

Approved Project Preparation Service Application

Application Title	SCALING UP ECOSYSTEM-BASED APPROACHES TO MANAGING CLIMATE-INTENSIFIED DISASTER RISKS IN VULNERABLE REGIONS OF SOUTH AFRICA
Country/ Region	South Africa
Accredited Entity	South African National Biodiversity Institute (SANBI)
Approval Date	29/10/2021



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Project Preparation Facility (PPF) Application

PPF Service

Application Title	Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa
Country(ies)	South Africa
Accredited Entity	South African National Biodiversity Institute (SANBI)
Date of first submission/ Version number	<u>2020-11-27</u> <u>V.1</u>
Date of current submission/ version number	<u>[2021-08-19] [V.2]</u>

Please submit the completed form to ppf@gcfund.org, using the following naming convention in the subject line and the file name:
“PPF-[Accredited Entity]- [Country]-yyyymmdd”

2020



Notes	
<ul style="list-style-type: none"> • The PPF supports the development of projects and programmes and enhance their quality at entry into the Fund’s pipeline. With a view to enhancing the balance and diversity of the project pipeline, the PPF is designed to especially support Direct Access Entities for projects in the micro-to-small size category. International Accredited Entities seeking project preparation support from the PPF are encouraged to do so especially for LDCs, SIDS and African countries where no Direct Access Entity is accredited. All Accredited Entities are encouraged to articulate counterpart support for project preparation within their requests for support from the PPF. • A PPF submission should include below documents: <ol style="list-style-type: none"> 1. PPF request (this form) 2. PPF No-Objection letter 3. Concept Note • Please copy the National Designated Authority (ies) when submitting this PPF request. • Requests for support from the PPF should be submitted at the same time or following submission of a GCF Concept Note for a project or programme. • A guidance note is annexed to this application form and referenced throughout the document • Further information on GCF PPF can be found on GCF website Project Preparation Facility Guidelines. 	

List of acronyms

AE	Accredited Entity
AFIS	Advanced Fire Information System
COGTA: NDMC	Department of Cooperative Governance and Traditional Affairs: National Disaster Management Centre
DFFE	Department of Forestry, Fisheries and the Environment
DFFE: NRM	Department of Forestry, Fisheries and the Environment: Natural Resource Management
Eco-DRR	Ecosystem-based Disaster Risk Reduction
EI	Ecological Infrastructure
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguard
FPIC	Free, Prior and Informed Consent
GCF	Green Climate Fund
ITAP	Independent Technical Advisory Panel
LDCs	Least Developed Countries
MDRG	Municipal Disaster Recovery Grant
MIG	Municipal Infrastructure Grant
PES	Payment for Ecosystem Services
PPF	Project Preparation Facility
SANBI	South African National Biodiversity Institute
SAP	Simplified Approval Process
SIDs	Small Island Developing States
SMME	Small, Medium and Micro Enterprise
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
ToRs	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change

Note: This template serves to apply for **the project preparation facility service**, as part of the GCF Project Preparation Facility (PPF). This service is provided by a roster of independent project development firms. This PPF access modality is different from the traditional modality. Upon approval of a PPF service application, GCF, in coordination with the AE, will launch a tender process to hire an independent consultancy firm, to undertake the approved activities directly. Costs related to the consultancy firm will be borne by the GCF directly. Same as traditional PPF applications, the AE would be responsible for the quality control of the final products produced by the firm.

A. Executive Summary			
Accredited Entity (AE)	Name:	Dr Mandy Barnett	
	Position:	Chief Director: Adaptation Policy and Resourcing	
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Has a Concept Note been submitted in association with this request for support from the PPF?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, please indicate Project/Programme title: <i>Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa</i>	Has a No-Objection Letter been submitted for this request for support from the PPF?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Anticipated Duration	Number of months to implement the Project Preparation activities: 12-18 months		
Summary of the request for Project Preparation support	<p>South Africa is highly vulnerable to the impacts of climate variability and change, increasing the frequency and severity of drought, floods and wildfires. This threatens the ecosystems that underpin urban and rural livelihoods and the economy. Well-managed ecosystems have the potential to reduce the severity and risk of these extreme events, especially for vulnerable rural communities.</p> <p>The objective of the project entitled “<i>Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa</i>” is to alleviate climate change impacts and environmental degradation through scaling up ecosystem-based approaches. The proposed GCF project will undertake: i) rehabilitation of vulnerable catchments; ii) integration of ecosystem-based approaches into settlement planning and disaster risk reduction; and iii) upscaling ecosystem-based disaster risk reduction (Eco-DRR) approaches across South Africa. The project Concept Note was submitted to the GCF in September 2019 and endorsed in November 2019, at which time SANBI was invited to submit a PPF request.</p> <p>PPF support from the GCF is sought to fill in gaps in terms of information, stakeholder consultations and assessment of potential adaptation options, and to develop the full Funding Proposal. The following PPF studies will be undertaken, some of which can be done remotely, and some of which will require on-the-ground consultations at the local level:</p> <ol style="list-style-type: none"> 1. Selection of Candidate Implementation Sites 2. Baseline Study and Vulnerability Assessment 3. Feasibility Assessments and Detailed Project Design 4. Environmental and Social Studies and Management Plan 5. Gender Analysis and Gender Action Plan 6. Stakeholder Engagement 7. Risk Assessment and Mitigation Plan 8. Project Logframe, Monitoring and Evaluation Framework and Identification of Project-level Indicators 9. Full Funding Proposal write-up 		

B. Description of Project Preparation Activities

Activities and Outputs

The activities listed below, with the indicated outputs, are required to fully develop the proposed GCF project, in conjunction with in-depth consultations with relevant stakeholders. Some of these consultations can be done remotely, while other will need to be done in-person, including at the local level. Should COVID-19 restrictions prevent in-person engagement, alternative arrangements will have to be made in conversation with the GCF. Further details on each of the studies noted below are provided in Section D: Terms of Reference.

1. **Selection Candidate Implementation Sites:** A set of criteria will be developed and applied to select candidate Implementation Sites, focusing on degraded quinary catchments in rural areas where communities are highly vulnerable to drought, flood and wildfire risks, intensified by climate change.

Output 1: List of candidate Implementation Sites and narrative detailing the associated selection process

2. **Baseline Study and Climate Risk and Vulnerability (CRV) Assessment:** The current characteristics of population, environment and the climate situation in the candidate Implementation Sites will be determined through a Baseline Study, and a Climate Risk and Vulnerability Assessment will be conducted to identify barriers to reducing risk and vulnerabilities to climate-exacerbated drought, flood and wildfire in the candidate Implementation Sites.

Output 2: Baseline Study and Climate Risk and Vulnerability Assessment

3. **Feasibility Study, Detailed Project Design and Implementation Budget:** A thorough and comprehensive Feasibility Assessment and analysis will identify the barriers to reducing climate change-related risks and vulnerabilities in the candidate Implementation Sites, identify possible solutions in the form of interventions to support and improve preparedness, resilience and disaster risk reduction, and assess such solutions in terms of efficiency and effectiveness to address climate change impacts and barriers. The assessment will include technical, institutional and policy analysis, building on the data and findings from the Climate Risk and Vulnerability Assessment (Output 2). It will also include a public sector financial and economic analysis to explore the potential for sustaining public sector financial flows into Eco-DRR through removing barriers to using public finance, and a financial and economic analysis of the potential for private sector involvements Eco-DRR, in particular how the private sector may sustain investments. The assessment will include a detailed description of the overall project design and implementation plan, including proposed interventions, cost benefit analysis, comparison of scenarios and justification of selected approach, potential impact and targeted beneficiaries, project governance and implementation arrangements (including roles of Accredited Entity and Executing Entities), as well as detailed management plans, monitoring protocols and costed action plans.

Output 3: Feasibility Study, Detailed Project Design and Implementation Budget

4. **Environmental and Social Studies and Management Plan:** An environmental and social impact assessment will be undertaken, and an overall social and environmental management plan prepared for the project. This will ensure that the project is implemented in an environmentally and socially sustainable manner and in full compliance with the environmental and social policies and regulations of the GCF and the Government of South Africa.

Output 4: Environmental and Social Impact Assessment (ESIA); Environmental and Social Management Plan (ESMP)

5. **Gender Assessment and Gender Action Plan:** A gender analysis and action plan will be developed to mainstream gender considerations into the full Funding Proposal and into overall project implementation. The objective is to ensure that women, children and the most vulnerable populations duly benefit from the implementation of this project both in the short and long-term.

Output 5: Gender Assessment; Project-level Gender Action Plan

6. **Stakeholder Engagement:** In-depth stakeholder consultation will be conducted at national, provincial and local level to engage key partners and stakeholders to ensure that they understand and have a meaningful say in terms of the selection and design of interventions. A stakeholder engagement plan will be developed to guide implementation, together with an appropriate grievance redress mechanism.

Output 6: Report on Stakeholder Consultations conducted during the preparation of the project, including information on proceedings, dates and audience; Project-level Stakeholder Engagement Plan; Project-level Grievance Redress Mechanism (referring to the AE's institutional-level grievance redress mechanism and the GCF's independent redress mechanism)

7. **Risk Assessment and Mitigation Plan:** A risk assessment for the project will be undertaken. The assessment will include social, environmental, operational, financial risk assessment and suggestion of risk mitigation measures. The risk assessment will quantify hazard, exposure and vulnerability and propose different measures to achieve predefined objectives in terms of risk reduction.

Output 7: Risk Assessment and Mitigation Plan

8. **Development of Project Logframe, Monitoring and Evaluation Framework and Identification of Project-level Indicators:** This task will include development of the project logframe with SMART project-level indicators in line with GCF expectations and Performance Management Framework. A Monitoring and Evaluation framework and plan will be developed to measure achievement, progress and support adaptive management. GCF core indicators relevant to the project will be identified, together with measurement of and formulation of a methodology to be used for calculating these core indicators.

Output 8: Logical framework including project-level indicators; Monitoring and Evaluation Framework; Standard reporting format

9. **Full Funding Proposal Write-Up:** This task will include leading and coordinating the process of preparing a full GCF Funding Proposal for the project. The consultants will therefore be responsible for organizing and harmonizing the project components into a comprehensive full Funding Proposal according to GCF's requirements. The final proposal will include all relevant annexes based on analytical work, studies developed during the project preparation period, as well as South African national strategies and stakeholder consultations. The consultants is expected to address at most 3 rounds of comments from the GCF.

Output 9: A final GCF Funding Proposal with all required Annexes

C. Justification of the Project Preparation Request

The PPF is specifically designed to support Direct Access Entities and micro-to-small size category projects. This is exactly the case for this proposal. To conduct all of the above-listed activities and develop the full Funding Proposal, the South African National Biodiversity Institute (SANBI) as the Accredited Entity (AE) and its executing partners in the Department of Forestry, Fisheries and the Environment: Natural Resource Management (DFFE: NRM) and the Department of Cooperative Governance and Traditional Affairs: National Disaster Management Centre (COGTA: NDMC) would have to spend a significant amount of resources to obtain the required supporting documents. The expertise involved in the activities mentioned in the deliverables are very specific and the production of these deliverables will require expert consultants and specialists to conduct the numerous field studies and consultations, as well as undertake robust analyses of the feasibility, viability and sustainability of project interventions. SANBI, DFFE as the National Designated Authority and the executing partners for the project do not have the required capacity to undertake the work, or available funding to contract the consultants required to support the development of the full Funding Proposal.

As a result, without PPF support, the project would not be able to progress from a Concept Note to a full Funding Proposal, given the project's background, and the financial limitations noted above. This project is a priority for the Government of South Africa, and the preparatory phase is a fundamental step in shaping the likelihood of the project achieving the expected results as well as a transformational impact. The detailed studies undertaken in this preparatory phase will ensure that the project addresses national priorities, is country-driven, fills the investment gap and that the interventions are sustained in the long term.

D. Terms of Reference

Please provide terms of reference for all studies, assessments and activities to be undertaken through this PPF in below.

Overview:

Project Preparation Facility Services application for the project: "Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa".

A. PROJECT TITLE

"Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa".

B. BACKGROUND

The GCF is a fund within the United Nations Framework Convention on Climate Change (UNFCCC) founded as a mechanism to assist developing countries in adaptation and mitigation practices to counter the impacts of climate change. It makes use of Accredited Entities to develop funding proposals and oversee, supervise, manage and monitor their respective GCF-approved projects and programmes. In October 2016 SANBI was accredited as a Direct Access Entity of the GCF. SANBI is a national entity and a research institute that coordinates research, monitors and reports on the state of biodiversity in South Africa. SANBI also provides planning and policy advice to DFFE (the National Designated Authority in South Africa) and associated government Departments.

SANBI, in partnership with DFFE: NRM and COGTA: NDMC is developing a full Funding Proposal under the GCF to build resilience and adaptive capacity of the threatened ecosystems that underpin rural livelihoods and the South African economy. The goal of the project is reducing the severity and risk of extreme climate events for vulnerable rural communities, through improving the management of the ecosystems that they depend on.

The project has three aims: i) scaling up of ecosystem-based approaches; ii) buffering the impacts of climate-intensified extreme events; and iii) enhancing the adaptive capacity of vulnerable communities. This will be achieved by: i) rehabilitation of vulnerable catchments; ii) integration of ecosystem-based approaches into settlement planning and disaster risk reduction; and iii) upscaling Eco-DRR approaches across South Africa.

C. OBJECTIVES OF THE CONSULTANT'S SERVICES

SANBI seeks the support of a suitably qualified and experienced consulting firm or consortium to support SANBI's Adaptation Policy and Resourcing Division by conducting all the necessary activities and providing all the deliverables that will form part of the preparation of a full Funding Proposal for the project titled "Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa" in accordance with GCF guidelines. The Consultancy must analyse and present findings in respect of applicable international, regional, and local legislation, policies, norms, standards, guidelines, and current best practice that are pertinent to this investment undertaking.

The required activities are outlined in the Terms of Reference of the Outputs listed below.

Terms of Reference for Output 1:

Selection of Candidate Implementation Sites

PPF Activity Area: Pre-feasibility, feasibility studies and project design

The project will undertake large-scale rehabilitation in focal landscapes specifically in Implementation Sites where there would be significant potential impact. This would include degraded quinary catchments in rural areas where communities are highly vulnerable to drought, flood and wildfire risks, intensified by climate change. Project Target Areas across 7 District Municipalities in 5 Provinces of South Africa have been selected through a fully documented, multi-stakeholder process that included analyses of: i) the risk of floods, fires and dry spells that are exacerbated by climate change, where these risks are having a significant impact on vulnerable people and the economy, are strongly linked to biodiversity management and where biodiversity management is, in turn, linked to the local economy and settlements; and ii) the receiving environment associated with these areas to assess institutional capacity, linkages with existing communities of practice, ongoing initiatives and other enabling conditions. This process resulted in the selection of the following District Municipalities within the provinces noted:

- Limpopo Province: Waterberg and Sekhukune District Municipalities;
- Mpumalanga Province: Ehlanzeni District Municipality;
- North West Province: Ngaka Modiri Molema District Municipality;
- Eastern Cape Province: Alfred Nzo and Joe Gqabi District Municipalities; and
- Western Cape: Garden Route District Municipality.

The Project Target Areas are shown in Annex 1 on the Concept Note. An overview of the principle climate hazards and associated risks in each of the Project Target Areas will be provided by SANBI prior to the commencement of this PPF contract.

A process to select candidate Implementation Sites within the Project Target Areas noted above will be undertaken in close consultation with the Eco-DRR Reference Group¹, relevant experts and sub-national stakeholders. It is expected that this process will result in the identification of a set of candidate Implementation Sites.

The final number of Implementation Sites will depend on the outcomes of the Vulnerability Assessments, Feasibility Studies and the scale of the envisaged programme of work, noting that it may be possible to focus efforts broadly across many sites or more intensely across fewer sites.

Consultants will be required to familiarise themselves with the Project Target Area selection processes that have been undertaken to date and to lead a process to select candidate Implementation Sites which will include the following deliverables:

- Criteria for the identification of candidate Implementation Sites within agreed Project Target Areas; and
- Identification of a set of candidate Implementation Sites for further investigation in the Vulnerability Assessments, through applying the criteria to the Project Target Areas.

It is expected that this will be a desktop exercise. Consultations can be conducted virtually if necessary – see Output 6: Stakeholder Engagement.

Output 1:

- List of candidate Implementation Sites and narrative detailing the associated selection process

Indicative number of working days for this output: 15 working days

Terms of Reference for Output 2:

Baseline Study and Climate Risk and Vulnerability (CRV) Assessment

PPF activity area: Pre-feasibility, feasibility studies and project design

The Baseline Study will determine the current characteristics of population, environment and the climate situation in the candidate Implementation Sites, and will include the following deliverables:

- A description of the climate change problem in the candidate Implementation Sites, to identify what types of observed changes are climate-related i.e. an investigation into climate data on hazards using multiple sources to analyse climate drivers and hazards to identify historic (at least 30 years) trends;
- The identification of groups, sectors and areas, associated social and economic vulnerabilities and particular susceptibility to climate impacts in terms of the climate change risk and vulnerability (in terms of exposure, sensitivity and adaptive capacity), including highlighting the most high-risk population groups and regions;
- An analysis of how climate change-related drought, floods and wildfires are currently affecting ecosystems as well as communities and how these relate to non-climatic drivers. This will include, but not be limited to, climate, hydrological, fire risk and socio-economic modelling; and
- An analysis of the socio-economic, governance and policy mechanisms that are exacerbating climate impacts on the ground.

The Climate Risk and Vulnerability Assessment will include an assessment of climate risks, vulnerabilities (capacity and sensitivity) and probability impacts in the candidate Implementation Sites (see Figure 1 below), and serve to strengthen the project's climate rationale. The assessment will look at risk and vulnerability through a combination of top-down and bottom-up, qualitative and quantitative approaches using impact chains as a means of integration, as described in South Africa's National Climate Risk and Vulnerability Assessment Framework². The study will provide information on the environmental, social and economic conditions that result in current and future vulnerability.

¹A reference group (i.e. the Eco-DRR Project Reference Group) has already been established to guide the work to be undertaken in the PPF phase. This Eco-DRR Project Reference Group is made of representatives of SANBI: Adaptation Policy and Resourcing, SANBI: Policy Advice and Information Management, DFFE: NRM, DFFE: Climate Change Adaptation, DFFE: Biodiversity and Conservation, and Department of Cooperative Governance and Traditional Affairs: National Disaster Management Centre (COGTA: NDMC). The reference group will:

- Provide high-level guidance on all PPF processes;
- Approve the ToR for all specialists prior to procurement;
- Advise on stakeholder engagement processes;
- Review and provide comment on all PPF deliverables prior to approval by SANBI; and
- Review and provide comment on the full Funding Proposal prior to endorsement by SANBI and the National Designated Authority.

² Department of Environment, Forestry and Fisheries, 2020. National Climate Risk and Vulnerability (CRV) Assessment Framework summary document, Pretoria: South Africa.

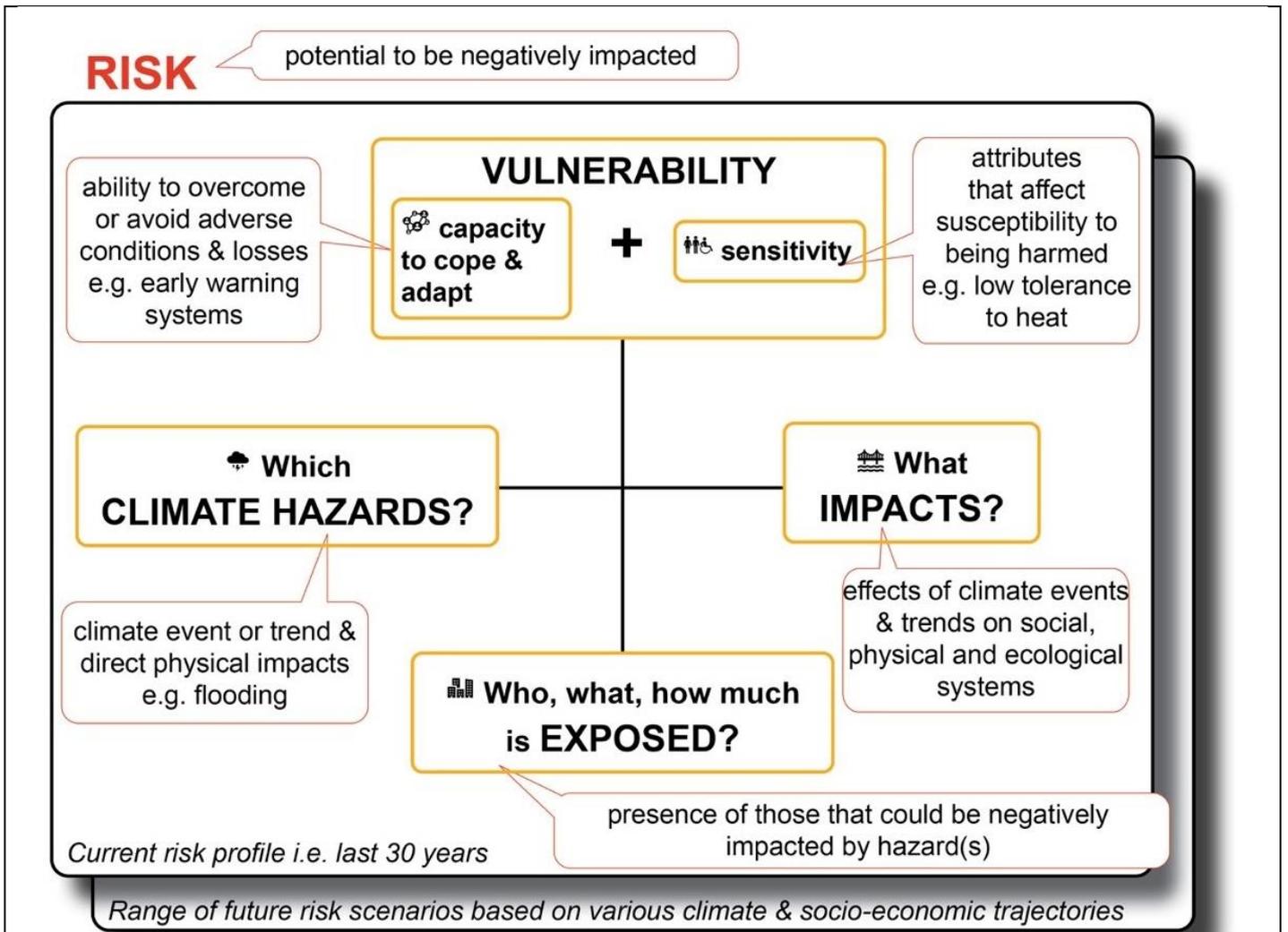


Figure 1 The component of climate vulnerability and climate risk, adapted from IPCC AR5 (source: GIZ, 2017a, p.17).

