ADAPTATION FUND

CONCEPT NOTE FOR REGIONAL PROGRAMME

PART I: PROGRAMME INFORMATION

Title of Project:	Building Resilience to Climate Change for Semi Nomadic Agro Pastoral Communities in the Transboundary Kunene River Basin
Countries:	Angola and Namibia
Thematic Focal Area1:	Disaster risk reduction and early warning systems
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	International Fund for Agricultural Development
Executing Entities:	Food and Agriculture Organization
Amount of Financing Requested:	14 million (in U.S Dollars Equivalent)
Project Formulation Grant Request:	Yes ☒ No ☐

Amount of Requested financing for PFG: 50,000 (in U.S Dollars Equivalent)

Letters of Endorsement (LOE) signed for all countries: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☐This proposal has been submitted before including at a different stage (pre-concept, concept)

☒ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that the Concept note proposal document should not exceed 50 pages, including annexes.

[1] Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

Programme Background and Context:

1. The Kunene River basin is the 7th largest transboundary river basin in Southern Africa, and only shared by two countries: Angola and Namibia[2]. Its course encompasses at least three large ecosystem areas in the Upper Kunene, the Middle Kunene and the Lower Kunene (See Figure 1): from its source in the Sierra Hencoco Mountains, on the Angolan *planalto* at about 2000 metres above sea level, it drops in its middle section through rolling hills reaching the flatland at the border with Namibia, then turns west winding along the border between the two countries in its semi-arid lower section and reaches the Atlantic Ocean in the Namib Desert, now part of the Iona – Skeleton Coast Transfrontier Conservation Area[3]. Whereas the *planalto* receives more consistent rain patterns and can still guarantee surface water supply, the same cannot be said for the middle and lower region, which are predicted to become drier in the next decades, just because of climate change[4].

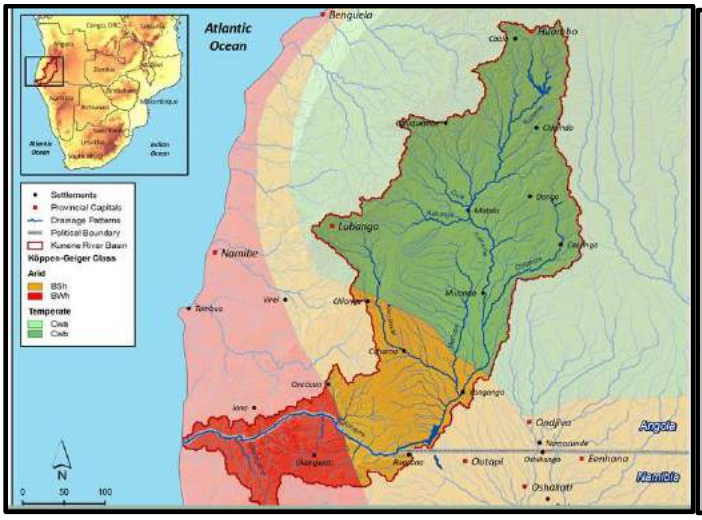

Fig 1. Köppen Climate Classification for the Kunene River basin. *Source: AHT GROUP AG 2010, after University of Melbourne 2007*

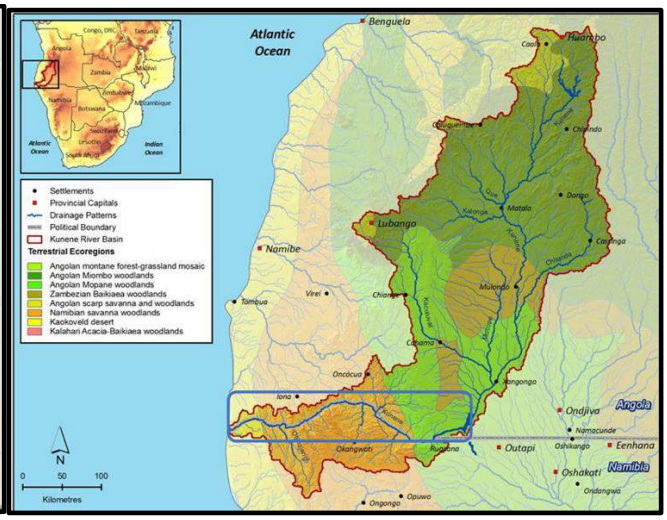

Fig 2: Map of the ecological areas of the Kunene River Basin and area of intervention in blue rectangle

Observed climate trends and projections in the Kunene river basin

2. According to the Köppen Climate Classification System, the climate for the upper half of the basin, is classed as **Cwb** implying a temperate climate (denoted by the C) with dry winters (w) and with warmest month temperatures averaging below 22 °C (b).The south is characterised by arid and semi-arid climates where the precipitation is less than the potential evaporation. The middle section of the basin is class **BSh** climate denoting a semi-arid steppe with the average temperature in the coldest month above 0 °C. The Lower Kunene is classed as **BWh** climate characterised by a dry desert climate.[5]

3. Mean annual precipitation varies across the basin, with over 1 000 mm/yr falling on the plateau in the north east of the Upper Kunene and decreasing dramatically to below 100 mm/year at the coast in the south western reaches of the Lower Kunene. Around 75 % of the entire flow of the Kunene is generated in the Upper Kunene sub-catchment. Rainfall is seasonal with around 90 % of the annual volume falling in the five month rainy period from December to April, with the main season occurring between February and March. Total rainfall from 1961-2019 shows a decrease characterised by

[2]The Kunene River Assessment Toolkit (2010) Basins of Southern Africa, accessed on 7 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/RIVER/GEOGRAPHY/BASINS_OF_SOUTHERN_AFRICA.HTM

[3] The Kunene River Assessment Toolkit (2010) The Kunene River Basin, accessed on 7 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/RIVER/GEOGRAPHY/BASIN_LANDSCAPE.HTM

[4] The Kunene River Assessment Toolkit (2010) Climate and Weather, accessed on 8 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/RIVER/CLIMATE_AND_WEATHER.HTM

[5] AHT GROUP AG 2010, after University of Melbourne 2007

prolonged drought conditions Fig 2[6]. The mean average annual temperatures across the basin vary between 20 °C and 23 °C, with average temperatures generally increasing moving from the Upper to the Lower Kunene. Average temperatures greater than 40 °C can occur between September and April in the Lower Kunene[4].

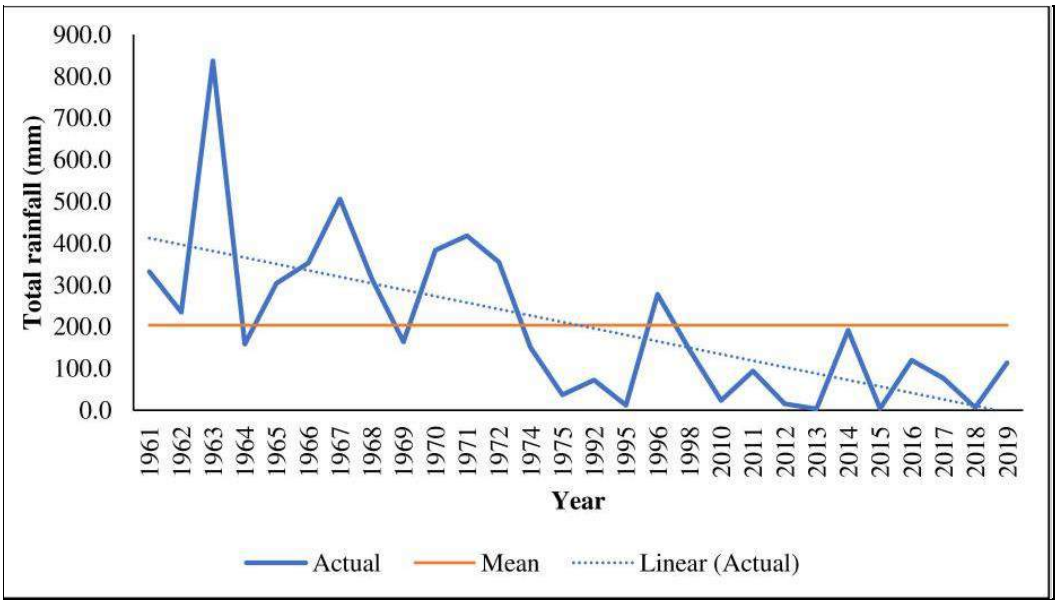

Fig 3. Total annual rainfall recorded at Opuwo town, Kunene Region from 1961–2019. (Source Inman et al. 2020)

Projected changes

4. **Temperature:** Projections report a rise in mean temperature over the 20th Century that is three times that of the global average across Angola. Temperatures are predicted to rise in the region by between 2° C to 6° C for 2100.[7]

5. **Precipitation:** Across all of Angola with the exception of northern areas where these may increase there is generally a precipitation decrease predicted[8]. Greater rainfall variability is predicted with much shorter and more intense rainy season[9].

6. **Evaporation:** The projected increases in temperature will result in an increase in the potential evaporation rate, resulting in the overall water balance becoming drier[6]. Soil moisture is thus expected to decrease and the dune system in the desert is expected to increase[5].

Current and future vulnerabilities, and impacts of climate change

7. ***Water supply:*** With almost half of the Namibian population living in the north and largely reliant on drinking water from the Kunene river a decrease in water availability will increase competition for water resources in communities. In Namibia, drinking water supply is the priority user and as such will have first rights to any water taken from the Kunene River for Namibia.

8. ***Irrigation:*** Plans to vastly expand irrigation areas along the Kunene River in Angola along with moderate expansion of irrigation areas in Namibia are dependent upon the availability of water for irrigation. Allocations for irrigation are likely to come under pressure in the future as demands from the domestic and other sectors with a higher economic return on water use increase.

[6]https://doi.org/10.1371/journal.pone.0238982
[7] Climate Change in the Basin - Kunene River Awareness Kit
[8] High Level Conference on Water for Agriculture and Energy in Africa 2008
[9] Government of Namibia 2002.

9. ***Agriculture:*** Agricultural output in the basin is extremely sensitive to climatic conditions, particularly in the areas with lower rainfall. Periodic droughts cause considerable stock losses and reduce grain production. The uncertainty in future rainfall trends make projection of agricultural impacts very difficult, but certain projections under increased temperatures can be made with confidence.

    - *Subsistence agriculture:* A decrease in soil moisture and increased inter-annual rainfall variability would result in a greater variability in yield of millet and thus decrease food security. Due to drought, pastoralists are faced with food insecurity and hunger[10]
    - *Commercial cropping:* The vulnerability of this sub-sector to competition for irrigation water has already been noted. Maize is the principal commercial crop. One study predicts a small increase in maize yield under future climate change scenarios, although yield quality would be reduced because of shortened growing seasons. Given the projected increase in air temperature, already close to the maximum for maize, a probable decrease in rainfall and increased evaporation, a decrease in maize yield is more likely.
    - *Livestock production:* A trend towards greater aridity would be associated with a shift towards farming with more small stock and game. Droughts are associated with a greater incidence of stock poisoning as stock animals are forced to eat unpalatable or toxic plants that are the first to emerge on overgrazed rangelands. Drought lowers the availability of forage, reduces milk production, growth rates and the health status of livestock. With increased temperatures the incidence of tick-borne diseases may increase, but diseases borne by the tsetse fly may decrease. The expanded use of indigenous livestock breeds may help mitigate this trend. Impacts on household food security in the subsistence farming areas could be dramatic and climate change has the potential to cause significant social disruption and population displacement in these communities[6]

10. The Kunene River Basin is jointly managed by the two countries through the Permanent Joint Technical Commission established in 1969, as the advisory body on the management and use of the river. Its role is centred on the identification and management of studies necessary for the countries to effectively manage the basin, however the capacity to commission and fund such studies and evaluations is often limited by the available resource and supporting donor programmes[11.] Consequently, there have been few country-level studies conducted in the two countries but there is no updated regional assessment of ground and surface water resources, or on water and ecosystem goods and services, which would help any climate change adaptation strategy and give strength to sustainable programming[12]. In so far as infrastructure for data collection and analytics, weather monitoring stations are few and sparse, thus not providing a real indication of weather patterns for the entire basin both at regional and local scale (micro-climate)[13]. This makes it very difficult for national and regional planners to create Climate Change Mitigation and Adaptation solutions that are able to cater for the communities in the Kunene at both basin and village scales.

11. The Basin is scattered with several urban and peri-urban centres, while hosting one of the last nomadic groups of Southern African, collectively known as the Himba[14], who are part of a larger

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[10] Silvestri S, Bryan E, Ringler C, Herrero M, Okoba B. Climate change perception and adaptation of agropastoral communities in Kenya. Reg Environ Chang. 2012; 12(4):791–802.

