



OUTPUT 4.1: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) – (FINAL – V1.3)

Provision of Project Preparation Services to the South African National Biodiversity Institute (SANBI) through the GCF Project Preparation Facility (PPF)

11 April 2025

EXECUTIVE SUMMARY

This report is the Environmental and Social Management Framework (ESMF) prepared to support the Eco-DRR project. This document provides a systematic and structured approach to screen, assess, manage and mitigate the potential environmental and social risks and impacts associated with the Eco-DRR project and associated interventions. The ESMF helps ensure that projects interventions are carried out responsibly and sustainably, complying with legal requirements and international standards, and fostering positive relationships with affected communities. The ESMF promotes good governance, outlining necessary procedures associated with the project activities thus contributing to the overall success and acceptance of the programme.

ENVIRONMENTAL GOVERNANCE, LEGAL AND INSTITUTIONAL FRAMEWORKS

Prior to implementation of this ESMF, it is important to understand South Africa's environmental governance frameworks, specifically any legislation that may trigger various legal requirements that will need to be complied with during implementation of the Eco-DRR project.

As noted in the **National Environmental Management Act (NEMA), 1998** and the **Environmental Impact Assessment Regulations, 2014 (as amended)**, activities listed in the Listing Notices (1,2 and 3) require an Environmental Authorisation from the Competent Authority before commencement of the activity. The Competent Authority may be the Department of Forestry, Fisheries and the Environment (DFFE) or a provincial department of environmental affairs, or the Department of Mineral Resources and Energy in respect of mining related activities. Before any project activities can begin (such as the removal of vegetation or the undertaking of earthworks), DFFE will be consulted to determine whether any project activities constitute "listed activities" under the Listing Notices. Should a listed activity be triggered, it will necessitate application to the Competent Authority for an Environmental Authorisation. In order to apply for an environmental authorisation an Environmental Impact Assessment must be conducted, and this process will be led by an Environmental Assessment Practitioner.

Similarly, the **National Water Act (1998)** requires a water use licence for certain water uses – namely those that impede or diverting the flow of water in a watercourse as well as any activities that alter the bed, banks, course or characteristics of a watercourse. The Department of Water and Sanitation (DWS) or a Catchment Management Agency (CMA) (if established and operational in the water management area) is responsible for authorisation and issuance of water use licences.

Lastly, as per the **National Heritage Resources Act (1999)**, any activities that may impact a heritage site requires a heritage impact assessment to be undertaken. Heritage impact assessments complement environmental impact assessments but looks at assessing the impacts of the proposed activity on heritage resources as well as providing mitigation measures to limit the effect of that impact (Heritage Western Cape, 2016). The authority responsible for reviewing and approving the heritage impact assessment is the South African Heritage Resources Agency (SAHRA) (for national level activities), Provincial Heritage Resources Authorities (for provincial level activities) and municipalities (for local level activities). At a provincial and local level, these authorities must be declared competent authorities by SAHRA (Harlech-Jones, 2012).

Bearing the above in mind, it is important to understand which activities in the Eco-DRR project will trigger an environmental impact assessment, a heritage impact assessment or a water use licence. The table below presents the specific provisions / clauses and what activities in the Eco-DRR project may trigger these clauses / provisions.

Table O-1: Activities that may trigger an environmental or heritage impact assessment for the Eco-DRR project

Legislation / Regulation	Relevant Provision / Clause	Impact	Trigger Activities in the Eco-DRR Project
Environmental Impact Assessment Regulations (2014) Listing Notice 1	12: The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the NEMBA (2004).	<ul style="list-style-type: none"> Impacts may include habitat loss; erosion; and negative impact on populations of threatened species (vulnerable, endangered and critically endangered) (Endangered Wildlife Trust, n.d.). 	Under Output 1.1. of the Eco-DRR project, vegetation may be transformed or removed. While it is expected that mostly invasive alien plants (IAPs) will be targeted, the transformation of indigenous vegetation may take place within a critically endangered or an endangered ecosystem.
National Water Act (1998)	<ul style="list-style-type: none"> Part 1 General Principles. Water use is defined broadly, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation. In general, a water use must be licenced unless it is listed in Schedule 1, is an existing lawful use, is permissible under a general authorisation, or if a responsible authority waives the need for a licence. 21. Water use: For the purpose of this Act, water use includes- <ul style="list-style-type: none"> (c) impeding or diverting the flow of water in a watercourse; (i) Altering the bed, banks, course or characteristics of a watercourse. Section 41(2): A responsible authority “may, to the extent that it is reasonable to do so, require the applicant, as the applicant’s expense, to obtain and provide it by a given date – with ...an assessment by a competent person of the likely effect of the proposed licence on the resource quality; and ...may conduct its own investigation on the likely effect of the proposed 	<ul style="list-style-type: none"> Changes to natural flows and watercourses’ beds or banks can have downstream impacts including damage wetlands, loss of habitat for flora and fauna, disruption to ecosystems, dry river basins and leave communities vulnerable to flooding or drought. 	Under Output 1.1. of the Eco-DRR project, the removal of IAPs and rehabilitation of wetlands and riverine infrastructure may disrupt natural flows and alter watercourses’ beds or banks.

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Legislation / Regulation	Relevant Provision / Clause	Impact	Trigger Activities in the Eco-DRR Project
	<i>licence on the protection, use, development, conservation, management and control of the water resource”</i>		
National Heritage Resources Act (1999)	38(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)- (a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report.	<ul style="list-style-type: none"> Negative impacts include damage to national and provincial heritage sites, protected areas, heritage areas, and archaeological and palaeontological sites, including wrecks and meteorites (Endangered Wildlife Trust, n.d.). This includes damage to the physical nature of sites, degradation of the culture and lifestyle of host communities, threatening the value and integrity of cultural heritage and harm the social and cultural traditions of the community (ICOMOS, 2001; Fu, et al., 2023; Alamineh, et al., 2023) 	Under Output 1.1. of the Eco-DRR project, the final sites within the LMs will only be determined during the Operationalisation Phase of the project. However, no sites or interventions will be selected that negatively impact cultural heritage resources or areas (see Exclusion List).

In addition, SANBI has several frameworks and policies with regards to gender and environmental management including their **Environmental and Social Risk Management Framework**, their **Policy on Gender Mainstreaming** and their **Gender Mainstreaming Framework**. Further to the above, **GCF’s Environmental and Social Safeguard (ESS) Standards** will play a key role in guiding implementation of the Eco-DRR project to minimise or avoid any negative environmental and/or social impacts.

POTENTIAL SOCIAL AND ENVIRONMENTAL IMPACTS

The project will bring substantial positive impacts which are believed to outweigh any risks. Implementing EbA and Eco-DRR approaches can have several positive impacts on communities facing risks of flooding, wildfires and droughts as well as the institutions supporting implementing the Eco-DRR project such as DMs and LMs. The project also offers opportunities to the whole nation in terms of lesson learning and upscaling successful practices.

It is expected that the Eco-DRR project will have both minimal to no adverse impacts and some limited adverse impacts on the biophysical and socioeconomic environment. As such, overall, **the Eco-DRR project can be classified as a Category B project with some elements of Category C.** This means that there will be 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. This is because the project is not complex and/or large and does not involve activities that have a high potential for harming people or the environment. As such, the potential risks, impacts and issues are likely to have the following characteristics: (i) predictable and expected to be temporary and/or reversible; (ii) low in magnitude; (iii) site-specific, without likelihood of impacts beyond the actual footprint of the project;

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and (iv) low probability of serious adverse effects to human health and/or the environment. The project's risks and impacts can be easily mitigated in a predictable manner.

The table below lists the potential impacts / risks and possible mitigation measures that are to be considered during implementation of any of the selected interventions.

Table 0-2: Impacts and mitigation measures for interventions – particularly those linked to Output 1.1

Potential Impacts/Risks	Possible mitigation measures
Change in landscape and land use	Good housekeeping and site management to reduce potential negative visual impacts and limit areas that are disturbed Design of facility to be in keeping of surrounding environment
Visual impact of site	Screening of site camp visual elements Good housekeeping of the site Once sites are finalised during the Operationalisation Phase, engagement with communities will be held to understand possible visual impact and how this can be mitigated and/or avoided.
Dust	Keep roads clean Ensure vehicle speed limits onsite are kept to a minimum and below 20 km/hour Maintain groundcover for as long as possible to reduce the total surface area exposed to wind Wet dry and dusty areas using non-potable water Cover fine material stockpiles
Noise	Limit noise levels (e.g. install and maintain silencers on machinery) Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise Provision of training for workers and communities involved in implementation of interventions Provision of personal protective equipment
Litter and waste generation	Manage waste collection areas (weather / windproof and animal proof) Daily litter collection Provision of adequate bins with lids Weekly disposal scheduled Proper management of any hazardous wastes generated
Surface, groundwater, and soil contamination	Ensure use of best available technologies Contain wastewater before correct disposal e.g. contaminated water discharged into a conservancy tank / lined area Manage run-off and stormwater from intervention activities Site to provide adequate sanitation facilities Introduction of best available technologies to support contamination prevention.
Loss of vegetation / habitat and ecological processes / biodiversity	Undertake search and rescue before implementation commences Consider establishing a no-go area and habitat / vegetation buffer around the site Limit working area as far as possible where there is natural vegetation
Impact on existing site operations (due to shared access road / entrance)	Facility vehicles / staff to have right of way over other vehicles (including delivery vehicles and subcontractors) Appropriate security controls in place Existing facility and infrastructure to be regarded as a no-go area
Labour	Source labour force locally Ensure SEAH procedures and GRMs are in place and operationalised Implement gender action plan recommendations Comply with Occupational Health and Safety Act (No. 85 of 1993)
Community / Stakeholders	Engage with stakeholders and implement stakeholder engagement plan recommendations
Community safety	Develop community safety plan together with stakeholders.
SEAH	Undertake an intervention level due diligence of exposure to these risks and develop, implement and monitor a sexual exploitation, abuse and harassment management plan. The management plan will form part of the project specific SEAH policy and protocol, which will be in place before the

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Potential Impacts/Risks	Possible mitigation measures
	start of the project, and strengthened through the Operationalisation Phase, if required.

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

The ESMF provided herein, gives the tools and approach that the Eco-DRR will utilise to assess the environmental and social impacts of each intervention¹, providing the various management instruments to address and mitigate challenges and conflicts towards ensuring interventions are exemplar in their configuration. It is important to note that this ESMF will only apply to interventions under Output 1.1. which entails IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions²) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits). To ensure that all intervention activities under Output 1.1. are compliant with national legislation and GCF safeguards, adherence to this ESMF will be critical. This includes conducting a due diligence for the Eco-DRR project during the Operationalisation Phase, followed by the implementation of the ESMF, closure and ongoing monitoring and reporting.

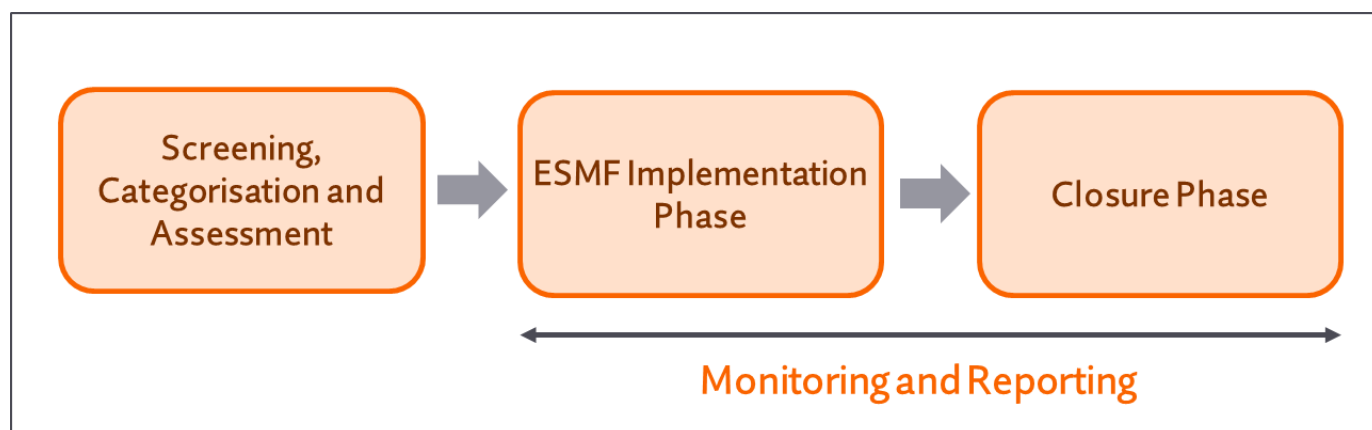


Figure 0-1: ESMF for the Eco-DRR project

The phases of the ESMF include the following:

Screening, Categorisation and Assessment Phase – This phase aims to ensure that a comprehensive due diligence is conducted during the Operationalisation Phase (18 months) for relevant interventions under Output 1.1. During this phase, an in-depth appraisal will be conducted that builds on the initial appraisal undertaken in Table 5-3 coupled with stakeholders engagements with environmental authorities to ascertain if any of the proposed activities will trigger an environmental impact assessment or a water use licence. It is expected that intervention specific Environmental and Social Management Plans (ESMPs) will be developed where required for relevant interventions under Output 1.1 during the diligence phase that build on the ESMF contained in this document. The need and development of ESMPs will be guided by environmental regulations which provide a clear legislative framework for ESIA triggers and requirements.

¹ For the purposes of disclosure, each intervention or each group of interventions within a defined geographical area will be treated as a subproject

² Hard infrastructure refers to built infrastructure interventions such as the construction of weirs, dams etc. Soft infrastructure refers to interventions that do not entail the development of built infrastructure such as clearing of IAPs, re-vegetation, use of biodegradable or natural soil retention systems etc.

ESMF Implementation Phase – This phase entails the implementation of this ESMF as well as any intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) that will have been developed during the screening, categorisation and assessment phase. During this phase, it is expected that reporting, training, and environmental auditing related to each of the relevant interventions under Output 1.1. It will be important to ensure that intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) align with this overarching ESMF during implementation.

Closure Phase– This phase seeks to provide a structured and coordinate approach for closure of relevant interventions under Output 1.1. High-level and generic requirements are included in this document that will need to be taken into consideration when closing relevant interventions including the need for a closure plan per intervention with detailed roles and responsibilities.

Monitoring and Reporting – This is seen as ongoing process that will be undertaken from the ESMF implementation phase all the way through to closure phase. The aim of monitoring is to assess the success rate of intervention activities under Output 1.1., determine whether interventions have handled negative impacts, and whether further interventions are required, or monitoring is to be extended in some areas. Monitoring also seeks to ensure compliance of the relevant interventions to this ESMF as well as intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs), national legislation and GCF ESS safeguards.

Screening, Categorisation and Assessment Phase

In accordance with GCF's policy, it is required to screen activities that include programmes, projects and interventions and following the result of the screening, to assign appropriate risk categories consistent with their environmental and social management systems and the GCF ESS standards. The objectives of environmental and social screening are to:

1. Evaluate the environmental and social risks associated with a proposed activity;
2. Establish the likely environmental and social risk category of the activities;
3. Identify opportunities to improve the environmental and social outcomes of the activities; and
4. Determine the extent and depth of environmental and social due diligence that will be undertaken and the appropriate environmental and social safeguards instruments and requirements that will be prepared, disclosed and submitted to the GCF (GCF, 2018).

The screening process involves professional judgment on a case-by-case basis and SANBI will exercise careful consideration of the potential environmental and social risks and impacts associated with the proposed activities and interventions. In screening the proposed interventions, SANBI will assign the risk category of proposed activities which will be proportional to the nature, scale and location of the intervention, the associated environmental and social risks and impacts, and the vulnerability of the receiving environments and communities. This shall be done in a manner consistent with the accreditation framework of the GCF, such as Categories A, B, and C for direct investments (GCF, 2018). These are described in more detail below:

- **Category A:** Interventions with potential significant adverse and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible or unprecedented.
 - Category A initiatives require a full and comprehensive ESIA and ESMF.

- **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.
 - Category B initiatives require a fit-for-purpose ESIA and an ESMP, with a more limited focus as may be appropriate, that describes the potential impacts, as well as appropriate mitigation, monitoring and reporting measures will be required.
 - In this regard, the development of ESIA's will also be guided by South Africa's environmental legislation and regulations which provides a clear framework for ESIA's and what triggers such assessments.
- **Category C:** Activities with minimal or no adverse environmental and/or social risks and/or impacts.
 - Category C initiatives have no expected significant environmental and social impacts and therefore may not require any assessments, although a pre-assessment or screening should confirm that the activities are indeed in Category C (GCF, 2021).

It is important to note that Category A interventions will be excluded from GCF financing under the Eco-DRR project (which is included in the Exclusion List).

SANBI, as the accredited entity, will ensure that all interventions comply with GCF ESS requirements during preparation and implementation of GCF funded interventions. For category B interventions, SANBI will conduct its own due diligence and prepare a report to confirm (i) that all key potential environmental and social impacts and risks of the proposed intervention are assessed and identified; (ii) that ESIA and ESMP commensurate to the impacts are prepared in accordance with GCF environmental and social safeguards standards; and (iii) that consultations with affected people are conducted in accordance with GCF's requirement.

While an initial screening is captured in Table 5-3, a more in-depth appraisal will be required during the Operationalisation Phase of the project to conduct the necessary stakeholders engagements with environmental authorities and undertake the requisite due diligence processes. To support this process, an indigenous people's impact screening checklist, a SEAH risk screening checklist, and an environmental and social risk screening checklist have been included in the appendices while Section 5.1.1. describes further due diligence checklists and guidelines for the screening of interventions. The exclusion list presented in the appendices also provides guidance on interventions that will not be considered under the Eco-DRR project. Noting the need for a comprehensive due diligence during operationalisation, the timeframes for public participation and periods for specialists undertaking impact assessments (where necessary) has been factored into the Operationalisation Phase of the Eco-DRR project which will be 18 months.

Once the final location of intervention sites under Output 1.1.³ has been confirmed and their respective activities finalised during operationalisation, a due diligence process will be undertaken (also during operationalisation) to assess if the proposed activities trigger a water use licence, an environmental impact assessment or a heritage impact assessment. This will require engaging with the relevant authorities during the Operationalisation Phase to understand if the activities pose any harm to the environment, communities and/or heritage resources. This due diligence will guide the implementation

³ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

requirements for the interventions and will inform the intervention level ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) to be developed for the relevant interventions under Output 1.1. These intervention level ESMPs will need to be developed during the due diligence phase in operationalisation.

During the due diligence, each relevant intervention must evaluate the applicability of the GCF ESS safeguards. None of the interventions under the Eco-DRR project will:

- Result in land acquisition and involuntary resettlement;
- Permanently or temporarily result in access restrictions on resources⁴;
- Impact indigenous peoples; or
- Harm cultural heritage resources.

As such, GCF's Performance Standard 5, 7 and 8 may not be applicable. However, this will need to be confirmed during the due diligence.

If it is determined that an environmental authorisation (and subsequent environmental impact assessment), water use licence or heritage impact assessment is required during the due diligence process, the relevant intervention will be subject to the legislative requirements. Thereafter, environmental and social risks and impacts will be assessed for each intervention and the intervention specific ESMP (where required as guided by regulations for environmental authorisations and ESIAs) that will be developed during the due diligence phase will need to consider these legislative requirements and actions to ensure compliance.

ESMF Implementation Phase

Effective mitigation strategies within the Eco-DRR project rely heavily on the implementation of an ESMF, which stands as an essential guide. This ESMF serves as a comprehensive guide outlining strategies to minimise adverse environmental and social impacts throughout the project's execution. This ESMF consolidates the actions and measures required to mitigate potential environmental and social risks and impacts in accordance with the mitigation hierarchy and ensures compliance with ESS in a manner satisfactory for the relevant regulatory authorities as well as GCF. This ESMF must be updated to reflect any conditions stipulated in the authorisations and permits (if required) and the measures taken based on the mitigation hierarchy.

Once the due diligence process has been completed during the Operationalisation Phase, the ESMF can be implemented for all relevant interventions under Output 1.1. – specifically those that entail the following activities: IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

⁴ Engagements with the communities and traditional authorities during the Operationalisation Phase will help to determine how natural resources are used and what livelihoods exist within the communities. This will allow for the co-development of appropriate strategies to ensure access to resources are not restricted and livelihoods not affected during intervention implementation.

If environmental authorisations, water use licences and permitting related to heritage sites are required (and issued) during the appraisal process, these would need to be implemented in conjunction with this ESMF. In addition, intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) will have been developed during the Operationalisation Phase for relevant interventions⁵ in alignment with this overarching ESMF and will be implemented in conjunction with this ESMF. Customising intervention specific ESMPs to suit individual ecosystems will be imperative to accommodate various vulnerabilities, available resources, and socioeconomic dynamics. This may entail a site-specific assessment of each ecological, social, and economic landscape including hazard mapping, vulnerability evaluations, and engaging stakeholders to comprehend local needs and challenges.

Closure Phase

High-level and generic requirements have been provided in this document that can be taken into consideration when closing relevant interventions⁶ under Output 1.1. Each of these interventions will require a closure plan with the roles and responsibilities as outlined further in this document. The Closure Plan will be developed using the intervention specific ESMP (where required as guided by regulations for environmental authorisations and ESIAs) as guidance, but ultimately is guided by the objectives and vision set out in the Closure Plan.

The objectives of the closure plan are to:

- Provide the vision, objectives, targets and criteria for final rehabilitation and closure of the intervention;
- Explain the risk assessment approach and outcomes and link closure activities to risk rehabilitation;
- Detail the closure actions that clearly indicate the measures that will be taken to mitigate and/or manage identified risks and describes the nature of residual risks that will need to be monitored and managed post closure;
- Commit to a schedule, budget, roles and responsibilities for final rehabilitation and closure of each relevant activity;
- Detail the full closure costs for the life of intervention; and
- Outline monitoring, auditing and reporting requirements.

Monitoring and Reporting

Adequate institutional arrangements, systems and resources will be put in place to monitor the ESMF. The goals of monitoring will be to measure the success rate of the activities, determine whether interventions have handled negative impacts, and whether further interventions are required, or monitoring is to be extended in some areas. The goal of inspection activities is to ensure that intervention activities comply with the plans and procedures laid out in the ESMF.

The main monitoring responsibilities and inspection activities will be with the Project Management Unit (PMU), which will administer the overall project-related environmental and social monitoring and implementation as laid out in this ESMF, as well as the stakeholder engagement plan and the grievance redress mechanism (GRM). The PMU will be responsible for the

⁵ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

⁶ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

overall implementation of the environmental and social mitigation measures, as well as for monitoring and inspections for compliance. In addition, the PMU will be handling the day-to-day tasks in regard to the implementation of the ESMF.

The PMU will assess the compliance of implementing partners' and task teams' activities against the ESMF and will report possible non-compliance to the Project Management Group (PMG). The PMU will also independently conduct its own monitoring, verification and inspection of the activities of the implementing partners and task teams to ensure they are in compliance with this ESMF. Monitoring indicators will depend on specific intervention and its context.

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LIST OF ABBREVIATIONS

Acronym	Definition
AIDS	Acquired Immunodeficiency Syndrome
CARA	Conservation of Agricultural Resources Act
CBD	Convention on Biological Diversity
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMA	Catchment Management Agency
CRPD	Convention on the Rights of Persons with Disabilities
DEO	Designated Environmental Officer
DFFE	Department of Forestry, Fisheries and the Environment
DFFE: EP	Department of Forestry, Fisheries and the Environment: Environmental Programme
DM	District Municipality
DRR	Disaster Risk Reduction
DWS	Department of Water and Sanitation
EbA	Ecosystem-Based Adaptation
Eco-DRR	Ecosystem-Based Disaster Risk Reduction
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguard
FPIC	Free Prior and Informed Consent
GBV	Gender-Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GESI	Gender Equality and Social Inclusion
GHG	Greenhouse Gas
GRM	Grievance Redress Mechanism
GVA	Gross Value Added
HDI	Human Development Index
HIV	Human Immuno-Deficiency Virus
IAP	Invasive Alien Plant
ICERD	International Convention on the Elimination of All Forms of Racial Discrimination
ILO	International Labour Organisation
IRM	Independent Redress Mechanism
IVA	Independent Verification Agent
LM	Local Municipality
NDC	Nationally Determined Contribution
NCCRP	National Climate Change Response Policy
NEMA	National Environmental Management Act
NEMBA	National Environmental Management Biodiversity Act
NEMPAA	National Environmental Management: Protected Areas Act
NGO	Non-Governmental Organisation
PMG	Project Management Group
PMU	Project Management Unit
SADC	Southern African Development Community
SAHRA	South African Heritage Resources Agency
SAHRC	South African Human Rights Commission
SALGA	South African Local Government Association
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SDG	Sustainable Development Goal
SEAH	Sexual Exploitation, Abuse, and Harassment
SMME	Small, Medium and Micro Enterprises
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

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1 INTRODUCTION

1.1 PROJECT CONTEXT

The impacts of climate change have been felt across South Africa with the frequency and severity of floods, droughts and wildfires increasing. Climate projections show that this trend, including changes in intensity and unpredictability, will continue. These hazards are leading to escalating risks of significant impacts on South Africa's wider economy and both the urban and rural livelihoods and its most vulnerable populations.