The results of the Climate Risk and Vulnerability Assessment will include the following deliverables:

- Definition of indicators of vulnerability (environmental, social and economic) - it is essential that the selection of indicators is guided by in-depth stakeholder engagement, over and above the availability of data;
- Identification of groups, sectors and areas currently most at risk to climate impacts, establishing exposure and sensitivity to different climate hazards using existing data where possible;
- Information on climate impacts and trends, including historical data and future modelling (using existing data where possible), in candidate Implementation Sites, to assess current risks and vulnerability (determining who and what is vulnerable (e.g. populations, ecosystems), what are they vulnerable to (drought, heatwaves, flooding, storms and wildfires), where are they vulnerable (areas and sites) and factors of vulnerability e.g. social, economic and environmental aspects combined);
- Assessment of the socio-economic mechanisms associated with the candidate Implementation Sites that exacerbate climate impacts on the ground;
- Assessment of current exposure, sensitivity and adaptive capacity, and overall current risk and vulnerability of communities and sectors associated with the candidate Implementation Sites;
- Assessment of future exposure, sensitivity and adaptive capacity of ecosystems and ecosystem services, communities, sectors, associated with the candidate Implementation Sites e.g. through downscaling existing climate scenarios and modelling (including climate, hydrological, fire risk and socio-economic adaptive capacity modelling);
- Assessment of overall future vulnerability and risk of ecosystems and ecosystem services, communities, sectors e.g. through a vulnerability index that aggregates proxies; and
- A robust climate rationale, based on the scientific information obtained from the Climate Risk and Vulnerability Assessment.

Based on the above, the following deliverables will be required as informants of Output 3:

- Definition of a means to assess and prioritise Implementation Sites, depending on risks;
- Definition of a means to assess and prioritise interventions in each site, depending on risks; and
- Identification of potential adaptation solutions and outcomes, and associated potential targets for each of the candidate Implementation Sites, for further assessment through the Feasibility Studies. The brainstorming of suitable adaptation / risk reduction interventions should be done as a last step in developing the impact chains, paying close attention to options that reduce risk to combinations of hazards (e.g. a drought and a wildfire or a wildfire followed by a flood event that could trigger extensive erosion and landslides) and are robust against a range of future scenarios.

The Climate Risk and Vulnerability Assessment will be guided by:

- [South Africa's National Climate Risk and Vulnerability Assessment Framework](#)
- [The Vulnerability Sourcebook: Concept and guidelines for standardised vulnerability assessments](#)
- Risk Supplement to the Vulnerability Sourcebook: Guidance on how to apply the Vulnerability Sourcebook's approach with the new IPCC AR5 concept of climate risk ([English](#))

The Baseline Study and Climate Risk and Vulnerability Assessment will be undertaken in close consultation with affected stakeholders and communities, and will produce spatial products together with rich narratives (i.e. revealing the where and the why/how risk is generated) where relevant. The validation of both interim and final findings will be undertaken in consultation with stakeholders, including local communities.

A combination of virtual and in-person consultation consultations will be required to develop the Baseline Study and Climate Risk and Vulnerability Assessment – see Output 6: Stakeholder Engagement.

Output 2:

- Baseline Study and Climate Risk and Vulnerability Assessment

Indicative number of working days for this output: 100 days

Terms of Reference for Output 3:

Feasibility Study, Detailed Project Design and Implementation Budget

PPF activity area: Pre-feasibility, feasibility studies and project design

The Feasibility Study will identify the barriers to reducing climate change-related risks and vulnerabilities (in particular, climate-related droughts, flooding and wildfires) in the candidate Implementation Sites, identify and scope possible solutions to support and improve preparedness, resilience and disaster risk reduction in these sites, assess such solutions in terms of efficiency and effectiveness to address climate change impacts and barriers, and finalise the selection of Implementation Sites where the interventions will be implemented. The Detailed Project Design will consolidate this information and make the case for the chosen interventions at the selected Implementation sites. The Implementation Budget will be developed to outline all associated costs (GCF-funded and co-funded).

- a) The Feasibility Study and Report will include an assessment of possible solutions in terms of efficiency and effectiveness to address climate change impacts and barriers, and a cost-benefit analysis of intervention options. A thorough assessment of the proposed interventions will be undertaken, through the following analyses (that will be sub-headings of the Feasibility Report):
- Technical analysis, that will focus on identifying, scoping and assessing proposed technical interventions and comparing these with other potential solutions, to demonstrate how the approach differs from conventional approaches in terms of innovation and cost-benefits. Intervention alternatives would include a range of management approaches, to reduce climate change-related risks and vulnerabilities that are currently being piloted by the Natural Resource Management Division of the DFFE and by NDMC, and specifically focused on vulnerable communities. These include management of alien invasive woody plant species to secure water sources and alleviate drought, community-based integrated fire management to reduce wildfire risk, early warning systems (for example for flooding and wildfires), disaster response systems, and ecological and engineering infrastructure solutions e.g. for flood attenuation and soil conservation. The deliverable will be plans for the deployment of new climate-friendly technical approaches in candidate Implementation Sites. Specific rehabilitation methods to be used will be clearly defined and implementation plans developed.

- Policy and institutional analysis, to define a strategy for institutionalising climate-resilient approaches into legal, institutional and policy instruments, through integrating Eco-DRR into relevant policies and planning. Key deliverables of the assessment will include:
 - Assessment of barriers to policy reform, identifying opportunities for overcoming these barriers, and developing new policies for ecological and ecosystem restoration;
 - Review and revision of existing development and land use planning tools;
 - Assessment of government institutional capacity for implementing and maintaining large-scale Eco-DRR interventions, and developing strategies for building such capacity;
 - Identification of opportunities for improved management efficiencies including exploring the feasibility of aligning the National Community Works Programme with efforts to build resilience in vulnerable settlements in the candidate Implementation Sites; and
 - Identification of specific tools to integrate ecosystem-based approaches into planning, implementation and monitoring of landscape rehabilitation, including tools for spatial prioritisation and impact monitoring.

- Financial and economic analyses, to assess the potential contribution of both public and private sector finance to scale up and transformation efforts, to ensure the long-term sustainability of the GCF investment. The assessments will develop and test a financial and economic sustainability strategy, defining how investments will be maintained after GCF resources are exhausted. The analyses will assess what it has cost to maintain investments in past, and the quantum of public funding needed to maintain and scale up the proposed interventions in the future, until 2040. The assessments will include analyses of future costs (annually), and how much will be funded from different sources (public and private). The write-up of the findings will be supported by detailed spreadsheets developed through the assessments. The analyses will include:
 - Public sector financial and economic analysis, to explore the potential for sustaining public sector financial flows into Eco-DRR, ecosystem rehabilitation and sustainable land management, through removing barriers to using public finance. The objective is to ensure the realignment of public investment in more efficient and climate-focused patterns. Public sector financial mechanisms to be assessed and reported on will include national, provincial and municipal funding sources (and potential sources) including:
 - Conditional grant funding for municipalities (including the Municipal Infrastructure Grant (MIG), Municipal Disaster Recovery Grant (MDRG), Water Services Infrastructure Grant, Urban Settlement Development Grant and Integrated Urban Development Grant);
 - Other sources e.g. water trading accounts and utilities;
 - National DFFE Natural Resource Management Land User Incentive Mechanism;
 - Payment for Ecosystem Services (PES); and
 - Result-based payment with some adaptation criteria.

Key deliverables of the assessment will include:

 - Assessment of opportunities for accessing new public sector financial mechanisms for Eco-DRR, including assessment of alternative intervention strategies required to unlock barriers to conditional grants to municipalities (to be undertaken in close collaboration with related Ecological Infrastructure work including the development of natural capital accounts for the Ecological Infrastructure for Water Security Project);
 - Assessment of proposals for financing municipal Eco-DRR projects, including the potential for providing support to municipalities in applying for funding to, for example, South Africa's Green Fund;
 - Exploration of the potential for municipal finance in grey-green infrastructure solutions in rural towns;
 - Development of an implementation plan for two demonstration pilots exploring barrier removal options and the reduction of financial risks to municipalities;
 - Exploration of mechanisms for investing in municipalities with high vulnerability that do not have the institutional capacities to receive and disburse resources from the GCF and other funds; and
 - Spreadsheets of final calculations supporting the narrative of the deliverables noted above.
 - Private sector financial and economic analysis, to assess potential for private sector involvement in Eco-DRR as a means of complementing public financing and ensuring the scaling up and long-term sustainability of interventions. The analysis will assess the current situation in terms of investment into ecosystem-based adaptation to assess the potential of value-added industries to create revenue streams for ecosystem rehabilitation. It will identify barriers to private sector involvement in Eco-DRR, and review models and innovative approaches for involving the private sector. Mechanisms to unlock the transformation potential of such models using GCF investment will be explored. Investment potential will be assessed to understand how the sector can grow and upscale investment. The assessment will include a value chain analysis. An economic model with key assumptions will be developed, supported by a scenario analysis. The analysis will clearly articulate how nature-based solution interventions will be

undertaken by the private sector to create a pathway for such Small, Medium and Micro Enterprise (SMME) business to grow and be sustained.

Key deliverables of the assessment will include:

- Value chain study on utilizing biomass for development of SMMEs, including the potential of a national strategy to grow small businesses supplying initially processed biomass to biomass-based businesses;
 - Review of the key lessons learnt in similar programmes regarding private sector involvement in Eco-DRR, and identifying what can be replicated;
 - Assessment of the potential for of unlocking significant private sector investment for collective risk reduction through the insurance industry, focussing on measures to capacitate local government with fire and flood risk management skills and equipment;
 - Assessment of the potential to scale up ongoing initiatives; and
 - Spreadsheets of final calculations supporting the narrative of the deliverables noted above.
- Justification for choice of selected Implementation Sites, using the assessment and prioritisation method developed in Output 2.
 - Definition of the rationale for and method used to establish the number of direct and indirect beneficiaries, including the benchmarks used for such estimations.
 - Development and comparison of scenarios (with and without project) against the baseline situation and against different climate and vulnerability scenarios. This comparison will include comparing costs and benefits, cost effectiveness, financial soundness, efficiency and effectiveness, and performance with regard to responses to the climate impacts. This will serve to determine the optimal approaches to be adopted, and to quantify the potential impact of the project over the medium and longer term (20 years), the impact being the difference between the two scenarios. Interventions will be assessed through the application of modelling tools such as basin-level hydrological modelling (including rainfall and groundwater resources), fire modelling through the Advanced Fire Information System (AFIS) and socio-economic modelling.
 - Justification of how the identified adaptation solution addresses the underlying climatic and socio-economic drivers of risk in order to reduce the observed or projected losses and damages, and demonstrating how the approach differs from the conventional approaches in terms of innovation and cost-benefits.
 - Justification for the selection of Executing entities based on the result of an institutional due diligence assessments against SANBI and the GCF's fiduciary standards and the relevant safeguards, to ensure that they have the required capacity and systems to execute the project.

b) The Detailed Design Report will include:

- A detailed description of the overall project design and selected Implementation Sites, including interventions at each Implementation Site, potential impact and targeted beneficiaries, project governance and implementation arrangements (including roles of Accredited Entity, Executing Entities, sub-Executing Entities and all project partners), as well as detailed management plans, monitoring protocols and costed action plans for rehabilitation, follow-up and maintenance operations. This will include specification of the precise way funds will flow from the GCF to the AE and how benefits will flow to the end beneficiaries, including type of mechanisms to be set up, implementation responsibilities and beneficiary selection methods.
- Detailed implementation and management plans for each Implementation Site (to be refined/confirmed at the outset of implementation) with timelines, in consultation with relevant stakeholders.
- Identification and review of options for scaling successful approaches in support of transformation and sustainability, which will include developing a comprehensive technical, institutional and financial scaling-up strategy (identifying pathways to scaling up to national level) that draws on lessons learnt from other projects, clearly demonstrates the scale up potential and transformational impact of the approach, and includes a post-project financial sustainability model, plans and operational guidelines.
- Assessment of the project's alignment with GCF investment criteria.

c) A detailed budget for the implementation of the proposed solutions will be developed.

A combination of virtual and in-person consultation consultations will be required to produce the deliverables – see Output 6: Stakeholder Engagement.

Output 3:

- Feasibility Study, including all the sub-sections and deliverables highlighted under (a) above
- Detailed Project Design, including all the deliverables highlighted under (b) above
- Implementation Budget

Indicative number of working days for this output: 120 days

Terms of Reference for Output 4:

Environmental and Social Studies and Management Plan

The project falls into the GCF's Environmental and Social Safeguard (ESS) category B i.e. Activities with potential limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures. Please see Annex 1 for a justification of this initial categorisation and for a screening report of potential environmental and social risks and impacts.

Further social and environmental screening procedures will be undertaken in conjunction with consultations with a range of stakeholders in the Implementation Sites, to identify possible environmental and social impacts and risks that may arise during project implementation, and actions required to mitigate and manage these.

This will be done in accordance with GCF's Environmental and Social Policy and guidelines, and will be validated by stakeholders. The screening will also identify the required actions to mitigate the potential social and environmental risks. The study will outline plans to mitigate any possible negative environmental, socio-economic and health impacts and to enhance the positive environmental, socio-economic and health impacts of proposed interventions.

This work will be done in close consultation with the Vulnerability and Feasibility Assessments and stakeholder engagement processes – consultations will need to be a combination of virtual and in-person engagements – see Output 6: Stakeholder Engagement.

The deliverables will be an Environmental and Social Impact Assessment and a Social and Environmental Management Plan, which will include a Biodiversity Management Plan, together with a detailed budget for the implementation of the proposed solutions.

Output 4:

- Environmental and Social Impact Assessment (ESIA)
- Environmental and Social Management Plan (ESMP)

Indicative number of working days for this output: 40 days

Terms of Reference for Output 5:

Gender Assessment and Gender Action Plan

PPF activity area: Environmental, social and gender studies

A Gender Assessment will be undertaken, which will include an assessment of the baseline situation and gender dynamics in the Implementation Sites. The preparation of the Gender Assessment will be used to collect data and evidence on gender issues in the sectors of intervention and the context of the Eco-DRR project. In addition, stakeholder engagement and consultations during project preparation will be used to identify the needs and priorities of men and women that the project can address. Stakeholder consultation will be held at different levels (horizontally and vertically), ensuring adequate community level engagements – consultations will need to be a combination of virtual and in-person engagements – see Output 6: Stakeholder Engagement. The information collected will be clear about the challenges and opportunities presented for women and used to identify the needs and priorities of women and men in relation to the project.

The assessment of challenges and opportunities will also include economic as well as social dimensions given the local context, so that the project will be able to meet its objectives. Information collected through the Gender Assessment will be analysed and used to recommend opportunities or entry points that ensure the participation and access to project benefits by both men and women, including the project's activities that offer such opportunities.

A budgeted project-level Gender Action Plan and gender-responsive indicators and targets with baselines will be incorporated into the project logframe. The Gender Action Plan will be prepared with activities identified through the Gender Assessment, Vulnerability Assessments, the ESIA and the ESMP, identification of baselines, targets, performance indicators, timelines and responsibilities for implementation, and will include a budget for implementation of activities. The gender expert who conducts the Gender Assessment will be involved throughout the project development process to sufficiently integrate gender issues.

In the development of the overall project design and implementation arrangements (Output 3), a gender expert (or experts) should be included either in the Project Management Unit or where it makes reasonable sense within the institutional arrangement for the project. This expert must clearly be tasked with the implementation and monitoring of the Gender Action Plan and be included in the decision-making structures, such as Project Steering Committees, as relevant.

It is not anticipated that any Indigenous People will be present in the any of the Implementation Sites, meaning it is not expected that an Indigenous People's Plan will be required. If during the preparation of the full Funding Proposal it is discovered that Indigenous People are in fact present, appropriate contractual amendments will be made and the relevant assessments and development of plans incorporated into the scope of work.

The development of the Gender Assessment and gender Action Plan will be guided by:

- The GCF's Gender Mainstreaming Manual: <https://www.greenclimate.fund/document/mainstreaming-gender-green-climate-fund-projects>

A detailed budget for the implementation of the proposed solutions will be prepared.

Output 5:

- Gender Assessment
- Project-level Gender Action Plan

Indicative number of working days for this output: 40 days

Terms of Reference for Output 6:

Stakeholder Engagement

PPF activity area: Environmental, social and gender studies

Stakeholder consultation will be conducted at national, provincial, district and local level to engage partners and stakeholders, define priorities, understand barriers, review and refine proposed interventions, and improve the project's design and strategy. Consultations can include a mix of virtual and in-person engagements – see below for further details. Based on experience, it is SANBI's view that in-person consultations are more beneficial than those conducted virtually. However, given the COVID-19 restrictions that have been in place in South Africa for the last 18 months, stakeholders at national and provincial levels are familiar with virtual engagements. Therefore, where it is noted below that "consultations can be done virtually", while in-person engagements would be preferable, virtual consultations are acceptable. Should COVID-19 restrictions prevent in-person engagements where these are required, such as at the local level with communities and beneficiaries in Implementation Sites to ensure that they understand and have a meaningful say in terms of the selection and design of interventions, alternative arrangements will have to be made in conversation with the GCF.

Stakeholder engagement will include identifying relevant stakeholders and conducting stakeholder consultation processes within Project Target Areas and Implementation Sites, and consultations on the following activities:

- Selection of candidate Implementation Sites (consultations can be done virtually);
- Baseline Study and Vulnerability Assessments (in-person consultations will be required);
- Feasibility Assessments and assessment of options (in-person consultations will be required):
 - Technical;
 - Institutional and Policy;
 - Public Sector Financial and Economic; and
 - Private Sector Financial and Economic
- Environmental and Social Studies (in-person consultations will be required);
- Gender Assessment and Gender Action Plan (in-person consultations will be required);
- Risk Assessment and Mitigation Plan (in-person consultations will be required); and
- Full Funding Proposal (in-person consultations will be required).

Engagements will take place with stakeholder categories and groupings as follows:

- Partner consultation with Executing Entities, the Eco-DRR Reference Group and other relevant project partners (consultations can be done virtually);
- Consultation with related National Sector Departments, including but not limited the Department of Agriculture, Land Reform and Rural Development; the Department of Human Settlements; and the Department of Water and Sanitation (consultations can be done virtually);
- Consultations with all relevant stakeholders to select the Implementation Sites within Project Target Areas (in-person consultations will be required);
- Consultations with national, provincial and local stakeholders to assess implementation options (in-person consultations will be required);
- Consultations with a range of stakeholders in the Project Target Areas and Implementation Sites on social and environmental screening procedures (in-person consultations will be required);
- Consultations with relevant stakeholders, including local communities, on the preparation of detailed implementation and management plans for each Implementation Site (in-person consultations will be required);
- Consultations with key local stakeholders to obtaining letters of support (in-person consultations will be required); and
- Consultations with relevant stakeholders at relevant levels to establish the Project Steering Committee (consultations can be done virtually).

Special care will be taken to guarantee that marginalised groups (e.g. women, unemployed, landless and youth) are meaningfully included.