[11] The Kunene River Assessment Toolkit (2010) The Permanent Joint Technical Commission, accessed on 8 December 2021, and subsection on Background, Organizational Structure and PJTC Initiatives, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/GOVERNANCE/WATER_GOVERNANCE_IN_THE_KUNENE_/PJTC.HTM

[12] Government of Angola (2017) Droughts in Angola 2012-2016: Post Disaster Needs Assessment, Imprenta Activa, Quito, Equador; interviews with key informants (IRDNC Willie Boonzaaier, WWF Melissa De Kock and WorldVision International Marco Otari and Matteo Tonini; see other resources available on the Kunene River Assessment Toolkit (2010) Existing Monitoring, accessed on 8 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/MANAGEMENT/RESOURCE_MONITORING/EXISTING_MONITORING.HTM

[13] The Kunene River Assessment Toolkit (2010) Information Systems, accessed on 8 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/MANAGEMENT/RESOURCE_MONITORING/INFORMATION_SYSTEMS.HTM

[14] The Kunene River Assessment Toolkit (2010) Ethnic Groups, accessed on 7 December 2021, http://www.kunene.riverawarenesskit.com/kunenerak_com/EN/PEOPLE/PEOPLE_OF_THE_BASIN/CULTURAL_DIVERSITY/ETHNIC_GROUPS.HTM

group of Herero-speaking agro-pastoralist, sedentarised on both sides of the border. A history of government attempts to forced sedentarisation, including maladaptation strategies to drought, and the impact of weather fluctuations through the El Niño/La Niña cycles, have exacerbated their ability to obtain sustainable livelihoods and maintain their traditional lifestyle[15]. In the past two decades, the groups originating in Namibia have been involved in the creation and management of Wildlife Conservancies near the Skeleton Coast National Park and have been helped with the signature of Traditional Intellectual Knowledge Contracts with international beauty and health companies to supply sustainably grown indigenous plants: however, none of these interventions have improved the livelihoods of the Himba, whose main economic strategy still is livestock production, also an indicator of social status, proving more and more financially unsustainable[16].

12. The biggest constraints faced by both the nomadic and the sedentarised people of the Kunene is sustainable, consistent access to safe water: this is particularly true for the middle and lower sections of the Basin. From the 1960s, the government of Namibia began creating artificial water points to provide water and encourage sedentarisation. However, this has resulted in (1) severe land degradation because, under a false sense of security, the pastoralist increased their herd, and (2), in recent years, conflict because new settlers from other areas have moved near the water points and claimed exclusive and/or continuous access, which would only be seasonal if used by migratory groups[17]. The livelihood security hazards identified by community members through direct engagement in both countries specifically focus on weather-driven events (flood/drought, lighting, wind and heat, as well as prolonged winters) with the Namibian communities identifying also pest and diseases, while the Angolan communities highlight human-wildlife conflict (HWC)[18]. An independent door-to-door survey also conducted in 2019 confirms these hazards and highlights that all communities interviewed acknowledge that the climate patterns are no longer as they were taught by their elders, but they do not understand why nor what they can do to address these phenomena or adapt to them[19].

13. However, the solutions identified during the workshops and in the 2019 survey[20] point to classic activities with a maladaptation potential in arid to semi-arid zones surrounded by wildlife reserves and part of a larger fence-free transfrontier conservation initiative. These include: irrigation schemes for intensive small-scale agriculture with machine support, artificial water points for livestock breeding and herding, increased value chain for subsistence produce such as maize, sweet potato, and livestock. In the meantime, there is no mention of the deforestation occurring on both sides of the river for commercial charcoal production, nor of the impact caused by large scale farming in Angola on traditional lifestyles[21].

14. In the current scenario there are multiple national and regional drivers, as described, for exacerbated ecological and socio-ecological impacts of climate change. However there is potential for resolution within a Disaster Risk Reduction (DRR) Framework centred on Ecosystem-based Adaptation (EbA) for water security and sustainable development.

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[15] Inman EN, Hobbs RJ, Tsvuura Z (2020) No safety net in the face of climate change: The case of pastoralists in Kunene Region, Namibia. PLoS ONE 15(9): e0238982. https://doi.org/ 10.1371/journal.pone.0238982

[16] Ibid. and interview with Mr. Willie Boonzaaier, Programme Director of the Institute for Natural Resources and Rural Development of Namibia on 24 November 2021, access to Conservancy information accessed on the portal of the Namibian Association of CBNRM Support Organisation (NACSO) on 7 December 2021, http://www.nacso.org.na/conservancies

[17] Inman EN, Hobbs RJ, Tsvuura Z (2020), interview with Mr. Willie Boonzaaier, Programme Director of the Institute for Natural Resources and Rural Development of Namibia on 24 November 2021, and interview with Dr Melissa De Kock, Cross-cutting Conservation Lead for WWF Norway, on Thursday 2 December 2021.

[18] FAO, 2019a, Adaptation Fund Country Community Consultation Feedback: Kunene River Basin Namibia, conducted on 29 November 2019; FAO, 2019b, Back to Office Report: Consulta aos Pequenos Agricultores do Calueque, para a Elaboração da Proposta de Projecto à ser Financiado pelo Fundo de Adaptação, conducted on 12-14 March 2019.

[19] Inman EN, Hobbs RJ, Tsvuura Z (2020).

[20] Ibid, FAO 2019a and FAO 2019b.

[21] Interview with Matteo Tonini, World Vision International Angola, on 8 December 2021.

Programme Objectives:

15. Through a Basin-wide Disaster Risk Reduction approach, the proposed programme seeks to promote and co-develop tangible adaptation outcomes that are founded on both Indigenous Traditional Knowledge and scientific knowledge, for the nomadic agro-pastoralist groups of the Kunene river basin and their socio-economic network, thus delivering on multi-scale sustainable ecosystem-based adaptation for the resilience of the river system and its people.

16. Within this overarching long-term objective, four (4) key objectives (KOs) have been identified with high-level partners in 2021, through direct stakeholder engagement in 2019, see Annex 3, and through updated desktop review of existing academic and grey literature from local implementing agencies. These are led by three cross-cutting multiscale objectives (CCMOs) that underpin programme activities:

Table 1: Key Objectives and Cross-cutting Multiscale Objectives

Key Objective 1	Key Objective 2	Key Objective 3	Key Objective 4
To ensure localised collaborative resource sharing and management mechanisms are in place to improve adaptation to CC events by legal and customary users	To reduce the impact of existing infrastructure and activities promoting maladaptation	To ensure that the aspirations and needs of the nomadic groups are fulfilled in balance with ecosystem requirements identified through a Disaster Risk Reduction approach for Nature-based Adaptation	To enhance the ability of the Kunene Permanent Joint Technical Committee, and the national governments, to plan for DRR and build resilience in the basin by promoting Nature-based Adaptation solutions
CCMO1: To promote water security[22] in the Kunene River Basin			
CCMO2: To promote collaborative governance through multi-scale hydrodiplomacy processes			
CCMO3: To promote basin-wide sustainable natural resource planning and management			

17. The Programme focuses primarily on building the resilience of the nomadic agro-pastoralist groups by supporting the co-design and implementation of a Disaster Risk Reduction Strategy for Nature-based Adaptation. In so doing, it will also impact on the sedentary communities sharing natural resources with the nomadic groups along the routes. The location and type of activities will be defined, through in-depth desktop review and interviews with key informants with extensive experience in the areas and with the target group. Full stakeholder engagement with the target group and secondary communities will only be conducted if the full proposal is funded. This is because the proponents and all key informants already engaged have confirmed widespread fatigue by the nomadic groups and other local communities to engagement processes, which do not deliver programmes or whose projects do not deliver the expected economic change. The proponents agree that, at the time of writing the full proposal, the extensive literature on the Kunene River Basin and all relevant aspects of Climate Change Adaptation, as well as the experience of key informants will be sufficient to present the case for the programme.

18. The proponents understand that this approach to programme design and programmes identification opens to *Unidentified Sub-Programmes (USPs)*. However, besides the engagement fatigue mentioned, it is important to note that there are severe knowledge gaps for adaptation planning in the Kunene region, which this programme seeks to address. Due to the delicate balance between natural resources and human activity in the Kunene area, it would be very risky to identify concrete

[22] Water security is defined as "the adaptive capacity to safeguard the sustainable availability of, access to, and safe use of an adequate, reliable and resilient quantity and quality of water for health, livelihoods, ecosystems and productive economies."

adaptation activities *a priori* without the following being carried out, as part of Component 1: Expected Outcomes under 1.1 and Component 2 (see next Section)[23:]

- A Water Security Study to determine the quantity, quality, and access to groundwater and surface water resources in the migratory range used by the semi-nomadic groups, including mapping and modelling for forecasting;
- An Ecosystem Goods and Services valuation in Protected Areas and Conservancies, Communal Areas and (as possible) private ranches to determine the status of environmental degradation, its natural and anthropogenic drivers, and identify opportunities for environmental restoration and livelihood enhancement;
- An Ecosystem-based Adaptation Disaster Risk Reduction Plan for the Kunene River Basin, with a focus on the rangeland for the semi-nomadic groups;
- The installation of local weather stations in the programme area for the satellite-based Multi-Hazard Early Warning System.

19. Furthermore, given the history of extensive community engagement with communities having resulted in little or no positive change to livelihood security, the Programme seeks to use the knowledge provided, alongside the training for trainers and leaders on CC Risk and Adaptation Assessment[24], to build a multi stakeholder dialogue to co-design concrete activities with the target communities and programme stakeholders using Scenario Planning. The proponents believe that this approach would dramatically reduce the risks of:
    - **maladaptation planning** and further adverse environmental impacts by using scientific knowledge,
    - **exclusion of parties** within the target and relevant communities, by providing open fora for gender-sensitive decision making, and attention to the aspirations of specific categories such youth, elderly and people with disabilities,
    - **unsustainability of intervention**, by empowering communities and stakeholder to make informed decisions, design the interventions correctly and at scale, and maintain an interest in the activity beyond the life cycle of the programme.

20. The primary project beneficiaries will be the community members that are poor and highly vulnerable to current and projected climate risks. The exact beneficiary numbers will be determined during full proposal development; however, it is anticipated that the project would benefit an overall estimate of 8, 300 beneficiaries directly (50% women), their families (+/-45 650 family members) indirectly through project adaptation interventions, while another 178,000 people will directly benefit from awareness campaigns and capacity building activities.

[23] The *Projects/programmes with Unidentified Sub-Projects (USPs): compliance with the ESP and GP* guidelines of the Adaptation Fund specify that an exception can be made to the use of the USPs when "projects/programmes may include activities that are critically dependent for their formulation on the outcome of other project/programme activities and that can only be fully formulated on the basis of these prior achievements" (p.1).

[24] This is currently being piloted by WWF and IRDNC in Namibia's Kunene Region.

Programme Components and Financing:

Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US$)
Component 1. Co-design with beneficiary communities and stakeholders, and implementation of a Plan for Disaster Risk Reduction through Ecosystem-based Adaptation in the Kunene River Basin (KRB: EbA-DRRP)	**1.1** An improved DRR Plan co-designed by beneficiary communities and all stakeholders and its component implemented.	**1.1.1** Knowledge gaps for the preparation of the KRB: EbA-DRRP identified which include: ▪ Water Security Study to determine the quantity, quality, and access to groundwater and surface water resources in the migratory range used by the semi-nomadic groups, mapping of natural and artificial water resources, and modelling for forecasting developed; ▪ An Ecosystem Goods and Services valuation in Protected Areas and Conservancies, Communal Areas and private ranches, developed to determine ▪ Status and drivers of environmental degradation, ▪ Conservation planning and land-uses, ▪ Land cover opportunities for re-forestation with indigenous species, ▪ Opportunities for EbA livelihoods.	Angola and Namibia	1 000 000
	1.2 Improved dialogue and co-planning of the Kunene River Basins by the stakeholders (government, other communities and private sector)	1.1.2 A Basin-wide DRR Plan focussed on Ecosystem-based Adaptation is developed. 1.2.1 Full stakeholder engagement with the beneficiary communities and stakeholders of the Kunene carried out. 1.2.2 Dialogue-building process between beneficiary communities and related stakeholders through Scenario Planning is facilitated.		
	1.3 Enhanced capacity for CCA in nomadic communities upscaled to the Basin.	1.3.1 IRDNC/WWF project on capacity-building for CCA upscaled: trainers/leaders trained on CC, climate smart conservation and climate risk and adaptation assessment tools		
Component 2. Implementation of a satellite-based Multi-Hazard Early Warning System for the Kunene River Basin (KRB: MH-EWS)	2.1 Enhanced skills to define weather patterns at micro-climate scale to support local level adaptation	2.1.1 Weather stations for micro-climates in the basin, with national meteorological agencies (integrated with current EWS stations planned for the selected area by AFD and AfDB) installed.	Angola and Namibia	3 500 000 The budget may be reduced once the plans are finalised with other donors funding EWS station in the Kunene area. The money saved will be re-directed to component 3.
	2.2 Agreed KRB: MH-EWS in place for use by target community, related communities, and government.	2.2.1 KRB: MH-EWS designed and approved by governments 2.2.2 Big Data Analytics tool for EWS data capturing and monitoring, including a user-friendly system for data access and usage prepared 2.2.3 KRB: MH-EWS operationalised. 2.2.4 Plans for climate-driven risk reduction and emergency preparedness co-designed with target community and related		

		communities		
Component 3. Community-based adaptation actions are co-designed and implemented	3.1 Improved community capacity to understand impacts of CC on livelihoods and co-designed adaptable solutions.	3.1.1 Community participatory climate risk assessment and adaptation tools (for upscaling of IRDNC/WWF pilot programmes) developed. 3.1.2 Community-based Theory of Change for local level adaptation and sustainable livelihoods co-designed with communities.	Angola and Namibia	6 500 000
	3.2 Agreed CCA interventions by communities and government implemented.	3.2 Identification and implementation of Activities for community-based adaptation identified, agreed upon and implemented.		
	3.3 Improved collaboration amongst development partners and stakeholders in the project area of the Kunene River Basin	3.3.1 A forum for development partners in the project area of the Kunene River developed. 3.3.2 Programme funds used for continuation of relevant existing s in agreement with recipient communities and local government.		
Component 4. Raise awareness and improve knowledge on the Kunene River Eco-system	4.1 Knowledge of the Kunene River System strengthened.	4.1.1 The Kunene River Assessment Toolkit (online portal) and augment knowledge on CCA from this programme updated. 4.1.2 A case study from the Programme for submission to FAO knowledge system, SADC-GMI and WaterNet, developed and further disseminated 4.1.3 Local capacity to understanding the impacts of CC to local livelihoods strategy and to adaptive planning built.	Regional	480 000
Programme Execution cost (9.5% of the Total Programme cost)				1 330 000
Total Programme Cost Programme Cycle Management Fee charged by the Implementing Entity (8.5% of the Total Programme cost)				12 810 000
				1 190 000
Amount of Financing Requested				14 000 000

Programme Calendar:

The estimated duration of the programme is 5 years (60 months).