In response, South Africa's National Biodiversity Institute (SANBI) is preparing a full application, with the associated supporting documents, to the Green Climate Fund (GCF) to fund a programme to scale up ecosystem-based approaches to managing climate intensified disaster risks in vulnerable regions of South Africa (the Eco-DRR project). Ecosystem-based approaches are broadly accepted as a cost-effective and sustainable means to promoting resilience in communities vulnerable to climate change intensified drought, flood and wildfire and this project will utilise ecosystem-based approaches to reduce the impacts of climate change to the benefit of 5 481 886 people. This will be achieved through the rehabilitation of vulnerable catchments, the integration of ecosystem-based approaches into settlement planning and disaster risk reduction (DRR), and the creation of an enabling environment that unlocks private sector finance and scales best practices across South Africa.

This report is the Environmental and Social Management Framework (ESMF) prepared to support the Eco-DRR project. This document provides a systematic and structured approach to screen, assess, manage and mitigate the potential environmental and social risks and impacts associated with the Eco-DRR project and associated interventions. The ESMF helps ensure that projects interventions are carried out responsibly and sustainably, complying with legal requirements and international standards, and fostering positive relationships with affected communities. The ESMF promotes good governance, outlining necessary procedures associated with the project activities thus contributing to the overall success and acceptance of the programme.

The ESMF was developed based on a review of the legal and policy framework of South Africa, review of relevant project documents and research reports of project sites, inputs from stakeholder consultations and site visits to proposed project areas. Some of the information was obtained through questionnaires responses provided by District Municipality (DM) officials.

In summary the ESMF enhances the project's capacity to protect ecosystems, reduce disaster risks and create more resilient communities, ultimately safeguarding both the environment and the wellbeing of vulnerable populations.

1.1.1 Overview of Project Activities

For implementation purposes the proposed project is divided into the following outcomes:

1. Outcome 1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities.

2. Outcome 2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities.
3. Outcome 3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management.

Table 1-1 below provides the three project outcomes alongside the activities/interventions that are being proposed for each of the programme components.

Table 1-1: Overview of Project Activities that will be Implemented under each outcome of the Eco-DRR project

Outcome 1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities .			
Output 1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR.			
Activity 1.1.1: Establish local-level project delivery hubs, governance arrangements and capacity for implementation .			
Activity 1.1.2: Undertake community-level engagements towards the co-development of a vision, strategy and implementation plan for improved Eco-DRR.			
Activity 1.1.3: Implement collaborative rehabilitation and management programmes for ecological infrastructure to improve ecosystem condition.			
Activity 1.1.4: Develop innovative Eco-DRR tools to support adaptive management of the site-based programme of work..			
Activity 1.1.5: Protect critical assets with investments in ecological infrastructure.			
Output 1.2: Local gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.			
Activity 1.2.1: Identify and assess opportunities to develop sustainable ecosystem-based livelihoods in support of locally led adaptation.			
Activity 1.2.2: Support the further development and/or establishment of small, medium and micro enterprises (SMMEs) for sustainable ecosystem-based livelihoods			
Outcome 2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities.			
Output	2.1:	Local governments	and communities implement improved Eco-DRR preparedness and response measures.
Activity 2.1.1: Establish a foundation for the incorporation of Eco-DRR into transformative disaster preparedness and response in the target DMs.			
Activity 2.1.2: Develop and implement a municipal capacity and support programme towards the mainstreaming of Eco-DRR into disaster risk management strategies and plans in the four DMs.			
Activity 2.1.3: Develop and activate innovative technologies and approaches that improve the dissemination of early warning products and messages about droughts, floods and wildfires in the four DMs.			
Activity 2.1.4: Update the Green Book			
Output 2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.			
Activity 2.2.1: Identify the risk of critical built infrastructure and settlements to droughts, floods and wildfires.			
Activity 2.2.2: Mainstream Eco-DRR and ecological infrastructure principles and priorities into national and local environmental policies, spatial plans and supporting instruments.			
Outcome 3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management.⁷			
Output 3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.			
Activity 3.1.1: Assess and strengthen the policy and investment environment to support private sector engagement in Eco-DRR.			

⁷ For Outcome 3, GCF resources will not be used to finance physical investments through financial mechanisms to be developed under Outcome 3.

Activity 3.1.2: Build capacity and facilitate the exchange of knowledge for public – private sector investment in Eco-DRR.
Activity 3.1.3: Develop a portfolio of financial mechanisms and investment packages and unlock new revenue streams for Eco-DRR from private and public sector.
Activity 3.1.4.: Develop a sustainable public sector employment funding model to support the rehabilitation and maintenance of ecological infrastructure.
Output 3.2: Informed decision making for Eco-DRR is supported and promoted
Activity 3.2.1: Strengthen and improve data management platforms towards supporting adaptive management and informed decision-making by policymakers and market participants.
Activity 3.2.2: Compile spatially explicit ecosystem asset and biocarbon accounts.
Activity 3.2.3: Develop and implement a project level social learning programme in support of adaptive management and decision making.
Activity 3.2.4: Develop and implement a structured suite of approaches to enable access to Eco-DRR information.

It is primarily the interventions under Outcome 1 that will involve works which will impact the environment. In this regard, these interventions are listed per DM in the table below.

Table 1-2: Description of interventions per DM for Outcome 1 ⁸

Intervention	Description	DM			
		Alfred Nzo	Ehlanzeni	Sekhu-khune	Ngaka Modiri Molema
Clearing of invasive alien plants (IAPs) (woody species)	Felling the larger woody plants (aliens or encroachers) and treating the cut stumps with herbicide to prevent regrowth. In cases where felling is dangerous (e.g. on steep slopes) or not feasible for other reasons, ring-barking or frilling can also be applied. Smaller woody plants and regrowth where the herbicide has not been effective (coppicing) can be either removed by hand, or be subjected to foliar spray by herbicides. Where alien species are cleared, a number of follow-up treatments are required to bring the site back to maintenance condition (i.e. spot spraying of small areas of regrowth once or twice per year (Lotter, et al., 2009). Up to eight follow ups may be required to get the site to maintenance condition (Braack, 2024).	✓		✓	
River rehabilitation and wetland restoration (including hard and soft interventions⁹)	Soft approaches may include the following (SANBI, 2014): <ul style="list-style-type: none"> • The revegetation of stabilised areas with appropriate wetland and riparian plant species; • The fencing off of sensitive areas within the wetland to keep grazers out and to allow for the re-establishment of vegetation; • The use of biodegradable or natural soil retention systems such as eco-logs, plant plugs, grass or hay bales, and brushpacking techniques; • The use of appropriate fire management and burning regimes; • The removal of undesirable plant and animal species; and • IAP clearing. Hard approaches may include the following: <ul style="list-style-type: none"> • Earth berms or gabion systems to block artificial channels that drain water from or divert polluted water to the wetland; 	✓	✓		

⁸ More details on the interventions can be found in Annex 2: Feasibility Study and Annex 21: Detailed Project Design Report.

⁹ Hard infrastructure refers to built infrastructure interventions such as the construction of weirs, dams etc. Soft infrastructure refers to interventions that do not entail the development of built infrastructure such as clearing of IAPs, re-vegetation, use of biodegradable or natural soil retention systems etc.

Intervention	Description	DM			
		Alfred Nzo	Ehlanzeni	Sekhu-khune	Ngaka Modiri Molema
	<ul style="list-style-type: none"> Concrete and gabion weirs to act as settling ponds, to reduce flow velocity or to re-disperse water across former wetland areas thereby re-establishing natural flow paths; Earth or gabion structure plugs to raise channel floors and reduce water velocity; Concrete or gabion structures to stabilise head-cut or other erosion and prevent gullies; and Gabion structures (mattresses, blankets or baskets) to provide a platform for the growth of desired wetland vegetation. 				
Rotational grazing / resting	<p>Rotational grazing is the practice of establishing grazing areas or camps with similar carrying capacity (i.e. how many livestock can graze an area and for how long – usually expressed on large stock units per hectare [LSU/ha]) and of a similar veld type and animals are moved regularly from camp to camp during the growing season, allowing the grass to regrow (Smith, 2006). This practice requires a sound understanding of carrying capacity, monitoring of the available grazing and a system to manage the grazing camps, either using herders or fencing.</p> <p>Rotational resting is the practice of giving a designated area of grazing a full growing season's rest every four years. This allows for the recovery of the grass and associated root biomass, while also providing an opportunity for the grass to set seed (Smith, 2006). Rotational resting is simpler in that it requires the identification of one quarter of the grazing area (either one single grazing area, or multiple smaller grazing areas making up the one quarter) and excluding cattle from the area(s) to be rested. Usually, the rested areas is used as a fodder reserve for winter grazing and consequently is important to protect the rested area from fires using firebreaks.</p>	✓	✓	✓	✓
Eco-champs / enviro-champs	Eco-champs / enviro-champs follows an approach similar to Environmental and Rural Solutions' (Environmental and Rural Solutions, n.d.) where youths from local communities with limited tertiary education possibilities are targeted by providing contract employment opportunities to work within or around their communities in the implementation of Eco-DRR initiatives.	✓	✓		
Revegetation	Revegetation is the process of replanting vegetation and rebuilding the soil of disturbed land for the principal purpose of rehabilitating and/or protecting degraded land. This usually means a cover of local native plants and involves regeneration, direct seeding, and/or planting methods (Ngucha, 2017). Vegetative improvement provides a suite of benefits through increasing the cover and concentration of grass species. Climax tufted, large grass species are preferred as they established reasonably rapidly (assuming sufficient rainfall) have good canopy and basal cover, resulting in a reduction of all three fundamental causes of erosion.			✓	✓
Brushpacks	Contour-based brushpacks involve the placing, tightly packing, and securing of smaller, leafy branches from woody alien or bush encroaching tree species along a contour line. They act as a permeable barrier to runoff, slowing down the runoff velocity and capturing sediment on the uphill side of the brushpack. The leaves provide organic matter and nutrients that contribute to soil			✓	✓

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Intervention	Description	DM			
		Alfred Nzo	Ehlanzeni	Sekhu-khune	Ngaka Modiri Molema
	<p>fertility to assist with the establishment and growth of vegetation. A contour is marked using an A-frame or dumpy level and pairs of 0.3 m apart pegs are placed at one-metre intervals. The brush is placed between the pegs, compacted down to create a tight, but permeable, barrier and secured in place using wire or string. Brushpacks do degrade over time, lasting 3-5 years, so it is recommended that they are applied in conjunction with other measures, such as vetiver hedgerows and revegetation to provide longer-term protection against erosion. Exclusion of livestock is important during the establishment of vegetation and fencing is recommended to facilitate better establishment of a permanent vegetative cover. Regular maintenance of brushpacks is necessary to ensure that there are no holes or gaps that will allow runoff to be concentrated. Brushpack lines should not be higher than 0.3m to reduce the risk of undercutting on the downslope when they fill with sediment and water overtops during high rainfall events. A one-metre vertical interval between brushpacks is generally recommended, and additional brushpack may be established between existing brushpacks when they fill with sediment (McCosh, et al., 2020).</p> <p>Broad brushpacking uses the same woody materials used in contour brushpacking. Branches are harvested from trees and shrubs within the local area and are chopped to about 30 cm. Thereafter, the chopped branches are packed widely over an area, at a depth of 5 to 10 cm, over the soil surface. The brushpacks act as protection for areas that have been reseeded by providing some shade and reducing evapotranspiration (moisture retention) while also reducing raindrop impact and runoff. Leafy material provides organic matter and nutrients to aid plant growth. Broad brushpacking also discourages livestock from grazing newly germinated seeds. Care must be taken to ensure that seed pods from woody alien species are not present when brushpacks are laid over newly seeded areas (McCosh, et al., 2020).</p>				
Vegetative strips	Vegetative strips, usually planted at regular intervals along a contour line, reduce surface runoff velocity, increase infiltration and increase soil moisture conditions. Vegetative barriers are planted as tightly packed continuous hedgerows that can effectively reduce runoff, collect sediment and increase infiltration. They can be applied in agricultural fields, small gullies, sheet eroded areas and other sparse land covers (e.g. overgrazed lands, old, abandoned crop lands). (Lotter, et al., 2009)			✓	✓
Rotational fencing	Fencing off areas that are being rehabilitated is generally recommended. Fences are used to exclude animals and humans from degraded land that is being maintained or rehabilitated. They provide a barrier to disturbing agents by enclosing and protecting the area. Fencing that effectively targets large and small livestock is recommended as this will also exclude cattle. Goats are usually responsible for damage to newly vegetated areas as they are more adept at finding and accessing newly established pastures. Once the vegetation is properly re-established (2-5 years, depending on local conditions), fencing can be removed and used elsewhere for rehabilitation purposes.				✓

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Intervention	Description	DM			
		Alfred Nzo	Ehlanzeni	Sekhu-khune	Ngaka Modiri Molema
Zai pits	Also known as pitting or ponding, zai pits is a form of rainwater harvesting that involves constructing a series of shallow ponds (diameter of 30 - 40 cm and 10 - 15 cm deep) over a degraded area. On flat areas, the ponds should have a circular shape, on steeper slopes the ponds should take up a U-shape. Ponds are established in a staggered manner across the slope using the contour lines as guidance. During rainfall events, the ponds collect and hold water to allow for the establishment of vegetation. Locally harvested grass seeds or commercially available indigenous seeds can be placed in the pits to allow for germination and revegetation. Kraal manure, compost, or fertiliser can be added to improve water holding capacity and nutrients for better growth of vegetative cover (McCosh, et al., 2020).				✓
Improved landscape management in upper catchment areas	This intervention refers to several initiatives aimed at rehabilitation of degraded landscapes in the upper catchment areas in Ehlanzeni DM. This includes IAP clearing, revegetation of degraded land or land where IAPs have been removed and improving slope stabilisation through brushpacks and revegetation (all of which have been described above).		✓		

1.1.2 Project Selected DMs

Four DMs - namely Alfred Nzo (Eastern Cape Province), Ehlanzeni (Mpumalanga Province), Ngaka Modiri Molema (North West Province) and Sekhukhune (Limpopo Province) DMs - were selected for project implementation. The selection was done using a multi-criteria assessment that considered the DMs' risks to floods, wildfires and dry spells that are exacerbated by climate change; as well as their receiving environment e.g. institutional capacity, linkages with existing communities of practice, ongoing initiatives and other enabling conditions. According to a study by University of Cape Town's African Climate and Development Initiative, the selected DMs are projected to experience climate change impacts in the future in the form of flooding, drought, wildfire and heat stress.

Further, the DMs were selected based on having a significant number of people who are vulnerable to climate change. Socio-economic factors such as poverty, employment, number of women headed households and access to water were among the parameters used in the multi-criteria assessment. The selection of the DMs was cross-referenced with experts from research and academic institutions.

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2 DESCRIPTION OF BASELINE ENVIRONMENTAL AND SOCIAL CONDITIONS OF THE DMs

2.1 ALFRED NZO DM

2.1.1 Socio-Economic Aspects.

The Alfred Nzo DM stretches from the Drakensberg Mountains, bordering Lesotho to the north, to the OR Tambo DM in the south and Sisonke DM in the east. It is the smallest DM in the Eastern Cape and is considered one of the poorest. The DM is characterised by high levels of poverty (Beraki, 2019). It contains five local municipalities (LMs), namely: Matatiele, Ntabankulu, Umzimvubu, Winnie Madikizela-Mandela (previously Mbizana). Economic opportunities in the region include the potential for tourism and forestry, however, a challenge has been the provision of infrastructure to settlements in hilly areas and including the provision of basic services.

The Alfred Nzo DM covers an area of 10,731 km² and has a population of 936,462, growing at a rate of 1.5% per year (Stats SA, 2023). This DM has a large number of people who depend on the working-age population for support, with a dependency ratio of 74%, indicating many children and elderly who rely on others for their livelihood (Stats SA, 2016). There is a notable imbalance between the number of males (47%) and females (53%), largely as a result of men leaving the area to find work elsewhere (Stats SA, 2016).

Living conditions reveal that most homes (53%) are traditional structures, and the average household consists of about 4.7 people (Stats SA, 2016). More than half of these households (58%) are led by females, reflecting the impact of men leaving for jobs. Sanitation is a challenge, with only 5% of homes having a flush toilet and the vast majority (82%) using pit toilets (Stats SA, 2016). The majority of households (52%) do not have access to safe drinking water and most people (52%) source their water from rivers and streams (Stats SA, 2016).

The financial conditions are challenging, with a large portion of the community's income (94% in 2015) coming from government grants and subsidies (Stats SA, 2016). Moreover, 22% of the population falls below the poverty line (Stats SA, 2016). The level of education is low, with a decrease in the number of people attending educational institutions by 2% between 2011 and 2016. Alfred Nzo has the smallest percentage (17%) of people with secondary education in the Eastern Cape (Stats SA, 2016). As a result the DM has a high level of unemployment (36% in 2016, ~3% increase since 2008), with 30% of the employment being informal, particularly in trade and construction (ECSECC, 2017). In 2016, the average annual income per capita in the DM was R20,500, and a large number of families (22% in 2016) live on an annual income of R30,000 or less (ECSECC, 2017; Stats SA, 2023).

Agriculture involves the majority of households (52% in 2016), with a notable focus on chickens and livestock, such as goats and cows (58%), and very little involvement in industrial crops (less than 0.5% in 2016) (ECSECC, 2017; Stats SA, 2023). This sector is expected to see the most growth, at an average rate of 3.5% annually (projections from 2016). However, the high rate of poverty (78% in 2016) and a low HDI of 0.512 in 2016 highlight ongoing socioeconomic challenges (ECSECC, 2017).

Intensified rural housing sprawl and migration of households towards centralised towns were clearly visible across the DM when site visits were conducted. Although most agricultural activities are subsistence there are several commercial farms situated toward the northeast of the DM, around Cedarville town. Crop farming consists of mainly dryland farming, with some irrigated crops, and livestock herding includes goat, sheep, beef and dairy farming (Alfred Nzo DM, 2019).

The district has a predominantly rural population, and the rural areas have lower population density, in contrast to urban regions. Vulnerability looms large and is driven by elevated levels of poverty and unemployment, particularly in rural areas. These factors compound susceptibility to diverse social and economic shocks, including climate-related disasters, food insecurity, and health risks. The remote and isolated nature of the district's communities exacerbates their vulnerability by limiting their access to healthcare and educational facilities.

Lack of access to services hinder the overall development and empowerment of the district's population, potentially perpetuating the poverty cycle. Gender concerns are also prevalent, encompassing gender-based violence (GBV), unequal resource access, and limited opportunities for women and girls.

2.1.2 Geo-Physical Aspects.

Alfred Nzo DM has a fragmented topography and comprises a plateau which falls within the Umzimvubu River Basin. The terrain is mountainous with steep valleys. The DM is predominantly covered by the grassland biome which occurs mostly on the cooler, high-lying central plateau. Below the escarpment there are extensive wetlands. Its topography limits the availability of land and while its sparsely populated, land ownership is an on-going issue.

The Alfred Nzo DM faces a significant challenge with a high prevalence of IAPs throughout the province. The impacts of IAPs are diverse and have widespread cross-cutting consequences, including increased fuel load (vulnerable to fires), loss of human lives and livestock, loss of business and income, reduction in catchment water yields, and a decrease in grazing area and veld quality. Additionally, flood-related issues have been identified as secondary hazards, with their primary impact attributed to poor infrastructure, such as low-lying bridges and agriculture. The consequences of flooding encompass the destruction of road infrastructure, limited access to essential services such as schools, neighbouring villages, medical centres, and shops, as well as income losses from agricultural activities.

Soil erosion has been identified as a hazard in the Alfred Nzo DM, primarily attributed to high animal stocking rates and inadequate rangeland management. The consequences of soil erosion encompass the siltation of water resources and the degradation of grazing land quality.

Environmental issues in the district include poor agricultural practices that lead to erosion; IAP expansion and loss of biodiversity; sediment load damage to infrastructure and pollution of water resources (Edmond, et. al., 2017). These issues are exacerbated by occurrence of climate extremes in the form of storms, tornadoes and floods which have resulted in soil erosion and deep gullies. Occasionally, windstorms, hail storms and heavy rain occur during the rainy season causing damage to land and property.

In certain areas of Alfred Nzo DM, drought is a recurring issue, and the DM has started acknowledging the significance of springs as vital sources of water supply for communities. The adverse effects of drought include diminished agricultural

activities, reduced crop and livestock productivity, food security concerns impacting human health and nutrition, and a scarcity of water supply for both household use and agricultural purposes.

2.1.3 Relevance of Eco-DRR Project Interventions in the Alfred Nzo DM

As highlighted in the Feasibility Study (Annex 2), within the centrally located areas around Umzimvubu and Ntabankulu LMs the communities around Ntsizwa mountain will become increasingly vulnerable to water security challenge, impacting on their lives and livelihoods. Significant infestations of woody IAPs are impacting on local water security as well as increasing the potential for wildfires during drought periods. Additional rangelands allow the opportunity to take approach to rangeland management to scale where actors such Meat Naturally and Herding for Health have been providing support to communities. This area is also a priority area for the DM and would enable the Winnie Madikezela Mandela LM to also develop capacity, through learning exchanges, noting the levels of vulnerability across this LM.

To address the above, the Eco-DRR project looks to implement clearing of IAPs (woody species), river rehabilitation and wetland restoration (including hard and soft interventions) and rotational grazing / resting (eco-champs / enviro-champs). This will be supported by targeted interventions for the DM that strengthens their early warning systems and the communications so that they are fit for purpose and are timeous to ensure communities vulnerable to climate change can avoid the loss of lives and livelihoods. In addition, mainstreaming of ecosystem services and ecological infrastructure in all planning instruments will be prioritised to reduce the impact of these hazards.

The interventions to be implemented in Alfred Nzo DM will aim to:

- Deliver a new integrated approach to landscape/ catchment management that includes social processes, local and indigenous knowledge and science, and is able to integrate climate change adaptation and DRR considerations into its planning and prioritisation processes;
- Enhance the sub-national DRR function so that it is able to factor ecological infrastructure considerations into settlement planning and asset management and maintenance, and into community level disaster response measures; and
- Integrate social learning processes throughout project activities to enable adaptive management, cross-sectoral integration as well and positive feedback across policy, research and implementation.

Other co-benefits include the following:

- **Co-benefit 1: Environmental.** Through the implementation of the Eco-DRR project there will be improvement in the health of both terrestrial and aquatic ecosystems. These benefits include rehabilitation in support of ecosystem services, including improved groundwater retention, increased surface water and river baseflows, regeneration of soil health and fertility, enhanced soil stability and soil horizon depth, increased soil organic carbon, and improved agricultural produce and grazing productivity. It is important to note that beyond the rehabilitation efforts that are needed to support climate change resilience, where feasible, the project will also support ecosystem restoration. The biodiversity will be strengthened by providing additional suitable habitat and increasing landscape connectivity, this includes both terrestrial and aquatic species. These co-benefits together with the projects core benefits all contribute towards achieving Sustainable Development Goal (SDG) 15: Life on

Land, SDG 2: Zero Hunger, SDG 3: Good Health and Wellbeing, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action.

- **Co-benefit 2: Social and Gender.** Climate change disproportionately impacts upon people in low-income and impoverished communities. In rural communities, women and girl children are responsible for a range of productive activities, as well as taking care of the family unit. Climate change impacts upon women most significantly yet they are often excluded from decision making processes that impact upon them, most typically in communal areas where Traditional Leadership is a key part of the governance framework. Women are also vulnerable within peri-urban conditions as women control fewer resources than men in informal settlements and are frequently exposed to gender-based violence (Patel, et al., 2018). Furthermore, women in these settings often lack access to sanitation and face disruptions to paid work as a result of climate change events (Patel, et al., 2018). The Eco-DRR project will actively engage with women within communities to fully understand their needs and to leverage their local knowledge into site-based actions, will design these local interventions to facilitate their participation and involvement, as well as support the development of commodity value-chains that support the economic empowerment of women. This will contribute to attaining SDG 1: No Poverty, SDG 3: Good Health and Wellbeing, SDG 10: Reduced Inequalities and SDG 5: Gender Equality.