It is anticipated that at least 180 stakeholder consultation sessions will be required, as follows:

- National – five high-level consultations in Pretoria or Cape Town, with approximately 50-100 stakeholders per session (consultations can be done virtually);
- Provincial – 30 high-level Government consultations across the five provincial capitals, with approximately 30-50 stakeholders per session (consultations can be done virtually);
- Provincial – 30 high-level consultations with Civil Society across the five provincial capitals, with approximately 30-50 stakeholders per session (consultations can be done virtually);
- District – 35 working-level consultations across the seven District Municipality principal cities, with approximately 20-30 stakeholders per session (in-person consultations will be required);
- Local/site level – 60 working-level consultations across the Implementation Sites, with approximately 10-50 stakeholders per session (in-person consultations will be required);
- Project Governance – 6 engagements with the Eco-DRR Reference Group (quarterly) (consultations can be done virtually); and
- Project Management – 18 engagements with SANBI (monthly) (consultations can be done virtually).

A stakeholder engagement plan will be developed to guide project implementation that includes details of consultations made during the project preparation, its aim being to:

- Ensure there are meaningful opportunities during the project for stakeholders to provide feedback, assess options, ask questions and raise concerns;
- Ensure information sharing and disclosure through the project's duration;
- Establish a culturally appropriate grievance redress mechanism, in accordance with both GCF and SANBI criteria; and
- Foster strong project-stakeholder relationships, including at the community level.

A Stakeholder Engagement Plan for the duration of the Eco-DRR project should be developed.

The stakeholder engagement processes will be guided by:

- [Sustainability guidance note: Designing and ensuring meaningful stakeholder engagement on GCF-financed projects](#)

A detailed budget for the implementation of the proposed engagements will be prepared.

The full Funding Proposal will include information on a project-level and the AE's institutional-level grievance redress mechanism, including the GCF independent redress mechanism.

Output 6:

- Report on Stakeholder Consultations conducted during the preparation of the project, including information on proceedings, dates and audience
- Project-level Stakeholder Engagement Plan
- Project-level Grievance Redress Mechanism (referring to the AE's institutional-level grievance redress mechanism and the GCF's independent redress mechanism)

Indicative number of working days for this output: 180 days

Terms of Reference for Output 7:

Risk Assessment and Mitigation Plan

PPF activity area: Risk assessment

A risk assessment for the project will be conducted, which identifies how risks can be mitigated and managed. The deliverables for this activity will include:

- An integrated risk assessment identifying any substantive institutional, technical, operational, economic, financial, social and environmental risks that the project may face. This assessment will be based on consultation from sectoral experts and relevant stakeholders, direct visits to and observation of Project Target Areas and Implementation Sites, and where appropriate, analysis of previous related interventions – consultations will need to be a combination of virtual and in-person engagements – see Output 6: Stakeholder Engagement;
- Quantification of hazard, exposure and vulnerability and proposal of different measures to achieve predefined objective in terms of risk reduction, with respect to their costs; and
- A mitigation plan clarifying the relevant mitigation measures and the role of key actors involved in the delivery of the different project components, including mechanisms that will ensure that the process of transfer of project benefits to final beneficiaries is transparent, efficient and follows the norms of the country.

A detailed budget for the implementation of the proposed measures will be prepared.

Output 7:

- Risk Assessment and Mitigation Plan

Indicative number of working days for this output: 40 days

Terms of Reference for Output 8:

Development of Project Logframe, Monitoring and Evaluation Framework and Identification of Project-level Indicators

PPF activity area: Identification of programme/project level indicators

The project's logical framework with SMART project-level indicators (building on what was suggested in the Climate Risk and Vulnerability Assessment and refined in the Feasibility Studies) will be developed, in line with GCF expectations and Performance Management Framework.

The logframe will include suitable indicators at outcome, output and activity levels. Whenever appropriate indicators will be gender-disaggregated. The full Funding Proposal will include key indicators and baselines, which will confirm that climate risk management will be better integrated into policy and planning for landscape rehabilitation and management.

A Monitoring and Evaluation Framework and plan will be developed to measure achievement, progress and support adaptive management.

A detailed budget for the implementation of the proposed solutions will be prepared.

A standard reporting format will be developed that will capture the effectiveness of planned and achieved output and outcomes.

It is not expected that this output will require any detailed stakeholder consultations.

Output 8:

- Logical framework including project-level indicators
- Monitoring and Evaluation Framework
- Standard reporting format

Indicative number of working days for this output: 20 days

Terms of Reference for Output 9:

Full Funding Proposal write-up

PPF activity area: Other project preparation activities

This activity will result in the following deliverables:

- a) Project design:
 - Final Eco-DRR project design (as per GCF Funding Proposal template and annexes).
- b) Stakeholder consultation:
 - Participation in consultations as required to ensure relevant stakeholder involvement in the design of the full Funding Proposal; and
 - Oversight of all stakeholder inputs and review of feedback into project proposal drafts.
- c) Project budget and financial report:
 - Costing and budgeting the project according to GCF standards, including:
 - Drafting the detailed budget;
 - Justifying the level of concessionality;
 - Assessing the resource-leveraging potential;
 - Assessment of the project's alignment with GCF investment criteria; and
 - Developing a co-financing framework and assisting the AE in obtaining co-financing letters.
- d) Proposal writing:
 - Draft of the full Funding Proposal and all supporting Annexes using GCF templates;
 - Incorporation and addressing comments received from internal and external stakeholders and reviewers; and
 - Response to comments from the GCF Secretariat, ITAP and GCF Board, and preparing the revised final Funding Proposal incorporating such comments and feedback.

Output 9:

- A final GCF Funding Proposal with all required Annexes

Indicative number of working days for this output: 100 days

Estimated time for completion of the full Funding Proposal: 12-18 months

E. Terms and Conditions

In submitting this application form, the Accredited Entity agrees to the following:

1. The Accredited Entity shall be responsible for:
 - a) managing the independent consultancy firm selected to provide project preparation support services.
 - b) providing instructions to the independent consultancy firm selected to provide project preparation support services.
 - c) the quality control of the final products produced by the independent consulting firm.
2. The Accredited Entity shall provide to the GCF the relevant certification that the Services are satisfactory and meet the contract standards within thirty [30] days from the date of completion of services by the independent consultancy firm.
3. The Green Climate Fund shall have no liability for the performance or quality of the services provided by the independent consultancy firm. To the maximum extent permitted by law, the Accredited Entity agrees to release the Green Climate Fund, **and its employees, agents and representatives** from any and all liability related to damage, loss, cost, expense incurred or injury suffered by the Accredited Entity as a result of the project preparation support services.

Annex 1: Environmental and Social Screening Checklist

The “Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa” project falls into the GCF’s Environmental and Social Safeguard (ESS) **Category B**, i.e. **“Activities with potential limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures”**.

The proposed project is focused on implementing ecosystem-based approaches to climate change adaptation and disaster risk reduction, and includes undertaking large-scale rehabilitation focal landscapes in rural areas where communities are highly vulnerable to drought, flood and wildfire risks, intensified by climate change. Landscape rehabilitation will address these vulnerabilities by: i) increasing the supply of groundwater and surface water from catchment areas to alleviate drought conditions; ii) reducing the impacts of extreme rainfall events, specifically floods and soil erosion; and iii) reducing wildfire risk associated with drier, more flammable biomass and increased temperatures.

The project is considered to be an ESS **Category B** project primarily because, whilst activities will have positive ecological impacts, some interventions, if poorly planned and executed, have the potential to result in adversely impacts on ecosystem functioning in the focal landscapes and on the vulnerable communities that depend on these. Such activities include, for example, the stabilisation of river banks and rehabilitation of wetlands and grasslands to provide multiple environmental benefits including biodiversity protection and the restoring of ecosystem services, including improved groundwater retention, increased river baseflows, regeneration of soil fertility, enhanced soil stability and improved grazing productivity. However, the implementation partners are mandated to comply with national norms and standards which will, at a minimum, prevent such adverse impacts from occurring. South Africa’s Environmental Impact Assessment (EIA) legislation is clear on the process that must be followed in identifying and mitigating possible impacts, through conducting EIAs and Basic Assessments. The relevant project activities will be implemented under the suite of Department of Forestry, Fisheries and the Environment: Natural Resource Management (DFFE: NRM) programmes which ensure that South Africa addresses its responsibilities relating to water resource management, biological diversity and the functioning of natural systems whilst ensuring meaningful livelihood opportunities are supported for those employed on these programmes. Where such assessments/approvals are required for project activities, these will fall under the Provincial Authorisations process administered by DFFE: NRM in terms of the requirements of the National Environmental Management Act (Act 107 of 1998), as amended. This process involves the submission of Basic Assessment Reports to obtain a provincial level authorisation for the relevant activities. Such authorisations will need to be provided in writing before any rehabilitation activities can take place.

Through this process it will be confirmed that all relevant activities have at worst limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures.

In preparing the GCF Concept Note for this project, as well as this Project Preparation Facility application, SANBI’s Environmental and Social Safeguard screening process was followed. SANBI’s Project Management Policy prescribes that all “Large” projects, i.e. projects in excess of ZAR1 million of external funding, need to be approved by SANBI’s Biodiversity Science & Policy Advice Branch prior to submission to the donor. This approval is based on the submission of an internal SANBI Concept Note, which includes an assessment of the proposed project against a set of Environmental and Social Safeguards (ESS). Once approved by Branch, the proposed project is tabled at SANBI’s Research, Development and Innovation Committee, which is a sub-committee of SANBI’s Board. An extract of this Concept Note, including the Basic Information section and the ESS assessment, is included below as Annex 1.1.

SANBI’s Environmental and Social Safeguards are based on those of the Adaptation Fund, as outlined in the Adaptation Fund’s Environmental and Social Policy (as amended in 2016). As an additional process specific to GCF projects, SANBI has developed a Social and Environmental Screening Checklist and Categorization Process. This includes screening the activities of the proposed project against the GCF’s Performance Standards from its Environmental and Social Policy, and categorizing resultant risks. The results of this process are included as Annex 1.2

1.1 Extract from the internal SANBI Concept Note submitted to SANBI's Biodiversity Science & Policy Advice Branch.



Annexure A to the Project Management Policy: Project Concept Note

PROJECT CONCEPT NOTE

This form must be filled in and submitted for all Small and Large Projects as defined in the SANBI Project Management Policy.

The Concept Note should provide a relatively brief outline of the proposed project. It should give sufficient detail to allow an evaluation of how the project contributes to SANBI's strategic objectives and provide an estimate of the resources required by the project (staff, operations, office, vehicles etc.). This Concept Note will be used to decide whether to approve the development of a more detailed proposal for submission to the donor.

1. Basic Information:

Title of proposed project	Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa
Indicative value	USD 20 million of GCF grant finance; USD 28.9 million co-finance
Expected timeframe	7 years (tentative plan to submit Funding Proposal to GCF in 2022)
Proposed Funder	Green Climate Fund (GCF)
Expected administration fee	N/A
Lead Division	Adaptation Policy and Resourcing
Project Leader	Dr Mandy Barnett
Project Manager	TBC
Principal Investigator (if applicable)	N/A
Lead organisation (if not SANBI)	SANBI will be the GCF Accredited Entity. The project will be executed by the Department of Environment, Forestry and Fisheries with support from the Department of Cooperative Governance and Traditional Affairs.
Other partners	TBC

Appendix 1: Assessment of proposed project against Environmental and Social Safeguards.

To be completed by the Project Manager, but checked by the Approver as part of the approval process

Will the activities of the proposed project meet the standards of the following Environmental and Social safeguards?	Yes	No	Comments
1. Compliance with the Law (Always Relevant) <i>Projects supported by SANBI shall be in compliance with all applicable national laws</i>	✓		Specifically, the planned rehabilitation activities will likely require environmental authorisation. The relevant Environmental Impact Assessment legislation under the National Environmental Management Act will be adhered to throughout the project.
2. Access and Equity <i>Projects supported by SANBI shall provide fair and equitable access to benefits in a manner that is inclusive and does not impede access to services. Projects should not exacerbate existing inequities, particularly with respect to marginalized or vulnerable groups</i>	✓		
3. Marginalised and Vulnerable Groups <i>Projects supported by SANBI shall avoid imposing any disproportionate adverse impacts on marginalized and vulnerable groups</i>	✓		
4. Human Rights (Always Relevant) <i>Projects supported by SANBI shall respect and where applicable promote international human rights</i>	✓		
5. Gender Equity and Women's Empowerment <i>Projects supported by SANBI shall be designed and implemented in such a way that both women and men: 1) are able to participate fully and equitably; 2) receive comparable social and economic benefits; and 3) do not suffer disproportionate adverse effects (if any)</i>	✓		
6. Core Labour Rights (Always Relevant) <i>Projects supported by SANBI shall meet core labour standards as identified by national law</i>	✓		
7. Indigenous Peoples <i>SANBI shall not support projects that are inconsistent with the rights of Indigenous Peoples.</i>	✓		
8. Involuntary Resettlement <i>Projects supported by SANBI shall be designed and implemented in a way that avoids or minimizes the need for involuntary resettlement</i>	✓		
9. Protection of Natural Habitats <i>SANBI shall not support projects that would involve unjustified conversion or degradation of critical natural habitats</i>	✓		
10. Conservation of Biological Diversity <i>Projects supported by SANBI shall be designed and implemented in a way that avoids any significant or unjustified reduction or loss of biological diversity or the introduction of known invasive species</i>	✓		The project will include large-scale rehabilitation of degraded landscapes, which will have positive impacts on biological diversity.
11. Climate Change <i>Projects supported by SANBI shall not result in any significant or unjustified increase in greenhouse gas emissions or other drivers of climate change</i>	✓		
12. Pollution Prevention and Resource Efficiency <i>Projects supported by SANBI shall maximize energy efficiency and minimize material resource use, the production of wastes, and the release of pollutants</i>	✓		

<p>13. Public Health <i>Projects supported by SANBI shall be designed and implemented in a way that avoids potentially significant negative impacts on public health</i></p>	✓		
<p>14. Physical and Cultural Heritage <i>Projects supported by SANBI shall avoid the alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level</i></p>	✓		
<p>15. Lands and Soil Conservation <i>Projects supported by SANBI shall promote soil conservation and avoid degradation or conversion of productive lands or land that provides valuable ecosystem services</i></p>	✓		<p>The project will include large-scale rehabilitation of degraded landscapes, which will promote soil conservation and improve ecological functioning.</p>

1.2 SANBI's Social and Environmental Screening Checklist and Categorization Process for GCF projects

The checklist and categorization tables below have been adapted from the GCF's *Sustainability guidance note: screening and categorizing GCF-financed activities*, as well as from other tools used by other entities to screen for environmental and social risks in climate change projects.

The screening processes undertaken below serve to identify and assess, at the earliest stage possible, the likely environmental and social risks and impacts that could be reasonably anticipated from the design and execution of SANBI's GCF project activities.

As a preliminary process in due diligence, the screening of environmental and social risks of activities allows SANBI to:

- Identify the potential environmental and social risks and impacts of the activities;
- Analyse the identified risks and impacts to understand their potential significance;
- Assign an environmental and social risk category; and
- Determine applicable standards, policies and plans for meeting requirements, including the scope of further assessments.

This checklist and categorization tool is currently being applied in the Concept Note phase, as part of the application for Project Preparation Facility funds and to allow for appropriate due diligence planning for the activities. This is therefore a preliminary screening and follows a precautionary approach. A more comprehensive environmental and social assessment will be undertaken to further analyse specific risks and impacts during the full Funding Proposal development phase.

The categorisation below takes into account the scale of the activities, their proposed locations, descriptions of the intervention and technology that will likely be used, and the inherent risks of the activities associated with the sector and industry. Risks considered include direct, indirect, induced, transboundary, long term and cumulative risks as well as impacts from associated facilities and third parties.

The screening and categorisation are also fully cognisant of the laws applicable to the activities, including national laws and relevant international obligations policies, regulations and standards related to managing environmental and social risks and impacts that will need to be met and complied with in the course of the development and implementation of the activities.

Table 1: SANBI Social and Environmental Screening Checklist for GCF projects

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS1: Assessment and management of environmental and social risks and impacts					
Will the activities involve transboundary negative impacts on air, water or other natural resources?			✓		
Are the activities likely to contribute to cumulative negative impacts?			✓		
Will the activities involve associated facilities and third-party impacts?			✓		
Are the activities likely to induce potential social conflicts?			✓		
Is there a risk that the accredited entities, executing entities and implementing agencies (grantees, sub-borrowers and proponents) lack the capacity to implement the environmental and social management plans/action plans?			✓		
PS2: Labour and working conditions					
Are the activities likely to negatively affect working conditions, particularly in terms of employment, compliance with labour and other laws pertaining to non-discrimination, equal opportunity, child labour, and forced labour of direct, contracted and third-party workers?			✓		
Will the activities pose occupational health and safety risks to workers, including supply chain workers?			✓		
PS3: Resource efficiency and pollution prevention					
Will the activities generate emissions; generate activity-related greenhouse gas emissions; use hazardous materials; generate noise and vibration; and/or generate waste including hazardous waste?			✓		
Are the activities likely to require significant consumption of raw materials, energy, and/or water?			✓		
Will the activities potentially result in the release of pollutants to the receiving environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?			✓		
Will the activities utilise resources in an unsustainable manner?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS4: Community health, safety and security					
Will the activities potentially generate risks and negative impacts on the health and safety of the affected communities, including impacts on ecosystem services affecting the local community health and safety?			✓		
Will activities related to construction, operation, or decommissioning pose potential safety risks to local communities?			✓		
Will the activities pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?			✓		
Does the project involve large-scale infrastructure development (e.g. dams, roads, buildings)?			✓		
Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)			✓		
Will the activities pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?			✓		
Do the activities involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?			✓		
Will the activities result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?			✓		
Will the activities increase the risk of sexual exploitation, abuse and harassment?			✓		
Will there be a need for an emergency preparedness and response plan that also outlines how the affected communities will be assisted in emergencies?			✓		
Will there be potential risks posed by the security arrangements and potential conflicts at the project site between the workers and the affected community?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS5: Land acquisition and involuntary resettlement					
Would the Project potentially involve temporary or permanent and full or partial physical displacement?			✓		
Are the activities likely to involve the acquisition of lands, land rights or land-use rights through expropriation or other compulsory procedures in accordance with the legal system of the country?			✓		
Are the activities likely to alter existing land use and restrict access to natural resources resulting in loss of livelihoods and other economic activities?			✓		
PS6: Biodiversity conservation and sustainable management of living natural resources					
Will the project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? (For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes)		✓			See Risk 1 in Table 2
Will the project potentially cause adverse impacts within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?		✓			See Risk 1 in Table 2
Does the project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?		✓			See Risk 1 in Table 2
Does the project involve significant extraction, diversion or containment of surface or ground water (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)?			✓		
Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area?			✓		
Is the project or programme likely to introduce invasive alien species of flora and fauna, affecting the biodiversity of the area?			✓		
Is the project or programme likely to have potential long term negative impacts on biodiversity (especially critically endangered and/or endangered species, endemic or restricted-range species, and globally significant migratory or congregatory species) and ecosystem services, including production of living natural resources?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS7: Indigenous peoples					
Are indigenous peoples present in the Project area (including Project area of influence)?			✓		
Are the activities likely to have impacts on indigenous peoples and communities, such as impacts on lands and natural resources, land tenure and on cultural resources?			✓		
Are the activities likely to lead to physical displacement of indigenous peoples and/or restrict the access of indigenous peoples to lands and resources resulting in loss of livelihood?			✓		
Will the activities provide equitable opportunities to indigenous peoples and other vulnerable groups during stakeholder consultation and in decision-making during the preparation, implementation, monitoring and evaluation of the activities?				✓	
Will the activities need to obtain free, prior and informed consent (FPIC)? If so, has the project obtained FPIC?				✓	
PS8: Cultural heritage					
Will the project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?			✓		
Does the project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?			✓		

Table 2: Categorization of Environmental and Social Risks identified through the Screening

What are the main Potential Social and Environmental Risks?	What is the level of significance of the potential social and environmental risks?		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Description of assessment and management measures that should be reflected in project design</i>
<p>Risk 1: Activities related to Component 1 (<i>Rehabilitation of vulnerable catchments and landscapes to reduce drought, flood and wildfire risk</i>) are poorly designed and adversely affect communities and ecosystems</p>	<p>Pre management/ mitigation measures: I = 3 P = 3</p>	<p>Pre management/ mitigation measures: Moderate</p>	<p>The activities of Component 1 include, for example, clearing of alien invasive plants, dryland and wetland rehabilitation, forestry support and provision of biomass to support economic and employment opportunities. If poorly planned and executed, these activities could potentially lead to downstream negative impacts, including those related to erosion, siltation and the compromising of ecosystem functioning in the catchments being rehabilitated. This would have severe impacts on the ability of ecosystems in the Project Target Areas to buffer communities against the impacts of climate change. However, the Component 1 implementing partners (led by the Department of Forestry, Fisheries and the Environment, DFFE) are mandated to comply with national norms and standards which will, at a minimum, prevent such adverse impacts from occurring. South Africa's Environmental Impact Assessment (EIA) legislation is clear on the process that must be followed in identifying and mitigating possible impacts, through conducting EIAs and Basic Assessments. The relevant project activities will be implemented under the suite of DFFE: Natural Resource Management programmes which ensure that South Africa addresses its responsibilities relating to water resource management, biological diversity and the functioning of natural systems whilst ensuring meaningful livelihood opportunities are supported for those employed on these programmes.</p> <p>The focal landscapes of the project (Implementation Sites will be confirmed in the project preparation phase) are likely to be within or adjacent to critical habitats and/or environmentally sensitive areas, possibly including legally protected areas or recognized as such by authoritative sources and/or indigenous peoples or local communities. However, as noted above, the project will rehabilitate landscapes through an ecosystem-based approach to climate change adaptation and disaster risk reduction, to address the needs of</p>
	<p>Post management/ mitigation measures: I = 1 P = 1</p>	<p>Post management/ mitigation measures: Low</p>	

			vulnerable communities. This will: i) increase the supply of groundwater and surface water from catchment areas to alleviate drought conditions; ii) reduce the impacts of extreme rainfall events, specifically floods and soil erosion; and iii) reduce wildfire risk associated with drier, more flammable biomass and increased temperatures. The project will therefore have positive ecological impacts where it is implemented, including within or adjacent to critical habitats and/or environmentally sensitive areas.
What is the overall Project risk categorization?		Comments	
Category A: Activities with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or unprecedented	<input type="checkbox"/>		
Category B: Activities with potential limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures	<input checked="" type="checkbox"/>	The risks and impacts noted above are considered limited, with low to moderate significance. The risks and impacts are few in number, contained within the footprint of the activities, largely reversible, and readily mitigated through generally accepted mitigation measures and nationally mandated practices.	
Category C: Activities with minimal or no adverse environmental and/or social risks and/or impacts	<input type="checkbox"/>		



**environment, forestry
& fisheries**

Department: Environment, Forestry
and Fisheries
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The Green Climate Fund
Songdo Business District
175 Art center-daero
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INCHEON 22004
REPUBLIC OF KOREA

Email: fundingproposal@gcfund.org

Dear Sir/Madam

PROPOSAL FOR THE GREEN CLIMATE FUND PROJECT PREPARATION FACILITY BY SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE REGARDING THE “SCALING UP ECOSYSTEM-BASED APPROACHES TO MANAGING CLIMATE-INTENSIFIED DISASTER RISKS IN VULNERABLE REGIONS OF SOUTH AFRICA” PROJECT

I refer to the Project Preparation Facility Proposal, “*Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa*” for preparation of the Funding Proposal for the project of the same name in South Africa as included in the PPF proposal submitted by the South African National Biodiversity Institute (SANBI) to us on 16 October 2020 (“PPF Proposal”).