Milestones	Expected Dates
Start of Programme Implementation	June 2024
Mid-term Review (if planned)	December 2026
Programme Closing	December 2029
Terminal Evaluation	March 2030

PART II: PROGRAMME JUSTIFICATION

A. Programme components

21. The proposed programme is a multi-scale intervention with three adaptation-based components for implementation and one overarching component on knowledge creation and dissemination. Given the identified need to design USPs, planned during implementation of component 1 and 2 through a multi-stakeholder co-design process, the proponents commit to developing an **Environmental and Social Management Plan** for the programme[25].

Programme Components description

Component 1: Ecosystem-based Adaptation in Disaster Risk Reduction Planning (KRB: EbA-DRRP)

22. The Kunene River Basin hosts three large ecosystems, the management of which requires strategic integration to mitigate current disasters and reduce the risks of future disasters, resulting from Climate Change and maladaptation in human development projects, by improving local human and system resilience. However, the proponents are aware of the risks involved in drafting high level strategic plans, which do not take into account the aspirations of the resident population. **Component 1 aims at creating a co-designed Disaster Risk Reduction Plan (DRRP) for the Kunene River**, which is embedded in the national legislation and planning, while responding to the needs and aspirations of the residents of the Kunene system, sensitive to gender-based issues and youth. The implementation section of the DRRP will use an Ecosystem-based Approach to Climate Change Adaptation in order to ensure that all activities designed will promote both ecosystem restoration and sustainable livelihoods[26]. The KRB: EbA-DRRP will be a first of its kind in the Southern African Region and will allow the Kunene Joint Technical Committee and the governments of Angola and Namibia, as well as their International Cooperating Partners (ICPs), to plan for and implement adaptation activities which bring together scientific and Indigenous Knowledge, as well as national development agendas and local aspirations for development. This Component will initiate activities in parallel to achieve its two (2) interconnected outcomes, and is expected to provide concrete outputs for:

[25] The *Projects/programmes with Unidentified Sub-Projects (USPs): compliance with the ESP and GP* guidelines of the Adaptation Fund allows for the programme to include USPs in the proposal stage, especially if there is a commitment to establish a standalone Environmental and Social Management Plan for the Programme, which include the Risk Assessment for the Sub-Projects (when identified). This EMSP can be costed as an activity of the Programme (pp. 3-4).

[26] Lo, V. (2016), *Synthesis report on experiences with ecosystem-based approaches to climate change adaptation and disaster risk reduction*, Technical Series No.85. Secretariat of the Convention on Biological Diversity, Montreal, 106 pages.

- ***Co-design and planning*:** from important studies and models on groundwater availability and extraction[27] and surface water quality and retaining options, to ecosystems goods and services valuation and related reforestation options[28].
- ***Capacity building*:** using the CC Vulnerability Assessment Toolkit[29] designed by WWF and the IRDNC for the nomadic pastoralist of Namibia to promote EbA, CCV assessors will be trained in the communities to help discuss issues related to Climate Change and sustainable livelihoods with community members and be responsible continuous engagement locally even after the end of the programme.
- ***Dialogue building*:** ultimately the more long-term objective of Component 1, the programme aims at creating the mechanisms for all parties to begin communicating constructively on how to identify, mitigate and adapt to climate change drive risks.

***The concrete output of Component 1 is a strategic multi-scale planning document**, which is the result of soft interventions aimed at capacity building in scenario planning and co-design of local planning. These will include the creation of ad hoc training manuals for future interventions and projects, as well as capacity building.*

Component 2: A satellite-based Multi-Hazard Early Warning System for the KRB

23. It has been established that the most important infrastructural need of the KRB is **the installation of weather stations in each micro-climate of the Basin**. Such infrastructural intervention would be linked to the building of a Multi-Hazard EWS for the Kunene Basin[30]. With a focus on the project area, the rangeland of nomadic groups, this activity will benefit decision-makers and stakeholders at all levels, as well as improved science-based decision-making and promote data sharing:
    - By **translating the data in easily understood weather patterns**, local communities will be able to discuss the current status quo and options for adaptation strategies, based on actualised knowledge and review the planning according to data.
    - By **collecting and sharing data across countries**, the programme will contribute to the fulfilment of the requirement on data sharing under the Revised Protocol on Shared Water Courses (2000) and support integrated planning activities under the other Components of this programme.
    - By collecting harmonised datasets and making them available to the Joint Management Committee and to the public through the improved Kunene River Assessment Toolkit, the Programme shall contribute to **knowledge development and sharing for research and further national/regional planning**.
24. This component will be implemented with a private sector partners, such as IBM Research Africa to develop the Big Data Analytics system to collect and harmonise data, and provide a user-friendly visualisation tool.

[27] The assessment and modelling on groundwater resource will be done by learning from existing work carried out in the region over the last few years. A preliminary desktop research reveals learning can be drawn from the UN-IGRAC work in the Ramotswa and Stampriet Aquifers, which was used in the experimental work funded by the Big Data Analytics and Transboundary Water Collaboration for Southern Africa, and the modelling piloted by IWMI in the SADC region.

[28] Locatelli B. 2016, "Ecosystem Services and Climate Change". In: Routledge Handbook of Ecosystem Services, M. Potschin, R. Haines-Young, R. Fish and R. K. Turner (eds). Routledge, London and New York, pp. 481-490. ISBN 978-1-138-02508-0; Lavorel Sandra, Locatelli Bruno, Colloff Matthew J. and Bruley Enora, 2020, "Co-producing ecosystem services for adapting to climate change", Phil. Trans. R. Soc. B. 375:20190119. DOI: https://doi.org/10.1098/rstb.2019.0119

[29] Coldrey K. and Turpie J. 2020, *Climate Change Risk Assessment for Namibia's Communal Conservancies*, Anchor Environmental Consultants for NACSO; IRDNC, 2021, *Climate Risk and Adaptation Trial Assessment Report: Mashi Conservancy*; WWF and IRDNC, 2020, *Participatory Community Assessment Tools for Namibian Conservancies on Climate Risk and Adaptation Planning*.

[30] This component is based on the approach created and implemented by the World Metereological Organization as part of its contribution to Disaster Risk Reduction (WMO, 2018, *Multi-hazard Early Warning Systems: A checklist*, WMO) and endorsed by the UN and its agencies (United Nations Development Programme, 2018, *Five approaches to build functional early warning systems*). It was adopted by UNDP in Uzbekistan (Enhancing Multi-Hazard Early Warning System to Increase Resilience of Uzbekistan Communities to Climate Change Induced Hazards). The AF has recently pre-approved a SB-HWS projects in the Senegal River Basin.

25. Part of the engagement activities of Component 1 is the community consultation to discuss this Component and gather local knowledge on potential sites.

***The concrete output of Component 2 is the installation of a series of Weather Station across the basin**, which capture highly localised data. The Data is, in turn, fed into a basin-wide machine-learning analytic system available online to support both government planning and research. This will support soft outputs for the basins, in line with the 2000 SADC Protocol on Shared Watercourses and the 2021-2031 SADC Strategy for Drought Disaster Resilience.*

Component 3: Community-based adaptation actions, projects and activities

26. Using the outcomes and outputs of the two previous components, in this phase, the programme will consolidate **the co-design of activities and projects to support the adaptation capacity of the ecosystems, the target communities and related communities**. The process will use an adapted approach of Theory of Change and Scenario Planning[31]. It is foreseen that this mixed approach will contribute to developed cooperative dialogue between the parties as a medium to long term output of the programme.

27. This Component will be hosting a variety of USPs because the activities will be planned and implemented with the stakeholders, and may require the involvement of existing partners or the establishment of a Grant Facility[32]. This component will use the knowledge created with the outputs of Components 1 and 2, as well as the capacity developed within communities, stakeholders and government agencies to conduct a **CC Vulnerability Assessment**, to identify, co-design and implement activities that promote adaptation to CC whilst enhancing the local capacity to establish sustainable livelihoods.

28. Considering that these will be USPs, the programme management will develop specific criteria for the selection of the activities that respond to local needs whilst responding to the requirements of reducing Environmental and Social Policy Risks of the programme. The criteria will be used to select the activities for implementation as well as to develop the Terms of Reference for the Grants, should they be necessary.

29. Furthermore, this component will also supplement funding to existing activities that are deemed useful and successful in building resilience by both local communities and government authorities. This will help to integrate the funding capacity and impact of all the implementing agencies active in the programme area, avoid dispersal of funds and replication of interventions.

30. In this phase of preparation of the Concept Note, four (4) initiatives have already been identified for support (See Table 2).

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[31] See the reports: Sinai Report xxxxx; Murphree M.J., Hurst F.C., Bocchino C. 2010 *Strengthening conventional Protected Area planning in Syria: A Scenario Planning Approach*, for UNDP Country Office and the Global Environmental Facility's to the Biodiversity Conservation and Protected Areas Management Project (SYR/05/010), The Via Nova Group.

[32] The *Projects/programmes with Unidentified Sub-Projects (USPs): compliance with the ESP and GP* guidelines of the Adaptation Fund specify that a Grant Facility is allowed to be instituted for USPs by a Programme when the "development of rules is a pre-condition for the formulation of the activities it will fund. In such cases, it may be impossible to identify by the time of submission all the environmental and social risks associated with these grant activities since the nature of the activities or the specific environment in which they will take place, or both, may not be known" (pp.1 and 2).

Table 2: List of activities identified for support

Implementing agency	Activities	
WWF/IRDNC	CCA Community Vulnerability Assessment	Human-Wildlife Conflict mitigation
WVI Angola	Education programme for rural children in semi-nomadic communities (aligned with formal education system)	Training on basic livestock health and disease management for men and women in community

31. These relevant activities have been approved by the relevant government authorities and implemented with pilot communities, so they can be supported from Y1 of the programme implementation. The outcomes of the activities and the lessons learnt will be included in the KRB: EbA-DRRP and be discussed in the Scenario Planning to create a shared understanding of the different impacts between good and mal-adaptation projects.

The concrete output of Component 3 is a series of local activities and projects (USPs and successful existing activities), co-designed with the target communities and local government authorities*. The soft outcomes of this process the capacity building in knowledge processing (use of information for planning), mutual gain planning and project ownership.*

Component 4: Awareness raising, learning and knowledge management

32. This programme is based on (1) the creation of important knowledge to support adaptation planning and (2) the use of such knowledge to inform co-design and implementation of adaptation activities. Both scientific and traditional knowledge is fundamental for the success of this programme and its long-term sustainability, as is the knowledge created during the Stakeholders' Engagement process with the Theory of Change and Scenario Planning. This Component will be concerned with the use of this knowledge to inform the internal Monitoring, Evaluation and Learning (ME&L) Process and to share the learnings with other interested parties regionally and globally.

33. While the ME&L Process will be part of the ESMP created for the Programme, the awareness raising and knowledge sharing will be part of the outreach process. Firstly, the knowledge produced will be used to raise awareness with the target and related communities, the government, private sector and all relevant stakeholders, thus informing the Stakeholders' Engagement and co-design processes. Secondly, the Programme seeks to reactivate the Kunene River Assessment Toolkit online by updating the content already present and enhancing it using the data and knowledge created by the programme. By contacting the owners of the online Toolkit, possibilities will be explored to create an active interface portal for the Kunene River Basin, linked to the regional governance structures such as the Kunene River Basin Join Management Committee, the SADC Water Division under the Directorate for Infrastructure and Services, the SADC Groundwater Management Institute, as well as the National water departments in Angola and Namibia. The programme will also explore the possibility of a real-time map for water monitoring in the Kunene River Basin using the data collected with the activities in Component 2.

The concrete output of Component 4 is the financial support to continue existing approved and successful activities. *By supporting activities which would otherwise be halted due to lack of funding, would allow this Programme to provide continuity, build a relationship of trust with government agencies and affected communities supporting Components 1, 2, and 3, and being concrete implementation in Year 1 already.*

B. Programme innovative solutions to climate change adaptation

34. This programme is funded on collective lessons learnt by partners working in the KRB, with government agencies in Angola and Namibia, and with the people of the Kunene. The innovative solutions identified reflect an optimisation of the knowledge acquired on the CC risks and hazards faced by the environment and its users, with a focus on the specific vulnerabilities of the nomadic groups, triangulated with the understanding of the river basin and its ecosystems.

35. *Innovation 1: combine science with Indigenous Traditional Knowledge*

It may have been advised since the endorsement of the Local Agenda 21 over two decades ago, but it is still very difficult to find Adaptation projects, which are building on the balance between these two sets of knowledge. This programme seeks to show how this combination leads to better and more sustainable Adaptation projects that can be developed by bridging the gaps between science and people. This will be rolled out by adapting Scenario Planning for Natural Resources Management through a Mutual Gain Approach to negotiation[33]. This innovation is expected to lead to an innovating planning for Disaster Risk Reduction in the Kunene River Basin, which may be adapted and upscaled to the sedentary communities of the Basin, and used in other regional transboundary basins, where people do cross borders regularly, for socio-economic reasons.