2.2 EHLANZENI DM

2.2.1 Socio-Economic Situation

The Ehlanzeni DM is located in the north-eastern part of the Mpumalanga Province and is bordered by Mozambique and Eswatini. The DM contains four LMs: Thaba Chweu, City of Mbombela, Nkomazi and Bushbuckridge. The Ehlanzeni DM falls within the Komati and Olifants River Basins. This is an important watershed area, which, because of high rainfall, is a source of a number of perennial rivers as well as containing important wetlands

Mpumalanga has substantial coal mining activity and an active mining sector. It produces close to 90% of South Africa's coal and is home to three of the biggest coal power stations in Southern Africa. In addition to mining, other major sectors in the province include forestry and agriculture. The province also has a large fruit and vegetable market.

In 2022, the Ehlanzeni DM has a population of 2,270,897 and annual population growth rate of 3% (Stats SA, 2023). This region displays a gender distribution of 53% females to 47% males (Stats SA, 2023). A significant portion of the population, 37% as of 2016, falls within the 15 to 34 age bracket, indicating a youthful demographic (Stats SA, 2016).

The large majority of households (96%) live in formal dwellings, and the working-age population constitutes 65% of the total in 2022, with a dependency ratio of 54% (Stats SA, 2023). Educationally, 14% of the people have not received schooling, and only 41% have completed secondary education (Stats SA, 2023). The average household has 4.1 members, with ~30% of households having five or more members, and nearly half (48%) of households led by females (Stats SA, 2023). Less than half of the households (36%) have flush toilets connected to sewerage, while the majority (55%) make use of pit toilets (Stats SA, 2023). Furthermore, 20% of households do not have access to safe drinking water, and 4% rely on streams or rivers for their water supply (Stats SA, 2023).

The employment landscape has shown a slight increase annually by 1% from 2008 to 2018 (Ehlanzeni DM, 2022). Employment sectors vary, with trade contributing 24% to total employment, community services, predominantly government services, contribute 23% and agriculture accounts for 17% of total employment (Ehlanzeni DM, 2023). Migration patterns in 2016 show 11% moved to Ehlanzeni in search of paid work (Stats SA, 2016). However, unemployment rose to 31% in 2018, recording a 7% increase since 2008, with the expanded unemployment rate for females reaching 47% in 2020, compared to 38% for men (Ehlanzeni DM, 2023). Accordingly, 67% of people are living below the poverty line (2018), which has decreased from 75% in 2018 (Ehlanzeni DM, 2022).

Ehlanzeni is recognised for its agricultural potential, particularly suited for the cultivation of subtropical, citrus and deciduous fruits such as mangoes, litchis, papaws, bananas, avocados, guavas, granadillas and tomatoes (Ehlanzeni DM, 2023). Nuts, tobacco, wood and vegetables are other crops grown in the Ehlanzeni area. Yet, agriculture competes with forestry for resources (Ehlanzeni DM, 2023). Agriculture engages 18% of households at the provincial scale in 2016 (Stats SA, 2016), within the DM household agricultural activities include raising chickens (25%), growing vegetables (24%), grain and food crop cultivation (21%) and livestock (13%), with a less than 1% of households engaged in industrial crops (Stats SA, 2016).

Tourism plays an important role, contributing R9.1 billion to the DM's gross domestic product (GDP) in 2015, largely due to the Mpumalanga gates to the Kruger National Park (Ehlanzeni DM, 2023). Despite these economic activities, the Human Development Index (HDI) was 0.6 in 2020 (Ehlanzeni DM, 2023), the lowest among the districts in Mpumalanga, reflecting ongoing livelihood challenges in Ehlanzeni.

Vulnerability in Ehlanzeni DM is notably linked to socio-economic disparities, where a significant portion of the population faces economic hardships and limited access to basic services. Poverty, unemployment, and income inequality are prevalent issues, particularly in rural areas. This is evident in access to land resources, credit for subsistence agriculture, and agricultural inputs. Furthermore, these disparities present considerable hurdles in terms of municipal service provision and results in populations vulnerable to climate change being more susceptible to health risks, with diseases like human immunodeficiency virus (HIV) / acquired immunodeficiency syndrome (AIDS), tuberculosis, and non-communicable diseases posing significant challenges.

While there have been improvements in access to education, challenges like insufficient infrastructure, teacher shortages, and limited access to quality education remain in some areas. Gender issues are also pertinent, with disparities in access to education and employment opportunities between males and females. GBV and inequality are critical concerns facing the district.

2.2.2 Geo-Physical Aspects

Forestry is the dominant land use in Ehlanzeni DM contributing significantly to the economy. Environmental issues mostly emanate from the forestry industry whose impacts affect biodiversity, water, soil resources and air quality. The forest plantations are based on exotic tree species that consume vast amounts of water. Other than climate change, water scarcity is driven by the high demand for irrigation water in the commercial farms. Groundwater resources are also becoming depleted.

One of the major climate change risks in the district is wildfires as a result of strong winds and extremely dry winter conditions. The large surface water bodies and flat terrain at low altitude in some parts increase flooding risk to human development or infrastructure located within floodplains. Lightning during rainstorms accompanied by strong westerly or easterly winds, especially during summer, is another risk the district population faces.

The Lomati and Upper Sand River Catchments, reveal various key concerns across these catchments. These include numerous communities vulnerable to climate-induced hazards with single-road access that becomes impassable during flooding including damage to houses and infrastructure. Other issues include catchment degradation and poor management, the presence of IAPs, wetland degradation, settlements in flood-prone areas, and challenges related to drainage and stormwater management.

The largest LM in Ehlanzeni DM is Bushbuckridge LM. The area experiences flooding, particularly related to tropical cyclones, storms, and extended periods of rainfall.

2.2.3 Relevance of Eco-DRR Project Interventions in the Ehlanzeni DM

As highlighted in the Feasibility Study (Annex 2), the selected site in the DM incorporates more of the Sand River catchment and incorporates the Dwarsloop area of Bushbuckridge. This introduces road and bridge infrastructures and provides the project to engage in a range of wetland and riverine focused interventions as well as upstream rangeland work. Additionally, downstream of this catchment there are a number of community level agricultural projects that are being developed in Dingleydale and New Forest that will be dependent on sustainable water supplies from the upper catchment, introducing an upstream and downstream water security discourse.

Within the DM, the Eco-DRR project will implement improved landscape management in degraded upper catchment areas (including some IAP removal), river rehabilitation and wetland restoration (including hard and soft interventions) and rotational grazing / resting (eco-champs / enviro-champs). This will be supported by targeted interventions for the DM that strengthens their early warning systems and the communications so that they are fit for purpose and are timeous to ensure communities vulnerable to climate change can avoid the loss of lives and livelihoods. In addition, mainstreaming of ecosystem services and ecological infrastructure in all planning instruments will be prioritised to reduce the impact of these hazards.

The interventions to be implemented in Ehlanzeni DM will aim to:

- Deliver a new integrated approach to landscape/ catchment management that includes social processes, local and indigenous knowledge and science, and is able to integrate climate change adaptation and DRR considerations into its planning and prioritisation processes;
- Enhance the sub-national DRR function so that it is able to factor ecological infrastructure considerations into settlement planning and asset management and maintenance, and into community level disaster response measures; and
- Integrate social learning processes throughout project activities to enable adaptive management, cross-sectoral integration as well and positive feedback across policy, research and implementation.

Other co-benefits include the following:

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- **Co-benefit 1: Environmental.** Through the implementation of the Eco-DRR project there will be improvement in the health of both terrestrial and aquatic ecosystems. These benefits include rehabilitation in support of ecosystem services, including improved groundwater retention, increased surface water and river baseflows, regeneration of soil health and fertility, enhanced soil stability and soil horizon depth, increased soil organic carbon, and improved agricultural produce and grazing productivity. It is important to note that beyond the rehabilitation efforts that are needed to support climate change resilience, where feasible, the project will also support ecosystem restoration. The biodiversity will be strengthened by providing additional suitable habitat and increasing landscape connectivity, this includes both terrestrial and aquatic species. These co-benefits together with the projects core benefits all contribute towards achieving Sustainable Development Goal (SDG) 15: Life on Land, SDG 2: Zero Hunger, SDG 3: Good Health and Wellbeing, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action.
- **Co-benefit 2: Social and Gender.** Climate change disproportionately impacts upon people in low-income and impoverished communities. In rural communities, women and girl children are responsible for a range of productive activities, as well as taking care of the family unit. Climate change impacts upon women most significantly yet they are often excluded from decision making processes that impact upon them, most typically in communal areas where Traditional Leadership is a key part of the governance framework. Women are also vulnerable within peri-urban conditions as women control fewer resources than men in informal settlements and are frequently exposed to gender-based violence (Patel, et al., 2018). Furthermore, women in these settings often lack access to sanitation and face disruptions to paid work as a result of climate change events (Patel, et al., 2018). The Eco-DRR project will actively engage with women within communities to fully understand their needs and to leverage their local knowledge into site-based actions, will design these local interventions to facilitate their participation and involvement, as well as support the development of commodity value-chains that support the economic empowerment of women. This will contribute to attaining SDG 1: No Poverty, SDG 3: Good Health and Wellbeing, SDG 10: Reduced Inequalities and SDG 5: Gender Equality.

2.3 NGAKA MODIRI MOLEMA DM

2.3.1 Socio-Economic Aspects

The Ngaka Modiri Molema DM is located in the North West Province and border with Botswana. The province is known for its rich natural resources, wildlife and mining and agricultural sectors. The capital of the province, Mahikeng, occurs within the DM. The DM comprises of five LMs: Mahikeng, Ratlou, Ramotshere Moiloa, Ditsobotla and Tswaing. The province is dominated by a flat savanna and grassland landscape, with hills and ridges, such as the Magaliesberg and Pilanesberg ridges, dividing the landscape and the Kalahari Desert occurring in the west of the province.

The Ngaka Modiri Molema DM, with a population of 937,723 in 2022, has experienced a moderate annual growth rate of 1% (2011–2022) (Stats SA, 2023). The DM has a gender distribution of 51% females to 49% males (Stats SA, 2023). A significant majority of the population, 91%, live in formal dwellings (Stats SA, 2023). The working-age group comprises 63% of the population (Stats SA, 2023), alongside a dependency ratio of 59% (Stats SA, 2023), suggesting that over half of the population relies on the working-age group for support.

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In terms of education, 11% of the population have not received any formal schooling, while only 32% have completed secondary education (Stats SA, 2023). The district has an average household size of 3.6 members, with females heading 49% of these households (Stats SA, 2023). Nearly half the population (48%) of households have flush toilets connected to sewerage systems, though a similar proportion (47%) still rely on pit toilets (Stats SA, 2023).

Financial dependency on grants and subsidies is notably high, accounting for 98.7% of total income in 2015 (Stats SA, 2016). The district has become a destination for educational migration within the North West, with 16% moving to the DM for education in 2016. However, access to safe drinking water remains a challenge for 15% of the population (Stats SA, 2016).

The unemployment rate in Ngaka Modiri Molema stood at 20% in 2018, notably lower than the overall North West rate (Ngaka Modiri Molema DM, 2022). Total employment consists of 34% informal sector. Agriculture is a substantial employment sector, with more than 288,000 individuals employed in this field in 2018, contributing R2.7 billion to the Gross Value Added (GVA) in 2020 (Ngaka Modiri Molema DM, 2022).

The district's HDI in 2018 was 0.58 (Ngaka Modiri Molema DM, 2022). Literacy remains an area of concern, with 26% of the population identified as illiterate (Ngaka Modiri Molema DM, 2022). The community service sector, including government services, plays a crucial role in contributing to the GVA, especially in smaller and more rural municipalities (Ngaka Modiri Molema DM, 2022). Both the agriculture and mining sectors have shown growth volatility from 2010 to 2020 (Ngaka Modiri Molema DM, 2022), indicating fluctuating economic conditions within these industries in the Ngaka Modiri Molema District Municipality.

The DM is characterised by a specific set of baseline socio-economic conditions that influence the well-being of its population. In terms of population, the district is home to a diverse and growing populace, with a mix of urban and rural settlements. The demographic profile includes various ethnic groups, and the district has witnessed population growth over the years, driven by factors such as natural increase and rural-to-urban migration.

Vulnerability is a significant concern in Ngaka Modiri Molema DM, particularly among marginalised and disadvantaged communities. The district comprises areas with a high prevalence of poverty, unemployment, and inequality, making many residents vulnerable to economic hardships and food insecurity. Vulnerability to climate-related events like droughts, floods, and other environmental factors also exists, which can exacerbate existing socio-economic challenges.

Health risks and access to healthcare services are also important aspects of the socio-economic landscape in Ngaka Modiri Molema DM. The district experiences a high burden of communicable diseases, limited access to healthcare facilities in remote areas, and health disparities among different population groups. In addition, access to quality education is uneven, with disparities in educational outcomes between urban and rural areas. Gender-based issues, such as GBV and gender inequalities, contribute to disparities in socio-economic well-being and present significant challenges for the district to address.

2.3.2 Geo-Physical Aspects

The municipal area is fairly flat and dry in the west, with bushveld on the east, and offers game viewing including bird watching, hunting and fishing. The economic driver in the district includes agriculture and tourism (such as heritage sites and game farms). There are a few mining houses (Kalgold, Slurry, Sephaku, Lafarge, Majemantsho) as well as informal mining

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(CoGTA 38/52, 2020). Its location next to Botswana and enroute to Namibia gives it a strategic opportunity for economic development, underpinned by possible development corridors.

Its environmental risks include veldt fires caused by high winds. The amount of rainfall and length of rainfall season has drastically reduced affecting agricultural yields and reducing land suitable for crop production (DEA, 2017). There has also been drastic increase in temperature resulting in heat waves, especially during the September to January periods. In the past 5 years, the south western side has experienced flooding events that has inundated farmlands and settlement areas with some of the houses still under water within the flooded zones.

Within Ngaka Modiri DM, the Deelpan and Kraaipan areas experience severe flooding with damage to roads and bridge networks. Additional flood risk areas have been identified near the Mokgola area in the same locality. In the Deelpan area, the flooding issues are primarily related to settlement planning and there is significant presence of endorheic basins. In the Kraaipan area, there is clear evidence of a flooding narrative, with several bridges experiencing flood damage. The catchments are largely flat with minimal erosion and relatively little IAPs. In the Mokgola area, there is also clear evidence of flooding, particularly affecting the road and bridge network. There is some evidence of erosion in this area as well.

2.3.3 Relevance of Eco-DRR Project Interventions in the Ngaka Modiri Molema DM

As highlighted in the Feasibility Study (Annex 2), the Mokgola area to the north of Zeerust will become increasingly water insecure with smaller communities being exposed to the extremes of droughts and floods. These communities are located downstream of the Klipspruit River with the upper catchment being significantly degraded. While the cost benefit analysis was not as strong as the other locations, this nevertheless provides a useful site for demonstrating the benefits of Eco-DRR and ecosystem-based adaptation (EbA), while building municipal capacity. Interventions will be able to explore the impacts of Eco-DRR interventions on the local road infrastructure, most specifically the R49. In addition, the Provincial Department of Forestry, Fisheries and the Environment's (DFFE's) Environmental Programme (DFFE: EP) highlighted their increasing concern regarding the fragility of rangelands in this area, noting that this is also part of an area of increasing biodiversity concerns linked to migratory corridors through to Madikwe in the north.

Within the DM, the Eco-DRR project will implement improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits) as well as wetland and riverine rehabilitation (brushpacks and vegetative strips). This will be supported by targeted interventions for the DM that strengthens their early warning systems and the communications so that they are fit for purpose and are timeous to ensure communities vulnerable to climate change can avoid the loss of lives and livelihoods. In addition, mainstreaming of ecosystem services and ecological infrastructure in all planning instruments will be prioritised to reduce the impact of these hazards.

The interventions to be implemented in Ngaka Modiri Molema DM will aim to:

- Deliver a new integrated approach to landscape/ catchment management that includes social processes, local and indigenous knowledge and science, and is able to integrate climate change adaptation and DRR considerations into its planning and prioritisation processes;
- Enhance the sub-national DRR function so that it is able to factor ecological infrastructure considerations into settlement planning and asset management and maintenance, and into community level disaster response measures; and

- Integrate social learning processes throughout project activities to enable adaptive management, cross-sectoral integration as well and positive feedback across policy, research and implementation.

Other co-benefits include the following:

- **Co-benefit 1: Environmental.** Through the implementation of the Eco-DRR project there will be improvement in the health of both terrestrial and aquatic ecosystems. These benefits include rehabilitation in support of ecosystem services, including improved groundwater retention, increased surface water and river baseflows, regeneration of soil health and fertility, enhanced soil stability and soil horizon depth, increased soil organic carbon, and improved agricultural produce and grazing productivity. It is important to note that beyond the rehabilitation efforts that are needed to support climate change resilience, where feasible, the project will also support ecosystem restoration. The biodiversity will be strengthened by providing additional suitable habitat and increasing landscape connectivity, this includes both terrestrial and aquatic species. These co-benefits together with the projects core benefits all contribute towards achieving Sustainable Development Goal (SDG) 15: Life on Land, SDG 2: Zero Hunger, SDG 3: Good Health and Wellbeing, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action.
- **Co-benefit 2: Social and Gender.** Climate change disproportionately impacts upon people in low-income and impoverished communities. In rural communities, women and girl children are responsible for a range of productive activities, as well as taking care of the family unit. Climate change impacts upon women most significantly yet they are often excluded from decision making processes that impact upon them, most typically in communal areas where Traditional Leadership is a key part of the governance framework. Women are also vulnerable within peri-urban conditions as women control fewer resources than men in informal settlements and are frequently exposed to gender-based violence (Patel, et al., 2018). Furthermore, women in these settings often lack access to sanitation and face disruptions to paid work as a result of climate change events (Patel, et al., 2018). The Eco-DRR project will actively engage with women within communities to fully understand their needs and to leverage their local knowledge into site-based actions, will design these local interventions to facilitate their participation and involvement, as well as support the development of commodity value-chains that support the economic empowerment of women. This will contribute to attaining SDG 1: No Poverty, SDG 3: Good Health and Wellbeing, SDG 10: Reduced Inequalities and SDG 5: Gender Equality.

2.4 SEKHUKHUNE DM

2.4.1 Socio-Economic Aspects

The Sekhukhune DM is located in the Limpopo Province, in the south-eastern part bordering on the Capricorn and Mopani DMs in the north, Waterberg in the west, Nkangala in the south and Ehlanzeni DM in the east. The main sectors of the Sekhukhune DM that contribute to the growth of economy in the district are agriculture, mining and community services. Mining is the biggest contributor to the economy of the district. This has influenced the population growth rate, particularly in areas within the Fetakgomo Tubatse LM. The rural nature of the district provides less job opportunities therefore males migrate to the big cities in search for work.

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The Sekhukhune DM has four LMs: Elias Motsoaledi, Ephraim Mogale, Makhuduthamaga and Fetakgomo Tubatse. There are new mining developments concentrated in one LM (Fetakgomo Tubatse), while other parts of the district have little potential for increased income levels, and thus expected to remain suffering high levels of poverty (Sekhukhune DM, 2022).

The Sekhukhune DM, with a population of 1,336,805 in 2022, has an annual growth rate of 2% (2011–2022) (Stats SA, 2023). The DM has a gender distribution of 53% females to 47% males (Stats SA, 2023). The majority of residents (95%) live in formal dwellings, and the working-age group constitutes 60% of the population, with a high dependency ratio of 66%, indicating a significant reliance on the working-age population by dependents such as children and the elderly (Stats SA, 2023).

Educationally, 15% of the population have not received any formal schooling, and only 31% have completed secondary education (Stats SA, 2023). The district's households typically consist of 3.9 members, with more than half (53%) led by females (Stats SA, 2023). In terms of sanitation, only 24% of homes have flush toilets connected to sewerage systems, while a predominant 68% rely on pit toilets (Stats SA, 2023).

Approximately 33% of households consist of five or more members, showcasing the prevalence of larger family units. A notable concern within the municipality is access to safe drinking water; the Ephraim Mogale Local Municipality reports the highest number of households without access to safe drinking water (58.3%), with 38% of households district-wide facing similar challenges and 15% sourcing water directly from rivers or streams (Stats SA, 2016).

Agriculture plays a significant role in the community, with 24% of households in Limpopo, translating to ~390,000 households, engaged in agricultural activities (Stats SA, 2016). These activities predominantly include raising livestock (36%) and chickens (33%), alongside grain and food crop cultivation (13%). Despite the importance of agriculture, a large majority of farmers (70%) operate on a subsistence level, with a lack of skills being a significant barrier to increasing their productivity (Sekhukhune DM, 2023).

Financially, the district is heavily reliant on grants and subsidies, which constituted 87.1% of total income in 2015 (Stats SA, 2016). The mining sector is the largest within the Sekhukhune District in 2023, contributing 53% to the total GVA and growing at an average rate of 5.6% annually (Sekhukhune DM, 2023). Following mining, agriculture emerges as the second largest employment sector, providing jobs for over 16% of the population (Sekhukhune DM, 2023). However, water scarcity in the area necessitates expensive irrigation infrastructure for effective large-scale farming (Sekhukhune DM, 2023).

The district is known for producing a diverse range of agricultural products, including citrus fruits, table grapes, vegetables, maize, and potatoes, among others. Land use is primarily dominated by subsistence farming (18%), with potential conservation areas making up the second significant land use (24%) (Sekhukhune DM, 2023).

Employment challenges persist, with the total number of unemployed individuals rising to 93,900 in 2018, an increase from 87,600 in 2008. The unemployment rate stood at 29% in 2018, with the Makhuduthamaga Local Municipality recording the highest rate at 38% (Sekhukhune DM, 2023). The average household income is reported to be just below R46,000 per annum (Sekhukhune DM, 2023), reflecting the economic conditions within the Sekhukhune DM.

Water scarcity hinders the growth and the development of the agricultural sector in the district which has one of the highest unemployment levels in the Limpopo province. In addition, the urban centres have relatively high HIV /Aids rates

contributing to increased mortality rates and putting additional strain on limited healthcare resources. Due to unemployment, 35% of the rural population are highly dependent on natural resources. Within the DM, service delivery is poor - particularly in the rural areas with land ownership being a major issue.

Vulnerability is a prominent concern in Sekhukhune DM. Many residents face economic hardships, exacerbated by high unemployment rates and limited access to formal employment opportunities. The district's reliance on agriculture, particularly small-scale subsistence farming, makes it susceptible to climate-related shocks, adding to the vulnerability of the local population. Additionally, inadequate infrastructure, including transportation and communication networks, hampers access to markets and services, further impacting the district's socio-economic conditions.

Access to quality education is uneven, with many schools facing infrastructure challenges, inadequate resources, and shortages of skilled teachers. Gender issues, such as GBV and disparities in educational and economic opportunities, are also areas of concern in Sekhukhune DM.

2.4.2 Geo-Physical Aspects.

The DM covers an area of approximately 1,326,437 ha (13 264 km²). The Sekhukhune DM is situated in a semi – arid region and experiences water shortages most of the time. The major rivers in the district are the Olifants River, the Tubatse (Steelpoort) River and the Elands River, which supply a number of large dams. With more than 2200 indigenous species of vascular plants recorded in the area, Sekhukhune DM is an area of exceptionally high biodiversity and has been formally designated as the Sekhukhuneland Centre of Plant Endemism (Ziervogel et. al., 2006). Of these 2200+ recorded species, almost 70% are herbaceous and are used directly for medicinal, cultural and consumptive purposes. The expansion of mining in the area has caused uncontrolled pollution and this, coupled with intensive grazing, are contributing to biodiversity losses - particularly threatening the endemic plant species with extinction.

Due to climate change Sekhukhune DM experiences food insecurity at household level attributable to water scarcity due to variable and insufficient rainfall. The hot climate causes very high evaporation rates that affect water storage and demand for irrigation water. The main issues identified in the DM include poor settlement planning, degraded wetlands, inadequately developed and managed water supply infrastructure, nappy pollution, and pollution of a small stream by water from a waste treatment plant. Near the Makhuduthamaga LM is the Vergelegen Dam. In this region, the main issues identified were the community's overreliance on spring water, poor rangeland management, sand mining, gully erosion, and the vulnerability of downstream communities to floods originating from Vergelegen Dam. Furthermore, the abandonment of agricultural lands was observed due to drought conditions. Drought is the major key hazard affecting water security within Sekhukhune DM.