The undersigned is the duly authorised representative of the Department of Environment, Forestry and Fisheries, the National Designated Authority/Focal Point of South Africa.

Pursuant to the Green Climate Fund (GCF) decisions B.08/10 and B.13/21, the content whereof we acknowledge to have reviewed, we hereby communicate our no-objection to the Project Preparation Facility activities as included in the Project Preparation Facility (PPF) Proposal.

By communicating our no-objection, it is implied that:

- (a) The Government of South Africa has no-objection to the Project Preparation Facility request as included in the PPF Proposal;
- (b) The PPF Proposal is in conformity with South Africa’s national priorities, strategies and plans; and
- (c) In accordance with the GCF’s environmental and social safeguards, the PPF activities as



Batho pele- putting people first

PROPOSAL FOR THE GREEN CLIMATE FUND PROJECT PREPARATION FACILITY BY SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE REGARDING THE “SCALING UP ECOSYSTEM-BASED APPROACHES TO MANAGING CLIMATE-INTENSIFIED DISASTER RISKS IN VULNERABLE REGIONS OF SOUTH AFRICA” PROJECT

included in the PPF Proposal, is in conformity with relevant national laws and regulations.

I also confirm that our national process for ascertaining no-objection to the PPF Proposal has been duly followed.

I acknowledge that this letter will be made publicly available on the GCF website.

Yours sincerely



Mr Ishaam Abader
ACTING DIRECTOR-GENERAL
DATE: 07/11/2020

Concept Note

Project/Programme Title:	Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa
Country(ies):	South Africa
National Designated Authority(ies) (NDA):	Department of Forestry, Fisheries and the Environment
Executing Entities:	Department of Forestry, Fisheries and the Environment; and Department of Cooperative Governance and Traditional Affairs
Accredited Entity(ies) (AE):	South African National Biodiversity Institute
Date of first submission/ version number:	<u>[2019-09-30] [V.1]</u>
Date of current submission/ version number:	<u>[2021-08-11] [V.2]</u>



**GREEN
CLIMATE
FUND**

A. Project/Programme Summary (max. 1 page)			
A.1. Project or programme	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.2. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.3. Is the CN submitted in response to an RFP?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, specify the RFP: _____	A.4. Confidentiality	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
A.5. Indicate the result areas for the project/programme	<p><u>Mitigation</u>: Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p><u>Adaptation</u>: Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities <input type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services		
A.6. Estimated mitigation impact (tCO₂e over lifespan)	N/A	A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)	200,000 (0.33% of population) ¹
A.8. Indicative total project cost (GCF + co-finance)	Amount: USD 48,9 million	A.9. Indicative GCF funding requested	Amount: USD 20 million
A.10. Mark the type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity <input type="checkbox"/> Subordinated loan <input type="checkbox"/> Senior Loan <input type="checkbox"/> Other: specify _____		
A.11. Estimated duration of project/ programme:	Disbursement period: 7 years	A.12. Estimated project/ Programme lifespan	20 years ²
A.13. Is funding from the Project Preparation Facility requested?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other support received <input type="checkbox"/> If so, by who: _____	A.14. ESS category³	<input type="checkbox"/> A or I-1 <input checked="" type="checkbox"/> B or I-2 <input type="checkbox"/> C or I-3
A.15. Is the CN aligned with your accreditation standard?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.16. Has the CN been shared with the NDA?	Yes <input type="checkbox"/> No <input type="checkbox"/>
A.17. AMA signed (if submitted by AE)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.18. Is the CN included in the Entity Work Programme?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	<p>Climate change is increasing the frequency and severity of droughts, floods and wildfires in South Africa, threatening the ecosystems that underpin rural livelihoods and the South African economy. Well managed ecosystems have the potential to reduce the severity and risk of these extreme events, especially for vulnerable rural communities. The proposed GCF project will enable scale-up of ecosystem-based approaches, buffering the impacts of climate-intensified extreme events, and enhancing the adaptive capacity of vulnerable communities. This will be achieved by: i) rehabilitation of vulnerable catchments; ii) integration of ecosystem-based approaches into settlement planning and disaster risk reduction; and iii) upscaling ecosystem-based disaster risk reduction (Eco-DRR) approaches across South Africa. The project will be executed by the Department of Forestry, Fisheries and the Environment (DFFE, formerly known as Department of Environmental Affairs) with support from the Department of Cooperative Governance and Traditional Affairs. The project will be overseen by the South African National Biodiversity Institute.</p>		

¹ Final beneficiary numbers will be determined during the Project Preparation phase, and the methodology explained.

² This refers to the time period over which the full benefits of investment in rehabilitation of ecological infrastructure will come to fruition (where after, measures in place for sustained management should allow for these benefits to continue in perpetuity).

³ See Annex 8 for screening and justification of ESS category.

B. Project/Programme Information (max. 8 pages)

B.1. Context and baseline (max. 2 pages)

Climate impacts and adaptation needs

South Africa is highly vulnerable to the impacts of climate variability and change, with changes in temperature and rainfall patterns predicted to increase the frequency and severity of the three key hazards: drought, floods and wildfires⁴.

Drought and heatwaves: South Africa's mean annual temperatures have increased by more than 1.5 times the observed global average (0.7°C) from 1960-2010, with average daily maximum and minimum temperatures also significantly higher⁵. Climate models predict regional increases of 2.5-3°C under low emission scenarios, while high emission scenarios predict increases of 5-8°C by the end of the century. Interior parts of South Africa, such as the North-West and Limpopo provinces, are expected to experience drastic temperature increases of between 3-6°C even under low emission scenarios⁶. Marked increases in the number of heat-wave days and very hot days are also expected, with associated increase in heat-related deaths. Changes in rainfall over the period 1960-2010 were less pronounced than temperature but still substantial. Inter-annual variability in rainfall was high and mean annual rainfall across the country did not change significantly⁷. However, the number of rain days have decreased, indicating an increase in the intensity of rainfall events and an increased duration of dry spells, with significant economic impacts. Dry spells are expected to increase under both low and high emission scenarios for the period 2021-2050, along with increased extreme rainfall events⁸. The combination of changing rainfall patterns, as well as increasing temperatures that elevate water loss through evaporation will increase stress on South Africa's already water-stressed economy. Estimates of drought impacts vary according to the source, but at least 15 million people were affected during the period 1980-2013. The 2015-2017 drought in Cape Town and surrounds alone affected ~3.7 million people, was described as a 'once-in-millennium drought'⁹, and caused ~US\$1 billion¹⁰ in agricultural losses, and up to US\$113 million in potential losses from GDP in the tourism sector in 2018 alone¹¹. The drought in the interior of the Western Cape persists into 2021. Droughts in 1991 caused ~US\$1.9 billion worth of damages¹².

Flooding and storms: During the period 1960-2010, extreme rainfall events have tended to increase in frequency across South Africa, sometimes linked with high winds that cause storm damage and coastal flooding. In five of the country's nine provinces the number of days with extreme rainfall (i.e. daily rainfall above the 90th percentile threshold) increased significantly¹³. More frequent, intense rainfall events lead to rapid run-off and increased erosion in catchment areas, reducing infiltration into groundwater, worsening water quality in rivers and decreasing storage capacity of reservoirs through siltation. Increased extreme rainfall events also elevate flood risk. Damages from floods and storms in South Africa between 1968 and 2017 amounted to US\$5.5 billion¹⁴. Between 1980 and 2013, floods affected an estimated 480,000 people in South Africa¹⁵ – see Section 5 of Annex 7: Pre-feasibility Study for details on the resultant loss of life, displacement, and damage to road and water infrastructure¹⁶. In South Africa, the extreme rainfall events which lead to flooding are typically associated with: i) tropical cyclones (north-eastern South Africa); ii) mid-tropospheric low-pressure systems; iii) intense cut-off lows (Southern Cape, South Coast and Eastern Cape Province); and iv) thunderstorms (Highveld region)¹⁷. Both low and high emission scenarios for the period 2021-2050 indicate a pattern of more frequent extreme convective rainfall events, interspersed with longer periods of no-rain days. Models suggest that extreme rainfall events will occur more frequently, and with greater intensity, with climate change¹⁸. This will contribute to more frequent and severe floods in the future.

Wildfires: The changes in rainfall and temperature patterns observed over recent decades in South Africa have increased the frequency and intensity of wildfires, causing widespread losses for several sectors, including forestry, eco-tourism

⁴ National Climate Change Adaptation Strategy (2020).

⁵ IPCC.

⁶ South Africa's Long-term Adaptation Scenarios (SA LTAS). Available online at: <https://goo.gl/kWJhNH>

⁷ Some regional trends are highly significant: rainfall has decreased in the Limpopo province and increased in some of the southern interior between 1921 and 2015. South Africa's Draft Third National Communication to the UNFCCC, March 2017.

⁸ South Africa's Draft Third National Communication to the UNFCCC (2017). Available online at: <https://goo.gl/bimHpT>

⁹ <https://theconversation.com/why-cape-towns-drought-was-so-hard-to-forecast-84735>

¹⁰ <https://www.businesslive.co.za/bd/economy/2018-02-05-farmers-lose-r14bn-as-cape-drought-bites/>

¹¹ WESGRO.2019. A case study to assess the impact of the water crisis on the tourism industry in Cape Town/Western Cape.

¹² EM-DAT: The CRED/OFDA International Disaster Database www.emdat.be Universite Catholique de Louvain, Brussels. Based on US\$1 billion in damages, updated to 2018 values with an inflation of 88%.

¹³ Western Cape, Eastern Cape, Free State, North West and Gauteng. 1931–2015 (South Africa's Third NC).

¹⁴ EM-DAT (CRED/OFDA).

¹⁵ South African National Adaptation Strategy (2017).

¹⁶ Pre-Feasibility Study completed by C4 Eco-Solutions with funding from GIZ as part of the Expression of Interest to SANBI in April 2018 for a project on "Building climate-resilience through ecosystem-based adaptation and natural resource-based businesses". This Expression of Interest was an important informant of the proposed GCF project and, although targeting slightly different areas, the information contained in the pre-feasibility study is highly informative and relevant.

¹⁷ Davis-Reddy & Vincent (2017).

¹⁸ Engelbrecht et al. (2013).

and agriculture. Between 2000 and 2008 the damage cost of wildfires was ~US\$25 billion¹⁹. Wildfires in Cape Town and the southern Cape in 2017 resulted in insurance claims of US\$67 million and US\$14 million, as reported by Santam²⁰. Fires four times the size of the 2017 fire burnt through the same region in 2018. A severe wildfire occurred in 2021 on the slopes of Table Mountain, threatening urban communities. Higher temperatures and drier soils have combined with vegetation loss and drier biomass in some areas, and increased fuel load in others – where catchments are infested with invasive trees with high oil content. The IPCC has identified two simplified climate change scenarios²¹: i) higher fire frequency (air temperatures increase which increases the severity of heat waves and drought and causes vegetation to desiccate at a more rapid rate, which leads to drier fuel loads and more fires); and ii) higher fire intensity (rainfall increases, which leads to heavier fuel loads and increased rates of spread when fires do occur)²². Both these scenarios apply to the South African context, particularly in fire-prone landscapes such as grasslands, savannas and fynbos. For example, the greatest number of fires in the country occurred in 2005 and 2010, both of which were cited as two of the warmest years on record for the period 2003–2014²³. Fires occur more frequently in the eastern and south-western regions, and the two provinces most at risk are the eastern provinces of KwaZulu-Natal and Mpumalanga, with ~84% and ~71% of their area respectively classified as being at extreme risk (see Annex 7: Pre-feasibility Study Section 6 for detail)²⁴.

The climate change impacts related to droughts, floods and wildfires noted above will interact with and exacerbate several of South Africa's baseline problems. The impacts of climate change will be experienced disproportionality, with worsened impacts in communities with underlying poverty, social and economic challenges.

South Africa is a chronically water-stressed country. Mean annual rainfall is only half of the global average and water demand is expected to exceed the availability of economically usable fresh water resources by 2025²⁵. In addition to water scarcity, large parts of the country are affected by different forms of environmental degradation exacerbated by climate variability and change²⁶. Firstly, woody invasive alien plants already cover ~16% (~20 million hectares²⁷) of the country's surface area and consume ~3% of the total renewable water resources²⁸, as well as increasing fire risk. Secondly, in the savanna and grassland regions, the cover of certain indigenous shrubs and trees is increasing beyond the natural level, a process known as "bush encroachment", reducing the grazing capacity of rangelands substantially. Thirdly, indigenous vegetation cover has been lost or degraded in many parts of South Africa through *inter alia* overgrazing, unsustainable harvesting and changes in land use. This reduces rangeland productivity and has negative impacts on soils, including soil carbon storage. The degradation and loss of indigenous vegetation also alters hydrology. Water run-off increases, which causes soil erosion and elevates flood risk, while the infiltration of water into the ground decreases, reducing the water supply from catchments.

South Africa's adaptation needs include disaster risk reduction; improved land, catchment and water resource management; integration of climate change impacts into land use planning; effective knowledge dissemination and capacity building; and actions to offset economic vulnerability to climate impacts.

To alleviate the climate change impacts and environmental degradation discussed above, and address South Africa's adaptation needs to the extent possible, the proposed GCF project will implement an ecosystem-based approach to climate change adaptation and disaster risk reduction, to address the needs of vulnerable communities. Landscape rehabilitation will address these vulnerabilities by: i) increasing the supply of groundwater and surface water from catchment areas to alleviate drought conditions; ii) reducing the impacts of extreme rainfall events, specifically floods and soil erosion; and iii) reducing wildfire risk associated with drier, more flammable biomass and increased temperatures²⁹.

Alignment with national priorities

The proposed GCF project is closely aligned with the mid- and long-term climate change adaptation priorities in South Africa, including priority activities outlined in multiple national and sectoral climate change strategies, such as the National Climate Change Adaptation Strategy (NCCAS), National Climate Change Response Policy, National Disaster Management Framework under the Disaster Management Act of 2002, and National Strategy for Dealing with Biological

¹⁹ Midgley et al. (2011).

²⁰ Santam (2017) Audited summary consolidated financial statements for the year ended 31 December 2017. Available at: <https://goo.gl/qqJfrC>

²¹ www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=559

²² http://www.za.undp.org/content/south_africa/en/home/presscenter/articles/2017/05/02/climate-change-fuels-fires.html

²³ <https://theconversation.com/the-influence-of-climate-change-on-fire-activity-in-south-africa-71349>

²⁴ Forsyth et al. (2010) National Veldfire Risk Assessment. CSIR Report.

²⁵ Department of Water Affairs. Governing Board Induction Manual.

²⁶ "Proximate drivers of land degradation include over-harvesting, mining, unsustainable land management, invasive alien species, bush encroachment, over-grazing, land cover change and pollution. Underlying drivers include high population density, poverty, land tenure, international policies, lack of market access and decentralization". South Africa: Final Country Report of the LDN Target, UNCCD.

²⁷ Department of Environmental Affairs (2016) A report on the state of the environment for South Africa. Chapter 7: Biodiversity and ecosystem health. Available online at: <https://goo.gl/Pu5AqU>. <https://goo.gl/Pu5AqU>

²⁸ Le Maitre et al. (2016) Estimates of the impacts of invasive alien plants on water flows in South Africa. Water SA 42(4): 659–672. <http://dx.doi.org/10.4314/wsa.v42i4.17>

²⁹ Specific ecosystem types and spatial targets will be developed by DEFF-NRM during the Project Preparation phase in consultation with key stakeholders.

Aliens in South Africa, 2014. South Africa's Third National Communication under the UNFCCC shows that "Alien invasive plants use considerable amounts of water which is then not utilisable to downstream users with the water reduction in some primary catchments in as high as 8 percent". The Implementation Framework for the NCCAS includes "Intervention 1: Reduce Human and Economic Vulnerability, Ensure Resilience of Physical Capital and Ecological Infrastructure and Build Adaptive Capacity", with three highly relevant action areas to which the project responds: *1.1.20 Adopt climate resilient approaches to natural resource management to restore and maintain ecosystem goods and services; 1.1.23 Protect and conserve South Africa's most vulnerable ecosystems and landscapes; 1.1.24 Monitor and control the spread of alien invasive species that benefit from climate change; and 1.1.4 Capacitate and operationalise South Africa's National Disaster Management Framework to strengthen proactive climate change adaptive capacity, preparedness, response and recovery.* In addition to addressing climate change adaptation priorities, the proposed project supports South Africa's socio-economic development goals, including those in the National Strategy towards Gender Mainstreaming in the Environment Sector, and as outlined in the National Development Plan 2030. These include: i) poverty alleviation; ii) job creation; iii) growth in the green sector; and iv) development of rural economies. The project's focus on rural communities is of particular importance, as alleviating rural poverty is a high priority of the South African government but has proven remarkably challenging because of a number of systemic socio-economic challenges³⁰. Furthermore, the proposed GCF project is aligned with the government approved District Development Model, which aims to improve integrated planning and delivery across the spheres of government, and result in a single, strategically focussed "One Plan" for each District and Metropolitan geographic spaces in the country.

Barriers to adaptation

The Government of South Africa faces pressing development and governance challenges, seeking to maximize the socio-economic and environmental benefits of public sector expenditure, in partnership with business and civil society, whilst addressing the additional challenges of adapting to climate change. This project proposes a new ecosystem-centred and community-based approach to disaster risk reduction, with activities in focal landscapes in vulnerable regions, as well as national scale-up. The country has made important policy commitments enabling these approaches, but significant barriers exist to their implementation at scale:

- Whilst policy commitments have been made to ecosystem-based adaptation broadly, specific tools are lacking to integrate ecosystem-based approaches into planning and monitoring of landscape rehabilitation, such that risks to rural communities and settlements from climate-intensified drought, flood and wildfires are effectively minimized. Although Natural Resource Management (NRM) programmes in South Africa have been largely successful, the effectiveness of larger scale and more integrated rehabilitation interventions that are explicitly targeted at disaster risk reduction has yet to be demonstrated.
- Settlement disaster risk reduction strategies and preparedness activities do not adequately include ecosystem-based approaches. Policies for municipal disaster management and settlement planning acknowledge the importance of ecosystem-based disaster risk reduction (Eco-DRR), but specific investment projects have not been undertaken to rehabilitate and maintain ecological infrastructure for disaster buffering. There is a lack of demonstrated models for undertaking such investment projects, and accessing municipal finance for doing so, as well as a lack of technical and financial capacity.
- Without an effective financing strategy or a developed evidence base, it is not possible to scale up Eco-DRR across South Africa. There is a need for effective learning networks across focal landscapes, and at national, regional and global scales to share best practice in undertaking landscape rehabilitation and settlement planning for disaster risk, and access public and private financing to do so at scale.