36. *Innovation 2: Multi-Hazard Early Warning System*

This tool to understand how CC impacts a specific locality and elaborate solutions, as well as preparedness strategies, is fairly recent and still being piloted globally, but many lessons learnt are already availably specifically within the UNISDR network and the Global Platform for Disaster Risk Reduction. The innovation in our case would be to link this EWS tool with the data collected from the installation of weather stations in the range areas of the nomadic groups: 50-300 km from settlement. These will cover a large area, also occupied by sedentary groups, and the information collected will benefit both the nomadic and the sedentary groups in the middle and lower sections of the Kunene River. By using the Vulnerability Assessment already successfully piloted by WWF and IRDNC in some of the communities in Namibia, the programme will be able to roll out the MH-EWS with the help of local partners and combine the data collected from fieldwork with that collected by the weather stations to provide integrated knowledge on the target ecosystems, leading to integrated DRR planning and implementation for Ecosystem-based Adaptation.

37. *Innovation 3: DRR planning for Ecosystem-based Adaptation*

The link between DRR and EbA is very recent in the international agenda, and only in 2018 the Convention on Biological Diversity developed guidelines for donors, practitioners and decision-makers[34]. The proponents to this programme agree that the connection between the two frameworks for Climate Chance Adaptation in Southern Africa is unconfutable, especially in dry and arid ecosystems with multiple land uses, such as the Kunene River Basin. The proposed DRR plan will be unique in the region and may be used in other Transboundary River Basins in the region, which experience similar tensions between use and conservation of resources, amongst users and/or between users and decision-makers, but need to enhance the ecosystem based to avoid total environmental and socio-economic collapse. Whilst this will be rolled out in year 1, the enabling environment for multi-stakeholder dialogue will be used throughout the programme to co-design innovative adaptation projects and solutions.

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[33] The Mutual Gain Approach to Negotiation and Conflict Resolution is an innovative methodology to approach any negotiation and has been increasingly applied to natural resources management situation where conflict amongst users and between users and decision-makers has often led to poor governance and environmental degradation. Currently, it is endorsed and used by Wetlands International as a negotiation tool for natural resource management and governance.

[34] CBD, 2018, *Guidelines for Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction*, draft available at https://www.cbd.int/sbstta/sbstta-22-sbi-2/EbA-Eco-DRR-Guidelines-en.pdf, last visited on 20 December 2021.

38. Innovation 4: planning for sustainable financing

The project is designed with a focus on sustainability for all activities implemented and this include providing opportunities for sustainable financing and income-generation. This will be done with two streams of activities:

a) Create and disseminate knowledge on existing mechanisms to create financial incentives for natural resources management, such as Payment for Ecosystem Services, and to create security for losses, such as Disaster Risk Insurance, as may be applicable to the communities we propose to work with and the local private sector when of relevance (i.e. land-owners and extensive farmers)

b) Create and foster opportunities for partnerships with the private sectors, including profiling suitable value chains linked to the existing markets of indigenous plants and commodity-based trade for livestock in veterinary areas.

C. Programme economic, social and environmental benefits.

39. The project has been screened for environmental and social risks as per the Environmental and Social Policy of the Adaptation Fund and was found to have no or limited significant adverse environmental or social impacts. Any potential negative impacts as a result of this project are believed to be small in scale, limited to the project area, reversible and can be either avoided, minimized or addressed using recognized good environmental and social management practices.

40. **Social benefits.** The programme will have specific focus on co-design with beneficiary communities and stakeholders, with a dedicated targeting approach for vulnerable groups, women and youth leading to a number of social benefits, including the following:

41. ***Increased equitable access to natural resources and management.*** Co design with communities, including vulnerable groups will empower the communities to adapt to climate change. Through the capacity building activities, the project will empower vulnerable community members to make their own decisions about the investments in enhancing the resilience of their livelihoods. The project is expected to ensure increased access to water, climate information, improved ecosystems and services, reducing vulnerability, improved natural resources management and any potential negative impacts for the Semi Nomadic Agro Pastoral Communities in the Transboundary Kunene River Basin.

42. ***Social cohesion strengthened*****.** Semi Nomadic Agro Pastoral Communities will be better coordinated and in a better position to sustainably manage natural resources as well as respond to climate extremes. Community cohesion will be strengthened through the participatory conservation planning and land-use, climate-driven risk reduction and emergency preparedness. Youth and women will be fully engaged in the process with a participation target of 30 and 50%, respectively. The better communities are organized, the less likely a “tragedy of commons” scenario will occur where individual community members act independently according to their own self-interest causing the degradation of ecosystems and increasing climate vulnerability.

43. ***Increased awareness and knowledge***. Training will increase communities and stakeholders knowledge on disaster risk reduction, and ecosystem management. Communities will be more aware of the impacts of unsustainable activities on natural resources and be in a better position to respond to climate change impacts.

44. **Economic benefits**: The Early Warning Systems (EWS) and training programs in using weather information to prioritize adaptation options will provide the means for informed decision-making and implementation of measures to protect assets and services exposed to flood disasters in the Kunene basin. The economic benefits include the drastic reduction of economic losses and social impacts

due to these disasters. The actions targeting the development of water resources in component 1 will increase the availability of water for economic activities (small-scale agriculture and irrigation, livestock farming, etc.) but also the preservation of ecosystems through Ecosystem based Adaptation (EbA). These activities will not only contribute to increasing ecosystem services but will also substantially strengthen the livelihoods and economy of the populations, especially the vulnerable communities. Most importantly is the reduction of women's efforts to collect water, especially in rural areas.

45. **Environmental benefits**. Conserving, restoring and sustainably managing ecosystems trough EbA can deliver on a number of national and international development priorities and obligations, including enhancing people's resilience to climate change and disasters, supporting biodiversity, mitigating climate change, and protecting food, water and livelihood security especially of vulnerable populations. Such actions can also help enhance the effectiveness of disaster risk reduction strategies. Improved ecosystems have a greater capacity to adapt to a drier, hotter and more variable climate in the lower Kunene. Several environmental benefits, are envisaged:

46. ***Improved pasture health.*** Better grazing management, effective pasture recovery periods, pasture improvement measures will lead to pastures that are more productive and in a better condition.

47. ***Soil erosion management***. Soil conservation through improved grazing management, improved management of water points, gully rehabilitation planting of trees will reduce soil loss.

48. **Improved ecosystem services.** A valuation of ecosystem goods and services in Protected Areas and Conservancies, Communal Areas and private ranches will assist in environmental restoration and livelihood enhancement. EbA and Disaster Risk Reduction (DRR) will deliver multiple benefits including restoration and conservation of vegetated ecosystems, which also enhances carbon sequestration as well as community engagement and livelihood opportunities. A focus on the rangeland for the semi-nomadic will reduce overstocking or mismanagement and improve ecosystem services associated with grazing.

49. **Protection of sensitive protected habitats.** Natural resource management plans will lay out areas with measures (e.g. grazing restrictions or fencing) to protect habitats of high ecological value such as wetlands and other protected areas. These areas are important for emergency feed reserves, water quality, and biodiversity as habitats for plants and animals.

50. In line with AF guidelines, the table below outlines the approach in addressing those risks identified that require mitigation.

Principle	Residual Risk	Mitigation Measures	Responsibility	Monitoring Indicator	Budget
Compliance with the Law	Adaptation measures implemented under the project may require permits, and compliance with national technical standards and as such present a risk of non-compliance with local legislation if not properly monitored	The USPs which may be identified under component 3 will be Screened at various levels including at the Community and local Government levels. Strict adherence to the technical national and subnational technical standards and bylaws including key procedures such as EIAs, permits, and codes where applicable. Activities with a medium or high risk will not be considered for inclusion in the project.	PJTC, IFAD, FAO	At the minimum, All the community level value chain infrastructure and assets meet the relevant regulations and standards	No additional Budget
Gender Equity And Women's Empowerment	Women's status and representation may limit their meaningful participation in project activities	To ensure compliance with AF's Environmental and Social Policy as well as the Gender policy, the project will ensure that women and men Participate fully and Equitably in project activities. In addition to the consultations done already, women will be consulted in on-site, during deployment of various project components. A Gender Assessment and Gender Action Plan will be developed to ensure that women and men are meaningfully engaged in project activities and Realize an equitable share of project benefits. Specific project indicators will ensure that results-based management will cover meaningful participation of both women and men.	IFAD, FAO,	Indicators are provided under the Gender Assessment and Action Plan	No additional Budget

51. ***Overview of the Approach to Environmental and Social Management***

IFAD will apply four key mechanisms to comply with the AF ESP:

1. Program-Level Quality Assurance: IFAD's as implementing entity with oversight responsibilities and core policy to lead in application of environmental, gender and social principles.
2. Project-Level Quality Assurance: Screening, by FAO and PJTC and other partners in the river basin, at the sites in each of the 2 countries of proposed project scope and activities for potential harmful impacts and risks.
3. Screening of impacts and possible risks of proposed project in relation to the 15 core principles of ESP: appropriate categorization of project.
4. Development and application of ESMP: As per guidelines of the Adaptation Fund as described in the proceeding section whose implementation will be driven by a **ESP, Gender, and Technical and Regulatory Standards working Groups** which is part of the implementation arrangements

ESMP Monitoring

52. IFAD will apply a systematic process of progress monitoring and collection of stakeholder feedback and reviews. As the IE, IFAD will establish a project M&E and reporting mechanism through which

it will monitor and report on the following: 1) project progress and results (on the basis of verifiable indicators and means of verification) and 2) impact assessment and compliance with ESP Principles. This will be done throughout project implementation. As the project will focus on the implementation of activities in pilot communities, monitoring and reporting processes will place particular emphasis on the local level.

Grievance Mechanism

53. All direct beneficiaries of the project and other related stakeholders will be informed about the grievance mechanism and the complaint-handling mechanism of the project. The IE with project partners will produce public information materials (leaflets and brochures) that explain the project, complete with detailed contact information of persons in charge (name, position, address, phone, email), and including access to information regarding the ad hoc complaint handling mechanism for the AF. These public information materials will be distributed during community consultations.

Gender considerations in design, implementation and evaluation of programme

54. Gender considerations have been and will be factored from stakeholder consultation process, identification of adaptation solutions and in the implementation of the programme. The community consultations were and will further be undertaken using focus group discussions where, separately, men and women groups were facilitated to better understand and articulate their specific climate change concerns and resilience needs. Using the FAO tools for gender mainstreaming, the consultations considered the priorities, opportunities, needs, constrains and knowledge of both women and men. The IFAD Gender Expert will work closely with, the FAO Gender Officer at the regional level will ensure all activities and interventions comply with FAO, Adaptation Fund and national government gender guidelines and will provide expert support during project implementation. The programme Monitoring, Evaluation, Accountability and Learning Officer will ensure gender mainstreaming, including the use of gender-disaggregated indicators.

55. A detailed gender analysis will be carried out during the preparation of the full project proposal so that the rights, needs and opportunities and barriers of men, women, youth and their intersecting identities (age, location, gender, social class) are addressed by the programme. During implementation emphasis will be on ensuring outreach strategies that achieve active participation of women in committees, capacity building and policy discussions, which are the cornerstones of effective intervention. Resource management capacities of women will be explored as an essential basis for designing responses to climate change and disaster risk reduction.

Justification for Unidentified Su***b-Projects (USPs) in the proposal***

56. The identification, design and implementation of USPs potentially under component 3 will closely follow AF guidelines. Once USPs under Component 3 and other sections have been identified and clearly defined for each site, they will be screened for compliance with the principles of the AF ESP to ensure that any potential unwanted impacts of these activities are anticipated, avoided, reduced, or mitigated. Activities will be rated by risk category (low, medium, high), which will determine what further action is required, and high-risk USPs will not be developed or implemented. Potential risks, whether social or environmental, will also be assessed at the community and value chain level. Any identified risks will be subject to monitoring and follow-up to ensure that planned mitigation measures are implemented and effective. All USPs that require further assessment, permitting, etc., will be closely supervised to ensure that they obtain the necessary approvals. All these aspects will be elaborated further in the full proposal

D. Cost-effectiveness of the proposed programme

57. The broad objective of the programme is to deliver sustainability as an outcome of its activities, which implies both a longevity of the activities pertaining to adaptation: from dialogue and cooperation, and a cost-effectiveness of co-designed projects able to adapt to the changing climate and its impacts beyond the life cycle of this programme. The partnership with the National Meteorological Agencies and the local communities will ensure that data will be continuously collected and the situation monitored. The liaison with the SADC Water Division, the SADC-GMI and WaterNet will build cost-effectiveness in data collection and sharing for regional planning. The use of the existing portal on the Kunene River Basin means fund will only be spent to update the system and include new data and knowledge, instead of building a new competitive product. Besides the co-design process, the programme will identify and use existing relevant adaptation projects to co-fund in partnership with the original implementing agencies, pending compliance with the AF Environmental and Social Policy, and Risk Assessment.