2.4.3 Relevance of Eco-DRR Project Interventions in the Sekhukhune DM

As highlighted in the Feasibility Study (Annex 2), there are concerns regarding the siltation of Vergelegen Dam and as such, interventions in the upper catchment, largely focused on improved rangeland management, will provide useful demonstration of the potential impacts that Eco-DRR can have on communities in this area - both from a water security perspective as well as from flooding during extreme events which do not get retained by the dam when it is full of sediment. There are extensive rangelands and old agricultural fields that, under improved management, can impact upon the dam and

the findings from the cost benefit analysis for this area justifies utilising this site to build municipal capacity through showcasing Eco-DRR impacts.

Within the DM, the Eco-DRR project will implement clearing of invasive woody alien plants, improved rangeland management (rotational resting and grazing and revegetation) as well as wetland and riverine rehabilitation (brushpacks and vegetative strips). This will be supported by targeted interventions for the DM that strengthens their early warning systems and the communications so that they are fit for purpose and are timeous to ensure communities vulnerable to climate change can avoid the loss of lives and livelihoods. In addition, mainstreaming of ecosystem services and ecological infrastructure in all planning instruments will be prioritised to reduce the impact of these hazards.

The interventions to be implemented in Sekhukhune DM will aim to:

- Deliver a new integrated approach to landscape/ catchment management that includes social processes, local and indigenous knowledge and science, and is able to integrate climate change adaptation and DRR considerations into its planning and prioritisation processes;
- Enhance the sub-national DRR function so that it is able to factor ecological infrastructure considerations into settlement planning and asset management and maintenance, and into community level disaster response measures; and
- Integrate social learning processes throughout project activities to enable adaptive management, cross-sectoral integration as well as positive feedback across policy, research and implementation.

Other co-benefits include the following:

- **Co-benefit 1: Environmental.** Through the implementation of the Eco-DRR project there will be improvement in the health of both terrestrial and aquatic ecosystems. These benefits include rehabilitation in support of ecosystem services, including improved groundwater retention, increased surface water and river baseflows, regeneration of soil health and fertility, enhanced soil stability and soil horizon depth, increased soil organic carbon, and improved agricultural produce and grazing productivity. It is important to note that beyond the rehabilitation efforts that are needed to support climate change resilience, where feasible, the project will also support ecosystem restoration. The biodiversity will be strengthened by providing additional suitable habitat and increasing landscape connectivity, this includes both terrestrial and aquatic species. These co-benefits together with the projects core benefits all contribute towards achieving Sustainable Development Goal (SDG) 15: Life on Land, SDG 2: Zero Hunger, SDG 3: Good Health and Wellbeing, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action.
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The Eco-DRR project will actively engage with women within communities to fully understand their needs and to leverage their local knowledge into site-based actions, will design these local interventions to facilitate their participation and involvement, as well as support the development of commodity value-chains that support the economic empowerment of women. This will contribute to attaining SDG 1: No Poverty, SDG 3: Good Health and Wellbeing, SDG 10: Reduced Inequalities and SDG 5: Gender Equality.

3 ENVIRONMENTAL GOVERNANCE, LEGAL AND INSTITUTIONAL FRAMEWORKS

This section outlines the relevant laws, regulations, and policies that govern environmental aspects of the Eco-DRR project. The project will ensure that all activities align with legal requirements and internationally acceptable standards. This section also looks at relevant institutions responsible for managing and regulating the use of the natural environment as well as SANBI's and GCF's standards with regards to the environment.

3.1 INTERNATIONAL AGREEMENTS AND PROTOCOLS

South Africa has signed and/or ratified several key international agreements, protocols and conventions. These international agreements and conventions oblige South Africa as a signatory to address climate change, biodiversity conservation, sustainable resource management, and gender equality etc, as required by each convention. The country has made significant efforts to align its national policies and practices with these international instruments to contribute to global sustainability and equity.

Paris Agreement on Climate Change (2016)

South Africa signed the Paris Agreement on April 22, 2016. The Agreement is part of the United Nations Framework Convention on Climate Change (UNFCCC). This agreement aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 degrees Celsius. South Africa has made commitments to reduce its greenhouse gas emissions and transition to a low-carbon, climate-resilient economy.

UNFCCC

South Africa is a party to the UNFCCC, which provides the overarching framework for international climate change negotiations. It has obligations related to reporting emissions data, developing national climate policies, and participating in global climate negotiations.

Convention on Biological Diversity (CBD) (1993)

South Africa ratified the CBD on November 2, 1995. The CBD treaty aims to conserve biodiversity, sustainably use its components, and ensure the equitable sharing of benefits from genetic resources. The CBD is important for natural resource management, as it guides efforts to protect and sustainably manage ecosystems and their resources.

Beijing Declaration and Platform for Action

South Africa has endorsed the Beijing Declaration and Platform for Action, which is a global agenda for achieving gender equality and women's empowerment. It covers various aspects of gender equality, including access to education, health, economic opportunities, and political participation.

Convention on the Elimination of All Forms of Discrimination Against Women (1980) (CEDAW)

South Africa is a signatory to CEDAW, an international treaty that promotes gender equality and the rights of women. It obliges parties to eliminate discrimination against women in all areas of life, including legal, political, social, and economic domains. It obliges countries to take measures to eliminate discrimination against women and ensure their full and equal participation in all aspects of life. South Africa ratified the CEDAW on December 3, 1995.

SDGs (2015)

South Africa is a signatory to the United Nations' 2030 Agenda for Sustainable Development, which includes 17 SDGs adopted in 2015. Like many countries, it has committed to the goals adopted by the United Nations. Several of these goals are relevant to natural resource management, climate action, and gender equality. Goal 5 (Gender Equality), Goal 13 (Climate Action), and Goal 15 (Life on Land) are particularly pertinent. South Africa is committed to working towards achieving these goals.

United Nations Convention to Combat Desertification (1994)

South Africa ratified the United Nations Convention to Combat Desertification on June 30, 1997. The convention addresses the global issue of land degradation and desertification. South Africa's participation is aimed at combating land degradation, promoting sustainable land management, and mitigating the impacts of drought in affected areas.

Convention on Wetlands of International Importance (RAMSAR Convention) (1971)

The RAMSAR Convention, also known as the Convention on Wetlands of International Importance, is an international treaty signed in 1971 in Ramsar, Iran. Its primary goal is to promote the conservation and sustainable use of wetlands worldwide, recognising them as ecosystems of great ecological value. South Africa signed the RAMSAR Convention on 1 November 1971 and ratified it on 4 June 1975. Wetlands play a crucial role in natural resource management and climate regulation and are particularly important for this project.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The CITES is an international treaty established in 1973. Its primary goal is to regulate and monitor the international trade of endangered and threatened species of animals and plants to ensure their survival and prevent their over-exploitation through the establishment of legal frameworks and cooperative efforts among member countries. South Africa is a signatory to CITES and ratified the convention on July 31, 1975, shortly after its inception. This agreement helps protect biodiversity by ensuring that trade does not threaten the survival of species.

Basel Convention (1992)

The Basel Convention, adopted in 1989 and entered into force in 1992, is an international treaty aimed at controlling the transboundary movement of hazardous waste and minimising its generation. Its key goal is to protect human health and the environment from the adverse effects of the generation and management of hazardous wastes. South Africa signed the Basel Convention on May 23, 1995, and ratified it on October 9, 1995,

The Convention on the Rights of Persons with Disabilities (CRPD)

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The CRPD is an international human rights treaty adopted by the United Nations in 2006. Its primary goal is to promote, protect, and ensure the full and equal enjoyment of all human rights and fundamental freedoms by people with disabilities. South Africa signed the CRPD in 2007 but has not yet ratified the instrument.

International Labour Organisation (ILO) convention

The ILO convention is a set of international labour standards established to promote and protect workers' rights and improve working conditions globally. Its key goal is to ensure social justice and fair labour practices by setting guidelines for minimum labour standards, including freedom of association, collective bargaining, and the elimination of forced labour and child labour. South Africa is a member state of the ILO and has signed and ratified several ILO conventions above. It is a requirement that ILO standards are observed in implementing all aspects of the Eco-DRR project.

The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) 1965

The main goal of this United Nations treaty is to eliminate racial discrimination and promote equality among all racial and ethnic groups worldwide. South Africa signed the ICERD on 3 October 1994 and ratified it on 10 December 1998.

3.2 REGIONAL AGREEMENTS AND PROTOCOLS

Regional protocols and treaties play a crucial role in fostering cooperation and addressing common challenges among African countries. These agreements cover various aspects of governance, human rights, environmental protection, and gender equality. Among these, the Southern African Development Community (SADC) Protocol on Gender and Development, the Solemn Declaration on Gender Equality in Africa, and the Bamako Convention stand out as key instruments aimed at promoting gender equality, environmental sustainability, and regional cooperation. Below is an outline of each of the key regional treaties and agreements.

- **SADC Protocol on Gender and Development (Ratified in 2008):** The SADC Protocol on Gender and Development was adopted in 2008, aiming to promote gender equality and empower women in the region. It focuses on political and economic empowerment as well as addressing equal access to education and health.
- **Solemn Declaration on Gender Equality in Africa (Ratified in 2004):** The Solemn Declaration on Gender Equality in Africa is a significant regional instrument aimed at advancing gender equality and women's rights across the African continent.
- **Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa:** South Africa is a signatory to the Bamako Convention, which seeks to regulate the transboundary movement and disposal of hazardous wastes within Africa.
- **Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora:** South Africa is a member of the Lusaka Agreement, which aims to combat illegal wildlife trade in the African region.
- **African Charter on Human and Peoples' Rights:** The Protocol to the African Charter in Human and People's Rights of women in Africa was ratified in 2004. South Africa is a party to the African Charter, which promotes and protects human and social rights on the African continent.

- **African Charter on the Rights and Welfare of the Child:** South Africa is a signatory to the African Charter on the Rights and Welfare of the Child, which addresses the rights of children in Africa.
- **African Union Convention on Preventing and Combating Corruption:** South Africa is a member of the African Union and is a party to this convention, which aims to combat corruption in African countries.
- **African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa:** South Africa is a signatory to this convention, which addresses the protection and assistance of internally displaced persons within the African continent.
- **Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Maputo Protocol):** South Africa is a party to the Maputo Protocol, focusing on women's rights and gender equality in Africa.
- **African Convention on the Conservation of Nature and Natural Resources (Algiers Convention):** South Africa is a signatory to the Algiers Convention, which emphasises the conservation of natural resources and biodiversity in Africa.

3.3 SOUTH AFRICA'S LEGAL FRAMEWORK

South Africa's environmental legal framework is guided by its Constitution, primarily in Chapter 2 (Bill of Rights) and Chapter 6 (Provinces) which contain provisions pertaining to environmental management, agriculture, land management, climate, and gender equality. Chapter 2 recognises the right to an environment that is not harmful to health (free of pollution) or well-being (Section 24) and includes provisions for just administrative action in environmental matters (Section 33). Chapter 6 outlines the concurrent legislative powers of national and provincial governments, which are relevant for land management and agriculture. Furthermore, the Constitution's commitment for gender equality is woven throughout various provisions, particularly in the Bill of Rights, where it prohibits any form of unfair discrimination and is further supported by specific legislation and policies aimed at promoting women's rights and gender equity across these areas. It therefore requires that all aspects of the project should include equal opportunities for men and women to be involved as well as benefit from the project.

The table below provides a summary that establishes linkages to legislation and policies relevant to environmental management. This table does not serve as a legal due diligence exercise and the primary aim of the table is to showcase alignment to key policies and legislation.

Table 3-1: Relevant national legislation and policy for environmental management

Legislation / Regulation / Policy	Description
National Environmental Management Act 107 of 1998 (NEMA)	<ul style="list-style-type: none"> • The act provides for cooperative and environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of state. • Environmental Impacts Assessment Regulations and Listing Notices have been published under NEMA to regulate development activities • All project actions will need to ensure coherence with legal and regulatory requirements of NEMA and associated regulations.
Climate Change Act 22 of 2024	<ul style="list-style-type: none"> • The act seeks to enable the development of an effective climate change response and a long-term, just transition to a low-carbon and climate-resilient economy and society for South Africa in the context of sustainable development.

Legislation / Regulation / Policy	Description
	<ul style="list-style-type: none"> The act focuses on alignment of policies and institutional arrangements (including the establishment of the Presidential Climate Commission, and sets out adaptation objectives nationally and sectorally, as well as sectoral emission targets and carbon budgets. Lastly it lays out other general matters such as regulations, consultation, and appeals, etc. The act has provisions for the development of adaptation scenarios, the development and publication of the National Adaptation Strategy and Plan (which must be reviewed every 5 years); the development and implementation of a Sector Adaptation Strategy and Plan. The act requires existing premier intergovernmental forums to also serve as Provincial Forums on Climate Change. It also provides for district intergovernmental forums to serve as Municipal Forums on Climate Change. It also requires climate change needs and response assessments to be undertaken for provinces, metropolitan municipalities or DMs. This must be accompanied by an implementation plan. Project interventions and outcomes will need to be communicated through municipal climate change forums.
Carbon Tax Act 15 of 2019	<ul style="list-style-type: none"> The Carbon Tax Act imposes taxes on carbon dioxide emissions. The Carbon Tax Act provides for the polluter-pays-principle to support the country in achieving its greenhouse gas (GHG) emission targets and Nationally Determined Contributions (NDCs) commitments. Businesses that engage in activities that produce direct GHG emissions are required to report under the 2017 National GHG Emission Reporting Regulations of DFFE. The Act also allows for carbon offsets to enable industry to invest in mitigation projects at a lower cost to what would be achieved in their own operations (thereby lowering their tax liability). The offset component also seeks to incentivise mitigation in sectors that are not directly covered by the tax and/or benefiting from other government incentives (National Treasury, 2020). As of 2024, the carbon tax rate was ZAR 190 per tonne of CO₂, up from ZAR 159 per tonne of CO₂ in the previous year. National Treasury is in the process of consulting to implement the carbon tax penalty of ZAR 640 per tonne of CO₂ for emissions exceeding carbon budgets (Wright, 2024). Financing mechanisms developed under the project will need to be coherent with this act.
National GHG Emissions Reporting Regulations (2017)	<ul style="list-style-type: none"> This document seeks to present a singular national reporting system for GHG emissions, which can be used to maintain the national GHG inventory. These regulations will need to be considered when looking at the impact of activities linked to carbon sequestration
Spatial Planning and Land Use Management Act 16 of 2013	<ul style="list-style-type: none"> The act provides a framework for spatial planning and land use management in the country. It specifies the relationship between the spatial planning and the land use management system and other kinds of planning; and provides for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government. It also provides a framework for the monitoring, coordination and review of the spatial planning and land use management system, as well as a framework for policies, principles, norms and standards for spatial development planning and land use management. The act seeks to address past spatial and regulatory imbalance and promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications.

Legislation / Regulation / Policy	Description
	<ul style="list-style-type: none"> Additionally, the act provides for the establishment, functions and operations of Municipal Planning Tribunals as well as providing for the facilitation and enforcement of land use and development measures. The act is important for the Eco-DRR project noting that some communities in the target DMs are more adversely impacted by disasters than other communities, as a result of environmental degradation.
Environmental Impact Assessment Regulations, 2014 as amended	<ul style="list-style-type: none"> Environmental Impact Assessment Regulations regulates environmental impact assessments which need to be undertaken to obtain an environmental authorisation. All project actions will need to ensure coherence with legal and regulatory requirements of NEMA and associated regulations.
Environmental Impact Assessment Regulations - Listing Notice 1	<ul style="list-style-type: none"> Listing Notice 1 sets out activities that require a basic assessment before an environmental authorisation may be granted. All project actions will need to ensure coherence with legal and regulatory requirements of NEMA and associated regulations.
Environmental Impact Assessment Regulations - Listing Notice 2	<ul style="list-style-type: none"> Listing Notice 2 sets out activities that require a scoping and environmental impact reporting process before an environmental authorisation may be granted. All project actions will need to ensure coherence with legal and regulatory requirements of NEMA and associated regulations.
Environmental Impact Assessment Regulations - Listing Notice 3	<ul style="list-style-type: none"> Listing Notice 3 sets out activities which, in certain geographical areas, require a basic assessment before an environmental authorisation may be granted. All project actions will need to ensure coherence with legal and regulatory requirements of NEMA and associated regulations.
The National Environmental Management: Waste Act 59 of 2008	<ul style="list-style-type: none"> The act seeks to reform the law regulating waste management to protect health and the environment. All project actions will need to ensure coherence with legal and regulatory requirements of this act, for example the biomass generated from Alien Invasive Plant removal.
The National Environmental Management: Air Quality Act 34 of 2004	<ul style="list-style-type: none"> The act regulates air quality and protects the environment. It provides the overarching legislation under which the GHG reporting regulations and pollution prevention plans were developed. This links to the project activities that support carbon sequestration.
National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA)	<ul style="list-style-type: none"> The NEMBA provides for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998. It provides for the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; and the establishment and functions of SANBI. Catchment based activities will need to consider any implications on biodiversity.
The National Environmental Management: Protected Areas Act 57 of 2003 (Amended in 2004 and 2009) (NEMPAA)	<ul style="list-style-type: none"> The act provides for the protection and conservation of ecologically viable areas, the establishment of a national register of protected areas, as well as the proclamation and management of these areas. It provides for a national system of protected areas in South Africa as part of a strategy to manage and conserve the country's biodiversity. The act also provides for the assignment of national parks, special parks and heritage sites to South African National Parks (SANParks). Catchment based activities will need to consider any implications on protected areas and heritage sites.
The National Heritage Resources Act 25 of 1999	<ul style="list-style-type: none"> The act introduces an integrated and interactive system for the management of national heritage resources. It sets norms and maintains essential national standards for the management of heritage resources and to protect heritage resources of national significance. In addition, it provides for the protection and management of conservation-worthy places and areas by local authorities.

Legislation / Regulation / Policy	Description
	<ul style="list-style-type: none"> Compliance with the act will be necessary if any of the targeted sites under Output 1.1. falls within a heritage site. If the activities proposed under Output 1.1. affects designated heritage resources, the act requires that a heritage impact assessment be conducted.
National Water Act 36 of 1998	<ul style="list-style-type: none"> The act recognises that water is a scarce and unevenly distributed national resource which belongs to all people. The act acknowledges national government's overall responsibility for and authority over the nation's water resources and their use. The aim promotes water resource management that achieves the sustainable use of water for the benefit of all, noting that protection of the quality of water resources is necessary to ensure sustainability. The act also promotes integrated management of all aspects of water resources and the delegation of management functions to a regional or catchment level so as to enable everyone to participate. All project activities linked to catchments and watercourses will need to work with the precepts of this act and its associated regulations.
Conservation of Agricultural Resources Act (CARA) (Act 43 of 1983)	<ul style="list-style-type: none"> The Act allows for the Minister responsible for agriculture to determine control measures, and establish schemes, which may pertain to various forms of DRR and management. Control measures are applicable to land users and may relate to inter alia the prevention and control of veld fires and the restoration or reclamation of eroded land. (sections 6(2)(j) and (m) of CARA). Schemes (section 8 of CARA) are established to provide financial assistance out of funding appropriated by Parliament to land users who undertake disaster management or DRR measures. Examples of these measures include repairing natural agricultural resources damaged by flooding or any other natural disaster, or for restoring or reclaiming eroded land. Such schemes have been established to assist landowners (generally farmers) specifically for cold spell relief (under GN 274 GG 26080 of 3 March 2004.), flood relief (under GN 272 GG 26080 of 3 March 2004) and assistance during drought (under GN R20 GG 27157 of 14 January 2005 and GN R21 GG 27157 of 14 January 2005). All project activities linked to catchments and watercourses will need to work with the precepts of this act and its associated regulations.
Water and Sanitation Sector Policy on Climate Change (2017)	<ul style="list-style-type: none"> The policy seeks to advocate sector specific policy positions on water and sanitation adaptation to climate change, the role of water and sanitation in mitigation, mainstreaming climate change into the sector and the cost and subsidies. All project activities linked to catchments and watercourses will need to align with this policy.
National Climate Change Response Policy White Paper (NCCRP) (2011)	<ul style="list-style-type: none"> The NCCRP comprehensively outlines South Africa's strategies in both adaptation and mitigation up to 2050 in the following areas: carbon pricing, water, agriculture and commercial forestry, health, biodiversity and ecosystems, human settlements and DRR and DRM. The policy recognises the importance of integrating gender considerations into climate change responses to ensure equitable and inclusive outcomes. The project will, and must, align with and support implementation of this white paper

As noted in **NEMA, 1998**) and the **Environmental Impact Assessment Regulations, 2014 (as amended)**, activities listed in the **Listing Notices (1,2 and 3)** require an Environmental Authorisation from the Competent Authority before commencement of the activity. The Competent Authority may be the DFFE, or a provincial department of environmental affairs, or the Department of Mineral Resources and Energy in respect of mining related activities. Before any project activities can begin (such as the removal of vegetation or the undertaking of earthworks, DFFE will be consulted to

determine whether any project activities constitute “listed activities” under the Listing Notices. Should a listed activity be triggered, it will necessitate application to the Competent Authority for an Environmental Authorisation. In order to apply for an Environmental Authorisation, an Environmental Impact Assessment must be conducted, and this process will be led by an Environmental Impact Assessment Practitioner.

Similarly, the **National Water Act (1998)** requires a water use licence for certain water uses – namely those that impede or diverting the flow of water in a watercourse as well as any activities that alter the bed, banks, course or characteristics of a watercourse. The Department of Water and Sanitation (DWS) or a Catchment Management Agency (CMA) (if established and operational in the water management area) is responsible for authorisation and issuance of water use licences.

Lastly, as per the **National Heritage Resources Act (1999)**, any activities that may impact a heritage site requires a heritage impact assessment to be undertaken. Heritage impact assessments complement environmental impact assessments but looks at assessing the impacts of the proposed activity on heritage resources as well as providing mitigation measures to limit the effect of that impact (Heritage Western Cape, 2016). The authority responsible for reviewing and approving the heritage impact assessment is the South African Heritage Resources Agency (SAHRA) (for national level activities), Provincial Heritage Resources Authorities (for provincial level activities) and municipalities (for local level activities). At a provincial and local level, these authorities must be declared competent authorities by SAHRA (Harlech-Jones, 2012).

Bearing the above in mind, it is important to understand which activities in the Eco-DRR project will trigger an environmental impact assessment, a heritage impact assessment or a water use licence. The table below presents the specific provisions / clauses and what activities in the Eco-DRR project may trigger these clauses / provisions.

Table 3-2: Activities that may trigger an environmental or heritage impact assessment for the Eco-DRR project

Legislation / Regulation	Relevant Provision / Clause	Impact	Trigger Activities in the Eco-DRR Project
Environmental Impact Assessment Regulations (2014) Listing Notice 1	12: The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the NEMBA (2004).	<ul style="list-style-type: none"> Impacts may include habitat loss; erosion; and negative impact on populations of threatened species (vulnerable, endangered and critically endangered) (Endangered Wildlife Trust, n.d.). 	Under Output 1.1. of the Eco-DRR project, vegetation may be transformed or removed. While it is expected that mostly IAPs will be targeted, the transformation of indigenous vegetation may take place within a critically endangered or an endangered ecosystem.
National Water Act (1998)	<ul style="list-style-type: none"> Part 1 General Principles. Water use is defined broadly, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation. In general, a water use must be licenced unless it is listed in Schedule 1, is an existing lawful use, is permissible under a 	<ul style="list-style-type: none"> Changes to natural flows and watercourses' beds or banks can have downstream impacts including damage wetlands, loss of habitat for flora and fauna, disruption to ecosystems, dry river basins and leave communities vulnerable to flooding or drought. 	Under Output 1.1. of the Eco-DRR project, the removal of IAPs and wetland and riverine rehabilitation may disrupt natural flows and alter watercourses' beds or banks.