The GCF investment is needed to remove these barriers and facilitate investment to embed this innovative and cost-effective Eco-DRR approach in South African society. Significant public sector co-finance in environmental public works (DFFE-NRM) and municipal grants will complement the GCF investment, with private sector investment crowded in from the insurance sector, commercial farmers, forestry companies, and sustainable red meat producers. New partnerships with businesses leveraged during project implementation for value addition activities will also be tracked and reported on.

B.2. Project/Programme description (max. 3 pages)

Climate change is increasing the frequency and severity of droughts, floods and wildfires in South Africa. Together with environmental degradation (caused by *inter alia* invasive alien plants, bush encroachment and in some areas, overgrazing and loss of vegetation cover), these impacts threaten the ecosystems underpinning rural livelihoods and the South African economy. The proposed GCF project will be implemented in focal landscapes in Project Target Areas across 7 District Municipalities in 5 Provinces of South Africa. The Project Target Areas been selected through a fully documented, multi-stakeholder process that included analyses of: i) the risk of floods, fires and dry spells that are exacerbated by climate change, where these risks are having a significant impact on vulnerable people and the economy, are strongly linked to biodiversity management and where biodiversity management is, in turn, linked to the local economy and settlements; and ii) the receiving environment associated with these areas to assess institutional capacity, linkages with existing

³⁰ These factors include outward migration, extreme poverty, skills shortages and a lack of diversified rural economies and industries.

communities of practice, ongoing initiatives and other enabling conditions. This process resulted in the selection of the following District Municipalities (Project Target Areas) within the provinces noted:

- Limpopo Province: Waterberg and Sekhukune District Municipalities;
- Mpumalanga Province: Ehlanzeni District Municipality;
- North West Province: Ngaka Modiri Molema District Municipality;
- Eastern Cape Province: Alfred Nzo and Joe Gqabi District Municipalities; and
- Western Cape: Garden Route District Municipality.

The Project Target Areas are shown in Annex 1. Implementation Sites within these Project Target Areas will be selected in the Project Preparation phase to develop the full Funding Proposal through a fully consultative process.

The proposed GCF project will address the climate change adaptation needs and overcome the barriers to the large-scale implementation of Eco-DRR through the project Components and Outputs outlined below. Indicative Activities for each Output are shown in Annex 3, while an indicative list of studies to be undertaken in the anticipated Project Preparation phase in support of each Component is shown in Annex 4.

Components and Outputs

Component 1: *Rehabilitation of vulnerable catchments and landscapes³¹ to reduce drought, flood and wildfire risk*

This component will remove the barriers to effective rehabilitation of degraded catchments and landscapes to enhance the ecosystem services they provide, which are essential for climate change adaptation. With co-finance from lead agency DFFE-NRM, the project will develop new tools for spatial prioritization and impact monitoring that enable climate risks to be effectively integrated into policy and planning for landscape rehabilitation and management nationally. These tools will be tested and refined in undertaking large-scale rehabilitation in focal landscapes, which will include degraded quinary catchments in rural areas where communities are highly vulnerable to drought, flood and wildfire risks, intensified by climate change. Rehabilitated catchments will be co-managed in partnership with communities so that risk reduction can be sustained over the long term, alongside evolving climate impacts. Private sector investment will be crowded in to create opportunities for small business development utilizing products generated through landscape maintenance, such as biomass from cleared encroacher bush. Indicative Activities under each of the following Outputs are detailed in Annex 3 (with corresponding Project Preparation indicative activities shown in Annex 4):

- Climate risk management better integrated into policy and planning for landscape rehabilitation and management.
- Community vulnerability reduced through large scale and integrated rehabilitation of catchments (quinary) in focal landscapes.
- Rehabilitated catchments and landscapes maintained and managed for sustained risk reduction.

A list of possible interventions typically undertaken by DFFE-NRM to rehabilitate degraded catchments is provided in Annex 5. The actual on-the-ground interventions to be implemented through the proposed GCF project will be finalised in the Project Preparation phase stage.

Component 2: *Integration of ecosystem-based approaches into settlement planning and disaster risk reduction and preparedness to build resilience*

This component will remove the barriers to effective integration of Eco-DRR in rural settlements vulnerable to hazards intensified by climate change. With co-finance from co-lead agency DCoGTA-National Disaster Management Centre, the project will enhance municipal disaster preparedness in focal landscapes, which include rural settlements that are highly vulnerable to intensifying drought, flood and wildfire risks. This will be achieved through integrating Eco-DRR approaches into municipal planning of settlements and infrastructure (i.e. into the relevant municipal Sector Plans and Integrated Development Plans), and protection of existing homesteads, villages and towns. Early warning systems will be complemented by capacity development with communities to improve disaster preparedness and response. Ecosystem-based and “grey-green” approaches will be promoted through supporting municipalities in the focal landscapes to take Eco-DRR projects from planning to execution, tapping into existing sources of public finance, and drawing on the tools developed in Component 1. This will be incorporated in the One Plan of each District, which is an intergovernmental plan setting out a long-term strategic framework to guide investment and delivery in the various district spaces. This plan is meant to be jointly developed and agreed to by all spheres of government. Replication across South Africa will be supported through national conferences and in-service training for planners, engineers and accountants. Indicative Activities under each of the following Outputs are detailed in Annex 3 (with corresponding Project Preparation indicative activities shown in Annex 4):

- Disaster preparedness for drought, flood and wildfire improved in vulnerable settlements in focal landscapes.

³¹ Specific ecosystem types and spatial targets will be developed by DEFF-NRM during the Project Preparation phase in consultation with key stakeholders.

- Ecosystem-based and grey-green approaches integrated into policy and planning for National, Provincial and Municipal disaster risk reduction (i.e. to be incorporated into Disaster Management Plans of organs of state and the Sector Plans and Integrated Development Plans of municipalities, ultimately informing the District One Plans).

Component 3: Upscaling of pathways for integrated and transformative ecosystem-based approaches to climate-intensified disaster risk reduction

This component will remove the barriers to achieving reduced climate vulnerability nationwide through investment in climate risk-informed landscape rehabilitation and settlement planning. With co-finance from public and private sectors, the project will create pathways to scale to enable Eco-DRR to be rolled out across all municipalities and provinces of South Africa. Dialogues will be enabled, aimed at unlocking investment in green infrastructure and Eco-DRR, and new public-private-community partnerships facilitated. Building on the learning from Components 1 and 2, the project will develop the evidence base for the effectiveness of and cost-effectiveness of Eco-DRR, and use this to make the case for sustained investment. Indicative Activities under each of the following Outputs are detailed in Annex 3 (with corresponding Project Preparation indicative activities shown in Annex 4):

- New and existing public and private financing mechanisms unlocked to sustain and up-scale Eco-DRR.
- Evidence base for Eco-DRR developed and shared.

Scale-up and transformation

This proposed GCF project is being submitted by SANBI, on behalf of the Government of South Africa. The project will build on the achievements and lessons learned from several initiatives such as: i) South Africa's project through the Special Climate Change Fund 2012-2017 on "Reducing Disaster Risks from Wildland Fire Hazards Associated with Climate Change"; ii) ongoing public sector investment in the "Working for" NRM programmes, iii) the sustainable livestock marketing model successfully implemented through Meat Naturally Pty Ltd; and iv) Phase I of the Green Book online planning support tool for local government climate change adaptation co-funded by the CSIR and the International Development Research Centre (IDRC), with the National Disaster Management Centre (NDMC), DFFE and Santam partnering for Phase II implementation. The proposed GCF project itself has pathways to scale built in, to address gaps in the evidence base for the costs and benefits of Eco-DRR, and for unlocking new financial flows from the public and private sectors. The project is transformative in creating incentives for long-term engagement of rural communities in co-managing landscapes through sustainable business opportunities, such that disaster risks can be minimized in the long term alongside evolving climate risk.

Accredited entity and implementation arrangements

The South African National Biodiversity Institute (SANBI) is a Direct Access Entity of the GCF and the AE for the proposed project. Established in 2004, SANBI is a national entity and a research institute that coordinates research, monitors and reports on the state of biodiversity in South Africa. SANBI also provides planning and policy advice to the Department of Forestry, Fisheries and the Environment (DFFE, the National Designated Authority in South Africa) and associated government Departments. Since 2011, when SANBI was accredited as the National Implementing Entity of the Adaptation Fund, SANBI has expanded its mandate to developing and implementing innovative approaches to climate change adaptation with a focus on vulnerable communities. These projects deliver multiple and sustainable benefits to communities in an effort to respond to local adaptation needs and national climate change priorities. SANBI is one of only two South African institutions with GCF accreditation.

Two Government ministries are proposed to be the Executing Entities – the Department of Forestry, Fisheries and the Environment (DFFE) and the Department of Cooperative Governance and Traditional Affairs (DCoGTA), with a project management unit located in DFFE, and oversight provided by SANBI. The involvement of other government agencies / NGOs as Sub-Executing Entities – key implementing partners taking responsibility for delivery of specific project outputs – is currently under discussion. The following public sector stakeholders will serve as a Reference Group for the project development process and may be represented on the eventual project steering structure, along with representatives of the private sector and civil society: National Disaster Management Centre; Department of Agriculture, Rural Development & Land Reform; Department of Public Works; Department of Planning, Monitoring & Evaluation; Department of Water & Sanitation; DFFE-Adaptation; DFFE-Mitigation; DFFE-Natural Resource Management; Department of Trade & Industry; Department of Science & Technology; National Treasury; South African Local Government Association; Council for Scientific & Industrial Research; SANBI; and Provinces, District and Local Municipalities in focal landscapes.

Key financial and operational risks

A full risk analysis will be undertaken before submission of the full Funding Proposal. Financial and operational risks are considered to be low, given that:

- SANBI has a strong track record as a project executing agency for several Global Environment Facility-funded projects since 2004, and as an implementing entity for the Adaptation Fund, supporting two projects worth \$10 million since 2015: i) *Building resilience in the greater uMngeni catchment*, South Africa, being implemented in the

uMgungundlovu District Municipality in KwaZulu-Natal; and ii) *Taking adaptation to the ground: a small grants facility for enabling local level responses to climate change in South Africa*, being implemented in the Namakwa and Mopani Districts in Northern Cape and Limpopo Provinces.

DFFE has a strong track record in implementing the Government's Expanded Public Works Programmes, including Working for Water, Working for Ecosystems, Working for Wetlands and Working on Fire, with rigorous accounting and monitoring of beneficiaries, and environmental and social safeguards in place. DFFE also has a strong track record as Executing Entity for a large number of GEF-funded projects (implementing agency in GEF terminology) over the past 25 years (see <https://www.thegef.org/country/south-africa>), including current projects: i) with Development Bank of Southern Africa (DBSA) support, and SANBI as executing agency – the \$7.2 million *Ecological Infrastructure for Water Security Project, being implemented in the Greater uMngeni, Pongola-uMzimkulu and Berg Breede catchments*; ii) with DBSA support, and several executing agencies – *the \$4.2 million project on Securing Multiple Ecosystem Benefits Through SLM in the Productive but Degraded Landscapes of South Africa*; and iii) with UNDP support, and SANBI as executing agency, the \$8.2 million project on *Mainstreaming Biodiversity into Land Use Regulation and Management at the Municipal Scale*.

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

Impact potential

The proposed GCF project will contribute to two strategic level Adaptation impacts: GCF Results Framework Outcome 1.0 "Increased resilience and enhanced livelihoods of the most vulnerable people and communities and regions, and Outcome 4.0 "Increased resilience of ecosystems and ecosystem services". At project level, key outcomes will be Outcome 5.0 "Strengthened government, institutional and regulatory systems for climate-responsive development planning" and Outcome 7.0 "Strengthened adaptive capacity and reduced exposure to climate risks".

The project will directly benefit an estimated 200,000 people (55% female) from vulnerable rural communities in focal landscapes (average 50,000 per landscape) including household members of adults participating in project activities. Final beneficiary numbers will be determined during the Project Preparation phase, and the methodology explained. Project activities will also be targeted to involve 65% young people, given the high rate of youth unemployment.

Direct beneficiaries are community members who are better able to cope with the impacts of climate change intensified droughts, floods and wildfires, at the close of the GCF-supported project, as well as community members in the focal landscapes who: i) are employed on environmental public works programmes in the focal landscape with new climate impact measures, co-financed by the South African government (e.g. Working for Wetlands); ii) are participants in GCF-supported climate-adaptive livelihood opportunities such as Small, Medium and Micro Enterprise (SMME) opportunities for initial processing of cleared biomass for bio-refineries, and sustainable meat production and marketing on rehabilitated rangelands; iii) are participants in GCF-supported and Government co-financed initiatives for fire-wise and flood-wise communities; and iv) are employed on projects for grey-green municipal infrastructure co-financed by the South African government (e.g. Municipal Infrastructure Grant).

Indirect beneficiaries are vulnerable people who are better able to cope with the impacts of climate change intensified droughts, floods and wildfires as a result of the scale up activities of the project, including through the DFFE-NRM programme, the Community Works Programme and improved integration of Eco-DRR into settlements planning across South Africa. The number of anticipated indirect beneficiaries will be determined in the Project Preparation phase, and the methodology explained.

During the Project Preparation phase, estimates could be prepared for the anticipated losses in two scenarios, with and without the project, in relation to: i) losses in assets and earnings to the agriculture (commercial and small-scale), forestry and tourism sectors from damage by wildfire; ii) loss of life from wildfire; iii) damage to municipal infrastructure by floods; iv) loss of life from floods; and v) loss of productivity to the agriculture (commercial and small-scale), forestry and tourism sectors as a result of drought.

Paradigm shift

The proposed GCF project's vision for paradigm shift involves integrating Eco-DRR fully into key public sector mandates and tapping into new public and private financing sources to enable replication and scale-up. This will include insurance mechanisms like Municipal Risk Pooling, which is already in a trial phase in the Western Cape. A feasibility study for municipal investment in ecological infrastructure will be conducted in the Project Preparation phase. This will be achieved through harnessing the full power of nature-based solutions to climate change challenges, generating community involvement in rehabilitation and co-management, publicizing the results of targeted interventions and their costs and benefits, and conducting targeted capacity development to bring about a shift in mindset amongst politicians, local government planners, engineers, accountants and project managers. Impact beyond the project investment will be catalysed in three key ways: i) by integrating disaster risk reduction fully into environmental and agricultural public works

programmes and the way they undertake spatial prioritization, goal setting, and impact monitoring; ii) by piloting new public-private partnerships to enable systematic and integrated landscape management interventions that reduce hazard risk, with strong community co-management and livelihoods generation through small business development based on livestock and biomass products from rehabilitated landscapes; and iii) by maximizing nature-based solutions in provincial and district planning for disaster risk reduction – facilitating investment from existing municipal revenue streams in rehabilitating and maintaining ecological infrastructure, and undertaking cost-benefit analysis to make the case for replication across the country.

Sustainable development potential

Economic co-benefits: The main economic benefits of the proposed GCF project are outlined above, in relation to avoided losses of life, livelihoods and economic activity / productivity. In addition, the project will promote commercially viable, natural resource-based businesses, including sustainable red meat production linked to ongoing community investment in sustainable rangeland management. Given the huge volumes of biomass available, the Pre-feasibility Study (Annex 7) also outlines the economic potential of a national strategy to grow small businesses supplying initially processed biomass to biomass-based businesses (e.g. factories for fire-retardant housing materials, biorefineries producing xylitol or cellulose). By facilitating effective landscape rehabilitation, indirect economic value will be created through increased groundwater infiltration becoming available in water-stressed areas for boreholes supplying agriculture, and through enhanced grazing productivity. Investment of municipal finance in grey-green infrastructure solutions in rural towns will also create spin-off economic activities with benefits for the local economy. This contributes to Sustainable Development Goal (SDG) 8: Decent Work and Economic Growth and SDG 9: Industry, Innovation and Infrastructure.

Social co-benefits: The activities undertaken by the proposed GCF project will provide multiple social co-benefits, including skills development, job creation and strengthening value chains to support the development of SMMEs. Direct employment opportunities will be created for vulnerable groups, such as women and unemployed youth, through the NRM programmes. In addition, the strengthened value chains will create an enabling environment for the development of SMMEs, which can provide alternative income streams and employment for communities, and further contribute to human capital development for local economic growth. This contributes to SDG 1: No Poverty and SDG 5: Gender Equality.

It is well understood that climate change disproportionately impacts poor people in low-income communities, and that those living in poverty have a higher chance of experiencing the ill-effects of climate change due to the increased exposure and vulnerability. In South Africa, as well as in many other developing countries, gender differentiated impacts of climate variability manifest in the unequal distribution of roles and responsibilities of men and women, particularly in rural areas. Women are often food providers, caregivers, users and collectors of firewood and water collectors, with many of these activities being highly dependent on natural resources³². Increases in the frequency and severity of droughts, floods and wildfires are therefore likely to burden women more than men. The proposed GCF project, through the scale-up of ecosystem-based approaches, will buffer the impacts of these climate-intensified extreme events, thereby benefitting women in particular in the Project Target Areas. This will be further analysed at a local level during the Project Preparation phase.

Mitigation co-benefits: The proposed GCF project will have significant mitigation co-benefits. The National Terrestrial Carbon Sinks Assessment (NTCSA) has identified eight land-based climate change mitigation opportunities categorised as: i) activities that sustain the size of the national terrestrial carbon stock; and ii) activities that lead to a net decrease in GHG emissions. Both subtropical thicket and mesic grassland vegetation will be rehabilitated by the proposed project. The rehabilitation of degraded mesic grasslands can result in a reduction of annual carbon emissions by ~2 tCO_{2e} per hectare, while the rehabilitation of degraded subtropical thicket can result in a ~4 tCO_{2e} per hectare reduction in annual carbon emissions³³. This contributes to SDG 13: Climate Action.

Environmental co-benefits: The proposed GCF project activities will provide multiple environmental co-benefits including biodiversity protection and the rehabilitation of ecosystem services, including improved groundwater retention, increased river baseflows, regeneration of soil fertility, enhanced soil stability and improved grazing productivity. This contributes to SDG 15: Life on Land.

Needs of recipient

The intensity and frequency of droughts and extreme rainfall events across South Africa have increased markedly over the past five decades³⁴. Climate change models indicate that these trends will continue and accelerate, with major socio-

³² Babugura, A. (2010) Gender and Climate Change: South Africa Case Study. Heinrich Böll Foundation Southern Africa. Available online at: https://www.boell.de/sites/default/files/assets/boell.de/images/download_de/ecology/south_africa.pdf.

³³ National Terrestrial Carbon Sinks Assessment (2015) Department of Environmental Affairs, Pretoria, South Africa. Available online at: <https://goo.gl/PBzux8>. <https://goo.gl/PBzux8>.

³⁴ Fauchereau et al. (2003) Rainfall variability and changes in southern Africa during the 20th century in the global warming context. *Natural Hazards* 29: 139–145.

economic impacts on vulnerable rural communities³⁵. Rising temperatures, droughts and floods have severely impacted South Africa's vulnerable rural communities through: i) decreased productivity of croplands and rangelands through erosion, aridification and soil nutrient leaching; ii) reduced availability of water for domestic and agricultural use; iii) increased intensity and frequency of wild fires; and iv) damage to infrastructure. All of these impacts are linked to the negative effects of climate change on a diverse range of ecosystem goods and services, including water supply, soil fertility and soil carbon stocks that underpin rural livelihoods and economic development³⁶. Climate change is compounding several ongoing anthropogenic impacts, including *inter alia* overgrazing, the introduction of invasive alien plants, and the removal of natural vegetation cover. The increasing frequency and intensity of floods and wildfires as a result of climate change are resulting in loss of life and damage to property, and are outstripping the government fiscus in terms of disaster response and recovery financing. Overall, the impacts of climate change are exacerbating a vicious cycle of land degradation and poverty across large parts of rural South Africa, highlighting the need to build the climate resilience of vulnerable local communities.

In terms of financial need, South Africa has a number of existing sources of fiscal revenue which can be tapped into to improve disaster risk reduction through ecosystem rehabilitation, but significant barriers need to be removed first through the GCF investment. A \$3.4 billion annual allocation nationally for municipal infrastructure grants makes provision for "green infrastructure, alternative technologies and innovation in the various areas to be appropriately articulated that will allow municipalities to consider the full spectrum of infrastructure technologies and associated operations and maintenance solutions³⁷", but has been slow to innovate and is currently underutilized by as much as 20%. This underutilization is partly the result of a lack of technical and financial capacity, and partly because of the absence of demonstrated models for the efficacy and cost-effectiveness of investing in ecological infrastructure – for creating work opportunities and stimulating local economic development, and for reducing the risk of drought, flood and wildfire which is expected to be heightened in future.