E. Consistent with national or sub-national sustainable development strategies

58. The 2020 Revised SADC Protocols on Shared Watercourse prompts the Members States to identify and adopt strategies for the integrated management of shared waterbodies, including planning, data collection and sharing, as well as implementation support. The Kunene River System has a Joint Technical Committee (JTC) tasked to enact the Protocol, but struggles with little resources. This Programme seeks to support the JTC by developing the EbA DRR Plan that also contains recommendation for high-level management intended to guide the activities the JTC including fund-raising. At regional level, the programme also responds to the SADC Climate Change Adaptation Strategy for the Water Sector[35], which clearly states:

59. *Local communities have been dealing with climate variability for generations and have learned to adapt their lives and livelihoods to the water cycle. New adaptation measures for the water sector must build on such knowledge* (p. 9)

60. Adaptation programmes and projects must address the local, river basin and regional scales for interventions on governance development and management looking at recovery, response and preparedness (see the cube on p. 11)

61. The recognised Adaptation measures to implement are applicable to both surface and groundwater and include all the components of this programme from strengthening water governance to infrastructure development for monitoring and prepare (pp. 16-29)[36.]

62. The National legislation for Angola and Namibia in respect of transboundary water management and Disaster Risk Reduction is in line with the regional and international agenda, and the programme fits with the national directives on supporting sustainable socio-economic development opportunities for vulnerable communities, also part of the SADC poverty eradication agenda included in the SADC Drought Disaster Resilience Strategy (2021 – 2031)[37]. In both countries, furthermore, different sectors and legislation are of relevance to the framework and local level intervention proposed here: see Annex 6 for the table linking possible interventions with national legislation.

[35] SADC. 2011. *Climate Change Adaptation in SADC. A Strategy for the Water Sector*. Gaborone (Botswana)
[36] Namibia also has a Climate Change Strategy and Action Plan. Both Angola and Namibia have updated their respective National Determined Contribution for UNFCCC for 2021.
[37] Dlamini, TS, Manyatsi, Dlamini, WM, AM, Hlanze, Z. 2021. *The SADC Drought Disaster Resilience Strategy (2021 – 2031)*. SADC/IUCN, Gaborone, Botswana.

Namibia

63. Namibia's Nationally Determined Contribution (NDC), updated in 2021 emphasizes further improvement in adaptation and developing future climate resilience to reduce climate threats to the populations and their livelihoods. Contribution to achieving resilient growth is evidenced by a range of ongoing projects, such as the Community Based Adaptation programmes focusing on agricultural and pastoral communities in the north-central and far northeast region of the country, undertaking community-based projects to build resilience to climate change by increasing resilience against climate-induced land degradation. The NDC encourages efforts to achieve the government's vision for a 'green economy' that encourages balanced economic development while safeguarding the environment. The proposed programme contributes towards achieving these goals.

64. Namibia implemented a National Climate Change Policy of 2011 and the National Climate Change Strategy and Action Plan 2013-2020 (NCCSAP), now being replaced by the NDC Implementation Strategy and Action Plan for 2021-2030. ''Namibia has placed more focus on adaptation that is currently implemented under four key critical themes, that is, food security and sustainable biological resources; sustainable water resources base; human health and wellbeing; and infrastructure development''.[38]

65. In addition to Namibia's, current medium-term policy framework, National Development Plan NDP5, acknowledges the potential contribution of agriculture towards economic growth, social transformation and environmental sustainability. The centrality of agriculture is further articulated in the Harambee Prosperity Plan[31] (HPP) which focuses on raising agricultural production and productivity to address poverty and hunger in rural communal areas. The GoN has also identified broader rural economic development as a key driver of economic progression in the country.

66. It is important to note the alignment with the National Drought Policy and Strategy which encourages and support farmers to adopt self-reliant approaches to drought risk; Namibia Water Policy White Paper, includes (a) Shared Water Courses Principles; (b) Water Use and Conservation Principles; Water Supply and Sanitation Policy aims at contributing to improved public health; Reduce the burden of collecting water; Promote community based social development taking the role of women into special account.

67. The programme will assist the Namibian government in implementing priority areas for adaptation and the most vulnerable sectors, namely water resources, agriculture, forestry, human health and disaster risk management.

Angola

68. The programme is aligned to Angola's NDC which focuses on reducing vulnerability, strengthening resilience and increasing the country's adaptive capacity in order to protect ecosystems, people, livelihoods and strategic sustainable development and economic investment. The NDC is aligned to the National Strategy for Climate Change 2020-2035, National Adaptation Programme of Action (NAPA), 2011, National Development Plan 2018-2022; Long-Term Development Strategy for Angola 2025- aimed at 'transforming Angola into a prosperous, modern country, without poverty and with a growing insertion in the world and regional economy; Medium-Term Development Plan for the Agrarian Sector 2018-2022; National Action Program to Combat Desertification; National Development Plan (PDN) 2018-2022 that aims to reduce poverty and social inequality, and to widen in a sustainable way the productivity of regions subject to drought; Disaster Preparedness, Contingency, Response and Recovery Plan for the period 2014- 2019; Strategic Plan for Disaster Risk Prevention and Reduction of Droughts in Angola, includes priority actions and sectors for medium- and long-term drought recovery: Agriculture; Water, Sanitation and Hygiene, Education and environment.

[38] Namibia%27s%20Updated%20NDC_%20FINAL%2025%20July%202021.pdf

F. Alignment with national technical standards

69. The programme will comply with the Adaptation Fund standards and policies, such as the Social and Environmental Policy and Gender Policy of the Adaptation Fund and will align and adhere to the national laws and codes of the Governments of Namibia and Angola. IFAD's social, environmental and climate assessment procedures (SECAP) fully aligned with AF. The proposed programme complies with the various laws related to the project's implementation, such as environmental, agricultural and water resource acts and laws. Related line Ministries in Namibia and Angola will be instrumental in strengthening compliance and alignment with the laws and policies of the country. Relevant government Ministries will be further engaged during design to ensure that activities comply with relevant national standards. Annex 6 gives an overview of the most pertinent laws and acts in the addressed sectors, and their relevance to the programme.

70. Relevant technical standards applicable to the project include EWS, water supply, water harvesting, irrigation systems, plant and animal production and selection, ecological infrastructure, construction, as provided in Annex 6. A full detailed analysis, evaluations and consultations with the competent services will be carried out during the environmental and social impact study during the full proposal design.

71. The Proponents also commit to preparing an Environmental and Social Management Plan in line with the ISO 14001 Environmental Management System Standards and the Environmental and Social Policy of the Adaptation Fund, including a Risk Assessment for local interventions as Unidentified Sub-projects.

72. The programme will also be aligned to IFAD's nine Environmental and Social standards. The includes biodiversity strategy, resource efficiency and pollution prevention, cultural heritage, indigenous peoples, Labour and working conditions, community health and safety, physical and economic resettlement, financial intermediaries and direct investments, and climate change. The priorities, as mentioned earlier, comply with the Fund and national policies and regulations for Namibia and Angola.

G. Duplication of programme with other funding sources, if any.

73. The programme will not duplicate other projects and programmes. It largely seeks to build on and complement existing and past programmes of work being undertaken by government agencies, public entities, NGOs and other relevant stakeholders by bringing a stronger focus on building the resilience of the nomadic agro-pastoralist groups by supporting the co-design and implementation of a Disaster Risk Reduction Strategy for Nature-based Adaptation

74. The programme will build on the experiences and lessons learned from past and ongoing initiatives and inform ongoing policy and learning processes, within the Kunene basin as well as beyond. There are many such ongoing environmental and agricultural interventions that will have a complementary effect on the project. In designing the project, these interventions will be highlighted. These regional and national existing and past projects will be reviewed to eliminate the possibility of duplication but also for purposes of lessons learning and possible up-scaling of successful interventions as part of this proposed project. The regional and national level programmes linking and aligned to this proposed project are outlined below.

- At a regional level Global Water Partnership: The Water, Climate and Development Programme

- (WACDEP) aims to integrate water security and climate resilience in development planning processes, build climate resilience and support countries to adapt to a new climate regime through increased investments in water security.
- ADSWAC Project - Resilience building as climate change adaptation in drought-struck south-western African communities. The project aims to enhance adaptation capacity and resilience of communities to climate change impacts and variability in the transboundary region between Cuando Cubango Province (Angola) and the Regions of Kavango East and Kavango West (Namibia). Coordination will be facilitated to assure lessons learned are shared both ways, and there is no duplication of interventions.
- In **Namibia**, there will be linkages with and lessons from other national agricultural projects that will enrich the programme. Some of the programmes include: GCF Funded CRAVE, and WFP feasibility studies.
- In **Angola**, there are a number of initiatives: PRODESI (Programa de Apoio a Produção Nacional, Diversificação das Exportações e Substituição de Importações) 2018-2022; FRESAN (Fortalecimento da resiliência e da Segurnça Alimentar e Nutricional em Angola) (Húila, Namibe e Cunene) 2018-2022; Direito a Terra (ADPP e CODESPA) 2018-2020; Engajamento das Mulheres nas Organizações Locais e Participação Efectiva em Processos de Governação (ADRA), Ombandja e Cahama (União Europeia), termina em Novembro do corrente; Direito da Mulher a Terra (ADRA), Húila – Gambos e Humpata 2016-2019; Resiliência à Seca (ADRA), Húila – Gambos e Humpata; IRCEA (Integração da Resiliência Climática nos Sistemas de Produção Agrícola e Agro-Pastoril através da Gestão da Fertilidade de Solos em Áreas Produtivas e Vulneráveis usando a Abordagem de Escolas de Campo). (FAO) 2017-2021, Húila, Bié e Huambo.

H. Learning and knowledge management component to capture and disseminate lessons learned

75. Under Component 4, this programme is based on (1) the creation of important knowledge to support adaptation planning and (2) the use of such knowledge to inform co-design and implementation of adaptation activities. Both scientific and traditional knowledge are fundamental to the success of this programme and its sustainability, as is the knowledge created during the Stakeholders' Engagement process with the Theory of Change and Scenario Planning. This Component will be concerned with the use of this knowledge to inform the internal Monitoring, Evaluation and Learning (ME&L) Process and to share the learnings with other interested parties regionally and globally. The information generated will be used to update the Kunene River Assessment Toolkit. IFAD and FAO have significant experience and systems in place for knowledge management, documentation and dissemination across countries through websites, as well as through social media accounts. . IFAD and FAO will use their networks of Country and regional offices in Africa to disseminate the knowledge and the lessons leant through the project.

76. Knowledge products to be developed such as **strategic multi-scale planning documents,** training manuals, training reports, practical guidelines and manuals on natural resources access, use and management in climate change vulnerable contexts, community engagement and response to extreme weather events, catchment management plans. Videos and photos from the fields where the project activities will be implemented will be useful tools. Good practices and key lessons from project interventions will be identified, documented as case studies, bulletins, pictures, and videos. In addition, the project will also produce learning documents, evaluation reports and policy briefs.

77. A knowledge management strategy will be developed during full proposal design up to capitalize on existing climate information, facilitate information sharing among stakeholders, and disseminate project results. The knowledge shared will be relevant, linked to strategic objectives, practical, replicable, and accessible. Regional and global events (conference symposia, various workshops, and meetings) can be used to help disseminate project results and lessons learned.

78. The proposed DRR plan may be adapted and used in other Transboundary River Basins in the region, which experience similar tensions between use and conservation of resources, amongst users and/or between users and decision-makers, but need to enhance the ecosystem base to avoid total environmental and socio-economic collapse.

79. The documentation of case studies, good practices, awareness rising, capacity building and lessons learned will be the main focal areas. Qualitative studies to support the quantitative evidence will be collected by the project's monitoring and evaluation (M&E) system. This documentation will support the scaling-up of project interventions, for adoption of EbA and DRR strategies by communities and local authorities, and for the informing of policies and strategies at various levels, from national to regional. The generation and documentation of DRR knowledge will enable the production of appropriate awareness materials for increasing climate change resilience in the basin.

I. Consultative process, including the list of stakeholders consulted, undertaken during project/programme preparation,

80. Consultations followed and were guided by the international good practice and principles in accordance with Adaptation Fund requirements, harmonized with those of other development partners and reflected a broad range of information and perspectives on climate change vulnerabilities, impacts and adaptation. The following five step approach was used to guide the formulation of this project:

81. **Step 1**: Regional stakeholders SADC, provided guidance on the basins to useful secondary participatory data and resources (i.e. survey results, community plans) from NGOs, researchers, and other stakeholders were made available to avoid duplication of effort.

82. **SADC Secretariat, LIMCOM and PJTC**: A number of meetings were carried out with these stakeholders, some of which were held on the side lines of the Southern African Regional Climate Outlook Forum (SACOF). The SADC Climate Services Centre helped in identifying, aligning and framing the priorities with respect to weather and climate information as well as existing programmes and projects. Interviews with the SADC Disaster Risk Reduction Unit responsible for coordinating regional preparedness and response programmes for trans-boundary hazards and disasters gave insights on the challenges and intervention priorities in terms of regional early warning and response systems. The SADC water division gave inputs on the adaptation priorities especially transboundary and integrated water resources development and management especially in the face of climate change.

Consultations in Okanguati, Namibia

Community leader (Okanguati) narrating

Consultations in Matala, Huila, Angola

83. Consultation was done with **Climate Resilient Infrastructure Development Facility (CRIDF),** an institution working in 12 different countries in Southern Africa that share water resources to provide long-term solutions to water issues that affect the lives of the poor in Southern Africa. The meeting provided valuable inputs on water based adaptive solutions that will be part of the upgraded climate smart infrastructure described under Outcome 2 of the intervention framework. Insights were also given on not only building short-term water infrastructure, but on working with organizations to show them how they can better build and manage their own water infrastructure to improve people's lives.