Legislation / Regulation	Relevant Provision / Clause	Impact	Trigger Activities in the Eco-DRR Project
	<p>general authorisation, or if a responsible authority waives the need for a licence.</p> <ul style="list-style-type: none"> 21. Water use: For the purpose of this Act, water use includes- <ul style="list-style-type: none"> (c) impeding or diverting the flow of water in a watercourse; (i) Altering the bed, banks, course or characteristics of a watercourse. Section 41(2): A responsible authority “may, to the extent that it is reasonable to do so, require the applicant, as the applicant’s expense, to obtain and provide it by a given date – with ...an assessment by a competent person of the likely effect of the proposed licence on the resource quality; and ...may conduct its own investigation on the likely effect of the proposed licence on the protection, use, development, conservation, management and control of the water resource” 		
National Heritage Resources Act (1999)	<p>38(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)-</p> <p>(a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report.</p>	<ul style="list-style-type: none"> Negative impacts include damage to national and provincial heritage sites, protected areas, heritage areas, and archaeological and palaeontological sites, including wrecks and meteorites (Endangered Wildlife Trust, n.d.). This includes damage to the physical nature of sites, degradation of the culture and lifestyle of host communities, threatening the value and integrity of cultural heritage and harm the social and cultural traditions of the community (ICOMOS, 2001; Fu, et al., 2023; Alamineh, et al., 2023) 	<p>Under Output 1.1. of the Eco-DRR project, the final sites within the LMs will only be determined during the Operationalisation Phase of the project. However, no sites or interventions will be selected that negatively impact cultural heritage resources or areas (see Exclusion List) .</p>

3.4 INSTITUTIONAL RESPONSIBILITIES

In South Africa, regulation and management of the natural environment is overseen by several institutions with distinct responsibilities.

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3.4.1 DFFE

The DFFE is the primary government department responsible for environmental affairs. It formulates policies, legislation, and regulations to manage and protect the environment, natural resources, and biodiversity. It also plays a key role in coordinating and reviewing environmental impact assessments (if DFFE is the designated competent authority) and environmental authorisation processes for various projects. This includes ensuring compliance with the terms and conditions as set out in the environmental authorisations through ongoing monitoring and evaluation.

3.4.2 DWS

DWS is tasked with managing water resources in South Africa. This includes regulating water usage, ensuring water quality, and overseeing water infrastructure development. It, together with CMAs (if operational in a water management area), plays a crucial role in reviewing applications for and issuing water use licences. This includes ensuring compliance with the terms and conditions as set out in the water use licence through ongoing monitoring and evaluation.

3.4.3 SAHRA

SAHRA is a statutory organisation established under the National Heritage Resources Act (1999) and is the national administrative body responsible for the protection of South Africa's cultural heritage. If an intervention is implemented in a heritage site, SAHRA will play an important role if it is identified as the responsible authority for reviewing and approving heritage impact assessments (Harlech-Jones, 2012).

3.4.4 Provincial Governments' Departments of Environment

Within provincial government are Departments of Environmental Affairs that are responsible for supporting DFFE (national) in managing and protecting the natural environment at a provincial level. These provincial departments, in supporting DFFE, are responsible for environmental impact assessment processes at a provincial level as well as ensuring the timely and accurate execution of environmental impact assessments (South African Government, 2018). This includes ensuring compliance with the terms and conditions as set out in the environmental authorisations through ongoing monitoring and evaluation.

3.4.5 Provincial Heritage Resources Authorities

These authorities must be declared competent by SAHRA and are responsible for managing their respective province's heritage resources. As such, they are responsible for reviewing and approving heritage impact assessments at a provincial level if they are designated as the competent authority by SAHRA (Harlech-Jones, 2012).

3.4.6 Municipalities

Both LMs and DMs play an important role in environmental management with the Municipal Systems Act noting that a municipality (with regards to practical considerations) has the duty to strive to ensure that municipal services are provided in an environmentally sustainable manner. Municipalities must also promote a safe and healthy environment. A number of environmental functions have been allocated to municipalities, including: air pollution; noise pollution; refuse removal, refuse dumps and solid waste; and cleaning. In addition, if a municipality has been declared a competent authority by SAHRA, it is also responsible for reviewing and approving heritage impact assessments at a local level (Harlech-Jones, 2012).

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3.5 SANBI ENVIRONMENTAL AND SOCIAL STANDARDS

3.5.1 SANBI Environment and Social Risk Management Framework

SANBI has developed an Environmental and Social Risk Management Framework to ensure compliance with the Adaptation Fund's and GCF's policies and standards, as well as the relevant SANBI policies and procedures and South Africa's national legislation. The framework seeks to ensure compliance with these policies, standards, procedures and legislation during project identification, selection, development and submission processes and during project implementation. The objectives of the framework are to ensure that:

- Projects are categorised against the relevant standards and only projects with acceptable levels of risk are considered for funding;
- Activity forecasts are screened for potential risks on an annual basis and that associated disbursement is not approved where unacceptable risks are detected or foreseen;
- Annual project reporting processes of Executing Entities to SANBI have a particular focus on detection and appraisal of environmental and social risks;
- Project oversight and governance processes are designed to ensure that due diligence and oversight is provided for risk detection, avoidance, and where necessary, mitigation; and
- Stakeholders are aware of a mechanism to raise concerns relating to risks with the project Executing Entity and relevant governance structures, should concerns relating to risks not be adequately addressed by the Executing Entity.

3.5.2 SANBI Policy on Gender Mainstreaming (2023)

The SANBI Policy on Gender Mainstreaming (2023) is designed to affirm SANBI's policy position and commitment to contribute towards the realisation of social and economic gender equality by assessing the implications for women and men on any planned action and incorporating measures to address identified past and current gender inequalities through the planned action. This will include clear project/programme performance targets to achieve an equitable allocation of socio-economic benefits such as training, employment opportunities and business development opportunities etc. to all beneficiaries of SANBI programmes. It outlines the following key components: -

- **Gender representivity in recruitment and appointment** – Focuses on equal opportunities in the workplace with the proportion of women in positions across SANBI being aligned to the Employment Equity Plan. Recognises that perceptions exist about traditional roles and responsibilities of women and men and the need for SANBI to be mindful of historical gender biases and imbalances.
- **Empowerment of women** – Highlights the need to empower all members of staff, especially women, noting that empowerment initiatives need to be conducted in a meaningful way. Gives special attention to areas of work where women are under-represented and/or underprivileged.
- **Gender-sensitive and family-friendly policies** – Looks at adopting language that is sensitive to gender, including policies should avoid being gender-neutral (where appropriate), by assuming that men and women are the same. Recognises and equally values the similarities and differences between women and men. Further recognises the

importance of balancing family-work life. Provides family responsibility leave through the SANBI leave policy. Considers flexitime for parents and caregivers to carry out their family responsibilities.

- **High-level leadership for gender mainstreaming** – Emphasises the need for gender mainstreaming to be championed at the highest level in the organisation with women being in leadership positions to support this.
- **Raise awareness of gender issues** – Notes the need to practice the U-GREAT values (Ubuntu; Growth; Respect and tolerance; Excellence; Accountability and Transformation) as well as celebrating National Women's Day, Women's month, and the 16 days of activism against child and women abuse in an inclusive way to create awareness of gender relationships in the workplace and at home.
- **Recognition of the different needs of men and women** – Recognises that men and women have different needs and this recognition needs to be given to the different needs of men and women in the organisation e.g. when accommodation is provided.
- **Zero tolerance for sexual harassment and discrimination** – Focuses on providing a working environment that is free from sexual harassment, intimidation and discrimination including not tolerating any form of sexual harassment, intimidation and discrimination in the workplace.
- **Gender mainstreaming in SANBI projects** – Showcases SANBI's commitment to implement gender mainstreaming best practices in its externally funded projects.
- **Gender mainstreaming in services** – Highlights the need to consider gender mainstreaming matters when procuring service providers with SANBI procuring service providers in a manner that is gender sensitive.
- **Youth, women and staff members living with disabilities** – Endeavours to acknowledge, support, and encourage the role of youth, women, and persons with disabilities in all sectors of society with a focus on inclusion of youth, women, and persons with disabilities in its programmes.

3.5.3 SANBI Gender Mainstreaming Framework

The framework seeks to ensure compliance with the GCF's Gender Policy and related policies and standards, as well as the relevant SANBI policies and procedures, including SANBI's Gender Mainstreaming Policy, and South Africa's National legislation. The framework references a table summarising GCF requirements for gender mainstreaming at various project cycle stages, acknowledging that it isn't an exhaustive list of relevant GCF policies, guidance, and templates. It directs users to GCF's official documents for updated information and emphasises the need for compliance - not only with GCF policies - but also with SANBI's and national policies related to environmental and social risk management. The framework notes the gender mainstreaming considerations that are required at each step in the GCF project cycle, such as:

- **GCF Concept Note 1. Simplified Approval Process:** The GCF Gender Policy requires that accredited entities ensure that concept notes and funding proposals submitted for GCF financing meet the principles and requirements of the Gender Policy.
- **GCF Concept Note 2. Standard Process:** Concept notes submitted for GCF financing must meet the principles and requirements of the Gender Equality Policy. The project concept note should reflect gender-related aspects and lay out objectives, activities, results, performance/impact indicators and operational costs that take into account gendered needs and interests related to climate change risks and impacts, as well as resilience.
- **Project Preparation Facility Application:** Funds from the Project Preparation Facility can support environmental, social and gender studies. Gender studies may include undertaking a gender assessment, developing a programme

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or project level Gender Action Plan and/or incorporation of gender-responsive indicators and targets with baseline, in the logic framework of the funding proposal.

- **Simplified Approval Process Project Preparation Facility Application:** This includes completion of a Gender Assessment and Action Plan.
- **Funding Proposal (Standard Process):** Project and programme funding proposals are required to provide a gender assessment and a gender action plan.
- **Project Implementation and Monitoring and Evaluation:** Accredited entities must implement the project-level gender action plan developed in funding proposal and refine the gender-related baseline, indicators and targets (as needed). Periodic updates on gender assessments must be ensured and accredited entities must monitor and report on the progress made in implementing the gender action plan.

Overall, this framework ensures a structured approach to integrate gender considerations into SANBI's GCF projects, aligning with GCF's Gender Policy and related standards, aiming for gender equality and sustainable climate change outcomes.

3.6 GCF'S ENVIRONMENTAL AND SOCIAL SAFEGUARDS (ESS) STANDARDS

The GCF operates under a framework of ESS that guide its financing of climate-related projects. These safeguards ensure that activities funded by GCF do not cause harm to people or the environment and contribute to long-term sustainable development. In the interim, the ESS Standards align with the International Finance Corporation's Performance Standards, and they are critical for mainstreaming environmental and social considerations into GCF-funded projects. In addition, the GCF's Gender, Equality and Social Inclusion (GESI) Policy promotes the integration of gender considerations into climate projects to ensure that women, men, and marginalised groups equally benefit from GCF-funded activities. The GESI policy emphasises gender mainstreaming, participatory approaches, and equitable access to resources and decision-making processes. The GCF Governing Instrument states that: *"The Fund will strive to maximise the impact of its funding for adaptation and mitigation... promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach."*

In this regard the Revised Environmental and Social Policy (B.BM-2021/18) notes that all supported GCF activities will commit to:

- Avoid, and where avoidance is impossible, mitigate adverse impacts to people and the environment;
- Avoid, and where avoidance is impossible, mitigate the risks of Sexual Exploitation, Sexual Abuse and Sexual Harassment (SEAH) to people impacted by GCF-financed activities;
- Enhance equitable access to development benefits; and
- Give due consideration to persons in vulnerable positions and situations and marginalised populations, groups, and individuals, including women and girls, local communities, indigenous peoples, and other marginalised groups of people and individuals that are affected or potentially affected by GCF-financed activities and are especially vulnerable to exploitation or other potentially harmful unintended intervention impacts.

The Eco-DRR project will therefore be aligned with the GCF's ESS which are discussed below:

3.6.1 Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts

Performance Standard 1 establishes the importance of (i) integrated assessment to identify the environmental and social impacts, risks, and opportunities of projects; (ii) effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them; and (iii) the management of environmental and social performance throughout the life of the project. Performance Standard 1 applies to all projects that have environmental and social risks and impacts (International Finance Corporation, 2012).

To comply with Performance Standard 1, the Eco-DRR project will utilise standardised processes and guidelines that will ensure that every intervention undertaken will adhere to, and report against GCF and South African environmental safeguards and regulatory standards. The project will have clear procedures for baseline assessments and the monitoring of project development and implementation processes to ensure adherence. These will be developed in conjunction with DFFE as the custodian of natural resources in the country.

3.6.2 Performance Standard 2: Labour and Working Conditions

Performance Standard 2 recognises that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of the fundamental rights of workers. The standard aims to promote the fair treatment, non-discrimination, and equal opportunity of workers; establish, maintain, and improve the worker-management relationship; promote compliance with national employment and labour laws; protect workers, including vulnerable categories of workers; promote safe and healthy working conditions, and the health of workers; and avoid the use of forced labour (International Finance Corporation, 2012).

The Eco-DRR project will satisfy this standard through its compliance with South Africa's relevant acts and regulations. This includes the Occupational Health and Safety Act, Unemployment Insurance Act, Compensation Fund Act, Basic Conditions of Employment Act, and National Minimum Wage Act. According to the Basic Conditions of Employment Act, it is a criminal offence to employ a child younger than 15, except in the performing arts with a permit from the Department of Labour. Children aged 15 to 18 may not be employed to do work inappropriate for their age, or work that places them at risk. In this regard, only those aged 18 years and older will be employed. National guidelines will be used to ensure alignment with national legislation and GCF's safeguards. This will also be guided by SANBI's human resources policies and procedures which set out its approach to managing workers consistent with the requirements of this Performance Standard and national law. Both SANBI's and South Africa's labour-related policies promote non-discrimination and equal opportunity regarding employment, and this will be followed for the Eco-DRR project. The above will be applicable to all workers that are involved in the project and interventions, be it full-time, part-time or contractual employment.

SANBI will promote sound worker-management relationship and enhance the development benefits of a project by treating workers in the project fairly, and provide safe and healthy working conditions, considering the needs to ensure protection against sexual abuse, exploitation and sexual harassment. The national policies with regards to affirmative action and equal opportunity will apply noting that all public and private sector businesses are required to report annually to the Department of Employment and Labour with regards to employment equity and Broad Based Black Economic Empowerment plans and progress made in this regard.

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3.6.3 Performance Standard 3: Resource Efficiency and Pollution Prevention

Performance Standard 3 recognises that increased economic activity and urbanisation often generate increased levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global levels. This Performance Standard outlines a project-level approach to resource efficiency and pollution prevention and control in line with internationally disseminated technologies and practices. In addition, this Performance Standard promotes the ability of private sector companies to adopt such technologies and practices as far as their use is feasible in the context of a project that relies on commercially available skills and resources (International Finance Corporation, 2012).

The Eco-DRR project will comply with this standard through its compliance with national relevant acts and regulations. National guidelines will be used to ensure alignment with national legislation and GCF's safeguards. The project's ESMF also outlines the potential environmental risks and presents mitigation measures to prevent pollution and strengthen resource efficiency. SANBI and all partners will ensure applicability of this standard to safeguard environmental integrity and human health, applying to emissions to air, discharges to water, greenhouse gas emissions, soil contamination, project-associated waste, and environmentally sound management of hazardous substances following the international best practices and standards. However, the Eco-DRR project is not expected to produce significant emissions, nor will it consume high amounts of water or energy. Similarly, it is not anticipated that the project will generate any major waste materials of significant amounts. In addition, SANBI and partners will elaborate on the applicability of this standard in the context of the project archetypes and considering the sensitivity / vulnerability of the receiving environments and local capacities in enforcing relevant policies and standards of environmental management.

The removal of IAPs may entail the use of herbicides which can pose a risk with regards to pollution. Any herbicides that pose a risk to the surrounding environment or communities' health will not be used. Assessments will be undertaken prior to implementation to determine the most appropriate and safe option regarding IAP removal that will have the lowest impact on the surrounding environment and communities. If there are risks of pollution during intervention implementation, detailed regulatory impact assessment of these in the Operationalisation Phase will be undertaken. Management plans will also be developed that adhere to environmental, water use and health regulations.

If herbicides are selected as the most appropriate option to remove IAPs, an integrated pest management approach will be implemented that targets economically significant pest infestations of public health significance. In the strategic use of suitable herbicides, various other methods like cultural practices and biological controls, will be implemented to provide a holistic approach manage IAP removal effectively and sustainably. If the use of herbicides is selected as the best option to remove IAPs, a risk assessment of the herbicides and mitigation plan will be undertaken and developed that will look at the following:

1. Identify the herbicide: describe the nature and composition of the herbicide, the potential hazards associated with its use such as toxicity, routes of exposure and environmental hazards.
2. Assess potential harm: identify people at risk (i.e. who might be exposed during the use, handling and storage of the herbicide).
3. Determine potential consequence: identify the potential consequences of exposure including human health issues and environmental damage.

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4. Evaluate risks: Determine the severity and likelihood of the risk by considering the type of herbicide and its concentration, the duration and frequency of exposure, and the effectiveness of control measures.
5. Identify precautions: Describe precautionary measures that can reduce or eliminate exposure such as engineering controls (enclosed spray systems, proper ventilation), administrative controls (training staff on safe use, handling and disposal, establishing restricted access zones, using personal protective equipment) and emergency procedures for dealing with accidental spills or exposures.

The risk assessment and mitigation plan will ensure that the use of the herbicide will have the lowest possible impacts on human health, affected communities and environment which links to *Performance Standard 2: Labour and Working Conditions*, *Performance Standard 3: Resource Efficiency and Pollution Prevention* and *Performance Standard 4: Community Health, Safety, and Security*.

While the risk assessment and mitigation plan will provide the guidance regarding the storage, handling and disposal of herbicides, key considerations will include the following:

- Storage
 - Limit the amounts and types of herbicides stored and ensure that the storage facility is locked with limited access to only appropriately trained staff.
 - Storage locations should be on the ground floor in a facility that has direct access to the outside. No herbicide should be stored outside or in basements. The facility should be located far from any water sources and should not be in areas that are prone to flooding.
 - Herbicides should be kept off the ground and away from food, potable water, fertiliser, feed and personal protective equipment to avoid contamination.
 - Clear signage must be provided to indicate the facility as a herbicide storage facility.
- Handling
 - Training and personal protective equipment must be provided to staff who will be responsible for handling the herbicides.
 - Mixing of herbicides should be avoided in areas where a spill, a leak or overflow could result in herbicides entering water systems.
 - Washing and rinsing of herbicide residues from application equipment, mixing equipment or other items used in storing, handling or transporting should occur on a pad.
- Disposal
 - Container's that stored herbicide must be rinsed several times when empty (University of Massachusetts Amherst, n.d.).

3.6.4 Performance Standard 4: Community Health, Safety, and Security

Performance Standard 4 acknowledges that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration and/or intensification of impacts due to project activities (International Finance Corporation, 2012).

The Eco-DRR project will have limited adverse risks and impacts upon communities and their health and safety. However, this safeguard addresses the health, safety and security risks and impacts on project-affected communities and the corresponding responsibility of SANBI to avoid or minimise such risks and impacts, with particular attention to people who – because of their particular circumstances – may be vulnerable. As such, it is recommended that each intervention is assessed once the details around implementation of these interventions are finalised during the Operationalisation Phase.

The risks with regards to potential spread of diseases (i.e. vector-borne diseases), specifically in relation to grazing activities, is noted. Vector-borne diseases, especially tick-borne diseases, is a risk in South Africa, but the Eco-DRR project will actively seek to minimise this by promoting rotational grazing which prevents the build-up of manure that attracts vectors while also minimising or limiting infection from pasture. In addition, zai pits do not contribute to the spread of water-borne diseases and their small size (and depth) does not pose any physical risks such as drowning.

3.6.5 Performance Standard 5: Land Acquisition and Involuntary Resettlement

Performance Standard 5 notes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons that use this land. Involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood¹) as a result of project-related land acquisition and/or restrictions on land use (International Finance Corporation, 2012).

The Eco-DRR project will not acquire land or displace or resettle any communities /people. The project interventions will be implemented in land that is used communally and belongs to the chiefs or local authorities.

3.6.6 Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Performance Standard 6 looks at the protection and conservation of biodiversity including maintaining ecosystem services, and sustainably managing living natural resources which are fundamental to sustainable development. The requirements set out in this Performance Standard have been guided by the Convention on Biological Diversity with the aim of: 1) protecting and conserving biodiversity; 2) maintaining the benefits from ecosystem services; and 3) promoting the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities (International Finance Corporation, 2012).

The Eco-DRR project aims to conserve biodiversity and sustainably manage the environment. To ensure alignment to Performance Standard 6, key principles that the project will follow when implementing interventions include:

- The intervention does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values;
- The intervention does not lead to a net reduction in the global and/or national/regional population of any critically endangered or endangered species over a reasonable period of time; and
- A robust, appropriately designed, and long-term biodiversity monitoring and evaluation programme is integrated into the SANBI's management programme.

All natural habitats must be left with a net positive impact as a result of the interventions and biodiversity offsets may be required to compensate for any impacts on natural habitats that cannot be avoided or mitigated in any other way. However, these offsets are only to be used as a last resort with the ESMF outlining the necessary management and mitigation measures needed. Positive biodiversity / ecosystem impact will be demonstrated (over and above legal or safeguard requirements). These impacts will be integrated into the project's objectives with clear targets and indicators.

3.6.7 Performance Standard 7: Indigenous Peoples

Performance Standard 7 acknowledges that indigenous peoples, as social groups with identities that are distinct from mainstream groups in national societies, are often among the most marginalised and vulnerable segments of the population. In many cases, their economic, social, and legal status limits their capacity to defend their rights to, and interests in, lands and natural and cultural resources, and may restrict their ability to participate in and benefit from development (International Finance Corporation, 2012). The objectives of this standard are:

- To ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of indigenous peoples.
- To anticipate and avoid adverse impacts of projects on communities of indigenous peoples, or when avoidance is not possible, to minimise and/or compensate for such impacts.
- To promote sustainable development benefits and opportunities for indigenous peoples in a culturally appropriate manner.
- To establish and maintain an ongoing relationship based on informed consultation and participation with the indigenous peoples affected by a project throughout the project's life-cycle.
- To ensure free, prior, and informed consent of the affected communities of indigenous peoples when the circumstances described in this Performance Standard are present.
- To respect and preserve the culture, knowledge, and practices of indigenous peoples (International Finance Corporation, 2012).

Within the South Africa context, indigenous people refer to the San and the Khoekhoe (IWGIA, n.d.). The Eco-DRR project targets four DMs in the country and there are no indigenous people in these areas. This aligns with GCF's Indigenous Peoples Policy which also refers to indigenous peoples by other terminologies such as "indigenous peoples and local communities", "local communities", "sub-Saharan African historically underserved traditional local communities", "indigenous ethnic minorities", "Afro-descendent communities of South America and the Caribbean", "ethnic groups", "aboriginals", "hill tribes", "vulnerable and marginalized groups", "minority nationalities", "scheduled tribes", "first nations", "tribal groups", "pastoralists", "hunter-gatherers", "nomadic groups" or "forest dwellers". In this regard, the Eco-DRR project will not negatively impact or harm indigenous peoples.

3.6.8 Performance Standard 8: Cultural Heritage

Performance Standard 8 recognises the importance of cultural heritage for current and future generations. Consistent with the Convention Concerning the Protection of the World Cultural and Natural Heritage, this Performance Standard aims to ensure that clients protect cultural heritage in the course of their project activities. In addition, the requirements of this Performance Standard on a project's use of cultural heritage are based in part on standards set by the Convention on Biological Diversity (International Finance Corporation, 2012).

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GCF's Indigenous People's Policy defines cultural heritage as resources with which people identify as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. The policy notes the need to pay particular attention to the different challenges faced by women and girls and other groups within indigenous communities, and to promote the participation and leadership of women in GCF activities, given their role as traditional knowledge holders and custodians of cultural and spiritual heritage and values. Furthermore, the policy highlights the importance of fostering full respect of as well as promoting and preserving indigenous peoples' cultural and spiritual heritage and values, traditional knowledge, natural and economic resource management systems and practices, occupations and livelihoods, customary institutions and overall well-being. In this regard, GCF's principles regarding cultural heritage include:

- Respect and enhancing the rights of indigenous peoples to their lands, territories and resources. All GCF activities will fully respect and support indigenous peoples' rights related to land, territories and resources, and rights related to cultural and spiritual heritage and values, traditional knowledge, resource management systems and practices, occupations and livelihoods, customary institutions, and overall well-being.

This standard may apply to the Eco-DRR project if implementation sites for interventions coincide with cultural heritage sites and/or resources which will only be determined during the Operationalisation Phase. If an intervention sites coincides with a heritage site, this will trigger the requirement for a heritage impact assessment (see Section 3.1). A Heritage Specialist will be required to submit a Notice of Intent to Develop should the interventions trigger the Act's requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Guidelines provided by SAHRA note the following key considerations in this regard as being:

- Social assessment, identification of stakeholders and formation of management committee;
- Documentation, research and investigation of the identity of the place;
- Analysis of the information gathered;
- Development of appropriate responses;
- Development of an Implementation plan, and
- Basic principles for the development of management plans.

