporting Datoga (blacksmith) to establish and operate energy saver community group	√	X	X	X	N/A	X	X	X	X	X	X	X
Output 1.3 Use of local and improved breeds of rabbit and poultry for food security and income generation for selected villages three wards of Baray, Endamaghan and Mang'ola improved												
1.3.1 Training women men and youth on Poultry and rabbit production	√	X	X	X	N/A	X	X	X	X	X	X	X
1.3.2 Construction of simple poultry and rabbit houses	√	X	X	X	N/A	X	X	X	X	X	X	X
1.3.3 Provision of startup capital in form of local pullet, cocks, does and buck to the communities	√	X	X	X	N/A	X	X	X	X	X	X	X
1.3.4 Provision of feed, supplements, veterinary drugs and equipment/utensils	√	X	X	X	N/A	X	X	X	X	X	X	X
Output 1.4 Production of diversified cultural and nature-based tourism products for Hadzabe (hunters and gatherers) and Datoga (blacksmith) women, men and youth improved.												
1.4.1 Train women and youth on jewelry and leather quality and marketing	√	X	X	X	N/A	X	X	X	X	X	X	X

1.4.2 Promote the jewelry and leather business amongst women and youth	√	X	X	X	N/A	X	X	X	X	X	X	X
1.4.3 Provide support and capacity for women and youth to form jeweler's and leather makers groups	√	X	X	X	N/A	X	X	X	X	X	X	X
1.6 Output Identification and production of suitable traditional and modern crops for enhanced food security and increased household income in selected villages of Baray, Endamaghan and and Mang'ola promote												
1 .5.1 Training of men, women and youth on production of selected traditional and modern crops	√	X	X	X	N/A	X	X	X	X	X	X	X
1.5.2 Establishment of at least 10 acres as demonstration farms (Field Farm School-FFS) across 8 villages within the targeted three wards	√	X	X	X	N/A	X	X	X	X	X	X	X
Component 2 Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu												
Outcome 2 Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) at Baray and Endamaghang Wards												
Output 2.1 At least 10 boreholes drilled in Hadzabe (gathers and hunters) and Datoga(blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District for improved water availability												
2.1.1 Conducting hydro geological survey	√	X	X	X	X	√	√	X	X	X	X	X
2.1.2 Drill boreholes in drought prone and water scarce villages and install solar driven water pumps at Baray, Mang'ola and Endamaghang Wards	√	X	X	X	X	√	√	X	X	X	X	X

Output 2.2 Water supply systems constructed in Hadzabe (gathers and hunters) and Datoga (blacksmith) communities at Baray, Mang 'ola and Endamaghang Wards in Karatu District for improved water quality												
2.2.1 Design and Construct water storage tanks, distribution network systems and pump system at Baray, Mang'ola and Endamaghang Wards	√	X	X	X	X	√	√	X	X	X	X	X
2.2.2 Construct community water points/ community water Kiosks for network systems	√	X	X	X	X	√	√	X	X	X	X	X
Output 2.3 Hadzabe (hunters and gathers) and Datoga (blacksmith) facilitated, trained and supported to operate and maintain the water infrastructure.												
2.3.1 Conduct awareness raising meetings with community stakeholders on operation and maintenance of water infrastructure and supply	√	X	X	X	X	√	√	X	X	X	X	X
X **Output 2.4** Climate resilient behavioral change and water governance for Hadzabe and Datoga communities in the three wards of Baray, Endmagahan and Mang'ola enhanced -												
2.4.1 Conduct awareness raising meetings with community stakeholders on behavior change and water governance	√	X	X	X	X	√	√	X	X	X	X	X
PROJECT COMPONENTS/ ACTIVITIES	**EXPECTED IMPACTS ON THE EF PRINCIPLES**											

	Compliance with the Law	Access and Equity	Marginalized and Vulnerable	Gender Equality and Women's Empowerment	Involuntary Resettlement	Protection of NaturalHabitats	Conservation of BiologicalDiversity	Climate Change	Pollution Prevention andResource Efficiency	Public Health	Physical and CulturalHeritage	Lands and Soil Conservation
Component 3. Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District												
Outcome 3 .Improved forests services and functions to sustain climate change resilient livelihoods at selected villages in baray, Endamaghan and Mang'ola wards												
Output 3.1. Adoption of integrated climate smart forest management practiced for selected villages of Baray, Endamaghan and Mang'ola wards promoted.												
3.1.1 Creating awareness and training on integrated forest management	√	X	X	X	X	X	X	X	X	X	X	X
3.1.2. Support the establishment and maintenance of tree nurseries by communities	√	X	X	X	X	X	X	X	X	X	X	X
PROJECT COMPONENTS/ ACTIVITIES	**EXPECTED IMPACTS ON THE EF PRINCIPLES**											