84. **Step 2**: This was at the national level in both countries through one-day workshops. The main purpose of the workshops was to obtain the inputs and contributions of national level stakeholders in terms of overall design and relevance of interventions. In addition, the consultation was aimed at ensuring and facilitating alignment, alliance and compliance with national and local policies, rules, regulations as well as ongoing programmes and projects in line with the AF's. In principle, the selection of stakeholders was guided by the activity of the stakeholders in the climate change, water and agricultural sector. In many cases, government led the identification of key national stakeholders involved in these sectors. Environmental and Social Policy; and to get guidance on the selection of actual target communities and priority value chains to be targeted under the programme (the sites that have been identified are presented in Part 1(Section B IV g). In all the five countries, the consultation proceeded as follows:
    - In Namibia, 31 participants with more than 15 of the participants being women attended the consultation workshop. It was opened by the Deputy Minister of Environment and Tourism and attended by two representatives for the Governors offices for Oshama and Omusati regions. The FAO Representative for Namibia and UNESCO Regional representative also gave opening Remarks. A detailed presentation of the project idea was done, and participants deliberated and discussed the intervention framework. They were then split into two groups with Group 1 focusing on alignment of proposal to policies and ongoing projects; while group 2 focused on selecting the sites within the Kunene province.
    - In Angola, the consultation followed the same approach with 20 participants attending of which 5 participants were women. The Governor of Kunene Province opened the meeting and expressed enthusiasm over the proposal. In the same fashion, a detailed presentation of the project idea was done, and participants deliberated and discussed the intervention framework. They were then split into two groups with Group 1 focusing on alignment of proposal to policies and ongoing projects; while group 2 focused on selecting the sites within the Kunene province.

85. **Step 3:** Provincial and district level stakeholders were informed of the proposed programme objectives and they provided guidance on the target sites. The criteria for selecting the sites were the need for adaptation interventions, complementarity with ongoing initiatives, building on previous Adaptation Fund supported initiatives and potential for success

86. **Step 4:** This was one of the most important and intensive part of the consultation process where target direct and indirect beneficiaries at site level/on the ground within the selected geographical areas provided their views on impacts of climate change on their livelihoods and proposed solutions for adaptation. Community level consultations in all five countries were held between 23 October and 21 November 2019 using Community Vulnerability Assessments and Adaptation Planning (CVAPP) approaches. The consultations were gender inclusive with over 50% women attending at each site. The consultation process deliberately sought to understand the differential impacts of climate change on women, men and youth and their adaptation solutions. The process exclusively captured community perspectives regarding their natural environment, ecosystem services locations as well as assessing the effect of drivers of change on ecological conditions hence service provision and adaptation responses. Twenty rapid scooping appraisals were undertaken at site level (4 sites per country) with key informants comprising village heads/local leaders combining both males and females and the elderly men and women. These interviews were focused on developing an

understanding of local challenges, existing adaptation practices to historical and current climate variabilities, the long-term climate change, including extreme events impacts and to gain local perspectives on possible and suitable future interventions that will improve local adaptive capacity. The discussions with women's groups, as well as the elderly and the disabled have ensured that the interventions designed under the proposed project are gender sensitive and take the concerns of the most vulnerable into consideration.

87. These consultations provided more insights about the target sites as well as expert opinion on the availability, use, management, distribution and historical trends in critical ecosystem services or both. Highlights were made on some of the actual and potential adaptation responses to the decline and in the delivery of local ecosystem services and effect of climate and other drivers on ecological conditions, as well as agricultural innovations for increasing productivity. This approach was critical for the project especially for understanding the impacts and trade-offs as a result of climate induced spatial, temporal and seasonal changes in the delivery of local ecosystem services and the adaptive capacity of the local communities to climate-induced changes in the delivery of local ecosystem services.

88. Community level consultations mainly informed the development of interventions that are presented in this proposal. The community consultations increased participatory decision-making processes in climate adaptation planning by bringing diverse stakeholders into a common process. It expanded the inclusion of often marginalized populations (mainly rural communities) and particularly women, youth, persons with disabilities, the elderly, and ethnic minorities with other stakeholders, such as traditional leaders, local NGOs and CBOs, government line ministries. The primary purpose of these consultations was to work with the beneficiaries to identify and co-design suitable adaptation responses, pathways and interventions that are informed by their respective local context (including indigenous knowledge and citizen science) to build resilience and reduce poverty associated with climate induced hazards, needs and priorities. Importantly, local government's representative also attended the consultations and gained greater credibility with their own constituencies.

89. **Step 5:** A validation workshop was then held in Johannesburg from 27 to 29 November 2019 to present findings to program stakeholders with participants from government departments and civil society organizations operating in the target communities. The NGO Network for Adaption Fund was represented at this workshop represented by Ms Elin Lorimer. Recommendations pointed to the need to unify interventions at catchment/transboundary level at for sustainable and impactful outcomes. This kind of analyses and methodological mixes were critical for facilitating participatory planning and decision making at local level with the aid of spatially explicit information, which ultimately informed program's concrete adaptation activities honed on basin wide approaches for sustainable resilience. The workshop also screened the community proposed interventions for gender, environmental and social suitability. Dates of the community consultations.

Country	Date of the community consultations, 2019	Total number of community Level Participants
Namibia	2 to 6 November	191
Angola	14 to 16 November	266

90. Further to this, follow-up consultative activities will be undertaken during the inception phase of this proposed project, to strengthen community ownership of the interventions. Consultations will also be done at community level during socio-economic and environmental baseline studies at the inception phase.

Regular Government Vulnerability and food security Assessments:

91. Since its establishment in 2005, the Southern African Development Community (SADC) Regional Vulnerability Assessment and Analysis (RVAA) Programme has facilitated the strengthening of a regional vulnerability assessment and analysis (VAA) system. The Governments involved in the proposal, with the support of World Food Programme (WFP), FAO and other stakeholders, each year between May and June National Vulnerability Assessment Committees (NVACs) carry out national vulnerability assessments under the guidance of the Regional Vulnerability Assessment Committee (RVAC). The RVAC system is acknowledged as the main system to track, report, respond to food insecurity and vulnerability in the region, and as such has been used as the major entry point for identifying the most vulnerable sites in all the countries. The design of the proposed Programme was informed by the 2015, 2016, 2017 and 2018 vulnerability assessments.

J. Justification for funding requested

92. The Kunene River Basin is a critical system because its water and ecosystem serves a large area of rural and peri-urban settlements, whose survival has been progressively threatened by climate change. Both Angola and Namibia have reduced capacity to address the needs of the river and its people, as well as prepare them for increased heat, reduced rains (in the middles and lower section) and reduced water availability, if boreholes are used without real knowledge of the groundwater resources. Under the current scenario, if there is no intervention or maladaptation, the people of the Kunene will soon have no choice but to urbanise and add to the poverty landscape of urban areas in both countries. Notwithstanding the potential for a continuous reliance on government food bank for survival, as it is currently the case due to climate change refugees from Angola[39], increase in urban slums where water insecurity and malnutrition will lead to disease and death, lack of access to education will leave children, and especially girls, without the means to address their future needs and at the mercy of human trafficking and exploitation. This scenario is too common in the urban areas of Southern Africa and in peri-urban areas along commercial routes, but can be avoided by focusing on sustainable planning for the management of the Kunene River Basin using an EbA Disaster Risk Reduction Framework.

93. This programme offers the opportunity to Angola and Namibia, to the Kunene Joint Technical Committee, to the semi-nomadic groups and related people of the Kunene basin, to local actors and other stakeholders, to establish a systematic process for understanding, planning and review of strategies and actions for CCA. It does so by promoting collaborative dialogue between parties, developing skills in negotiation and conflict resolution, provide timely scientific information to discuss and plan for adaptation and reduction of negative impacts from climate hazards, and by enhancing the one-stop portal for knowledge on the Kunene River Basin. Albeit complex in its formulation, due to the nature its scope and ambition, it simply aims at providing required knowledge, goods and services and, in doing so, demonstrating how to deliver on the national, regional and international commitments for CCA and transboundary water management piloting a set of methodologies that can be applied elsewhere in the region and beyond in transboundary water systems.

K. Sustainability of the programme outcomes has been taken into account when designing the programme.

94. The programme is conceived as a multi-scale interventions to deliver sustainable livelihoods to the semi-nomadic groups of the Kunene River basin facing consistent and severe risks of drought due to climate change. In so doing, the programme approaches its activities from the EbA-DRR planning perspective for sustainability in response to the Sustainable Development Goals on CCA and Water,

[39] OCHA, 2021, Update on Angolan migrants in Namibia (Etunda/Opuwo), a presentation to the Namibia UNCT meeting of 16 December 2021.

primarily. It also provides a framework for cooperative governance to be established and implemented between the target communities and other stakeholders, including sedentary communities, local and national government, donor agencies and the private sector. The co-design of concrete adaptation projects is chosen as a broad methodology to ensure that proposed projects continue and adapt through direct interventions of the stakeholders in time, beyond the lifespan of this programme. Building the programme on both Indigenous traditional knowledge and scientific knowledge, for the nomadic agro-pastoralist groups and including preferable adaptable solutions of these stakeholders enhances the programme's sustainability.

95. Emphasis on capacity building and dialogues assures that structures being established, as well as interventions being implemented, will continue beyond the scope and the duration of the programme. Programme components and activities will be built upon national and sub-national strategies and priorities, and will be integrated in national and sub-national programmes. The programme will establish and institutionalize linkages between communities, representatives of traditional leadership and local government officials, as well as a cross-sectoral and cross-border platforms that will monitor the continuation of the programme's achievements

96. The exit strategy will developed together with all stakeholders considering the environmental, economic, technical, social and institutional sustainability.

L. Overview of the environmental and social impacts and risks identified as being relevant to the programme.

Checklist of environmental and social principles	**No further assessment required for compliance**	**Potential impacts and risks – further assessment and management required for compliance**
Compliance with the Law		The programme will ensure participatory consultations of the Government of Angola (GoA) and Government of Namibia and other stakeholders to ensure compliance with all regional national laws and regulations. An Environmental, Social and Climate Management Framework (ESCMF) for the programme at the country level will be developed during full proposal stage.
Access and Equity		Equitable representation of males and females will be promoted. An Environmental and social assessment will be developed to guide identification and selection criteria of targeted beneficiaries to avoid any form of discrimination.
Marginalized and Vulnerable Groups		The programme aims to target the vulnerable communities in the Kunene river basin. Consultations will be made during full proposal development to find the best approach to reach the marginalized and vulnerable groups in semi-normadic communities in particular women, youth, persons with disabilities, and HIV affected groups to ensure participation and equal access.
Human Rights	X	The programme will respect international human rights. It integrates overarching human rights principles to enhance climate change resilience in Angola and Namibia.
Gender Equity and Women's Empowerment		A further detailed gender analysis will be carried out at full proposal stage to ensure that all gender aspects are fully incorporated. An open fora for gender-sensitive decision making, and attention to the ambitions of specific categories such youth, elderly and people with disabilities will be done.

Core Labour Rights	X	Labour laws will be considered in programme implementation in particular national labour laws in force. The respective country laws and regulations will be followed and children's work will be forbidden as well as remuneration inequity between men and women. The programme will ensure that all appropriate health and safety measures are taken in accordance to both national and international standards. Compliance will be monitored through progress reports, supervision missions, the mid-term review, and terminal evaluation.
Indigenous Peoples		Principles of Free, Prior and Informed Consent (FPIC) will be adhered to considering that indigenous peoples and minorities are present in the programme areas. At full proposal development stage, a wide and targeted stakeholder consultations will be undertaken to ensure inclusion of both minority and majority indigenous peoples in the programme.
Involuntary Resettlement	X	No involuntary resettlement is foreseen. The programme will work with communities in their locations and on voluntary basis. Therefore, no resettlements or even displacement to new locations is expected.
Protection of Natural Habitats		A further assessment to identify further risks on natural habitat will be done at full proposal development stage. An Ecosystem Goods and Services valuation in Protected Areas and Conservancies, Communal Areas and private ranches will be done to determine the status of environmental degradation, its natural and anthropogenic drivers, and identify opportunities for environmental restoration and livelihood enhancement The proposed programme also plans to undertake Nature-based Adaptation solutions that will bring positive benefits to degraded ecosystems.
Conservation of Biological Diversity		There is no risk to the conservation of biodiversity as no invasive plant species will be planted. However, further consultations and assessments will be made during the development of ESCMF. Deliberate efforts will be taken to ensure that interventions are compliant with all relevant national and international laws on conservation of biological diversity. Re-forestation will use indigenous species.
Climate Change	X	The programme interventions aims to reduce the negative impacts change and enhance the resilience of ecosystems and populations to Climate. The proposed Disaster Risk Reduction and resilience building through enhanced capacity for CCA in nomadic communities and promoting Nature-based Adaptation solutions will have mitigation benefits to the impacts of climate change.
Pollution Prevention and Resource Efficiency		The programme will meet international and national standards for pollution prevention and resource efficiency. However, a further assessment is required and an ESCMF will be developed with the necessary mitigation measures and monitoring mechanism. The Programme activities will not generate pollution and loss of resources. It will contribute to sustainable land management, efficient water use and prevention of water pollution.
Public Health	X	The programme will avoid any activities that result in negative impact on public health.
Physical and Cultural Heritage		The programme will avoid areas with physical and cultural heritage significance. However, further detailed E&S and gender analysis will be done at full programme proposal development stage in order to incorporate gender aspects including culture and other heritage within the programme areas. The programme will promote local knowledge and train communities to handle the new technologies without affecting cultural heritage. As regards to physical heritage the programme will not implement activities that will target specific physical assets in the programme sites

Lands and Soil Conservation		The programme aims to improve vegetative cover, introduce soil conservation measures, plant resilient and diverse indigenous plant species and improve water management through climate smart agriculture.