Country ownership

The proposed GCF project is fully country-driven, and has been discussed with the NDA. The present concept note is built on an Expression of Interest from the DFFE submitted to SANBI in April 2018 for a project on "Building climate-resilience through ecosystem-based adaptation and natural resource-based businesses", following a call for proposals by SANBI in December 2017. The project concept has been developed further in discussion with DFFE-Biodiversity and Conservation, DFFE-Adaptation, DFFE-Mitigation and DFFE-Natural Resource Management, National Treasury, the NDMC and the Council for Scientific and Industrial Research. Full stakeholder consultations will be conducted in the Project Preparation phase, including with other government agencies to be involved in implementation (local, provincial and national), civil society, research bodies and the private sector. The project is supported by the country's overall policy framework, including the National Development Plan, the Draft National Adaptation Strategy and the National Strategy for Dealing with Biological Aliens in South Africa, 2014. South Africa's Strategic Framework and Overarching Implementation Plan for Ecosystem-Based Adaptation (EbA) in South Africa, 2016-2021 prioritizes an ecosystem-based approach, and has as one of its four central intended outcomes, that the "Integration of EbA into policies, plans and decision-making supports an overall climate change adaptation strategy." Specifically, the project builds on two key mainstreaming lessons learnt from South Africa's GEF-funded Fynbos Fire project³⁸, namely: "The gap of not facilitating integration of wildland fire risk criteria into municipal disaster management plans and integrated development plans should be addressed"; and "Fuel load management, particularly with respect to invasive alien vegetation, should be further advocated, consistent with National Climate Change Response White Paper published in 2014, which outlines the consolidation and expansion of the Expanded Public Works Programme". Government commitments to improved governance and transparency, as well as significant investments in improving capacity of municipalities, provide an important enabling environment for the project's success.

Efficiency and effectiveness

The project theory of change in Annex 2 involves enhancing the efficiency and effectiveness of environmental and agricultural public works programmes so that they are more effective in reducing disaster risk. In addition, it involves harnessing existing sources of public finance that are currently not being utilized for rehabilitation and maintenance of ecological infrastructure, in order to be more effective in reducing climate risk. The actual methods to be used for landscape rehabilitation and maintenance to reduce the risk of devastation by drought, flood and wildfire will be based on approaches used for the past 25 years through the DFFE-NRM programmes (including Working for Water, Working for Ecosystems, Working for Wetlands and Working on Fire), and on international best practice for Eco-DRR³⁹. The project will facilitate the new application of these methods in the context of municipal finance, providing assistance to develop missing technical and financial capacity, and most importantly providing a model, for the first time, of how

³⁵ Department of Environmental Affairs (2017) South Africa's Third National Communication under the United Nations Framework Convention on Climate Change. Available online at: <https://goo.gl/HfjLek>, <https://goo.gl/HfjLek>.

³⁶ Department of Environmental Affairs (2013) Long-Term Adaptation Scenarios Flagship Research Programme (LTAS) for South Africa. Summary for Policy-Makers. Pretoria, South Africa. Available online at: <https://goo.gl/KfA5aJ>, <https://goo.gl/KfA5aJ>.

³⁷ <https://www.salga.org.za/dev/miif/Presentations/1%20MISA%20infrastructure%20Financing.pdf>

³⁸ Terminal Evaluation Report (2016) *Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change*.

³⁹ http://pedrr.org/pedrr/wp-content/uploads/2013/09/Eco-DRR-case-study-source-book_final.pdf

investment in ecological infrastructure can help municipalities meet their targets for climate change adaptation, disaster risk reduction, and job creation. Piloting new approaches to ecological and grey-green infrastructure investment through co-financed technical assistance to communities and municipalities to move projects from planning to execution will enable the development of cost-effective models that can be widely disseminated and scaled up. There are also efficiencies to be gained through utilizing the currently largely unused potential in value addition to the estimated ~160 million tonnes of woody biomass currently available from standing invasive alien and encroacher vegetation across the country⁴⁰, and in supporting small-scale livestock farmers to maintain rehabilitated rangelands in good condition through sustainable co-management practices and selling excess livestock through enhanced market access⁴¹.

B.4. Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

As noted in Section B.3 under “Country Ownership”, this proposed GCF project is built on an Expression of Interest from the DFFE, prioritized through a review and selection mechanism established through a GCF Readiness grant received by SANBI. To develop the Expression of Interest into this Concept Note, a number of meetings with a range of stakeholders were held. This included meetings with the two lead ministries i.e. DFFE and the Department of Cooperative Governance and Traditional Affairs, through the NDMC. A full list of meetings held with the various stakeholders has been included as Annex 6.

In the months ahead, as part of the Project Preparation phase to develop the full Funding Proposal, formal consultations will be held through a project Reference Group (described in Section B.2 under “Accredited entity and implementation arrangements”) with all the potential government and private sector implementing partners including NDMC (of the Department of Cooperative Governance and Traditional Affairs); Council for Scientific and Industrial Research; Department of Public Works; DFFE-Natural Resource Management; SANBI; Department of Agriculture, Rural Development and Land Reform; Provinces, District and Local Municipalities in focal landscapes; National Treasury; South African Local Government Association; Santam; and Department of Science and Technology. Consultations and mapping work will also continue in the Project Preparation phase, to confirm the selection of the Implementation Sites within the focal landscapes for on-the-ground interventions, following which more in-depth consultations will be held in the field with local government, traditional authorities, community-based organizations and businesses, in order to develop a full baseline on specific climate vulnerabilities and planned adaptation interventions to reduce these. Potential private sector partners include insurance companies, commercial farmers, forestry companies, and actors in the value chains for sustainable red meat and value addition to cleared biomass.

C. Indicative Financing/Cost Information (max. 3 pages)

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

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

Component/Output	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Component 1: Rehabilitation of vulnerable catchments and landscapes to reduce drought, flood and wildfire risk	13,000,000	8,000,000	Grant	5,000,000	Grant	DFFE-NRM, Department of Agriculture, Rural Development and Land Reform
Component 2: Integration of ecosystem-based approaches into settlement planning and disaster risk reduction and preparedness to build resilience	18,400,000	6,000,000	Grant	12,400,000	Grant	National Disaster Management Centre, Council for Scientific and Industrial Research, SANBI
Component 3: Upscaling of pathways for integrated and	15,055,000	5,000,000	Grant	10,055,000	Grant	Department of Science and Technology,

⁴⁰ Stafford et al. (2017) Bioenergy potential from invasive alien plant biomass in South Africa. International Conference on the Industrial and Commercial Use of Energy (ICUE), Cape Town, 2017, pp. 1-7.

⁴¹ <https://www.meatnaturallyafrica.com/>

transformative ecosystem-based approaches to climate-intensified disaster risk reduction						Municipal Infrastructure Grant, Private Sector
Project Management Costs	2,445,000	1,000,000	Grant	1,445,000	Grant	DFFE-NRM, National Disaster Management Centre
Indicative total cost (USD)	48,900,000	20,000,000		28,900,000		

C.2. Justification of GCF funding request (max. 1 page)

The Government of South Africa faces pressing development and governance challenges, seeking to maximize the socio-economic and environmental benefits of public sector expenditure, whilst addressing the additional challenges of adapting to climate change. This project proposes a new effective and cost-effective Eco-DRR approach, with activities in focal landscapes in vulnerable regions, and public-private-community partnerships providing pathways to scale across the country. The country has made important policy commitments enabling this approach, but significant barriers exist to its implementation at scale (see “Barriers to adaptation” in Section B.1). With the GCF’s focus on transformative investments to upscale climate risk management, the Fund is well placed to help remove these barriers and unlock financial flows that will enable the new approach to be embedded in South African society. This includes accessing existing municipal revenue streams for rehabilitating and maintaining ecological infrastructure, and leveraging significant private sector investment through the insurance industry and value addition to cleared alien / encroacher bush biomass (potential outlined in Pre-Feasibility Study Annex 7 and to be further scoped in the Project Preparation phase). The project anticipates building multi-stakeholder partnerships to research the use of alien biomass in biotech industries – involving the Biorefinery Industry Development Facility of the Department of Science and Technology and the Council for Scientific and Industrial Research. Deal flow facilitation will enable supply contracts between youth entrepreneurs involved in alien clearing / bush thinning, and biomass-based businesses, e.g. housing material, biochar, energy, composite materials and high value chemicals. Department of Trade and Industry co-finance will enable support to youth entrepreneurs for initial processing of biomass to add value through mechanical, biological, chemical and thermal processes.

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

The proposed GCF project design includes the development and regular updating of a Sustainability Plan starting at project inception, in order to ensure that the pathways to scale built into the project are fully utilized, through undertaking cost-benefit analyses, advocacy and making the case, knowledge exchanges and dialogue events, and the development and dissemination of protocols, guidelines and tools.

The exit strategy for the project involves developing government institutional capacity for implementing/maintaining large-scale Eco-DRR, catalysing private sector funding for long-term maintenance of Eco-DRR interventions and creating an enabling environment for commercially viable businesses based on natural resources. The proposed GCF project will facilitate a community- and ecosystem-based approach to climate change adaptation that generates value from cleared biomass and from livestock produced on sustainably managed rangeland as a long-term incentive to community engagement. Through the establishment of commercially viable natural resource-based businesses, the approach to disaster risk reduction will become self-sustaining, and will not rely solely on continuous injections of government spending.

The project will catalyse the involvement of the private sector through: i) co-finance from industry-leading insurers seeking to reduce collective risk through capacitating local government with fire and flood risk management skills and equipment; ii) commercial farmers who invest in biodiversity stewardship and can access an improved land user incentive initiative with climate risk management fully integrated into it; iii) significant private sector investment through the insurance industry and strengthening supply chains for value addition to cleared alien / encroacher bush biomass by companies producing high value products like fire-retardant building materials, nanocrystalline cellulose, biopolymers, and biogas; and iv) the expansion of the red meat production initiatives to incentivize small-scale livestock farmers to reduce stocking rates as part of sustainable rangeland management and sustained disaster risk reduction.

D. Supporting documents submitted (OPTIONAL)

- Annex 1: Map indicating the Project Target Areas
- Annex 2: Diagram of the Theory of Change
- Annex 3: Indicative Outputs and Activities
- Annex 4: Proposed PPF Activities
- Annex 5: List of possible interventions typically undertaken to rehabilitate degraded catchments
- Annex 6: Stakeholder Consultations to Date
- Economic and financial model with key assumptions and potential stressed scenarios
- Annex 7: Pre-feasibility Study
- Evaluation report of previous project
- Annex 8: Results of environmental and social risk screening

Self-awareness check boxes

Are you aware that the full Funding Proposal and Annexes will require these documents? Yes No

- Pre-Feasibility Study
- Environmental and social impact assessment or environmental and social management framework
- Stakeholder consultations at national and project level implementation including with indigenous people if relevant
- Gender assessment and action plan
- Operations and maintenance plan if relevant
- Loan or grant operation manual as appropriate
- Co-financing commitment letters

Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes No

Annex 1: Map indicating the Project Target Areas

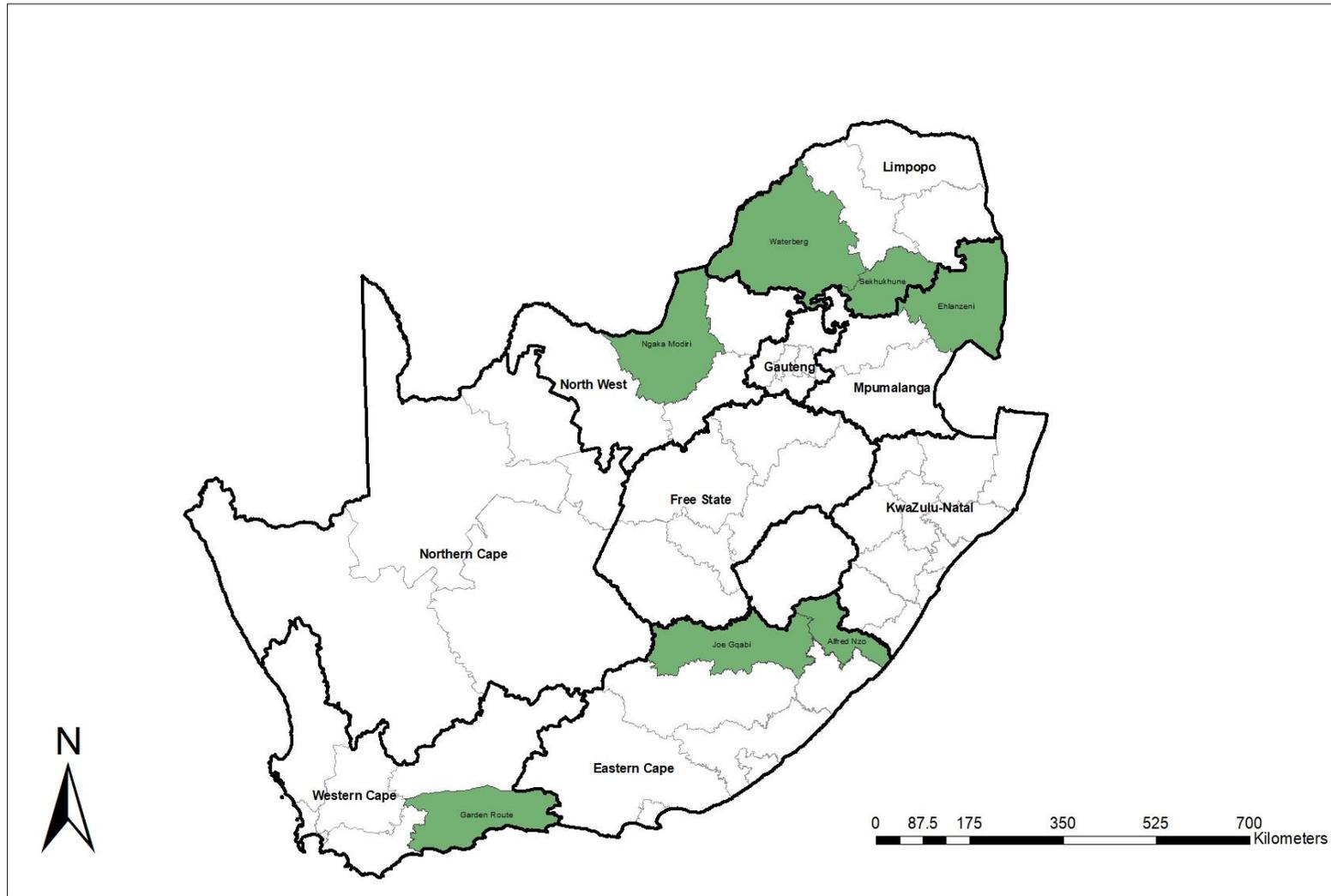


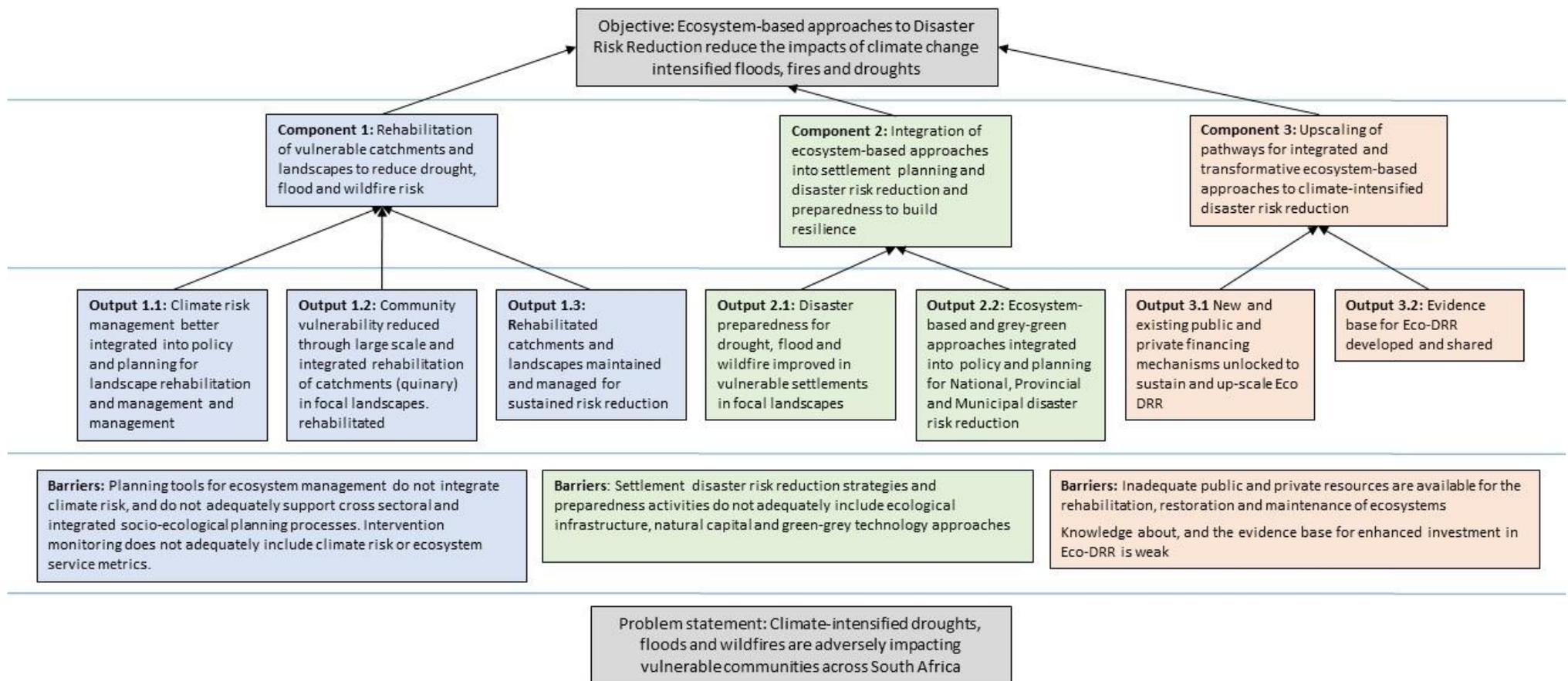
Figure 1: Map showing District Municipalities and Provinces in South Africa, representing the Project Target Areas. The focal landscapes of the proposed GCF project cut across these Project Target Areas. Specific Implementation Sites within these areas will be selected in the Project Preparation phase.

Annex 2: Diagram of Theory of Change

Project title: Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa

GCF Outcome 1.0: Increased resilience and enhanced livelihoods of the most vulnerable people and communities

GCF Outcome 4.0: Improved resilience of ecosystems



Annex 3: Indicative Outputs and Activities

Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa	
<i>Strategic level impacts</i>	
Outcome 1.0	Increased resilience and enhanced livelihoods of the most vulnerable people and communities <i>Indicator: Number of people whose vulnerability to climate-related disasters is reduced</i>
Outcome 4.0	Improved resilience of ecosystems <i>Indicator: Area (ha) of habitat rehabilitated and on track to provide effective protection against flood, fire and drought</i>
<i>Project level outcomes</i>	
Outcome 5.0	Strengthened government, institutional and regulatory systems for climate-responsive development planning <i>Indicator: Improved scores on scorecard analysing how Eco-DRR is integrated into focal municipalities' expenditure and target agencies' management systems</i>
Outcome 7.0	Strengthened adaptive capacity and reduced exposure to climate risks <i>Indicator: Improved scores on focal landscape household survey on preparedness for drought, flood and wildfire</i>
Number of direct beneficiaries: 200,000 (55% female, 65% youth) Number of indirect beneficiaries: 1,200,000 (50% female)	

Component	Outputs	Activities
<p>Component 1: Rehabilitation of vulnerable catchments and landscapes to reduce drought, flood and wildfire risk (GCF finance: \$8 million Co-finance: \$5 million)</p> <p>GCF Outcome 4.0 Improved resilience of ecosystems <i>Indicator: Area (ha) of habitat rehabilitated and on track to provide effective protection against drought, flood and wildfire</i></p>	<p>Output 1.1: Climate risk management better integrated into policy and planning for landscape rehabilitation and management</p>	<ul style="list-style-type: none"> Identify and map risks, areas, ecosystems, communities and households that are exposed or vulnerable to climate and disaster risks (to be incorporated into the relevant municipal Spatial Development Frameworks) Develop Spatial Prioritization Tools for integrating climate and disaster risk management into environmental public works, agricultural support programmes and municipal planning Develop guidelines and tools to set out the way in which the concept and principles of disaster risk management are to be applied in its functional area, including expected climate change impacts and risks for organs of state Enhance Impact Monitoring Tools of environmental public works, agricultural support programmes and municipal planning processes to include ecological resilience and vulnerability reduction Integrate ecological resilience and vulnerability reduction into collaborative planning processes, tools and protocols for landscape rehabilitation and management, such as the One Plan process of each district Develop Natural Capital Accounts for ecological infrastructure that demonstrate how investments in ecosystem rehabilitation can safeguard the asset base that delivers Eco-DRR services Refine Spatial Prioritization Tools based on monitoring, evaluation and learning emerging from pilot implementation sites

		<ul style="list-style-type: none"> • Enhance targeted policies at national level and in focal provinces to better enable Eco-DRR through development of policy briefs and presentations to relevant structures
	<p>Output 1.2: Community vulnerability reduced through large scale and integrated rehabilitation of catchments (quinary) in focal landscapes</p>	<ul style="list-style-type: none"> • Use toolkits (including those developed with Adaptation Fund investments) to build local capacity on climate change impacts, adaptation and DRR • Identify adaptation and risk reduction activities and assign roles and responsibilities for execution/ implementation through the One Plan process • Support government to build partnerships for transforming extension services as part of capacity building and long-term sustainability efforts • Conduct training and awareness sessions with communities and partners to enhance climate change adaptation and disaster risk reduction activities and programmes in areas at risk • Undertake large-scale integrated rehabilitation and maintenance interventions in focal landscapes employing local communities (e.g. youth)⁴² • Identify specific measures to address the needs of women, children, the elderly and persons with disabilities and reduce vulnerability • Use government Groen Sebenza internship programme to develop capacity on rehabilitation programmes • Scale the application of the tools and integrate climate risk mitigation into planning and implementation across South Africa's Natural Resource Management (NRM) programmes
	<p>Output 1.3: Rehabilitated catchments and landscapes maintained and managed for sustained risk reduction</p>	<ul style="list-style-type: none"> • Collaboratively develop management plans and resource strategies (including land user incentives, insurance premium reductions) for maintenance of rehabilitated landscapes for sustained risk reduction • Community monitoring (participatory project monitoring, reporting and learning) of the rehabilitated catchments using the Impact Monitoring Tools • Use government Groen Sebenza internship programme to develop capacity on monitoring programmes • Facilitate investment by commercial farmers and emerging farmers in landscape management through refining and expanding NRM land user incentives • Partner with local communities to develop sustainable rangeland management and utilisation plans, and to unlock resources to sustain these • Provide communities with technical assistance for marketing of sustainably produced meat; establishment of cooperatives and/or businesses for value addition to cleared biomass⁴³; and sustainable harvesting, processing and marketing of products from the wild • Develop business and/or entrepreneurship opportunities among community members to use the cleared biomass material for income generating activities

⁴² For example: mechanical & biological control of alien vegetation, thinning of encroacher bush, revegetation, soil rehabilitation, donga filling, controlled burns, wetland and river bank rehabilitation etc.