3.7 GAP ANALYSIS - COMPARISON OF ESS REQUIREMENTS

The GCF's safeguards and South Africa's legislation and legal framework for social and environmental impact assessments share common goals in promoting sustainable and environmentally responsible development. However, gaps in scope and coverage may exist between South Africa's environmental impact assessment framework and GCF safeguards. Below are some areas that are critical in the GCF safeguards.

Indigenous Peoples' Rights

GCF safeguards include provisions for respecting the rights of indigenous peoples. South African legislation does not explicitly address these rights in the same way. However, this project will not be implemented on any indigenous people's lands.

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GESI

GCF's safeguards place a strong emphasis on gender equality and social inclusion. South African environmental impact assessment legislation does not have the same level of emphasis, necessitating the incorporation of gender-responsive and socially inclusive elements into ESMF processes to align with GCF requirements. However, the gender equality and social inclusion are requirements under the National Policy on Gender Equality and Women's Empowerment (2000) as well as Promotion of Equality and Prevention of Unfair Discrimination (2000). For the project implementation, this ESMF will adhere to the GCF's requirements and include a gender action plan.

Free Prior And Informed Consent (FPIC)

GCF's safeguards require the respect of FPIC for affected communities, particularly in the context of projects with significant impacts on indigenous peoples. South African legislation does not have explicit provisions for FPIC. The project will not be implemented in any indigenous people's lands but will ensure that the targeted communities are informed and accept the project before any planning and implementation can proceed.

Climate Change Resilience

While South African environmental impact assessment processes consider environmental impacts, the specific emphasis on climate change resilience and adaptation have recently been part of environmental impact assessment. The National Climate Change Adaptation Strategy (2019) makes it a requirement to ensure that climate change consideration is taken in account in developing projects. This is a key objective of this Eco-DRR project in order to build ecosystem and community resilience to climate change impacts.

Stakeholder Engagement and Transparency

GCF's safeguards call for enhanced stakeholder engagement, disclosure of project information, and transparency. South African environmental impact assessment processes do the same but has variations in stakeholder engagement and transparency practices. The differences are not significant, and the project has already been engaging with stakeholders and will carry on in the same vein.

Monitoring and Reporting

GCF's safeguards require regular monitoring and reporting on the performance of funded projects. South African environmental impact assessment regulations require the same level of detail regarding post-project monitoring and reporting capacity and expertise.

The GCF's interim safeguards standards have more stringent requirements in terms of the scope of climate change impacts and gender equality and inclusion. The project will establish capacity building for the ESMF to ensure that programme implementors can comply with the GCF requirements as well as the South Africa laws. A robust monitoring and reporting mechanism will be implemented to track compliance with both sets of regulations.

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Table 3-3: Comparison of GCF Safeguards Requirements and South Africa's Legislative Requirements

GCF ESS Standard	ESS Content	Linkages to South Africa's legal framework	Gaps and Differences	Recommendation
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	ESS 1 sets out the Entities' responsibilities for assessing, managing, monitoring and reporting on environmental and social risks and impacts associated with each stage of an activity financed by GCF, in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards.	NEMA outlines the need for Environmental Impact Assessments for proposed activities that could significantly impact the environment. The process potential risks and requires development of mitigation strategies to minimise adverse effects. Additionally, specific sectoral legislation and guidelines provide further directives tailored to various industries, ensuring compliance with environmental standards and fostering sustainable practices.	There are significant similarities with slight differences perhaps in terminology or certain processes.	The project should be able to meet the requirement of both sets of safeguards/legislation effortlessly.
ESS 2: Labour and Working Condition	ESS 2 establishes the need for fair treatment of workers, including safe and healthy working conditions.	The Labour Relations Act, which safeguards workers' rights, promotes fair labour practices, and addresses issues like discrimination, unfair dismissal, and collective bargaining. Additionally, the Basic Conditions of Employment Act sets minimum standards for working hours, leave, and other essential conditions. The Occupational Health and Safety Act mandates the creation of safe working environments, emphasising risk assessments, health standards, and safety protocols. Moreover, the Employment Equity Act aims to eliminate unfair discrimination and promote equal opportunities in the workplace.	There are no significant differences. By abiding with South African laws the project will be able to satisfy the ESS2	As above
ESS 3: Resource Efficiency and Pollution Prevention	ESS 3 outlines the requirements for managing resource use and pollution prevention, including following circular economy and responsible investment principles. Greenhouse gas emissions and embodied carbon are considered in this Standard. Climate change mitigation is also considered in this Standard	Both the NEMA and the National Development Plan emphasise the importance of reducing greenhouse gas emissions, promoting renewable energy sources, and enhancing resource efficiency across sectors. These aspects are also covered in the Country's commitment to the Paris agreement transition to low-carbon economy.	There are no significant differences. By abiding with South African laws the project will be able to satisfy the ESS3	As above

GCF Standard	ESS	ESS Content	Linkages to South Africa's legal framework	Gaps and Differences	Recommendation
ESS 4: Community Health, Safety and Security	4:	ESS 4 concerns responsible practices to reduce health, safety, and security risks to communities. The safeguarding of personnel and property in accordance with relevant human rights principles is explained.	NEMA and the Occupational Health and Safety Act set out specific regulations for managing social and environmental risks. There is emphasis for corporate social responsibility in ensuring the wellbeing of targeted communities.	There are no significant differences. By abiding with South African laws the project will be able to satisfy the ESS4	As above
ESS 5: Land Acquisition and Involuntary Resettlement	5:	ESS 5 addresses the management of land acquisition and involuntary resettlement where this is unavoidable. This includes consideration of mitigation measures such as fair compensation and improvements to and living conditions.	The Promotion of Administrative Justice Act and the NEMA require comprehensive assessments and consultations with affected parties before any land acquisition or resettlement. Additionally, the Interim Protection of Informal Land Rights Act acknowledges and protects the rights of individuals residing on land informally. Fair compensation and meaningful engagements are also required in such cases	The Eco-DRR project will not acquire land or displace or resettle any communities / people. The project interventions will be implemented in land that is used communally with traditional authorities playing some role in managing the land .	Permission will be sought from responsible authorities for any project implemented on their lands.
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	6:	ESS 6 recognises that protecting and conserving biodiversity, maintaining ecosystem services, and managing living natural resources adequately are fundamental to sustainable development and presents how to achieve this.	The NEMA, the NEMBA, and the NEMPAA, mandate the assessment and management of risks associated with biodiversity. These laws emphasise the need for environmental impact assessments prior to development activities, ensuring that potential risks to biodiversity and ecosystems are identified and mitigated.	There are significant similarities with slight differences in terminology or certain processes.	The project should be able to meet the requirement of both sets of safeguards/legislation effortlessly.
ESS 7: Indigenous Peoples	7:	ESS 7 has an objective to minimise negative impacts, foster respect for human rights, dignity and culture of indigenous populations, and promote development benefits in culturally appropriate ways. This includes consideration of FPIC of the Affected Communities of Indigenous Peoples, and respecting and preserving the culture, knowledge, and practices of Indigenous Peoples.	The country's laws, including the Constitution and the NEMA emphasise the need for meaningful engagement and consultation with indigenous communities regarding projects or developments that might impact their lands or resources. It's required that framework plans are prepared for engagement and agreed consultation processes with indigenous people, outlining the protocols and mechanisms to be employed.	Any differences are perhaps in approach. However, none of the project interventions sites are occupied by indigenous communities.	Not applicable

GCF Standard	ESS	ESS Content	Linkages to South Africa's legal framework	Gaps and Differences	Recommendation
ESS 8: Cultural Heritage		ESS 8 aims to guide companies in protecting cultural heritage from adverse impacts of project activities and supporting its preservation. This includes protecting cultural heritage from adverse impacts and promoting the equitable sharing of benefits from the use of cultural heritage.	The Natural Heritage Resources Act emphasises the protection and conservation of the country's diverse heritage. It mandates the consideration of cultural heritage in environmental impact assessments, ensuring that proposed developments or activities do not compromise significant cultural sites or artifacts	No significant differences	The proposed sites are currently being utilised by communities and it is expected that there will be no artifacts or heritage sites that need to be preserved.
ESS 9: Stakeholder Engagement and Information Disclosure	9:	ESS 9 is a new proposed Standard to promote open and transparent engagement between the entity, its workers, worker representatives, local communities and affected persons and, where appropriate, other stakeholders. This uses the stakeholder aspects of Performance Standard 1 as its starting point.	Stakeholder engagement and information disclosure are integral components of assessing and managing social and environmental risks. NEMA requires collaboration among government bodies, stakeholders, and affected communities as an integral aspect of identifying, assessing, and managing environmental risks within a project	The provisions are similar	The project will ensure there is meaningful stakeholder engagements and consultations through the project life.
ESS 10: Climate Change Resilience and Adaptation		ESS 10 is a new proposed Standard that emphasises GCF's mandate on climate change resilience and adaptation. It outlines requirements to understand the physical and transitional climate risks of GCF activities.	While not explicitly covered in the NEMA, the NCCRP emphasises the integration of climate considerations into the development planning, requiring all sectors to manage climate change risks.	The whole project is premised on building climate resilience and the safeguards and legislation support that. It also is in alignment with the Paris agreement	The project will prioritise climate change risks assessment and adaptation in all interventions

4 POTENTIAL SOCIAL AND ENVIRONMENTAL IMPACTS

Upon preliminary assessment, the project's potential environmental and social negative impacts are foreseen to range from low to moderate. This estimation stems from the fact that the majority of interventions primarily involve landscape management, rehabilitation, or restoration of current community infrastructure. Additionally, other interventions are predominantly soft in nature, encompassing knowledge sharing, skills enhancement, and governance matters. As such, there are significant positive impacts that need to be considered.

4.1 POSITIVE SOCIAL AND ENVIRONMENTAL IMPACTS

The project will bring substantial positive impacts which are believed to outweigh any risks. Implementing EbA and Eco-DRR approaches can have several positive impacts on communities facing risks of flooding, wildfires and droughts as well as the institutions supporting implementing the Eco-DRR project such as DMs and LMs. The project also offers opportunities to the whole nation in terms of lesson learning and upscaling successful practices. Below are some of the positive impacts that are likely to result from the project if successfully implemented:

- **Co-benefit 1: Environmental.** Through the implementation of the Eco-DRR project there will be improvement in the health of both terrestrial and aquatic ecosystems. These benefits include rehabilitation in support of ecosystem services, including improved groundwater retention, increased surface water and river baseflows, regeneration of soil health and fertility, enhanced soil stability and soil horizon depth, increased soil organic carbon, and improved agricultural produce and grazing productivity. It is important to note that beyond the rehabilitation efforts that are needed to support climate change resilience, where feasible, the project will also support ecosystem restoration. The biodiversity will be strengthened by providing additional suitable habitat and increasing landscape connectivity, this includes both terrestrial and aquatic species. These co-benefits together with the projects core benefits all contribute towards achieving Sustainable Development Goal (SDG) 15: Life on Land, SDG 2: Zero Hunger, SDG 3: Good Health and Wellbeing, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action.
- **Co-benefit 2: Social and Gender.** Climate change disproportionately impacts upon people in low-income and impoverished communities. In rural communities, women and girl children are responsible for a range of productive activities, as well as taking care of the family unit. Climate change impacts upon women most significantly yet they are often excluded from decision making processes that impact upon them, most typically in communal areas where Traditional Leadership is a key part of the governance framework. Women are also vulnerable within peri-urban conditions as women control fewer resources than men in informal settlements and are frequently exposed to gender-based violence (Patel, et al., 2018). Furthermore, women in these settings often lack access to sanitation and face disruptions to paid work as a result of climate change events (Patel, et al., 2018). The Eco-DRR project will actively engage with women within communities to fully understand their needs and to leverage their local knowledge into site-based actions, will design these local interventions to facilitate their participation and involvement, as well as support the development of commodity value-chains that support the

economic empowerment of women. This will contribute to attaining SDG 1: No Poverty, SDG 3: Good Health and Wellbeing, SDG 10: Reduced Inequalities and SDG 5: Gender Equality.

4.2 NEGATIVE SOCIAL AND ENVIRONMENTAL IMPACTS

It is expected that the Eco-DRR project will have both minimal to no adverse impacts and some limited adverse impacts on the biophysical and socioeconomic environment. As such, overall, **the Eco-DRR project can be classified as a Category B project with some elements of Category C.** This means that there will be 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. This is because the project is not complex and/or large and does not involve activities that have a high potential for harming people or the environment. As such, the potential risks, impacts and issues are likely to have the following characteristics: (i) predictable and expected to be temporary and/or reversible; (ii) low in magnitude; (iii) site-specific, without likelihood of impacts beyond the actual footprint of the project; and (iv) low probability of serious adverse effects to human health and/or the environment. The project's risks and impacts can be easily mitigated in a predictable manner.

However, land-use changes, physical restoration measures and value chain and enterprise development might result in moderate social or environmental impacts given the sensitivity of the dryland ecosystem, the complexity of the social fabric and an increasing pressure from resource competition. Overall, the identified impacts are expected to be site-specific, largely reversible, and readily addressed through project mitigation measures.

The overall project is classified as 'moderate to low risk' when considering the potential negative impacts which are discussed below.

Impacts on Flora and Fauna

Some of the proposed activities will require land clearing and soil movement etc. that may lead to habitat loss and disturbance of existence of fauna. Removal of vegetation during excavation works can lead to loss of plants and animal habitats. The biodiversity that may be affected includes plants, insects, small mammals, reptiles and birds. Consideration will need to be given if targeted communal lands are adjacent to protected areas or naturally functioning ecosystems. This will only be determined during operationalisation and will be supported by community engagements, onsite investigations and engagements with regulatory authorities to determine if this triggers an environmental authorisation (and subsequent environmental impact assessment). Thereafter, appropriate management plans will be put in place to manage the risk in line with environmental regulations. Poor handling of human activities during implementation of interventions under Outcome 1 may cause harm to flora and fauna. Ecologically sensitive areas may be most threatened. In addition, the removal of invasive species or extensive revegetation might unintentionally impact local biodiversity or disrupt ecosystems. However, this impact is expected to be low as the project will seek to ensure that any IAP removal will not negatively impact flora and fauna.

Soil Erosion and Degradation of Rangelands

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Any of the activities intended for the project - if not properly implemented - can result in soil erosion and further degradation of rangelands. Poor agricultural practices and other land use may exacerbate soil erosion, siltation and pollution of surface waters leading to cumulative impacts. Poorly managed reforestation, alien plant removal and grazing lands may lead to erosion and gully development or exacerbation of the two problems. Poor agricultural practices or rehabilitation activities could potentially affect soil health and water quality if not managed properly, leading to erosion, soil degradation, or contamination. The occurrence of soil erosion and rangeland degradation is expected to be minimal as the project aims to actively address soil erosion and rangeland degradation in the targeted implementation sites.

Habitat Fragmentation and Disruption of Natural Processes

Some activities like gully erosion rehabilitation or rangeland management might disrupt natural processes if not done in harmony with the environment. Changes in land use or rehabilitation efforts might fragment habitats, affecting ecosystem continuity. It is envisioned that habitat fragmentation and disruption of natural processes will be minimal as the project will ensure that activities are planned and implemented appropriately.

General Waste Impacts

During implementation of the different interventions under Output 1, wastes from IAP removal and other EbA activities may be generated. If improperly disposed, these wastes could result in pollution of water bodies and soil and impact on flora and fauna. The project will ensure that all waste will be appropriately managed and removed to minimise this impact.

Introduction of Invasive Alien Tree Species

The project shall support the restoration of degraded areas with reforestation and establishment of indigenous tree nurseries. Opening of reforestation areas could in turn lead to proliferation of or colonisation by IAPs such as Lantana camara and black wattle among others. Invasive species could also be introduced as pasture grass and ornamental plants. The introduction and/or proliferation of invasive alien species would ultimately affect the ecological integrity and biodiversity of the project area. Noting that this project aims to remove IAPs, this impact is expected to be minimal as the project will ensure that IAPs are not indirectly introduced.

Community Health and Safety Risks

There is a potential of community health and safety hazards associated with the implementation of interventions including handling of machinery associated with IAP removal. Intervention sites for Outcome 1 (specifically Output 1.1.) may be a source of both liquid and solid wastes that can accidentally poison community members especially children who may curiously enter the site. Similarly, the activities may lead to physical harm, disruption of daily activities and blockage of routes limiting access to livelihood activities. However, these risks are expected to be minimal as the Operationalisation Phase will ensure that planned activities do not create such risks. Engagements with the communities and traditional authorities during operationalisation will help to determine how natural resources are used and what livelihoods exist within the communities. This will allow for the co-development of appropriate strategies to ensure access to resources are not restricted and livelihoods not affected during intervention implementation.

Occupational Safety and Health Risks

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The interventions under Output 1.1 (specifically wetland rehabilitation, slope management, rangeland management, IAP removal etc.) may be associated with occupational as well as community safety and health risks. However this risk is very low as all activities will be appropriately planned during operationalisation to ensure that no occupational safety and health risks are created and/or exacerbated during implementation.

Cumulative Impacts from Interventions

Some interventions may in some areas result in cumulative impacts on the environment and communities. Cumulative impacts are impacts which may result from individually, small-scale interventions with minimal impacts but which over time can combine to yield a significant adverse effect on the environment or communities. However, the occurrence of cumulative impacts is projected to be very low. In the rare case that this happens, cumulative impacts shall be assessed based on the combined effects of potential impacts from the various project inputs during appraisal in the Operationalisation Phase. The effects of such activities include:

- Loss of vegetation cover / degradation of rangelands / soil erosion;
- Pollution of open water sources and underground water aquifers; and
- Introduction of IAPs and other invasive species.

GBV and Sexual Harassment

While the Eco-DRR project does not entail any major construction, the implementation of activities related to rangeland management, wetland rehabilitation, slope management and IAP removal may entail the introduction of contractors and workers in specific areas. Those who are away from home on these types of jobs are separated from their family and may act outside their normal sphere of social control. This can lead to inappropriate and criminal behaviour, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors from the local community. Influx of male labour may also lead to an increase in exploitative sexual relationships and human trafficking whereby women and girls are forced into sex work.

Projects can create changes in the communities in which they operate and can cause shifts in power dynamics between community members and within households. These changes can contribute to higher levels of GBV associated with the project. GBV incidents are likely to occur as a result of higher wages for workers in a community contributing to transactional sex. The risk of incidents is among labourers and minors in the community as well as between male workers and lower earning females or adult females in the community. GBV is associated with SEAH. Sexual harassment involves any unwelcome sexual or requests for sexual favours or acts of a sexual nature that are offensive and humiliating among the same company's employees, including companies contracted to do works on behalf of government. Sexual exploitation and abuse is more likely and occurs when a company's workers use their position to extract an unwanted sexual act from a member of the community in exchange for access to project benefits, including inclusion of households for casual labour positions.

GBV can also include rape, contracting sexually transmitted diseases and unwanted pregnancies. Male jealousy, a key driver of GBV, can be triggered by an influx of labourers on a project and when the workers are believed / perceived to be interacting with community women. Abusive behaviour can also occur not only between project-related staff and those living in and around the project site, but also within the homes of those affected by the project. Site specific Environmental

[Type here]

and Social Management Plan (ESMPs) (where required as guided by regulations for environmental authorisations and ESIAs) will provide specific ways to address potential GBV in interventions based on the type of activities.

Child Labour

Child labour is work by children under the age of 18 that is exploitative, hazardous or otherwise inappropriate for their age and detrimental to their schooling or social, mental, physical, spiritual or moral development. Poverty may drive to earn an income resulting in underage children seeking employment at the sites. A set of Labour Management Procedures may be prepared to support this ESMF with clear guidelines on the prohibition of child labour.

Labour Disputes

The project's sub-activities (especially those related to Output 1.1.) may employ several workers in the different sites. Potential labour disputes may arise due to disagreements regarding conditions of employment, fringe benefits, hours of work, wages and any other contract terms and conditions; between workers and contractors. Disputes are disruptive to work flow and contribute to failure to meet deadlines thus increasing costs.

Spread of HIV/AIDS, Sexually Transmitted Infections and Other Communicable Diseases

In migration of people from different regions may lead to behavioural influences which may increase the spread of diseases such as HIV/AIDS and other sexually transmitted infections.

Discrimination and Exclusion of Vulnerable Groups

Vulnerable members of communities suffer from insecurities and normally do not have a voice to articulate their rights. They also are more likely to be disadvantaged by project interventions or made more vulnerable by climate change events. As a result, such communities could fail to benefit from the development and opportunities resulting from the project through discrimination and exclusion during the selection of beneficiaries. Vulnerable categories include women, differently abled persons, youths and elderly and these groups could be excluded from planning processes, leadership and implementation.

Social Conflicts

Activities like rangeland management, wetland rehabilitation, and removal of invasive plants might lead to conflicts over land use. Disputes may arise between communities due to many factors and, conflict may be generated or exacerbated by the identification of the project site and when the beneficiaries have competing interests. The gathering together of community members could trigger social conflicts arising from disagreements over leadership selection or governance structures, etc.

Community Livelihoods

Changes in land use or agricultural practices could affect traditional livelihoods, especially if not managed well or if new practices aren't viable alternatives for local communities. Changes in agriculture methods or land use could initially impact the income of farmers or communities if not managed with proper support systems.

[Type here]

Based on the negative impacts listed above, the table below lists the possible mitigation measures that are to be considered during implementation of any of the selected interventions.

Table 4-1: Impacts and mitigation measures for interventions – particularly those linked to Output 1.1

Potential Impacts/Risks	Possible mitigation measures
Change in landscape and land use	Good housekeeping and site management to reduce potential negative visual impacts and limit areas that are disturbed Design of facility to be in keeping of surrounding environment
Visual impact of site	Screening of site camp visual elements Good housekeeping of the site Once sites are finalised during operationalisation, engagement with communities will be held to understand possible visual impact and how this can be mitigated and/or avoided.
Dust	Keep roads clean Ensure vehicle speed limits onsite are kept to a minimum and below 20 km/hour Maintain groundcover for as long as possible to reduce the total surface area exposed to wind Wet dry and dusty areas using non-potable water Cover fine material stockpiles
Noise	Limit noise levels (e.g. install and maintain silencers on machinery) Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise Provision of training for workers and communities involved in implementation of interventions Provision of personal protective equipment
Litter and waste generation	Manage waste collection areas (weather / windproof and animal proof) Daily litter collection Provision of adequate bins with lids Weekly disposal scheduled Proper management of any hazardous wastes generated
Surface, groundwater, and soil contamination	Ensure use of best available technologies Contain wastewater before correct disposal e.g. contaminated water discharged into a conservancy tank / lined area Manage run-off and stormwater from intervention activities Site to provide adequate sanitation facilities Introduction of best available technologies to support contamination prevention.
Loss of vegetation / habitat and ecological processes / biodiversity	Undertake search and rescue before implementation commences Consider establishing a no-go area and habitat / vegetation buffer around the site Limit working area as far as possible where there is natural vegetation
Impact on existing site operations (due to shared access road / entrance)	Facility vehicles / staff to have right of way over other vehicles (including delivery vehicles and subcontractors) Appropriate security controls in place Existing facility and infrastructure to be regarded as a no-go area
Labour	Source labour force locally Ensure SEAH procedures and grievance redress mechanisms (GRMs) are in place and operationalised Implement gender action plan recommendations Comply with Occupational Health and Safety Act (No. 85 of 1993)
Community / Stakeholders	Engage with stakeholders and implement stakeholder engagement plan recommendations
Community safety	Develop community safety plan together with stakeholders.
SEAH	Undertake an intervention level due diligence of exposure to these risks and develop, implement and monitor a sexual exploitation, abuse and harassment management plan. The management plan will form part of the project specific SEAH policy and protocol, which will be in place before the start of the project, and strengthened through the Operationalisation Phase, if required.

5 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

The ESMF provided herein, gives the tools and approach that the Eco-DRR will utilise to assess the environmental and social impacts of each intervention, providing the various management instruments to address and mitigate challenges and conflicts towards ensuring interventions are exemplar in their configuration.

It is important to note that this ESMF will only apply to interventions under Output 1.1. which entails IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits). To ensure that all intervention activities under Output 1.1. are compliant with national legislation and GCF safeguards, adherence to this ESMF will be critical. This includes conducting a due diligence for the Eco-DRR project during operationalisation, followed by the implementation of the ESMF, closure and ongoing monitoring and reporting.