97. According to Adaptation Fund's Environmental and Social Policy, the programme is classified as medium risk (Category B). The environment and social classification of the programme is ''moderate'', while the climate risk classification is ''High'' according to IFAD climate risk criteria at pre-concept stage.

98. The following studies are proposed during full proposal development:
    - Free and Prior Informed Consent (FPIC) Plan when targeting the nomadic groups and other local communities.
    - Vulnerability impact and adaptation which could inform programme interventions.
    - Elaborate an Environment, Social and Climate Management Plan

99. Within the sustainability framework guiding the programme, the proponents wish to ensure that the activities funded bring benefits to degraded ecosystems, the health of which is progressively restored, as well as to the target group able to maintain the traditional semi-nomadic traits as desired but following a clear DRR and Adaptation pathway for the achievement of sustainable complex socio-ecological system in the Kunene River Basin.

100. There are a few foreseen risk within the proposed approach which include:
    - actualisation of stakeholders need and aspirations,
    - delays in completing fieldwork and other field-based activities, and
    - procurement of the required goods and services for the completion of activities, due to the restrictions of movements during the pandemic,
    - ability to address intrinsic gender and age issues in the co-design and implementation phases due to community hierarchical structures.

101. These risks will be mitigated, reduced or (where possible) eliminated by the establishment of a collaborative network with experience in the area and able to overcome difficulties related to access to communities and intra-community hierarchy. Several activities and programmes have already been identified as relevant to improve the understanding of climate change, such as the WWF/IRDNC Vulnerability Assessments, to be part of the MH-EWS, the rural-based education programmes of World Vision International in Angola, the growing and trade of indigenous plants for the health and beauty industry under Intellectual Property Agreements, supported by the IRDNC.

PART III: IMPLEMENTATION ARRANGEMENTS

102. The Programme will be implemented by IFAD and executed by PJTC and FAO, in close collaboration with all relevant National Ministries/Departments of Agriculture, Environment, and Climate change in the two countries.

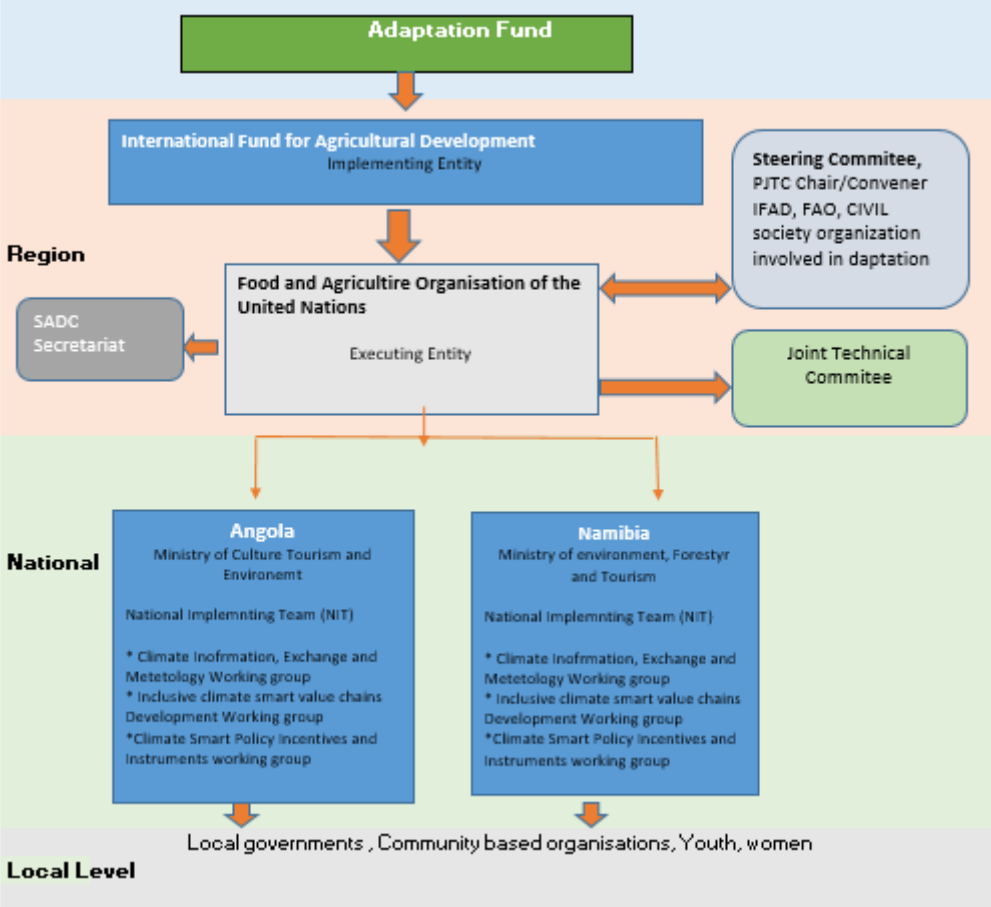

Fig 4: Partners that will be involved in the implementation and delivery of the proposed Programme.

103. Roles of the different Programme partners will be as follows:

104. **IFAD**: will assume the role of Programme implementer and provide fiduciary and Programme management oversight and chair the Regional Programme Steering Committee.

105. **FAO**: FAO will be responsible for the day-to-day coordination of activities at country level through the network of country offices.

106. **Regional Programme Steering Committee (RPSC)**: IFAD with the support of the executing entity will set up the Regional Programme Steering Committee (Regional PSC) whose role will be to provide direction in implementation of all the programme components and activities. The RPSC will be chaired by PJTC and will have FAO, IFAD and a CSO operating at the basin level.

107. **National Implementing Team (NIT)**: In each Programme country, a National Implementing Team coordinated by government line ministry responsible for the main activity, with technical assistance from FAO, and the Adaptation Fund National Implementing Teams in each country will be established which will be responsible for the facilitating stakeholder engagement at national, basin and local

community level. In each country, the actual composition of the NIT will be different and will at best be structured to conform to already existing institutional arrangements as opposed to formation of new structures. Based on the consultation exercise, the table provides a list of organizations from which the NIT in each country will be established. The roles of the actors and stakeholders at country level will be aligned to their mandates, and will be further identified, defined and refined during the inception meeting in each country. The national level stakeholders and institutions with potential roles in the NIT identified during consultation are presented in table below

National level stakeholders and institutions with potential roles in the NIT identified during consultation.

Angola	**Namibia**
• Department of Environment of Cunene province • Department of Agriculture of Cunene province • Department of Environment of Huila province • Department of Agriculture of Huila province • Agriculture Development Institute (IDA) • National Institute of Meteorology (INAMET) • National Institute of Hydric Resources (INRH) • Forest Development Institute (IDF) • Artisanal Fishers Institute (IPA) • ADPP (NGO) • CODESPA (NGO) • UNDP • ADRA (NGO) • Civil Protection Department • World Vision (NGO) • Polytechnic Institute of Cunene • Polytechnic Institute of Huila • Department of Climate Change (GABIC) • Irrigated perimeters Development Society (SOPIR) **Private sector players** • ANO Association • Farmers associations	• Desert Research Foundation of Namibia (DRFN)-National Implementing Entity • Ministry of Agriculture, Water and Forestry • Ministry of Environment and Tourism • Ministry of Industrialization, Trade and SME Development • Ministry of Fisheries and Marine Resources • Ministry of Urban and Rural Development • Ministry of Poverty Eradication and Social Welfare • Namibia Meteorological Services • University of Namibia • Namibia University of Science and Technology • National Commission on Research Science and Technology • Kunene Permanent Joint Technical Committee • National Climate Change Committee • Development partners including various NGOs **Private sector players** • Namibia National Farmers Union • Local Farmers' Associations and Cooperatives • Agro-Marketing and Trade Agency • AgriBusDev • Local millers and food processors • National Water Utility company (NAMWater) • Agricultural and Commercial Banks

108. This core team of the NIT will be comprised of Representatives from National Implementing Entities (where they exist), Executing Entity Team Leaders/Programme Focal point persons/Programme officers at national level and will rope in focal point persons from Permanent Joint Technical Commission (PJTC) and will be reporting to the RPSC.

109. FAO shall have contractual engagements with the Implementing Entity and will account to the Implementing Entity. Team Leaders/Programme Focal point persons/Project officers will be appointed by the executing entity to oversee coordination, management, implementation, monitoring and reporting of programme activities.

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

Programme Objective(s)[40]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Component 1. Co-design with beneficiary communities and stakeholders, and implementation of a Plan for Disaster Risk Reduction through Ecosystem-based Adaptation in the Kunene River Basin (KRB: EbA-DRRP)	1.1 An improved DRR Plan co-designed by beneficiary communities and all stakeholders and its component implemented.	**Outcome 1**: Reduced exposure to climate-related hazards and threats	AF Outcome Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	**1 000 000**
	1.2 Improved dialogue and co-planning of the Kunene River Basins by the stakeholders (government, other communities and private sector)	**Outcome 2**: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	AF Outcome Indicator 2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	
	1.3 Enhanced capacity for CCA in nomadic communities up scaled to the Basin.			
Component 2. Implementation of a satellite-based Multi-Hazard Early Warning System for the Kunene River Basin (KRB: MH-EWS)	2.1 Enhanced skills to define weather patterns at micro-climate scale to support local level adaptation 2.2 Agreed KRB: MH-EWS in place for use by target community, related communities, and government.	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	AF Outcome Indicator 3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	**3 500 000**
Component 3. Co-design and Implement Community-based adaptation actions	3.1 Improvements in community capacity to understand impacts of CC on livelihoods and co-designed adaptable solutions. 3.2 Agreement on CCA interventions by communities and government implemented.	**Outcome 4:** Increased adaptive capacity within relevant development sector services and infrastructure assets	AF Outcome Indicator 4.1. Responsiveness of development sector services to evolving needs from changing and variable climate AF Outcome Indicator 4.2. Physical infrastructure improved to withstand climate change	**6 500 000**

[40] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology, but the overall principle should still apply

	3.3 Improvements collaboration amongst development partners and stakeholders in the programme area of the Kunene River Basin		and variability-induced stress	
Component 4. Raise awareness and improve knowledge on the Kunene River Eco-system	Strong Knowledge of the Kunene River System	**Outcome 3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	AF Outcome Indicator 3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses AF Outcome Indicator 3.2. Percentage of targeted population applying appropriate adaptation responses	**480 000**
Programme Outcome(s)	**Programme Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Output 1.1.1 Knowledge gaps for the preparation of the KRB: EbA-DRRP identified.	1. No. of early warning systems (by scale) and no. of beneficiaries covered	***Output 1.1:*** Risk and vulnerability assessments conducted and updated	**AF Output Indicator 1.1.** No. of programmes/programmes that conduct and update risk and vulnerability assessments (by sector and scale)	**1 000 000**
Output 1.1.2 A Basin-wide DRR Plan focussed on Ecosystem-based Adaptation is developed. Output 1.2.1 Full stakeholder engagement with the beneficiary communities and stakeholders of the Kunene carried out. Output 1.2.2 Dialogue-building process between beneficiary communities and related stakeholders through Scenario Planning is facilitated.	2. Percentage of target population covered by adequate risk-reduction systems	***Output 1.2:*** Targeted population groups covered by adequate risk reduction systems	**AF Output Indicator 1.2.1.** Percentage of target population covered by adequate risk-reduction systems	
Output 1.3.1 IRDNC/WWF programme on capacity-building for CCA up scaled: trainers/leaders trained on CC, climate smart conservation and climate risk and adaptation assessment tools	No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	Output 2: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	**AF Output Indicator** 2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	
	No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)		**AF Output Indicator** 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	
Output 2.1.1 Weather stations for micro-climates in the basin, with national meteorological agencies (integrated with current EWS stations planned for the selected area by AFD and AfDB) installed. Output 2.2.1 KRB: MH-EWS designed and approved by governments Output 2.2.2 Big Data Analytics tool for EWS data capturing and monitoring, including a user-friendly system for data access and usage prepared Output 2.2.3 KRB: MH-EWS	Output 2: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	Output 2: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	AF Output Indicator 2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	**$3 500 000**

operationalised. Output 2.2.4 Plans for climate-driven risk reduction and emergency preparedness co-designed with target community and related communities				
3.1.1 Community participatory climate risk assessment and adaptation tools (for upscaling of IRDNC/WWF pilot programmes) developed. 3.1.2 Community-based Theory of Change for local level adaptation and sustainable livelihoods co-designed with communities. 3.2 Identification and implementation of agreed Activities for community-based adaptation identified, agreed upon and implemented. 3.3.1 A forum for development partners in the programme area of the Kunene River developed. 3.3.2 Programme funds used for continuation of relevant existing programmes in agreement with recipient communities and local government.	No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale) No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	**AF Output Indicator** 4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) **AF Output Indicator** 4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	**$6 500 000**
		Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	**AF Output Indicator** 6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	
4.1.1 The Kunene River Assessment Toolkit (online portal) and augment knowledge on CCA from this programme updated. 4.1.2 A case study from the Programme for submission to FAO knowledge system, SADC-GMI and WaterNet, developed and further disseminated 4.1.3 Local capacity to understanding the impacts of CC to local livelihoods strategy and to adaptive planning built. 4.1.1 The Kunene River Assessment Toolkit (online portal) and augment knowledge on CCA from this programme updated.	No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. and type of risk reduction actions or strategies introduced at local level	**480 000**

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

A. Record of endorsement on behalf of the government[41]

The endorsement letters are attached in Annex 1 to the programme proposal.