⁴³ For example: sustainable charcoal, biochar, energy, furniture, animal feed, fire-retardant building material, biotech products like composite materials and high value chemicals.



		<ul style="list-style-type: none"> • Undertake landscape-level learning exchanges with communities, livestock farmers, CBOs, women’s organizations, traditional authorities, businesses, local and district municipalities
<p>Component 2: Integration of ecosystem-based approaches into settlement planning and disaster risk reduction and preparedness to build resilience (GCF finance: \$6 million Co-finance: \$12.4 million)</p> <p>GCF Outcome 5.0 Strengthened government, institutional and regulatory systems for climate-responsive development planning <i>Indicator: Improved scores on scorecard analysing how ecosystem-based DRR integrated into focal municipalities’ expenditure and target agencies’ management systems</i></p> <p>Outcome 7.0 Strengthened adaptive capacity and reduced exposure to climate risks</p>	<p>Output 2.1: Disaster preparedness for drought, flood and wildfire improved in vulnerable settlements in focal landscapes</p>	<ul style="list-style-type: none"> • Develop design specifications and costings for priority projects and integrate them into Sector Plans, Integrated Development Plans, Disaster Management Plans in pilot municipalities • Identify adaptation and risk reduction activities and assign roles and responsibilities for execution/ implementation through the One Plan process • Support pilot municipalities to take DRR investment projects from planning to execution, mobilizing existing sources of municipal finance⁴⁴ where possible • Use government Groen Sebenza internship programme to develop capacity on eco-DRR and grey-green infrastructure projects • Enhance disaster preparedness for climate intensified risks in vulnerable settlements (and households) in pilot municipalities • Develop and implement participatory (citizen science) tools to enable communities in pilot municipalities to report disaster related losses in support of the Sendai Frameworks • Strengthen fire-wise communities to support integrated fire management and reduce settlement risk and vulnerability • Hold regular fire simulations to assess and evaluate the community preparedness and response capabilities towards fire outbreaks • Undertake participatory, fine scale mapping of planned interventions using indigenous and local knowledge to promote Eco-Disaster Risk Reduction measures • Strengthen drought preparedness (through, for example, implementation of climate-smart agriculture interventions, rain water harvesting, preservation of ecological infrastructure, institution of water conservation and demand management initiatives) and response of settlements • Strengthen early warning systems (through, for example, dissemination of early warning information and/or alerts and strengthening the implementation of early action activities, using indigenous/local knowledge) and flood preparedness (through, for example, cleaning of storm water drainage systems, drills and simulations, information dissemination of flood tips and response activities, identification and signs on low lying bridges, identification of evacuation sites) and response of settlements (through, for example, implementation of existing legislation, evacuation of affected communities to higher ground, reprioritization of funds for emergency shelters and humanitarian relief)

⁴⁴ For example: the Municipal Infrastructure Grant, the Water Services Infrastructure Grant, the Accelerated Community Infrastructure Programmes of DWS, the Urban Settlement Development Grant for metros, and the imminent Integrated Urban Development Grant for intermediate cities.



<p>Indicator: Improved scores on focal landscape household survey on preparedness for drought, flood and fire</p>		<ul style="list-style-type: none"> • Support communities, traditional authorities and municipalities in focal landscapes to access Community Works Programme to build resilience of vulnerable settlements⁴⁵ through training and awareness programmes developed through the project • Identify specific measures to address the needs of women, children, the elderly and persons with disabilities and reduce vulnerability • Support municipalities and communities to secure small grant funding for Eco-DRR from possible sources such as the South African Green Fund and the emerging GCF-supported small grant facility for adaptation • Hold regular awareness campaigns with communities to inculcate the culture of DRR and Resilience building • Undertake municipal learning exchanges between focal municipalities and other municipalities in the focal provinces on accessing public finance for Eco-DRR
	<p>Output 2.2: Ecosystem-based and grey-green approaches integrated into policy and planning for National, Provincial and Municipal disaster risk reduction</p>	<ul style="list-style-type: none"> • Integrate Eco-DRR and green and grey infrastructure approaches⁴⁶ into Sector Plans, Integrated Development Plans, Disaster Management Plans and infrastructure in pilot municipalities • Identify adaptation and risk reduction activities and assign roles and responsibilities for execution/ implementation through the One Plan process • Scale successful approaches beyond the focal municipalities • Hold national conference for Provincial and District Disaster Management Centres and local government officials, learning how to apply the model developed (with data on costs, impacts etc.) for rehabilitation of ecological infrastructure • Tertiary institution to develop and pilot a short course for local government planners, engineers and accountants on applying planning tools for disaster preparedness and grey-green engineering for service delivery and disaster risk reduction
<p>Component 3: Upscaling of pathways for integrated and transformative ecosystem-based approaches to climate-intensified disaster risk reduction (GCF finance: \$5 million)</p>	<p>Output 3.1: New and existing public and private financing mechanisms unlocked to sustain and up-scale Eco DRR</p>	<ul style="list-style-type: none"> • Explore feasibility for unlocking new financial mechanisms for ecosystem rehabilitation and sustainable land management (MIG and other grants, water trading accounts and utilities, etc.) • Explore the feasibility of unlocking private finance for ecosystem management and Eco DRR including through the NRM land user incentive mechanism • Explore feasibility of unlocking the insurance industry on collective risk reduction through the Partnership for Risk Reduction (P4RR) • Explore the feasibility of value-added industries to create revenue streams for ecosystem rehabilitation including through value chain studies on utilizing biomass for development of SMMEs

⁴⁵ For example: fire breaks, heat shelters, earth dams, flood-damaged irrigation.

⁴⁶ For example: reinforcing river banks, reconnecting wetland channels, developing a constructed treatment wetland, removing alien plants from an aquifer recharge area, developing a new municipal firebreak, flood-proofing roads and bridges; desilting of dams; rehabilitating flood-damaged irrigation schemes, improving earth dams.



<p>Co-finance: \$10.055 million)</p>	<p>Output 3.2: Evidence base for Eco-DRR developed and shared</p>	<ul style="list-style-type: none"> • Convene dialogues and conferences on unlocking finance through public sector, private sector, commercial banking and development finance institutions for green infrastructure and Eco-DRR • Partner with tertiary/research institutions to undertake longitudinal impact studies on, e.g. impact of rehabilitation and management on ecological resilience and vulnerability reduction • Capture lessons in case studies, policy briefs and other relevant knowledge management tools for national and international dissemination • Communications and advocacy work to make the case for Eco-DRR, its effectiveness and cost-effectiveness • Share evidence in support of resource mobilisation and national scaling and replication through online learning networks and government’s Green Book tool • Regional learning exchanges between South Africa and other SADC / LIMCOM countries, and global exchanges with other countries with GCF-funded disaster risk reduction projects
<p>Project Management Costs (GCF finance: \$1 million Co-finance: \$1.445 million)</p>		
<p>TOTAL (GCF finance: \$20 million Co-finance: \$28.9 million)</p>		

Annex 4: Indicative Project Preparation Facility (PPF) Activities

The table below sets out a preliminary list of studies and activities that are envisaged to form part of the programme of work that will be undertaken as part of the development of the full Funding Proposal for which PPF support will be requested.

Component	Outputs	Indicative Activities
<p>PPF for enabling studies:</p> <ul style="list-style-type: none"> • Site based risk and vulnerability assessments, feasibility assessments (detailed in project components) • Baseline studies for project indicators, baselines and targets (including spatial) • Institutional due diligence assessments • Stakeholder Engagement Plan and Project-Level Grievance Redress Mechanism • Gender Analysis and Gender Action Plan • Economic Analysis • Environmental and Social Impact Assessment / Environmental and Social Management Plan 		
<p>Component 1: Rehabilitation of vulnerable catchments and landscapes to reduce drought, flood and wildfire risk</p>	<p>Output 1.1: Climate risk management better integrated into policy and planning for landscape rehabilitation and management</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Select focal landscapes for project interventions for rehabilitation • Conduct legal, institutional and policy review and identify opportunities for policy reform in support for Eco-DRR
	<p>Output 1.2: Community vulnerability reduced through large scale and integrated rehabilitation of catchments (quinary) in focal landscapes</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Work with stakeholders to select focal landscapes for project, including focal quinary catchments for rehabilitation and focal municipalities for support to settlement resilience • Establish integrated landscape management governance structures for participatory and climate-risk informed land use planning and management (in line with district spatial and development plans) • Conduct risk and vulnerability assessments with communities • Assess sites and develop detailed management plans, monitoring protocols and costed action plans for rehabilitation, follow-up and maintenance operations
	<p>Output 1.3: Rehabilitated catchments and landscapes maintained and managed for sustained risk reduction</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Undertake feasibility study to identify opportunities for community involvement in SMMEs for ecosystem management and rehabilitation



<p>Component 2: Integration of ecosystem-based approaches into settlement planning and disaster risk reduction and preparedness to build resilience</p>	<p>Output 2.1: Disaster preparedness for drought, flood and wildfire improved in vulnerable settlements in focal landscapes</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Undertake risk and vulnerability assessment of settlements in selected focal landscapes; identify barriers to reducing risk and vulnerabilities to flood, fire and drought; and scope potential interventions and funding sources to overcome these • Investigate mechanisms for investing in municipalities with high vulnerability that do not have the institutional capacities to receive and disburse GCF and other funds • Work through integrated landscape management governance structures to select priority responses to reduce vulnerability • Explore the feasibility of aligning the Community Works Programme with efforts to build resilience in vulnerable settlements in focal landscapes⁴⁷
	<p>Output 2.2: Ecosystem-based and grey-green approaches integrated into policy and planning for National, Provincial and Municipal disaster risk reduction</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Undertake review of national, provincial and municipal policies, plans and operational guidelines to identify opportunities where Eco-DRR can be integrated into settlement planning. • Policy and plan review to identify opportunities to include Ecological Infrastructure, natural capital, green-grey technologies and approaches
<p>Component 3: Upscaling of pathways for integrated and transformative ecosystem-based approaches to climate-intensified disaster risk reduction</p>	<p>Output 3.1 New and existing public and private financing mechanisms unlocked to sustain and up-scale Eco DRR</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Undertake a formal Expenditure and Performance Review of national land rehabilitation programmes
	<p>Output 3.2: Evidence base for Eco-DRR developed and shared</p>	<p>PPF baseline studies:</p> <ul style="list-style-type: none"> • Undertake a baseline survey of attitudes towards and understanding (of public, government, key stakeholders) towards Eco-DRR, to be repeated at project mid-point and end

⁴⁷ For example: fire breaks, heat shelters, earth dams, flood-damaged irrigation.

Annex 5: List of possible interventions typically undertaken to rehabilitate degraded catchments

The table below broadly outlines a typical suite of interventions that that could be implemented by Department of Forestry, Fisheries and the Environment: Natural Resource Management to rehabilitate degraded catchments. It must be stressed that for the proposed GCF project, the interventions to be implemented through Component 1 will be based on those outlined below, but will be: i) implemented in areas of climate vulnerability to build resilience of communities and ecosystems; and ii) adapted if necessary to respond to climate vulnerabilities and not necessarily the business as usual activities that have been implemented to date. The actual on-the-ground interventions to be implemented will be finalised in the full Funding Proposal development stage.

Table 1: List of possible interventions typically undertaken to rehabilitate degraded catchments

Focus	Intention
Clearing of invasive alien plants	
To prevent, contain and reduce the density and distribution of established, invasive alien species in order to reduce their negative effects on the environment.	<p><i>For terrestrial Invasive Alien Plants:</i> This will involve a focus on the priority water catchments.</p> <p><i>For aquatic Invasive Alien Plants:</i> To prevent, arrest and diminish the density and distribution of aquatic invasive alien plants in order to ensure the safe and secure provision of water and to improve the biodiversity of aquatic systems. This will primarily involve a strategy of containment and asset protection of the existing impoundments priority areas; using an integrated approach with bio-control, mechanical and chemical methods that are preferably labour intensive.</p>
Dryland rehabilitation	
To regain natural habitat composition, structure and function in order to enhance and secure the delivery of ecosystem services, improve the productive potential of the land, and invest in ecological infrastructure.	This will be achieved by focusing on degraded land in priority areas to improve biodiversity, increase carbon sequestration, enhance water regulation and purification, and increase the resilience of landscapes to natural disasters. An integrated approach will build sustainable land management practices through advocacy and awareness, education and demonstration programmes, with partnerships between State departments and landowners.
Wetland rehabilitation	
To rehabilitate wetlands with ecological and engineered infrastructure in order to restore hydrological function that underpins water flow and quality regulation.	There will be a focus on wetland priority areas with the aim to prevent and reduce the degradation of wetlands, and increase the number of hydro-geomorphic units and hectare equivalents rehabilitated or undergoing rehabilitation. This will involve addressing the causes of wetland degradation and carrying out the rehabilitation of priority wetlands in order to improve the regulation of water flows, improve water quality and increase biodiversity.
Forestry support	
Sustainable forest management, responsible forest management, preventing invasions from plantations.	
Provision of biomass	
Supporting economic and employment development opportunities through provision of cleared invasive alien biomass to the market.	Feeding biomass into the sector, with key success measured in off take volumes. Enhancing employment, improving environmental impacts by removing dead material (reducing risks of fire and flood damage).

Annex 6: Stakeholder Consultations to Date

A list of meetings held with stakeholders that have informed the Concept Note development is provided below. In addition to the noted meetings, numerous interactions via email and telephone were held to discuss various ideas and comments received.

No	Date	Meeting focus	Organisation/ Dept.	Attendees
1	28/02/19	GCF Meeting with Department of Forestry, Fisheries and the Environment (DFFE) to discuss draft log-frame	<ul style="list-style-type: none"> SANBI Adaptation Policy and Resourcing Division (APR) DFFE Natural Resource Management (NRM) 	<ul style="list-style-type: none"> Michael Jennings Caroline Petersen Mandy Barnett Tara van Ryneveld Christo Marais Sarah Polonsky Ahmed Khan
2	03/04/19	Cost-effective disaster risk reduction through landscape rehabilitation meeting with National Treasury	<ul style="list-style-type: none"> SANBI APR National Treasury 	<ul style="list-style-type: none"> Michael Jennings Caroline Petersen Gcobisa Magazi Millicent Mulaudzi Steven Kenyon Amanda Matutu Anthea Stephens
3	03/04/19	Meeting with National Disaster Management Centre (NDMC) to discuss draft log frame	<ul style="list-style-type: none"> SANBI APR National Treasury 	<ul style="list-style-type: none"> Michael Jennings Caroline Petersen Ane Bruwer Soreta Odendaal
4	04/04/19	Project team meeting	<ul style="list-style-type: none"> SANBI APR DFFE-NRM 	<ul style="list-style-type: none"> Nokuthula Dubazane Mandy Barnett Caroline Petersen Mpfunzeni Tshindane Tara van Ryneveld Sarah Polonsky Christo Marais
5	10/04/19	Working Group 10 presentation on SANBI's shortlisted project focus and presentation of draft Eco-DRR log-frame for input and comments.	<ul style="list-style-type: none"> National and Provincial government sectors 	<i>Various provincial and national sector representatives</i>
6	11/04/19	Meeting with SANBI Biodiversity Planning division to discuss the project spatial prioritisation process.	<ul style="list-style-type: none"> SANBI APR SANBI Biodiversity Planning 	<ul style="list-style-type: none"> Nokuthula Dubazane Mandy Barnett Caroline Petersen Mpfunzeni Tshindane Tara van Ryneveld Fahiema Daniela Laetitia Piers Moore Malatji Kedibone Ndlovu
7	8/04/19-12/04/19	Separate engagement with the GCF Secretariat on the: draft project log frame; SAP process; and Environmental and Social Specialist requirement on SAP proposals	<ul style="list-style-type: none"> SANBI APR GCF Secretariat 	<ul style="list-style-type: none"> Jacinto Buenfil Demitrio Innocenti, Jose Frazier Gomez
8	16/04/19	Meeting with to explore the potential to support district municipalities to access the Municipal Infrastructure Grant for ecological infrastructure.	<ul style="list-style-type: none"> SANBI APR Public Finance and Governance Advisor 	<ul style="list-style-type: none"> Nokuthula Dubazane Caroline Petersen Tara van Ryneveld David Savage

9	17/04/19	Meeting to understand SAEON's existing climate spatial prioritisation and existing datasets	<ul style="list-style-type: none"> • SANBI APR • SAEON 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mpfunzeni Tshindane • Jasper Slingsby
10	18/04/19	Project Team meeting: reviewing comments received from GCF on draft log frame	<ul style="list-style-type: none"> • SANBI APR • DFFE-NRM 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Caroline Petersen • Mpfunzeni Tshindane • Tara van Ryneveld • Christo Marais • Ahmed Khan
11	23/04/19	Spatial Prioritisation: Exploring the role of the Green Book on the GCF Eco-DRR spatial prioritisation and hazard mapping.	<ul style="list-style-type: none"> • SANBI APR • SANBI BIPA • CSIR 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mpfunzeni Tshindane • Caroline Petersen • Tara van Ryneveld • Fahiema Daniels • Alize Le Roux
12	24/04/19	Presentation of draft Concept Notes to the National Adaptation Funds Advisory Body (NAFAB)	<ul style="list-style-type: none"> • SANBI APR • DFFE-NDA • DFFE-Adaptation • Adaptation Network • Department of Science and Technology 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Michael Jennings • Mpfunzeni Tshindane • Caroline Petersen • Zaheer Fakir • Tlou Ramaru • Henry Roman • Makganthe Maleka • Sentle Tabane
13	26/04/19	Spatial prioritisation and mapping meeting with Biodiversity Information and Policy Advice (BIPA)	<ul style="list-style-type: none"> • SANBI APR • SANBI BIPA 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Caroline Petersen • Mpfunzeni Tshindane • Tara van Ryneveld
14	27/04/19	Initial discussion with Director: Biodiversity Pressures and Responses to explore linkages between Eco-DRR project and recommendations from Status of invasion report	<ul style="list-style-type: none"> • SANBI APR • SANBI Biodiversity Pressures and Responses 	<ul style="list-style-type: none"> • Mandy Barnett • Nokuthula Dubazane • Sebataolo Rahlao
15	07/05/19	Meeting with DFFE Adaptation Directorate and CSIR Green Book to discuss synergies between Eco-DRR project and Green Book Phase II implementation	<ul style="list-style-type: none"> • SANBI APR • DFFE-Adaptation • CSIR 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Michael Jennings • Tara van Ryneveld • Mikateko Sithole • Faith Nkohla • Lindelani Mudao • Tlou Ramaru • Alize Le Roux
16	15/05/19	Green Book Follow up discussion: Defining the methodology for spatial prioritisation	<ul style="list-style-type: none"> • SANBI APR • CSIR 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Caroline Petersen • Alize Le Roux
17	17/05/19	Project Team meeting: Discussing comments on draft Concept Note	<ul style="list-style-type: none"> • SANBI APR • DFFE-NRM • DFFE-Biodiversity & Conservation 	<ul style="list-style-type: none"> • Nokuthula Dubazane • Mandy Barnett • Caroline Petersen • Mpfunzeni Tshindane • Tara van Ryneveld • Sarah Polonsky • Christo Marais