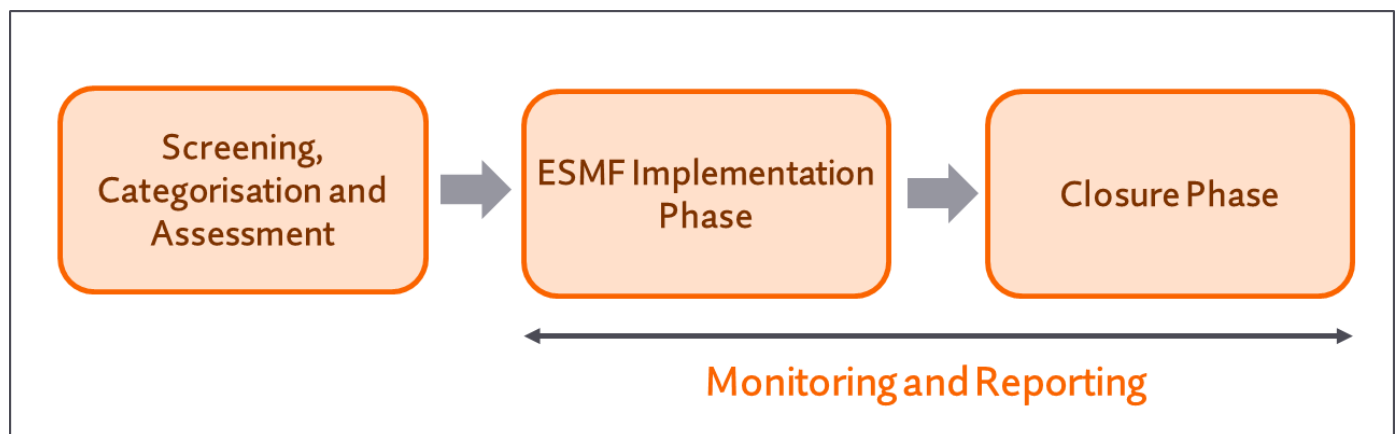


Figure 5-1: ESMF for the Eco-DRR project

The phases of the ESMF include the following:

Screening, Categorisation and Assessment Phase – This phase aims to ensure that a comprehensive due diligence is conducted during the Operationalisation Phase (18 months) for relevant interventions under Output 1.1. During this phase, an in-depth appraisal will be conducted that builds on the initial appraisal undertaken in Table 5-3 coupled with stakeholders engagements with environmental authorities to ascertain if any of the proposed activities will trigger an environmental impact assessment or a water use licence. It is expected that intervention specific ESMPs will be developed where required for relevant interventions under Output 1.1 during the diligence phase that build on the ESMF contained in this document. The need and development of ESMPs will be guided by environmental regulations which provide a clear legislative framework for ESIA triggers and requirements.

ESMF Implementation Phase – This phase entails the implementation of this ESMF as well as any intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIA) that will have been developed during the screening, categorisation and assessment phase. During this phase, it is expected that reporting, training, and environmental auditing related to each of the relevant interventions under Output 1.1. It will be important to ensure that intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIA) align with this overarching ESMF during implementation.

Closure Phase- This phase seeks to provide a structured and coordinate approach for closure of relevant interventions under Output 1.1. High-level and generic requirements are included in this document that will need to be taken into consideration when closing relevant interventions including the need for a closure plan per intervention with detailed roles and responsibilities.

Monitoring and Reporting – This is seen as ongoing process that will be undertaken from the ESMF implementation phase all the way through to closure phase. The aim of monitoring is to assess the success rate of intervention activities under Output 1.1., determine whether interventions have handled negative impacts, and whether further interventions are required, or monitoring is to be extended in some areas. Monitoring also seeks to ensure compliance of the relevant interventions to this ESMF as well as intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs), national legislation and GCF ESS safeguards.

5.1 SCREENING, CATEGORISATION AND ASSESSMENT PHASE

In accordance with GCF's policy, it is required to screen activities that include programmes, projects and interventions and following the result of the screening, to assign appropriate risk categories consistent with their environmental and social management systems and the GCF ESS standards. The objectives of environmental and social screening are to:

1. Evaluate the environmental and social risks associated with a proposed activity;
2. Establish the likely environmental and social risk category of the activities;
3. Identify opportunities to improve the environmental and social outcomes of the activities; and
4. Determine the extent and depth of environmental and social due diligence that will be undertaken and the appropriate environmental and social safeguards instruments and requirements that will be prepared, disclosed and submitted to the GCF (GCF, 2018).

The screening process involves professional judgment on a case-by-case basis and SANBI will exercise careful consideration of the potential environmental and social risks and impacts associated with the proposed activities and interventions. The institutional arrangements and the capacities needed for implementing the environmental and social management plans and programmes are also considered during screening. In screening activities, the potential risks and impacts that include direct and indirect, induced, long-term and cumulative impacts will be considered and will take into account the activities' areas of influence. The screening process will also determine the applicability of their environmental and social safeguards standards and identify actions sufficient to meet the requirements of their applicable standards pursuant to the GCF ESS standard and policy. The screening process will also ensure that all interventions are compliant with applicable laws, regulations, standards and international obligations related to managing environmental and social risks and impacts (GCF, 2018).

In screening the proposed interventions, SANBI will assign the risk category of proposed activities which will be proportional to the nature, scale and location of the intervention, the associated environmental and social risks and impacts, and the vulnerability of the receiving environments and communities. This shall be done in a manner consistent with the accreditation framework of the GCF, such as Categories A, B, and C for direct investments (GCF, 2018). These are described in more detail below:

- **Category A:** Interventions with potential significant adverse and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible or unprecedented.
 - Category A initiatives require a full and comprehensive ESIA and ESMF.
- **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.
 - Category B initiatives require a fit-for-purpose ESIA and an ESMP, with a more limited focus as may be appropriate, that describes the potential impacts, as well as appropriate mitigation, monitoring and reporting measures will be required.
 - In this regard, the development of ESIA's will also be guided by South Africa's environmental legislation and regulations which provides a clear framework for ESIA's and what triggers such assessments.
- **Category C:** Activities with minimal or no adverse environmental and/or social risks and/or impacts.
 - Category C initiatives have no expected significant environmental and social impacts and therefore may not require any assessments, although a pre-assessment or screening should confirm that the activities are indeed in Category C (GCF, 2021).

It is important to note that Category A interventions will be excluded from GCF financing under the Eco-DRR project (which is included in the Exclusion List).

SANBI, as the accredited entity, will ensure that all interventions comply with GCF ESS requirements during preparation and implementation of GCF funded interventions. For category B interventions, SANBI will conduct its own due diligence and prepare a report to confirm (i) that all key potential environmental and social impacts and risks of the proposed intervention are assessed and identified; (ii) that ESIA and ESMP commensurate to the impacts are prepared in accordance with GCF environmental and social safeguards standards; and (iii) that consultations with affected people are conducted in accordance with GCF's requirement.

While an initial screening is captured in Table 5-3, a more in-depth appraisal will be required during the Operationalisation Phase of the project to conduct the necessary stakeholders engagements with environmental authorities and undertake the requisite due diligence processes. To support this process, an indigenous peoples impact screening checklist, a SEAH risk screening checklist, and an environmental and social risk screening checklist have been included in the appendices while Section 5.1.1. describes further due diligence checklists and guidelines for the screening of interventions. The exclusion list presented in the appendices also provides guidance on interventions that will not be considered under the Eco-DRR project. Noting the need for a comprehensive due diligence during operationalisation, the timeframes for public participation and periods for specialists undertaking impact assessments (where necessary) has been factored into the Operationalisation Phase of the Eco-DRR project which will be 18 months.

Once the final location of intervention sites under Output 1.1.¹⁰ has been confirmed and their respective activities finalised during operationalisation, a due diligence process will be undertaken (also during operationalisation) to assess if any of the

¹⁰ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

proposed activities trigger a water use licence, an environmental impact assessment or a heritage impact assessment. This will require engaging with the relevant authorities during operationalisation to understand if the activities pose any harm to the environment, communities and/or heritage resources. This due diligence will guide the implementation requirements for the interventions and will inform the intervention level ESMPs (where required as guided by regulations for environmental authorisations and ESIA's) to be developed for the relevant interventions under Output 1.1. These intervention level ESMPs will need to be developed during the screening, categorisation and assessment phase in operationalisation.

During screening, categorisation and assessment in the Operationalisation Phase of the project, it is recommended that the interventions under Output 1.1¹¹ follow a minimum due diligence procedure as follows:

- a. Identify the environmental and social conditions in the targeted LM along with the applicable ESS safeguards.
- b. The due diligence for the intervention must include a dedicated environmental and social risk assessment and must include an assessment of the cumulative impact of the intervention including aspects such as social conflict.
- c. Establish the conditions and measures required to ensure that all the negative environmental and social impacts are properly and effectively mitigated.

The screening, categorisation and assessment process should also include the identification and consultation of relevant stakeholders. A record of this must be maintained, presented in a report, and stored digitally by the Project Management Unit (PMU) to document the due diligence assessments conducted at key intervention stage gates. The level of due diligence required will depend on the risks identified during the initial review phase, including environmental and social risks. This process will involve:

- Conducting a detailed intervention appraisal to assess compliance with relevant legislation, evaluate the tools used by the client, and assess the intervention's ability to manage environmental risk according to GCF ESS, including intervention greenhouse gas screening and resource use.
- Identifying communities affected by the intervention, assessing the level of community organisation and representation, understanding the impact of the intervention on these communities, and evaluating their readiness to receive the intervention.

Where applicable, proof of provisions for biodiversity or wetland offsets should be submitted before implementation of the relevant interventions begins. In line with GCF's requirements, all efforts should be made to avoid negative impacts on biodiversity and ecosystem services. Offsets and compensation should only be considered as a last resort and in very specific cases.

¹¹ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

5.1.1 Due Diligence Checklists and Guidelines

To guide the screening, categorisation and assessment process during operationalisation, the following checklist should be completed for each relevant intervention under Output 1.1.¹² to determine the environmental and social eligibility of the interventions. If the answer to at least one of these questions is yes, then the intervention would be classified as a Category A intervention (with potential significant adverse and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible or unprecedented.). However, it should be noted that most of the activities under the Eco-DRR project are expected to be medium to low risk (i.e. risk is mostly local / not highly sufficient, risk is minor and can be mitigated or there is no risk).

- a. Would the intervention displace or involve relocation of more than 50 homes or a population of 200 or more?
- b. Would the intervention encroach or modify or be located inside a protected area of natural habitat?
- c. Would the intervention displace, modify or render inaccessible a cultural heritage site or structure?
- d. Would the intervention be located in the territory of any indigenous people, but that the intervention would not benefit them?
- e. Would the intervention temporarily or permanently restrict access to resources for communities?
- f. Would the intervention generate significant amount of waste including hazardous waste that could harm the communities or impair the quality of the receiving environment?
- g. Would the intervention involve activities with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or unprecedented?

The Eco-DRR project will not undertake any interventions that would be considered Category A.

During the screening, categorisation and assessment process, each relevant intervention must evaluate the applicability of the GCF ESS safeguards. As indicated previously, none of the interventions will:

- Result in land acquisition and involuntary resettlement;
- Permanently or temporarily result in access restrictions on resources¹³;
- Impact indigenous peoples; or
- Harm cultural heritage resources.

As such, GCF's Performance Standard 5, 7 and 8 may not be applicable. However this will need to be confirmed during the screening, categorisation and assessment process.

Further to the above, questions listed in table below will need to be understood and answered before implementing the relevant interventions under Output 1.1. These questions will guide SANBI (specifically the Executing Entity) during operationalisation to assess the impact on the environment and communities.

¹² These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

¹³ Engagements with the communities and traditional authorities during the Operationalisation Phase will help to determine how natural resources are used and what livelihoods exist within the communities. This will allow for the co-development of appropriate strategies to ensure access to resources are not restricted and livelihoods not affected during intervention implementation.

Table 5-1: Additional environmental and social information

Question	Yes or No
1. Does the municipality own the land where the intervention is to be implemented?	
2. Are any houses located near the proposed site? What is the distance from the proposed site to the nearest house?	
3. Is there any road infrastructure for access to the site? (e.g. asphalt road, gravel road, dirt road)	
4. Is the intervention located near a water body? (e.g. river, lake, pond, wetland – natural or man-made)	
5. Is the intervention located near a natural protected or conservation area?	
6. Is the intervention situated near or on a heritage site?	
7. Are there concerns, based upon socioeconomic context regarding community safety, SEAH or GBV?	

Other guiding principles that can assist in the site selection process for the interventions under Output 1.1. is presented below.

Table 5-2: Guiding principles for mitigation of impacts

Aspect/Impacts	Guiding Principles for Mitigation
Site selection	<ul style="list-style-type: none"> • Check site for established fauna and bird habitats (natural and man-made). • Avoid locating site within the proximity of sensitive receptors, such residential neighbourhoods (odour, noise and dust). • Select a site that is accessible, i.e. avoid construction of new access roads / infrastructure. • Select a site with appropriate zoning and surrounding land use activities. • Ensure site is not protected and will not block or interfere with conservation corridors. • Ensure site does not coincide with heritage site and/or resources.
Protection of natural features, biodiversity on selected site and promoting net positive biodiversity and ecosystem benefits	<p>Avoid areas where there has been no disturbance of indigenous vegetation or topsoil in last 10 years.</p> <p>Identify biodiversity offsets, if applicable, to ensure natural habitats are left with a net positive impact. However, avoidance of damaging natural habitat should be the primary focus.</p> <p>Ensure net positive biodiversity / ecosystem benefits over and above legal requirements.</p>

If it is determined that an environmental authorisation (and subsequent environmental impact assessment), water use licence or heritage impact assessment is required during the screening, categorisation and assessment process, the relevant intervention will be subject to the legislative requirements. Thereafter, environmental and social risks and impacts will be assessed for each intervention and the intervention specific ESMP that will be developed during the screening, categorisation and assessment phase will need to consider these legislative requirements and actions to ensure compliance.

5.1.2 Pre-Implementation Environmental and Social Risk Appraisal

Table 5-3: Initial environmental and social risk screening for Eco-DRR activities

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
Assessment and management of environmental and social risks and impacts						
Will the activities involve transboundary impacts on air, water or other natural resources?	No, this will have a national and local focus	No, activities will be at district level scale	No, activities involve development of protocols, tools, framework for upscaling project	No, all activities are localised	No, this will have a national focus and will concern financial investments for Eco-DRR	No, this will have a national focus
Are the activities likely to contribute to cumulative impacts?	Only in terms of positive impacts	No, activities will be based at a local level.	No, focus is on strengthening the institutional and regulatory competencies	No, this will be focused on infrastructure risk assessment	No, focus will be on strengthening the policy and investment environment and building capacity.	No, focus will be on knowledge management, access to information and social learning.
Will the activities involve associated facilities and third-party impacts?	No	No	No	No	No	No

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
Are the activities likely to induce potential social conflicts?	Possibly, as there may be stakeholder fatigue and mistrust which can lead to conflict. Influx of contractors could provide risks associated with GBV and SEAH. Use of conflict resolution mechanisms, GRM, SEAH procedures, gender-based approaches and ongoing stakeholder engagements will support the management of these risks.	Unlikely but conflicts may come during those targeted for SMME support. Use of conflict resolution mechanisms, GRM, SEAH procedures, gender-based approaches and ongoing stakeholder engagements will support the management of these risks.	Unlikely, but disagreements during awareness creation and stakeholder engagements sessions could result in some conflict, with the scale being limited. Use of conflict resolution mechanisms, GRM, SEAH procedures, gender-based approaches and ongoing stakeholder engagements will support the management of these risks.	No	No	No
Do the accredited entities, executing entities and implementing agencies	Yes, plus establishment of associated governance	Yes. SANBI and DFFE have capacity and	Yes, SANBI has the capacity and capacity of local	Yes, SANBI has the capacity, and the project will offer	Yes, with this activity looking	Yes, with this activity looking to further build this capacity

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
(grantees, sub-borrowers and proponents) have the capacity to implement the environmental and social management plans/action plans?	arrangements will provide additional capacity.	capacity assessments will be undertaken for each intervention (where necessary) to understand any risks and to build capacity at a local government level.	government will be strengthened to handle new frameworks and early warning tools.	capacity strengthening	to further build this capacity	
Labour and working conditions						
Are the activities likely to 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?	No, all workers and contractors will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and assessment phase in operationalisation.	No, as consultants will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the	No, as consultants will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the	No, as consultants will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the	No, as consultants will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the	No, as consultants will adhere to South Africa's labour laws and the GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
		screening, categorisation and assessment phase in operationalisation.	screening, categorisation and assessment phase in operationalisation.	screening, categorisation and assessment phase in operationalisation.	screening, categorisation and assessment phase in operationalisation.	assessment phase in operationalisation.
Will the activities pose occupational health and safety risks to workers, including supply chain workers?	Yes, during implementation of interventions such as IAP removal, rangeland management, rehabilitation etc. The project will adhere to the Health and Safety Act, which is enforced by the Department of Employment and Labour. and will be aligned with South African policies, GCF ESS and compliance regimens.	No, and will be aligned with South African policies, GCF ESS and compliance regimens.	No, and will be aligned with South African policies, GCF ESS and compliance regimens.	No as this is largely office based work	No as this is largely office based work	No, as this is largely office-based work
Resource efficiency and pollution prevention						
Will the activities generate emissions; discharge pollution into water and land; generate activity related greenhouse gas emissions; use hazardous materials; generate noise and vibration; and/or	Activities undertaken are focused on improved functioning of ecological infrastructure. Local scale impacts are kept to a minimum through the use of environmentally sound methods and protocols. Due diligence will be performed by SANBI as the Executing Entity during	No, as the activities are largely advisory.	No, as the activities are largely advisory.	No as this will be desk-based and office bound.	No, as this will be largely desk-based and office bound.	No, as this will be largely desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
generate waste including hazardous waste?	the Operationalisation Phase to confirm if an environmental authorisation or water use licence will be required which will determine if an environmental impact assessment is needed. Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence.					
Are the activities likely to utilise natural resources, including water and energy	Yes, water and land will be used in implementation of the interventions. Due diligence will be performed by SANBI as the Executing Entity during the Operationalisation Phase to confirm if an environmental authorisation or water use licence will be required which will determine if an environmental impact assessment is needed.	No, these activities are mostly desk based and advisory.	No, these activities are mostly desk based and advisory.	No, these activities are mostly desk based and advisory.	No, these activities are mostly desk based and advisory.	No, these activities are mostly desk based and advisory.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence.					
Will there be a need to develop and implement measures to reduce pollution and promote sustainable use of resources?	Yes, there will be a need to put in place measures to manage construction (where applicable) as well as herbicides and organic waste from clearing of IAP removal. Any herbicides that pose a risk to the surrounding environment or communities' health will not be used. Assessments will be undertaken prior to implementation to determine the most appropriate and safe option regarding IAP removal that will have the lowest impact on the surrounding environment and communities. If there are risks of pollution during intervention implementation, detailed regulatory impact	No	No	No	No	No

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	assessment of these in the Operationalisation Phase will be undertaken. Management plans will also be developed that adhere to environmental, water use and health regulations. More details on herbicide risk assessment and mitigation can be found in Section 3.6.3 Due diligence will be performed by SANBI as the Executing Entity during operationalisation to confirm if an environmental authorisation or water use licence will be required which will determine if an environmental impact assessment is needed. Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence. These risks are likely to be very localised and with relatively low levels of impact.					

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
Community health, safety and security						
Will the activities potentially generate risks and impacts on the health and safety of the affected communities, including impacts on ecosystem services affecting the local community health and safety?	Yes, this will generate some risks that could have an impact on communities and groups vulnerable to climate change. This could introduce safety concerns, reduction of ecosystem goods and services as well as SEAH risks. Onsite Social and Gender Oversight Officers (i.e. Process Managers) and Environmental Programmes and Safeguards Officer will oversee and ensure these risks are managed. The ESMP for each intervention (where required as guided by regulations for environmental authorisations and ESIAs) will identify these and provide management measures	Unlikely, but consultants will engage with communities, and this could expose them to SEAH risks. Due diligence assessments for consultants will assist to mitigate this possibility.	Unlikely, but consultants will engage with communities, and this could expose them to SEAH risks. Due diligence assessments for consultants will assist to mitigate this possibility.	No	No	No
Will the activities increase the risk of SEAH?	There is the possibility that contractors and consultants appointed to assist in implementation of interventions will exploit, abuse or harass staff and communities. The project will put in place a GRM that will provide a	There is a possibility that contractors and consultants appointed to assist in implementation	There is a possibility that contractors and consultants appointed to assist in implementation of interventions	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	channel through which affected parties can report such issues as well as providing a channel for redress. Contractors and consultants will have to sign the Project SEAH policy to be aware of the consequences. Due diligence assessments for consultants and contractors will assist to mitigate this possibility.	of interventions will exploit, abuse or harass staff and communities. The project will put in place a GRM that will provide a channel through which affected parties can report such issues as well as providing a channel for redress. Contractors and consultants will have to sign the Project SEAH policy to be aware of the consequences. Due diligence	will exploit, abuse or harass staff and communities. The project will put in place a GRM that will provide a channel through which affected parties can report such issues as well as providing a channel for redress. Contractors and consultants will have to sign the Project SEAH policy to be aware of the consequences. Due diligence assessments for consultants and contractors will			

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
		assessments for consultants and contractors will assist to mitigate this possibility.	assist to mitigate this possibility.			
Will there be a need for an emergency preparedness and response plan that also outlines how the affected people and communities will be assisted in emergencies?	Unlikely, but emergency preparedness and response plans will be required for the implementation of site-level interventions. This would include ecosystem focused work as well as the local community engagements linked to livelihood options.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound. Exit and evacuation routes will be discussed at the start of all meetings.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound. Meeting and office protocols will make exit and evacuation routes clear prior to the start of the meeting.	No, as this will be desk-based and office bound. Meeting and office protocols will make exit and evacuation routes clear prior to the start of the meeting.	No, as this will be desk-based and office bound. Meeting and office protocols will make exit and evacuation routes clear prior to the start of the meeting.	No, as this will be desk-based and office bound. Meeting and office protocols will make exit and evacuation routes clear prior to the start of the meeting.
Will there be potential risks posed by the security arrangements and potential conflicts at the intervention site between the workers and the affected community?	Unlikely, but there is a possibility of conflict between the contractors / consultants and the community at intervention level. SANBI will be required to adhere to GCF's clear policies and South African legislation in this regard. SANBI will	No, as stakeholder engagements will be small in size and the other activities will be	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	ensure that these policies are applied at intervention level. A GRM will provide a channel through which affected parties can report such issues.	desk-based and office bound.				
Land acquisition and involuntary resettlement						
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?	No, as the activities will be implemented on community-owned land.	No	No	No	No	No
Are the activities likely to alter existing land use and restrict access to natural resources resulting in loss of livelihoods and other economic activities?	Unlikely as site selection will ensure that land use is not negatively impacted or restrict access to resources. Alignment and compliance with all related legislation and by-laws will be assured. Engagements with the communities and traditional authorities during the Operationalisation Phase will help to determine how natural resources	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	are used and what livelihoods exist within the communities. This will allow for the co-development of appropriate strategies to ensure access to resources are not restricted and livelihoods not affected during intervention implementation. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESIA's) will identify these and provide management measures.					
Biodiversity conservation and sustainable management of living natural resources						
Is the intervention or programme likely to be located on modified, natural and/or critical habitats or in protected or internationally recognised ecological areas?	Yes, some of the activities will be in habitats such as wetlands and watershed areas. However, the design of the interventions aims to protect and improve the management of these areas. Alignment and compliance with all related legislation and by-laws will be assured. The ESMP for each relevant intervention (where required as guided by regulations	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
	for environmental authorisations and ESIA's) will identify these and provide management measures.					
Is the intervention or programme likely to introduce invasive alien species of flora and fauna, affecting the biodiversity of the area?	No, as the activities seek to do the opposite i.e. remove invasive alien species. In addition measures will be put in place to ensure that restoration works does not introduce IAPs. Alignment and compliance with all related legislation and by-laws will be assured. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESIA's) will identify these and provide management measures.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.
Is the intervention or programme likely to have potential impacts on biodiversity (especially critically endangered and/or endangered species, endemic or restricted-range species, and globally	Unlikely. However, due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and assessment phase in operationalisation to confirm if there will be a negative impact on biodiversity and ecosystem	No, activities will not impact biodiversity or ecosystem services with most being desk-based and office bound.	No, activities will not impact biodiversity or ecosystem services with most being desk-based and office bound.	No, activities will not impact biodiversity or ecosystem services with most being desk-based and office bound.	No, activities will not impact biodiversity or ecosystem services with most being desk-based and office bound.	No, activities will not impact biodiversity or ecosystem services with most being desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
significant migratory or congregatory species) and ecosystem services, including production of living natural resources?	services. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESIAAs) will identify these and provide management and mitigation measures.					
Indigenous peoples						
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?	No, the selected project sites are not on indigenous people's lands or communities.	No, the selected project sites are not on indigenous people's lands or communities.	No, the selected project sites are not on indigenous people's lands or communities.	No, the selected project sites are not on indigenous people's lands or communities.	No, the selected project sites are not on indigenous people's lands or communities.	No, the selected project sites are not on indigenous people's lands or communities.
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?	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.	No, the selected project sites are not on indigenous people's lands or communities. Also, no displacement of people is anticipated.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
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?	Yes, the interventions will incorporate ways that vulnerable members of the communities will be included and will benefit from the project.	Yes, the interventions will incorporate ways that vulnerable members of the communities will be included and will benefit from the project.	Yes, the interventions will incorporate ways that vulnerable members of the communities will be included and will benefit from the project.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.
Will the activities need to obtain free, prior and informed consent (FPIC)? If so, has the intervention obtained FPIC?	Communities' consent will be required but not at the level of FPIC processes	Consent will be required but not at the level of FPIC processes. South Africa's Protection of Personal Information Act (2013) legislation does require prior consent on exchange of personal information.	Consent will be required but not at the level of FPIC processes. South Africa's Protection of Personal Information Act (2013) legislation does require prior consent on exchange of personal information.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

Outcome	1: The incorporation of Eco-DRR strategies into integrated landscape management enhances the resilience of ecological infrastructure and climate-vulnerable communities		2: The incorporation of Eco-DRR into transformative disaster preparedness and response reduces the adverse impacts of climate-induced hazards on built infrastructure and climate-vulnerable communities		3: An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management	
Output	1.1: Ecosystems are rehabilitated, maintained and sustainably managed for Eco-DRR	1.2: Local, gender-inclusive and sustainable ecosystem-based livelihoods support locally led adaptation.	2.1: Local governments and communities implement improved Eco-DRR preparedness and response measures.	2.2: Eco-DRR is mainstreamed into national and sub-national asset risk management, environmental policy and spatial planning.	3.1: Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR.	3.2: Informed decision making for Eco-DRR is supported and promoted.
Cultural heritage						
Will the intervention or programme be located on areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic and religious values or contain features considered as critical cultural heritage?	Unlikely, but this will only be determined during the Operationalisation Phase. If such sites are selected for interventions, alignment and compliance with all related legislation and by-laws will be assured including heritage impact assessments. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESIAs) will identify the impacts and provide management measures.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.	No, as this will be desk-based and office bound.