Namibia: Teofilus Nghitila Executive Director Ministry of Environment, Forestry and Tourism, Namibia	Date: 23 March 2022
Angola: Mrs Carla Esperança Narciso Pompilio da Silva Balça Senior Climate Change Specialist Office of the Ministry of Culture, Tourism and Environment, Angola	Date 3 January 2023

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.

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the programme contact person's name, telephone number and email address*

<table>
<tr><td colspan="2">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 of Angola and Namibia and subject to the approval by the Adaptation Fund Board, commit to implementing the 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 programme.</td></tr>
<tr><td colspan="2">Implementing Entity Coordinator:
Mr Tom Mwangi Anyonge
Director a.i
Environment, Climate, Gender and Social Inclusion Division</td></tr>
<tr><td>Date: 9 January 2023</td><td>email: ecgmailbox@ifad.org</td></tr>
<tr><td>HQ Focal point
Ms Janie Rioux
Senior Technical Specialist (Climate Change) ECG Division, IFAD</td><td>Email: j.rioux@ifad.org</td></tr>
<tr><td colspan="2">Project Contact Person: Ms Paxina Chileshe
Regional Climate and Environment Specialist
East and Southern Africa, ECG Division, IFAD
Tel: +254 793 484 367</td></tr>
<tr><td colspan="2">Email: p.chileshe@ifad.org</td></tr>
</table>

ANNEX 1: ENDORSEMENT LETTERS

REPUBLIC OF ANGOLA

MINISTRY OF ENVIRONMENT

THE ADAPTATION

FUND BOARD

LUANDA

C.C: adaptation Fund Board Secretariat

Subject: Endorsement For Building Resilience Climate Change For Semi Nomadic Agro Pastoral Communities in The Transboundary Kunene River Basin.

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

Accordingly, I am pleased to endorse the above project proposal with support from the adaptation Fund. If approved, the project will be implemented by International Fund for Agricultural Development (IFAD) and executed by Food and Agriculture Organization of the United Nations (FAO).

MINISTRY OF ENVIRONMENT, in Luanda, January 3rd, 2023.

THE FOCAL POINT

CARLA ESPERANÇA NARCISO POMPILIO DA SILVA BALÇA

Ministério do Ambiente – Rua direita da Samba, Futungo, Condomínio Rosalinda, Edifício 11B
6º Andar, Luanda, NIF 5000357383 Telefone +244 944884 831
E-mail:minamb.gab.c.e.a@gmail.com

Luanda - Angola

GOVERNO DE ANGOLA

ANGOLA minamb.gov.ao

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

Tel: (00 264) 61 284 2111
Fax: (00 264) 61 232 067

Enquiries: Mr. P. Mutcyauli
E-mail: petrus.mutcyauli@met.gov.na

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

18 March 2022

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

Subject: Endorsement for the International Fund for Agricultural Development on a regional project concept proposal to the Adaptation Fund titled "Building Resilience to Climate Change for Semi Nomadic Agro Pastoral Communities in the Transboundary Kunene River Basin in Angola and Namibia".

In my capacity as designated authority for the Adaptation Fund in Namibia, I confirm that the above national project concept 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 Namibia.

Accordingly, I am pleased to endorse the above project concept proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agricultural Development.

Sincerely,

23 MAR 2022

Office of the EXECUTIVE DIRECTOR REPUBLIC OF NAMIBIA

Teofilus Nghitila
Executive Director

"Stop the poaching of our rhinos"

All official correspondence must be addressed to the Executive Director

ANNEX 2: PROJECT FORMULATION GRANT

Project Formulation Grant (PFG)

Submission Date: 9 January 2023

Adaptation Fund Project ID:
Country/ies: Angola and Namibia
Title of Project/Programme: Building Resilience to Climate Change for Semi Nomadic Agro Pastoral Communities in the Transboundary Kunene River Basin
Type of IE (NIE/MIE): Multilateral implementing entity
Implementing Entity: International Fund for Agricultural Development (IFAD)
Executing Entity/ies: Food and Agriculture Organization

A. Project Preparation Timeframe

Start date of PFG	(Upon) Concept Note approval date
Completion date of PFG	(10 months) after Concept Note approval date

B. Proposed Project Preparation Activities ($)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
Environment Impact Studies and thematic studies	Elaborated Environment, Social and Climate Management Plan and the corresponding monitoring plans	6 000
	Free and Prior Informed Consent (FPIC) Plan for targeting the nomadic groups and other local communities.	6 000
	Vulnerability impact and adaptation which could inform project interventions Gender strategy	6 000
Stakeholder workshops	National and regional workshops with stakeholders and local communities	12 000
Consultancy fees for proposal development	A full funding proposal document for submission to AF	14 000
Travel expenses and logistics	Technical support to design and consultations	6 000
Total Project Formulation Grant		50 000

Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact person	Telephone	Email Address
Mr Tom Mwangi Anyonge Director a.i Environment, Climate, Gender and Social Inclusion Division IFAD			Ms Janie Rioux Ms Paxina Chileshe	 +254 793 484 367	j.rioux@ifad.org p.chileshe@ifad.org

ANNEX 3: IMAGES FROM THE COMMUNITY CONSULTATIVE PROCESS FROM ANGOLA AND NAMIBIA WHICH WERE DONE BY FAO IN COLLABORATION WITH UNESCO DURING 2019/2020

Country	Area	Consultation Dates	Attendance registers	Presentations	Endorsement letter
Angola	Cunene Matala Huila	14 Nov 22 Nov	Adobe Acrobat Document Adobe Acrobat Document	Adobe Acrobat Document	Angola endorsment letter AF (003).pdf
Namibia	Okanguati Ruacana	4 Nov 5 Nov	Adobe Acrobat Document Adobe Acrobat Document	Adobe Acrobat Document	Namibia endorsement letter AF (002).pdf
Validation Workshop	Johannesburg	28 - 29 Nov	Adobe Acrobat Document	Adobe Acrobat Document	Adobe Acrobat Document

ANNEX 4: LIST OF POTENTIAL PARTNERS IN ANGOLA

The Center for Tropical Ecology and Climate Change (CETAC)

Under the MCTA, the CETAC hosted in Huambo province has the main role focus on capacity building and environmental research related to water resources, soil, climate change, and others themes. It will support the programme in terms of scientific researches.

Provincial Directorate of Environment, Waste management and Community services

The Provincial Directorate has the role to implement at provincial level the environmental policies. They will be the key liaison entity of the provincial governments in accompanying the programme.

Provincial Directorates for Agriculture and Forestry

The will be closely articulated with the provincial IDA regarding the involvement of the municipal EDA's in the programme's implementation.

Office for Administration of watersheds of Cunene, Cuvelai, and Cuando Cubango (GABHIC)

GABHIC is responsible, under MINEA, for integrated management of natural resources in the watersheds in Angola side and member of the Permanent Joint Technical Commission of Cunene River Basin. GABHIC will be part of the programme in the planning of integrated activities in the basin.

National Institute of Meteorology and Geophysics (INAMET)

INAMET is the national institution in charge of monitoring the weather and climate. It is also a research organization which provides scientific services in the fields of meteorology and geophysics under the Ministry of Telecommunications and Information Technologies (MTTI). INAMET ensures the functioning of the network of Automatic Weather Stations (AWS) and conventional observations of atmospheric parameters, carrying data storage, processing and dissemination. INAMET is represented across the country through its provincial departments. INAMET will be engaged by a partnership to encourage the sharing of geographic data to contribute to Early Warring Systems

Civil Protection and Fire Service (SPCB)

Civil Protection and Fire Service (SPCB), under the Ministry of the Interior, is responsible for intervening in situations of responses and prevention of natural disasters. The SPCB will support the programme in actions related to field interventions to reduce natural hazards.

Provincial Governments

Mostly through the interfaces of the provincial directorates of MCTA and MINAGRIP, provincial governments will be engaged in the planning and implementation of the programme and support its activities. They will support the programme in all its phases and will ensure linkage with local development strategies. They are key beneficiary of programme's capacity building interventions. One important fact to refer is that, at local level has different consultation councils like, community auscultation council, social concertation council, community oversight council.

Municipal Governments

Together with provincial governments, the municipal governments will be working on the programme's execution and provide support throughout the entire time of its implementation and planning. The municipal administrations are also a key programme beneficiary.

Traditional Authorities

They will be supporting the programme's implementation in a role as mediators, enabling communication between local groups engaged in the programme. They will also monitor the programme's activities.

ANNEX 5: LIST OF POTENTIAL PARTNERS IN NAMIBIA

Traditional Authorities

The programme will be implemented in Kunene Communal Area where traditional authorities preside. Their leaders are entrusted with the allocation of communal land and the formulation of the traditional group's customary laws. Traditional Authorities also assist and co-operate with the Government, regional councils and local authority councils in the execution of their policies and keep the members of the traditional community informed of developmental programmes in their area. It is thus imperative that they participate in the implementation of the programme.

Office of the Kunene Governor

The Governor is the political head of the region and provides strategic political leadership within the framework of the law. The Office of the Governor acts as a link between the Central Government and the Regional Council, or any Local or Traditional Authority in Kunene Region. Thus, national policies and strategic development initiatives are promoted through the Office of the Governor and the Kunene Regional Council. The Office of the Governor and the Kunene Regional Council are thus crucial in the implementation of this programme. They will provide the needed information and help identify the programme beneficiaries.

Integrated Rural Development and Nature Conservation (IRDNC)

The IRDNC is a notable local partner of government and non-government programmes in rural development. Starting in the 1980s, IRDNC pioneered new approaches of working with rural communities in Namibia to protect rhinos and elephants. A decade later, that provided a key foundation for policy and legal reforms that established communal conservancies. Since then, IRDNC has played a lead role, working with NACSO and other Namibian and international partners, to support the growth and development of conservancies across much of Namibia.

IRDNC is the lead facilitator of communal conservancies and related natural resource management initiatives in both the desert landscapes of north-western Namibia, and the floodplains and woodlands of north-eastern Namibia[42].

The partnership with IRDNC will also bring in the WWF Sweden Programme for Community-Based Natural Resource Management currently funding pilot programmes for CCA in the Kunene area.

[42] Description taken from the Maliasili website on 15 March 2022 https://www.maliasili.org/irdnc

ANNEX 6: LIST OF NATIONAL LEGISLATION CURRENTLY IDENTIFIED FOR COMPLIANCE

Potential concrete Adaptation Interventions	National Regulations and Technical Standards to be complied with	
	Angola	**Namibia**
Construction and Rehabilitation of Weirs and Earth dams	Water Law (Law no. 6/02 of 21 June); Decree No. 82/14 of 21 April; Environ. Law (Law No. 5/98 of 5 June); EIA (Decree No. 51/04 of 23 July) Environ. Licensing Regulation	Water Resource Management Act 13 of 2013 Water Cooperation Act 12 of 1997
Solar driven watering holes for grazing lands (and strategic wildlife zones)	National Biodiversity Strategy and Action Plan (Resolution n.º 42/06 de 26 de July); Strategic Plan of Conservation Areas; Law of Forest and Wildlife (6/17 of 24 January); The Iona/Skeleton Coast Transfrontier Conservation Area (Resolution 41/06 24 July)	Water Resource Management Act 13 of 2013 Water Cooperation Act 12 of 1997
Value addition and processing equipment for specific Value chains	Export Diversification and Import Substitution (PRODESI- Presidential Decree 169/18) Program to Support agriculture Credit (PAC) (Presidential Decree No. 159/19)	National Policy on Climate Change for Namibia 2011; Agricultural Marketing & Trade Policy & Strategy 2011; National Agricultural Policy (MAWF, 1995) Forest Act 12 of 2001
Conservation Agriculture (CA)	Development Plan of the Agriculture Sector (2018 - 2022).	Comprehensive CA Programme for Namibia 2015-2019 Namibia Agricultural Policy (MAWF, 2015) National Policy on Climate Change for Namibia 2011
Water efficient and adaptable livestock breeds and crop varieties	Decree No. 15/18 of 25 January) on animal breeds and crop varieties; Executive Decree 574/17 Executive Decree No. 388/17 Executive Decree No. 387/17 Executive Decree No. 386/17 Decree that approve the Biosafety Regulation (Decree No. 62/11 of 14 April)	National Water policy 2003; Water Act 12 of 1997; Water Supply Sanitation Policy 2004 Livestock improvement Amendment Act 25 of 1993; Seed and Seed Act 2017; Plant Breeder & Farmer Right Bill 2006; National Policy on Climate Change for Namibia 2011
Enhancement of ecological infrastructure	The national policy of environment is the environmental Law (No. 5/98 of 5 June The Law of Forest and Wildlife (6/17 of 24 January) contain several points that address this issue.	National Policy on Climate Change for Namibia 2011 Environmental Management Act 2007; National Rangeland Management Policy & Strategy 2012; National Development Forestry Policy 2001 Forest Act 12 of 2001
Automated weather stations for early warning	The National Institute of Meteorology and Geophysics (INAMET), (Presidential decree 230/14 of 4 September)	World Meteorological Organization Standard
Institutional capacity building and strengthening	National Plan Capacity building under of Ministry of science and technology.	Training Policy of Public Service of Namibia 1999; Human Resource Development Policy Framework 2012