				<ul style="list-style-type: none"> Barney Kgope
18	29/05/19	Presentation of the draft Concept Note at the Status of Invasive Report Meeting for input and comments.	<ul style="list-style-type: none"> SANBI APR SANBI Biodiversity Pressures and Responses Stellenbosch University 	<ul style="list-style-type: none"> Nokuthula Dubazane Caroline Petersen Prof Brian Van Wilgen Tsungai Zengeya Monica Klass
19	26/06/19	Meeting with Conservation International and DFFE-NRM	<ul style="list-style-type: none"> SANBI DFFE-NRM Conservation International 	<ul style="list-style-type: none"> Mpfunzeni Tshindane Mandy Barnett Caroline Peterson Christo Marais Sarah Frazee
20	18/06/19	Presentation of draft Concept Notes to the SANBI Climate Funds Oversight Committee (CFOC)	<ul style="list-style-type: none"> SANBI CFOC 	<ul style="list-style-type: none"> SANBI CFOC members
21	12/07/19	Presentation of draft Concept Notes to the SANBI Executive Committee (EXCO)	<ul style="list-style-type: none"> SANBI EXCO 	<ul style="list-style-type: none"> SANBI EXCO members
22	24/07/19	Presentation of draft Concept Notes to the SANBI Research, Development and Innovation Committee (RD&I)	<ul style="list-style-type: none"> SANBI RD&I Committee 	<ul style="list-style-type: none"> SANBI RD&I Committee members
23	15/08/19	Presentation of the draft Concept Notes to the SANBI Board	<ul style="list-style-type: none"> SANBI Board 	<ul style="list-style-type: none"> SANBI Board members
24	17/09/ 19	Project team meeting: reviewing final Concept Note	<ul style="list-style-type: none"> DFFE-NRM SANBI APR 	<ul style="list-style-type: none"> Mandy Barnett Christo Marais Nokuthula Dubazane Michael Braack Ahmed Khan Mpfunzeni Tshindane
25	25/09/19	Presentation of draft concept note and logframe to NDMC	<ul style="list-style-type: none"> NDMC SANBI APR 	<ul style="list-style-type: none"> Mandy Barnett Nokuthula Dubazane Ane Bruwer
Initial Concept Note submission in September 2019				
26	03/12/19	Project Spatial Mapping Workshop	<ul style="list-style-type: none"> SANBI NDMC NRM 	SANBI and Technical Mapping Units from NDMC and DFFE NRM
27	10/02/20	Eco-DRR Core Reference Team Meeting	<ul style="list-style-type: none"> SANBI NDMC DFFE B&C Consultants 	Core Eco-DRR Reference Group Members
28	16/09/20	Eco-DRR Core Reference Group Meeting	<ul style="list-style-type: none"> SANBI NDMC DFFE B&C 	Core Eco-DRR Reference Group Members
29	10/11/20	Follow Up Bilateral with NDMC on Mapping Climate Hazards	<ul style="list-style-type: none"> SANBI NDMC 	SANBI and NDMC
30	30/04/21	District Pilot Selection for Eco-DRR Project Workshop	<ul style="list-style-type: none"> SANBI DFFE NRM DFFE ACF DFFE CCA UCT ACDI CSIR NDMC 	Eco-DRR Project Partners, Academic Researchers and Experts on Floods, Fire and Drought

Annex 7: Pre-feasibility Study

Due to the size of this Annex, it has been included as a separate document.

Please note that the Pre-Feasibility Study was completed by C4 Eco-Solutions with funding from GIZ as part of the Expression of Interest submitted to SANBI in April 2018 for a project on “Building climate-resilience through ecosystem-based adaptation and natural resource-based businesses”. This Expression of Interest was an important informant of the proposed GCF project and, although targeting slightly different areas, the information contained in the Pre-feasibility Study is highly informative and relevant.

Annex 8: Results of environmental and social risk screening

The “Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa” project falls into the GCF’s Environmental and Social Safeguard (ESS) **Category B**, i.e. “**Activities with potential limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures**”.

The proposed project is focused on implementing ecosystem-based approaches to climate change adaptation and disaster risk reduction, and includes undertaking large-scale rehabilitation focal landscapes in rural areas where communities are highly vulnerable to drought, flood and wildfire risks, intensified by climate change. Landscape rehabilitation will address these vulnerabilities by: i) increasing the supply of groundwater and surface water from catchment areas to alleviate drought conditions; ii) reducing the impacts of extreme rainfall events, specifically floods and soil erosion; and iii) reducing wildfire risk associated with drier, more flammable biomass and increased temperatures.

The project is considered to be an ESS **Category B** project primarily because, whilst activities will have positive ecological impacts, some interventions, if poorly planned and executed, have the potential to result in adversely impacts on ecosystem functioning in the focal landscapes and on the vulnerable communities that depend on these. Such activities include, for example, the stabilisation of river banks and rehabilitation of wetlands and grasslands to provide multiple environmental benefits including biodiversity protection and the restoring of ecosystem services, including improved groundwater retention, increased river baseflows, regeneration of soil fertility, enhanced soil stability and improved grazing productivity. However, the implementation partners are mandated to comply with national norms and standards which will, at a minimum, prevent such adverse impacts from occurring. South Africa’s Environmental Impact Assessment (EIA) legislation is clear on the process that must be followed in identifying and mitigating possible impacts, through conducting EIAs and Basic Assessments. The relevant project activities will be implemented under the suite of Department of Forestry, Fisheries and the Environment: Natural Resource Management (DFFE: NRM) programmes which ensure that South Africa addresses its responsibilities relating to water resource management, biological diversity and the functioning of natural systems whilst ensuring meaningful livelihood opportunities are supported for those employed on these programmes. Where such assessments/approvals are required for project activities, these will fall under the Provincial Authorisations process administered by DFFE: NRM in terms of the requirements of the National Environmental Management Act (Act 107 of 1998), as amended. This process involves the submission of Basic Assessment Reports to obtain a provincial level authorisation for the relevant activities. Such authorisations will need to be provided in writing before any rehabilitation activities can take place.

Through this process it will be confirmed that all relevant activities have at worst limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures.

In preparing the GCF Concept Note for this project, as well as this Project Preparation Facility application, SANBI’s Environmental and Social Safeguard screening process was followed. SANBI’s Project Management Policy prescribes that all “Large” projects, i.e. projects in excess of ZAR1 million of external funding, need to be approved by SANBI’s Biodiversity Science & Policy Advice Branch prior to submission to the donor. This approval is based on the submission of an internal SANBI Concept Note, which includes an assessment of the proposed project against a set of Environmental and Social Safeguards (ESS). Once approved by Branch, the proposed project is tabled at SANBI’s Research, Development and Innovation Committee, which is a sub-committee of SANBI’s Board. An extract of this Concept Note, including the Basic Information section and the ESS assessment, is included below as Annex 8.1.

SANBI’s Environmental and Social Safeguards are based on those of the Adaptation Fund, as outlined in the Adaptation Fund’s Environmental and Social Policy (as amended in 2016). As an additional process specific to GCF projects, SANBI has developed a Social and Environmental Screening Checklist and Categorization Process. This includes screening the activities of the proposed project against the GCF’s Performance Standards from its Environmental and Social Policy, and categorizing resultant risks. The results of this process are included as Annex 8.2.

Annex 8.1 Extract from the internal SANBI Concept Note submitted to SANBI's Biodiversity Science & Policy Advice Branch.



Annexure A to the Project Management Policy: Project Concept Note

PROJECT CONCEPT NOTE

This form must be filled in and submitted for all Small and Large Projects as defined in the SANBI Project Management Policy.

The Concept Note should provide a relatively brief outline of the proposed project. It should give sufficient detail to allow an evaluation of how the project contributes to SANBI's strategic objectives and provide an estimate of the resources required by the project (staff, operations, office, vehicles etc.). This Concept Note will be used to decide whether to approve the development of a more detailed proposal for submission to the donor.

1. Basic Information:

Title of proposed project	Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa
Indicative value	USD 20 million of GCF grant finance; USD 28.9 million co-finance
Expected timeframe	7 years (tentative plan to submit Funding Proposal to GCF in 2022)
Proposed Funder	Green Climate Fund (GCF)
Expected administration fee	N/A
Lead Division	Adaptation Policy and Resourcing
Project Leader	Dr Mandy Barnett
Project Manager	TBC
Principal Investigator (if applicable)	N/A
Lead organisation (if not SANBI)	SANBI will be the GCF Accredited Entity. The project will be executed by the Department of Environment, Forestry and Fisheries with support from the Department of Cooperative Governance and Traditional Affairs.
Other partners	TBC

Appendix 1: Assessment of proposed project against Environmental and Social Safeguards.

To be completed by the Project Manager, but checked by the Approver as part of the approval process

Will the activities of the proposed project meet the standards of the following Environmental and Social safeguards?	Yes	No	Comments
<p>1. Compliance with the Law (Always Relevant) <i>Projects supported by SANBI shall be in compliance with all applicable national laws</i></p>	✓		Specifically, the planned rehabilitation activities will likely require environmental authorisation. The relevant Environmental Impact Assessment legislation under the National Environmental Management Act will be adhered to throughout the project.
<p>2. Access and Equity <i>Projects supported by SANBI shall provide fair and equitable access to benefits in a manner that is inclusive and does not impede access to services. Projects should not exacerbate existing inequities, particularly with respect to marginalized or vulnerable groups</i></p>	✓		
<p>3. Marginalised and Vulnerable Groups <i>Projects supported by SANBI shall avoid imposing any disproportionate adverse impacts on marginalized and vulnerable groups</i></p>	✓		
<p>4. Human Rights (Always Relevant) <i>Projects supported by SANBI shall respect and where applicable promote international human rights</i></p>	✓		
<p>5. Gender Equity and Women's Empowerment <i>Projects supported by SANBI shall be designed and implemented in such a way that both women and men: 1) are able to participate fully and equitably; 2) receive comparable social and economic benefits; and 3) do not suffer disproportionate adverse effects (if any)</i></p>	✓		
<p>6. Core Labour Rights (Always Relevant) <i>Projects supported by SANBI shall meet core labour standards as identified by national law</i></p>	✓		
<p>7. Indigenous Peoples <i>SANBI shall not support projects that are inconsistent with the rights of Indigenous Peoples.</i></p>	✓		
<p>8. Involuntary Resettlement <i>Projects supported by SANBI shall be designed and implemented in a way that avoids or minimizes the need for involuntary resettlement</i></p>	✓		
<p>9. Protection of Natural Habitats <i>SANBI shall not support projects that would involve unjustified conversion or degradation of critical natural habitats</i></p>	✓		
<p>10. Conservation of Biological Diversity <i>Projects supported by SANBI shall be designed and implemented in a way that avoids any significant or unjustified reduction or loss of biological diversity or the introduction of known invasive species</i></p>	✓		The project will include large-scale rehabilitation of degraded landscapes, which will have positive impacts on biological diversity.
<p>11. Climate Change <i>Projects supported by SANBI shall not result in any significant or unjustified increase in greenhouse gas emissions or other drivers of climate change</i></p>	✓		
<p>12. Pollution Prevention and Resource Efficiency <i>Projects supported by SANBI shall maximize energy efficiency and minimize material resource use, the production of wastes, and the release of pollutants</i></p>	✓		

<p>13. Public Health <i>Projects supported by SANBI shall be designed and implemented in a way that avoids potentially significant negative impacts on public health</i></p>	✓		
<p>14. Physical and Cultural Heritage <i>Projects supported by SANBI shall avoid the alteration, damage, or removal of any physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level</i></p>	✓		
<p>15. Lands and Soil Conservation <i>Projects supported by SANBI shall promote soil conservation and avoid degradation or conversion of productive lands or land that provides valuable ecosystem services</i></p>	✓		<p>The project will include large-scale rehabilitation of degraded landscapes, which will promote soil conservation and improve ecological functioning.</p>

Annex 8.2 SANBI's Social and Environmental Screening Checklist and Categorization Process for GCF projects

The checklist and categorization tables below have been adapted from the GCF's *Sustainability guidance note: screening and categorizing GCF-financed activities*, as well as from other tools used by other entities to screen for environmental and social risks in climate change projects.

The screening processes undertaken below serve to identify and assess, at the earliest stage possible, the likely environmental and social risks and impacts that could be reasonably anticipated from the design and execution of SANBI's GCF project activities.

As a preliminary process in due diligence, the screening of environmental and social risks of activities allows SANBI to:

- Identify the potential environmental and social risks and impacts of the activities;
- Analyse the identified risks and impacts to understand their potential significance;
- Assign an environmental and social risk category; and
- Determine applicable standards, policies and plans for meeting requirements, including the scope of further assessments.

This checklist and categorization tool is currently being applied in the Concept Note phase, as part of the application for Project Preparation Facility funds and to allow for appropriate due diligence planning for the activities. This is therefore a preliminary screening and follows a precautionary approach. A more comprehensive environmental and social assessment will be undertaken to further analyse specific risks and impacts during the full Funding Proposal development phase.

The categorisation below takes into account the scale of the activities, their proposed locations, descriptions of the intervention and technology that will likely be used, and the inherent risks of the activities associated with the sector and industry. Risks considered include direct, indirect, induced, transboundary, long term and cumulative risks as well as impacts from associated facilities and third parties.

The screening and categorisation are also fully cognisant of the laws applicable to the activities, including national laws and relevant international obligations policies, regulations and standards related to managing environmental and social risks and impacts that will need to be met and complied with in the course of the development and implementation of the activities.

Table 1: SANBI Social and Environmental Screening Checklist for GCF projects.

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS1: Assessment and management of environmental and social risks and impacts					
Will the activities involve transboundary negative impacts on air, water or other natural resources?			✓		
Are the activities likely to contribute to cumulative negative impacts?			✓		
Will the activities involve associated facilities and third-party impacts?			✓		
Are the activities likely to induce potential social conflicts?			✓		
Is there a risk that the accredited entities, executing entities and implementing agencies (grantees, sub-borrowers and proponents) lack the capacity to implement the environmental and social management plans/action plans?			✓		
PS2: Labour and working conditions					
Are the activities likely to negatively affect working conditions, particularly in terms of employment, compliance with labour and other laws pertaining to non-discrimination, equal opportunity, child labour, and forced labour of direct, contracted and third-party workers?			✓		
Will the activities pose occupational health and safety risks to workers, including supply chain workers?			✓		
PS3: Resource efficiency and pollution prevention					
Will the activities generate emissions; generate activity-related greenhouse gas emissions; use hazardous materials; generate noise and vibration; and/or generate waste including hazardous waste?			✓		
Are the activities likely to require significant consumption of raw materials, energy, and/or water?			✓		
Will the activities potentially result in the release of pollutants to the receiving environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?			✓		
Will the activities utilise resources in an unsustainable manner?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS4: Community health, safety and security					
Will the activities potentially generate risks and negative impacts on the health and safety of the affected communities, including impacts on ecosystem services affecting the local community health and safety?			✓		
Will activities related to construction, operation, or decommissioning pose potential safety risks to local communities?			✓		
Will the activities pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?			✓		
Does the project involve large-scale infrastructure development (e.g. dams, roads, buildings)?			✓		
Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)			✓		
Will the activities pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?			✓		
Do the activities involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?			✓		
Will the activities result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?			✓		
Will the activities increase the risk of sexual exploitation, abuse and harassment?			✓		
Will there be a need for an emergency preparedness and response plan that also outlines how the affected communities will be assisted in emergencies?			✓		
Will there be potential risks posed by the security arrangements and potential conflicts at the project site between the workers and the affected community?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS5: Land acquisition and involuntary resettlement					
Would the Project potentially involve temporary or permanent and full or partial physical displacement?			✓		
Are the activities likely to involve the acquisition of lands, land rights or land-use rights through expropriation or other compulsory procedures in accordance with the legal system of the country?			✓		
Are the activities likely to alter existing land use and restrict access to natural resources resulting in loss of livelihoods and other economic activities?			✓		
PS6: Biodiversity conservation and sustainable management of living natural resources					
Will the project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? (For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes)		✓			See Risk 1 in Table 2
Will the project potentially cause adverse impacts within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?		✓			See Risk 1 in Table 2
Does the project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?		✓			See Risk 1 in Table 2
Does the project involve significant extraction, diversion or containment of surface or ground water (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)?			✓		
Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area?			✓		
Is the project or programme likely to introduce invasive alien species of flora and fauna, affecting the biodiversity of the area?			✓		
Is the project or programme likely to have potential long term negative impacts on biodiversity (especially critically endangered and/or endangered species, endemic or restricted-range species, and globally significant migratory or congregatory species) and ecosystem services, including production of living natural resources?			✓		

Checklist Potential Social and Environmental Risks	Yes	No, if correctly mitigated	No	N/A	Comment on Risk implications
PS7: Indigenous peoples					
Are indigenous peoples present in the Project area (including Project area of influence)?			✓		
Are the activities likely to have impacts on indigenous peoples and communities, such as impacts on lands and natural resources, land tenure and on cultural resources?			✓		
Are the activities likely to lead to physical displacement of indigenous peoples and/or restrict the access of indigenous peoples to lands and resources resulting in loss of livelihood?			✓		
Will the activities provide equitable opportunities to indigenous peoples and other vulnerable groups during stakeholder consultation and in decision-making during the preparation, implementation, monitoring and evaluation of the activities?				✓	
Will the activities need to obtain free, prior and informed consent (FPIC)? If so, has the project obtained FPIC?				✓	
PS8: Cultural heritage					
Will the project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?			✓		
Does the project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?			✓		

Table 2: Categorization of Environmental and Social Risks identified through the Screening undertaken in Table 1 above.

What are the main Potential Social and Environmental Risks?	What is the level of significance of the potential social and environmental risks?		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Description of assessment and management measures that should be reflected in project design</i>
<p>Risk 1: Activities related to Component 1 (<i>Rehabilitation of vulnerable catchments and landscapes to reduce drought, flood and wildfire risk</i>) are poorly designed and adversely affect communities and ecosystems</p>	<p>Pre management/ mitigation measures: I = 3 P = 3</p> <p>Post management/ mitigation measures: I = 1 P = 1</p>	<p>Pre management/ mitigation measures: Moderate</p> <p>Post management/ mitigation measures: Low</p>	<p>The activities of Component 1 include, for example, clearing of alien invasive plants, dryland and wetland rehabilitation, forestry support and provision of biomass to support economic and employment opportunities. If poorly planned and executed, these activities could potentially lead to downstream negative impacts, including those related to erosion, siltation and the compromising of ecosystem functioning in the catchments being rehabilitated. This would have severe impacts on the ability of ecosystems in the Project Target Areas to buffer communities against the impacts of climate change. However, the Component 1 implementing partners (led by the Department of Forestry, Fisheries and the Environment, DFFE) are mandated to comply with national norms and standards which will, at a minimum, prevent such adverse impacts from occurring. South Africa’s Environmental Impact Assessment (EIA) legislation is clear on the process that must be followed in identifying and mitigating possible impacts, through conducting EIAs and Basic Assessments. The relevant project activities will be implemented under the suite of DFFE: Natural Resource Management programmes which ensure that South Africa addresses its responsibilities relating to water resource management, biological diversity and the functioning of natural systems whilst ensuring meaningful livelihood opportunities are supported for those employed on these programmes.</p> <p>The focal landscapes of the project (Implementation Sites will be confirmed in the Project Preparation phase) are likely to be within or adjacent to critical habitats and/or environmentally sensitive areas, possibly including legally protected areas or recognized as such by authoritative sources and/or indigenous peoples or local communities. However, as noted above, the project will rehabilitate landscapes through an ecosystem-based approach to climate change adaptation and disaster risk reduction, to address the needs of vulnerable communities. This will: i) increase the supply of groundwater and surface water from catchment areas to alleviate drought conditions; ii) reduce the impacts of extreme rainfall events, specifically floods and soil erosion; and iii) reduce wildfire risk associated with drier, more flammable biomass and increased temperatures. The project will therefore have</p>

			positive ecological impacts where it is implemented, including within or adjacent to critical habitats and/or environmentally sensitive areas.
What is the overall Project risk categorization?		Comments	
Category A: Activities with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or unprecedented	<input type="checkbox"/>		
Category B: Activities with potential limited adverse environmental and/or social risks and impacts that individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures	<input checked="" type="checkbox"/>	The risks and impacts noted above are considered limited, with low to moderate significance. The risks and impacts are few in number, contained within the footprint of the activities, largely reversible, and readily mitigated through generally accepted mitigation measures and nationally mandated practices.	
Category C: Activities with minimal or no adverse environmental and/or social risks and/or impacts	<input type="checkbox"/>		