	Compliance with the Law	Access and Equity	Marginalized and Vulnerable	Gender Equality and Women's Empowerment	Involuntary Resettlement	Protection of NaturalHabitats	Conservation of BiologicalDiversity	Climate Change	Pollution Prevention andResource Efficiency	Public Health	Physical and CulturalHeritage	Lands and Soil Conservation
3.1.3 Tree planting and maintenance	√	X	X	X	X	X	X	X	X	X	X	X
3.1.4 Establishment and building capacity for communities to form and operate tree planting group	√	X	X	X	X	√	√	X	X	X	X	X
Component 4. .Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District												
Outcome 4. Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District improved												
Output **4.1**Climate Vulnerability assessment for a comprehensive action plan in health sector at Karatu District Council conducted												

PROJECT COMPONENTS/ ACTIVITIES	EXPECTED IMPACTS ON THE EF PRINCIPLES											
	Compliance with the Law	Access and Equity	Marginalized and Vulnerable	Gender Equality and Women's Empowerment	Involuntary Resettlement	Protection of NaturalHabitats	Conservation of BiologicalDiversity	Climate Change	Pollution Prevention andResource Efficiency	Public Health	Physical and CulturalHeritage	Lands and Soil Conservation
4.1.1 Hire consultant to conduct vulnerability assessment	√	X	X	X	X	√	√	X	X	X	X	X
4.1.2 Translate the results of the district and project plan of action	√	X	X	X	X	√	√	X	X	X	X	X
Output 4.2 Climate change issues mainstreamed into health projects and programmes at Karatu District												
4.2.1 Integrate climate change issues into district health action plan	√	X	X	X	X	√	√	X	X	X	X	X
Output 4.3 Community awareness on climate related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District												
4.3.1 Create awareness to communities on health and sanitation at Boma level	√	X	X	X	X	√	√	X	X	X	X	X

Output 4.4 Climate smart community health resource centers in selected villages of the three wards of Baray, Endamaghan and Mang'ola built, re-tooled and strengthened												
4.4.1 Provide emergency health services and first aid services at community resource centers	√	X	X	X	X	√	√	X	X	√	X	√ X
4.4.2 Provide Improved Community Health Insurance to 600 most vulnerable Hadzabe and Datoga communities	√	X	X	X	X	√	√	X	X	X	X	X
Component 5: Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues												
Outcome 5: Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers) and Datoga (Blacksmith) communities in planning, implementing and monitoring climate adaption actions												
Output 5.1 The capacity of Karatu District Council in facilitating public awareness and understanding of climate change related issues and the adoption of resilient climate livelihood practices strengthened												
5.1.1 Conduct training needs assessment	X	X	X	X	X	X	X	X	X	X	X	X
5.1.2. Develop training materials and Supporting Community Based Trainers (CBT) in training peer community members	X	X	X	X	X	X	X	X	X	X	X	X
5.1.3 Training of local government officials in Karatu district on climate resilient livelihood practices including mainstreaming of climate change into development plans and budgeting process	X	X	X	X	X	X	X	X	X	X	X	X
5.1.4 Disseminating project results and share lessons learnt to District, Regional and National stakeholders	X	X	X	X	X	X	X	X	X	X	X	X
Output 5.2 Community institutions to assist in collecting climate related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in three wards of Baray, Endamaghan and Mang'ola established.												
5.2.1 Facilitate community exchange visits/study tours	X	X	X	X	X	X	X	X	X	X	X	X
5.2.2 Build and equip community resource centers for provision of health, water and food services	X	X	X	X	X	X	X	X	X	X	X	X

Output 5.3. Capacity of the hunters, gatherers and blacksmith communities in planning and decision making for undertaking climate resilient livelihood practices is strengthened												
5.3.1 train community committee members on planning and decision making for undertaking climate resilient livelihood practices	X	X	X	X	X	X	X	X	X	X	X	X
Output 5.4 Upgrade Karatu District metrological services and its network and infrastructure for provision of essential data for climate service and early warning systems to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola												
5.4.1 Train Karatu District Council staff on importance of data for climate change services and early warning systems	X	X	X	X	X	X	X	X	X	X	X	X
5.4.2 Install automatic agro-weather station	X	X	X	X	X	X	X	X	X	X	X	X

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