5.2 ESMF IMPLEMENTATION PHASE

Effective mitigation strategies within the Eco-DRR project rely heavily on the implementation of an ESMF, which provides a structured approach and comprehensive guide outlining strategies to minimise adverse environmental and social impacts throughout the project's execution. Its primary objective is to align developmental initiatives with the preservation of ecosystems, the welfare of communities, and the safeguarding of cultural heritage. Within the scope of Eco-DRR endeavours, the ESMF plays a crucial role in proactively addressing potential risks, bolstering resilience, and promoting sustainable development across diverse sites. This ESMF provides the flexibility needed for responsive actions, allowing for adjustments based on evolving environmental, social, or economic conditions. Moreover, integrating capacity building and knowledge transfer within this ESMF is crucial to empower communities with the necessary skills and knowledge to effectively respond to disasters, fostering resilience, and ensuring sustainability.

This ESMF consolidates the actions and measures required to mitigate potential environmental and social risks and impacts in accordance with the mitigation hierarchy and ensures compliance with ESS in a manner satisfactory to SANBI, DFFE, DWS and GCF. This ESMF must be updated to reflect any conditions stipulated in the authorisations and permits (if required) and the measures taken based on the mitigation hierarchy.

Once the screening, categorisation and assessment process has been completed during the Operationalisation Phase, the ESMF can be implemented for all relevant interventions under Output 1.1. – specifically those that entail the following activities: IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

If environmental authorisations, water use licences and permitting related to heritage sites are required (and issued) during the Operationalisation Phase, these would need to be implemented in conjunction with this ESMF. In addition, intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) will have been developed during the Operationalisation Phase for relevant interventions¹⁴ in alignment with this overarching ESMF and will be implemented in conjunction with this ESMF. Customising intervention specific ESMPs to suit individual ecosystems will be imperative to accommodate various vulnerabilities, available resources, and socioeconomic dynamics. This may entail a site-specific assessment of each ecological, social, and economic landscape including hazard mapping, vulnerability evaluations, and engaging stakeholders to comprehend local needs and challenges.

For compliance monitoring purposes, all prospective Eco-DRR interventions under Output 1.1.¹⁵ should notify the Provincial and Local Authorities (as applicable, and in line with relevant authorisations and permits) 90 days prior to the commencement of the intervention.

¹⁴ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

¹⁵ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

5.2.1 Environmental Management Structure and Responsibility

The implementation of the ESMF will be the responsibility of the PMU, supported by the Environmental Programmes and Safeguards Officers (X4) and the Process Managers (X2) – the latter serving the role of Social and Gender Oversight Officers. The Environmental Programmes and Safeguards Officers will be primarily responsible for monitoring the contractor's adherence to the ESMF and intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) during the implementation phase. Additionally, the Social and Gender Oversight Officers (i.e. the Process Managers) will oversee and report on social, gender, and SEAH aspects as well as implementation of the GRM at a community-level. The PMU will be responsible for implementing the GRM for SANBI as the accredited entity and executing entity. The Environmental Programmes and Safeguards Officers and Social and Gender Oversight Officers will engage and communicate with SANBI (as the accredited entity and executing entity) through the PMU.

All contracts must include the integration of ESS, as well as measures to promote green supply chains and ensure net positive impacts on biodiversity, ecosystem services, gender equity, and climate resilience (both mitigation and adaptation assessments and measures will be implemented). Regulatory requirements must be adhered to by contractors to ensure compliance.

Communication Channels

The importance of open communication between all parties mentioned above is emphasised, as the attainment of environmental quality requires a joint effort. With open communication, the role of the Environmental Programmes and Safeguards Officer should be a positive one - aimed at being proactive in preventing problems - rather than a negative "policing" role when negative impacts have already occurred. Internal communication shall involve interaction between the Beneficiaries, PMU, Environmental Programmes and Safeguards Officers, Social and Gender Oversight Officers (i.e. Process Managers) and Contractors. External communication shall include discussions with the public and relevant government authorities, if required. A suggested communication structure / organogram applicable during the implementation phase of the proposed projects is outlined in the figure below. This will need to be adapted or updated with intervention specific requirements.

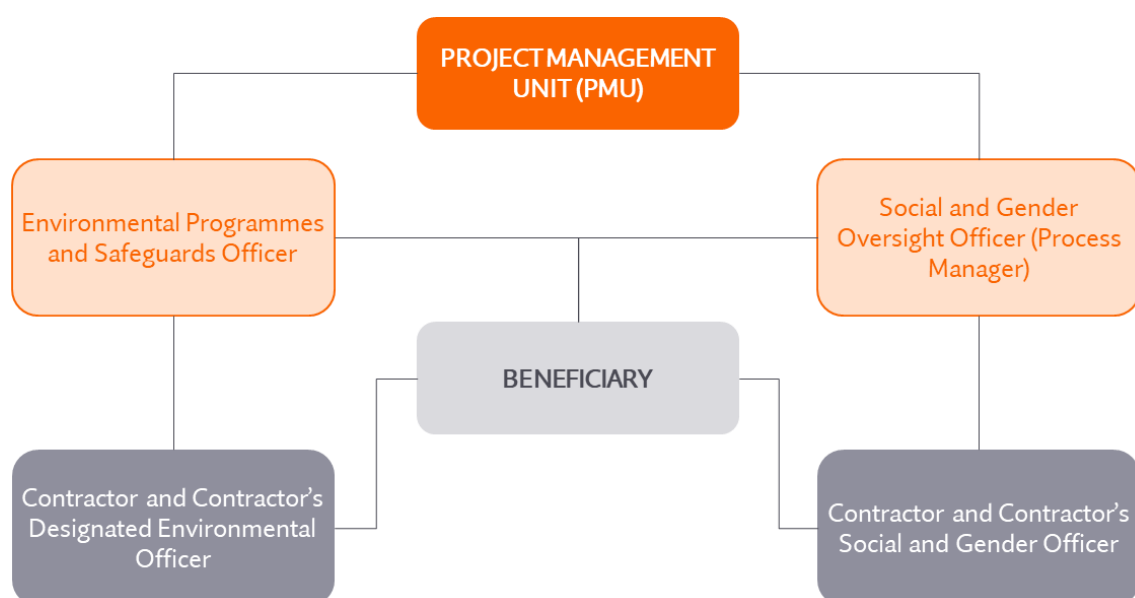


Figure 5-2: Communications hierarchy during the Implementation Phase to ensure implementation of the ESMF

Grievance procedures and disclosures will be in accordance with GCF's safeguard requirements and stakeholder engagement plans based on GCF's and SANBI's guidelines will be used as an additional guideline.

The approach of SANBI to grievances and the establishment of GRM's will be the same at project and intervention level with the oversight of SANBI. At the outset of this phase of work it is required that each intervention will, using the precautionary principle:

- Fully assess SEAH risks;
- Consult SEAH risk mitigation options according to the level of risk;
- Select the appropriate mitigation measures and implement these; and
- Monitor the implementation of these mitigation and report on results.

The PMU may provide mediation as an option where individuals or groups are not satisfied with the proposed resolution. For all interventions, the PMU will:

- Establish a credible, independent, transparent, effective and empowered local grievance and redress mechanism to receive, facilitate and follow up on the resolution of affected people's grievances and concerns about the project environmental and social performance, and inform the Affected Communities about the mechanism during stakeholder engagement.
- Ensure that the mechanism functions well to receive, respond timeously to Affected Parties complaints regarding project implementation and seek to resolve such complaints. Complaint measures will not substitute country dispute resolution and redress mechanisms and do not impede Affected Parties access to judicial or administrative remedies.
- The grievance mechanism will, in alignment with the GCF's Revised Environmental and Social Policy:
 - Be appropriate in scale to the project risks and adverse impacts.
 - Have Affected Communities as its primary user.
 - Use an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern.
 - Accessible to the stakeholders at all times during the project and intervention cycle.
 - Record all responses to grievances and include findings in project supervision reports, relevant monitoring and review reports.
- Ensure affected communities are informed of the GRM and SANBI's contact details in order to facilitate easy communication and submission of complaints, noting that SANBI will oversee these interventions. The PMU will:
 - Designate a social and gender officer at project level to work receive and respond to complaints or disputes when required or deemed necessary by any affected parties. Due regard will be given to confidentiality, and all submissions will be appropriately channelled through the project level GRM;
 - Specify the complaint mechanism to ensure ease of submission to the GRM and provide multiple communications channels to enable confidential routes for submission;
 - Ensure affected parties have information on the GCF's and SANBI's accountability and grievance systems in a way that is applicable to their language and needs;

- Build the capacity of stakeholders with regards to the requirements of ESS and SEAH and the role of the GRM in redressing complaints;
- Notify the Project Management Group (PMG) of any material or operational change that impacts upon the approach to managing risks as well as in the operation of the GRM; and
- Monitor and report to the PMG, through the PMU, on progress, process and adaptive management responses to support continued improvement.

In order to establish effective GRMs at project and intervention level, the PMU will:

- Provide guidance to contractors in developing and implementing measures to manage the risks and impacts identified, particularly with regard to SEAH. The responsibilities of all parties will be clarified to ensure that all the necessary assessments of risks and impacts are conducted, management plans are developed and implemented, information is provided, and the necessary stakeholder engagement and communication is conducted.
- Undertake due diligence assessments at intervention level including the environmental and social management systems and how these are applied, the effectiveness and independence of the GRM, how the disclosure of information is managed, the meaningful and timely consultations with all stakeholders, as well as how the GRM results in effective resolution of cases.
- Provide instructions as to redressive actions required to ensure improvement in the GRM with an associated action plan as needed.
- Expect all interventions to monitor and report on the performance of environmental and management systems including the GRM. The PMU will provide guidance to all interventions as to the specificities and requirements. These monitoring processes are expected to be participatory in nature and PMG, through the PMU, will provide oversight to ensure that these processes are implemented as such. This will need to ensure the involvement of communities, local stakeholders and civil society organisations.
- Through these monitoring and reporting mechanisms any changes that are required in approach to such systems and the GRM will need to be timeously communicated to the PMG.

5.2.2 Roles and Responsibilities

The activity will require the services of an independent Environmental Programmes and Safeguards Officer to ensure that the ESMF is being complied with during the implementation phase. Formal responsibilities are necessary to ensure that the ESMF is effectively implemented. Specific responsibilities of the Beneficiary, Environmental Programmes and Safeguards Officer and the Contractor for the implementation phase of the project are detailed below.

Responsibility of SANBI

SANBI, as the accredited entity, will ensure that all interventions comply with GCF ESS requirements during preparation and implementation of GCF funded interventions. For category B interventions, SANBI will conduct its own due diligence and prepare a report to confirm (i) that all key potential environmental and social impacts and risks of the proposed intervention are assessed and identified; (ii) that ESIA and ESMP commensurate to the impacts are prepared in accordance

with GCF environmental and social safeguards standards; and (iii) that consultations with affected people are conducted in accordance with GCF's requirement. The PMU will support in this.

SANBI at the EE level, through its E&S consultant or staff, will be responsible for conducting the screening assessments. SANBI at the AE level will have an internal mechanism for the approval of screening results and assessments, in accordance with GCF and AE E&S policies, as relevant. DFFE, as the regulatory authority for the environment, will be responsible for approving the screening in accordance with national legislation. Similarly, SANBI will be responsible for the oversight of preparing intervention specific ESIAs and ESMPs (where required as guided by regulations for environmental authorisations and ESIAs) for Category B interventions with DFFE being responsible for approving these as the regulatory authority for the environment.

Responsibility of the PMU

The PMU is required to adopt, support and comply with the ESMF and take up an advisory role to the intervention teams. Importantly, the PMU has an essential oversight role to ensure that the ESMF, and all measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. Equally, the PMU will ensure that the progress and performance are monitored and reported to GCF and its stakeholders throughout the implementation of the GCF-financed activities, in accordance with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports. It will be incumbent on the PMG and SANBI to ensure that the PMU has the requisite capacity to perform these functions as well as oversee the performance of the PMU in ensuring effective oversight and due diligence. This will include ensuring that the needed systems to support oversight and due diligence are in place.

An important consideration will be the capacity of the contractors to ensure the effective implementation, monitoring and reporting and as such the PMU will oversee all interventions to ensure that this capacity and competency is in place.

Role of the Beneficiary

The Beneficiary includes the DM, LM and/or communities which will be determined once interventions are finalised. The beneficiary is required to be familiar with the contents of the ESMF, adopt, support and comply with the ESMF.

Role of the Environmental Programmes and Safeguards Officer

The Environmental Programmes and Safeguards Officer must be independent and have expertise in conducting environmental compliance auditing, including knowledge of the environmental legislation and regulations, guidelines and policies related to environmental management. The Environmental Programmes and Safeguards Officer must conduct audits in terms of the ESMF for the interventions, these will be undertaken on a quarterly basis. A minimum of one site inspection must be undertaken per month, for the duration of the implementation phase. It is anticipated that four Environmental Programmes and Safeguards Officers will be required – one for each DM.

Each Environmental Programmes and Safeguards Officer will be responsible for monitoring, reviewing and verifying compliance with the ESMF by the Contractor within each of their DMs, in alignment with the requirements of this ESMF. The Environmental Programmes and Safeguards Officer's duties in this regard will include the following:

- Be familiar with the contents of the ESMF;
- Monitor and verify that the ESMF is adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that environmental impacts are kept to a minimum;
- Obtain, examine and approve method statements;
- Assist the Contractor in finding environmentally responsible solutions to problems;
- Report back on the environmental issues at site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the site diary of all activities / incidents / complaints concerning the environment onsite;
- Inspect the site and surrounding working areas regarding compliance with the ESMF;
- Be reachable by the public regarding matters of environmental concerns as they relate to the development;
- Provide environmental awareness training for site personnel;
- Recommend corrective actions to the Contractor where implementation activities are not in compliance with the ESMF;
- Inform the Contractor immediately of the occurrence of non-compliances and recommend appropriate measures of rectification, e.g. issuing of fines;
- Facilitate communication between all role-players in the interest of effective environmental management;
- Ensure that activities onsite comply with legislation of relevance to the environment;
- Keep a photographic record of progress onsite from an environmental perspective; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, PMU and Contractor.
- SANBI at the EE level, through its E&S consultant or staff, will do the screening and approval of screening results and assessments will be the responsibility of the AE.

Role of the Social and Gender Oversight Officer¹⁶

This officer will be independent and have expertise in conducting social and gender studies, ensuring compliance and auditing, including knowledge of the supporting legislation and regulations, guidelines and policies related to social, gender and SEAH aspects. The officer must conduct audits in terms of the ESMF and the Gender Action Plan for the intervention. A minimum of one site inspection must be undertaken per month, for the duration of the implementation activities. It is anticipated that two Social and Gender Oversight Officers will be required i.e. 2 X Process Managers.

Each Social and Gender Oversight Officer will be responsible for monitoring, reviewing and verifying compliance with the ESMF and the Gender Action Plan by the Contractor within their respective DMs. Duties in this regard will include the following:

- Monitor and verify that the ESMF, Gender Action Plan and programme policies are adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that social and gender impacts are kept to a minimum;

¹⁶The Social and Gender Oversight Officer function will be performed by the Process Manager (X2)

- Must obtain, examine and approve method statements to overview processes;
- Assist the Contractor in finding socially responsible solutions to problems;
- Report back on the social and gender issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the site diary of all activities / incidents / complaints concerning the social and gender aspects onsite;
- Inspect the site and surrounding working areas regarding compliance with the ESMF;
- Be reachable by the public regarding matters of social and gender concerns as they relate to the development;
- Provide social and gender awareness training for site personnel;
- Recommend corrective actions to the Environmental Programmes and Safeguards Officer and the Contractor where activities are not in compliance with the ESMF;
- Inform the Environmental Programmes and Safeguards Officer immediately of the occurrence of non-compliances and recommend appropriate measures of rectification;
- Ensure that activities onsite comply with legislative and regulatory requirements; and
- Undertake quarterly site visits, compile and quarterly reports to the Beneficiary, PMU, Environmental Programmes and Safeguards Officer and Contractor.

Contractor

The Contractor has the responsibility to:

- Be familiar with the contents of the ESMF;
- Designate a responsible person for monitoring site activities against the ESMF on a daily basis;
- Communicate to the Environmental Programmes and Safeguards Officer, at least ten working days in advance, any proposed actions, which may have negative impacts on the environment;
- Designate all working areas and remain within working areas at all times;
- Comply with the environmental conditions contained in this document;
- Ensure that all sub-contractors are aware of and adhere to the requirements of the ESMF at all times in consultation with the Contractor's Designated Environmental Officer (DEO);
- Compile the required method statements in accordance with the ESMF;
- Notify the Environmental Programmes and Safeguards Officer immediately in the event of any accidental infringements of the ESMF to enable appropriate remedial action to be taken;
- Undertake rehabilitation of all areas affected by implementation activities to restore to the original states, as determined by the Environmental Programmes and Safeguards Officer and in accordance with the ESMF; and
- Maintain a site diary.

Designated Environmental Officer (DEO)

The appointed Contractor will be required to appoint a competent individual as the Contractor's onsite DEO. The DEO could be the same person monitoring health and safety aspects onsite as long as they have sufficient environmental management experience. The selected DEO must fully familiarise him-/herself with the contents of this ESMF. The DEO should

furthermore possess the necessary skills to confer environmental management to all personnel involved in the contract. The DEO's duties in this regard will include the following:

- Monitor and oversee the Contractor's internal compliance with the ESMF requirements and ensure that the environmental specifications are adhered to;
- Keep a record of all onsite environmental related incidents and how these incidents were dealt with;
- Monitor and verify that environmental impacts are kept to a minimum;
- Inspect the site and surrounding areas regularly regarding compliance with the ESMF;
- Compile and maintain an incidents and complaints register with regards to environmental issues;
- Undertake environmental awareness training for all new site personnel;
- Accompany the Environmental Programmes and Safeguards Officer during monthly site visits; and
- Ensure all issues identified by the Environmental Programmes and Safeguards Officer are rectified on site in a timely manner.

5.2.3 Reporting

The Contractor / DEO must generate an Environmental File for the intervention that must remain onsite for the duration of the intervention, and which should contain all environmental related information, such as the following:

- Copy of ESMF; and any other authorisations or permits;
- Proof / signed attendance register of all environmental training sessions;
- Method statements;
- Emergency contact numbers;
- Complaints register;
- Copies of monthly Environmental Programmes and Safeguards Officer reports;
- Waste manifests and safe disposal slips;
- Any internal environmental compliance checklists; and
- Record of any incidents onsite, outlining remediation undertaken.

The Environmental Programmes and Safeguards Officer is to provide monthly reports after each site visit. The DEO shall monitor the site daily. Environmental awareness training should take place at the start of the intervention and for all new staff that may join the intervention.

5.2.4 Environmental Training

Before any implementation work commences, all the Contractor's staff shall attend an environmental training session, presented by the Environmental Programmes and Safeguards Officer with the assistance of the Contractor / DEO. The Contractor shall liaise with the Environmental Programmes and Safeguards Officer prior to the commencement date to arrange a date and venue for the training. The Contractor shall ensure that all the employees attend the training session. The Environmental Programmes and Safeguards Officer shall ensure that all attendees sign an attendance register and shall provide a copy of the attendance register to the PMU. The Contractor will ensure that follow-up training is conducted for any new employees coming onto site. The Environmental Programmes and Safeguards Officer shall provide environmental education material. The environmental training should, as a minimum, include the following:

- Site management and operation;
- Health and safety requirements including the importance of personal protective equipment;
- Response to complaints and emergency incidents;
- The importance of conformance with all environmental policies;
- The environmental impacts, actual or potential, of work activities;
- The environmental benefits of improved personal performance;
- “No-go” areas;
- Roles and responsibilities in achieving conformance with the ESMF;
- The potential consequences of departure from specified operating procedures;
- Appropriate worker conduct onsite (for example, but not limited to, no fires or no pets on-site);
- Corrective actions pertaining to non-conformance with the ESMF;
- The mitigation measures required to be implemented when carrying out work activities;
- Management of waste, including both general and hazardous waste;
- Spill clean-up management (using spill kits); and
- Firefighting (using fire extinguishers).

Due to the length of the project and interventions, annual refresher training may be required. Training will also include training in ecological infrastructure for water security across sectors and stakeholders involved to build capacity in establishing effective feedback networks to rehabilitate areas and protect scarce water resources including catchments, watersheds, riverine systems and wetlands.

5.2.5 Implementation Phase Environmental Auditing

The appointed Environmental Programmes and Safeguards Officer shall visit the site on a monthly basis during the implementation phase and produce a monthly report, outlining any non-compliances and recommending corrective actions. The DEO shall monitor daily site activities during implementation in terms of the ESMF. The environmental monitoring and auditing requirements are listed below:

Monitoring and Inspection

- Storage containers as well as waste storage containers must be inspected on a regular basis;
- The stormwater management or containment system, where applicable, must be inspected weekly or after each significant rainfall event to ensure that the system is free from debris, and other materials.
- The site must be inspected on a weekly basis to ensure early detection and addressing of environmental pollution.
- Should the preliminary findings indicate that the groundwater underneath and adjacent to the site is vulnerable and that systems to prevent groundwater pollution are required, then a groundwater and soil monitoring network must be established.

Auditing

- Internal audits must be conducted bi-annually by the PMU and on each occasion a report must be compiled for record purposes.

- External audits must be conducted every twelve (12) months by an independent auditor and the auditor must prepare an official audit report documenting the audit findings. The external audit report must be submitted to the local and/or provincial authority (as applicable) upon request.
- A competent authority, should there be any licensing requirements, may prescribe auditing formats and methodologies to be applied by the external auditor.
- The external audit report must:
 - Detail the extent of compliance with the conditions of the ESMF and any other permits or authorisations for the reporting period;
 - Specify non-compliances identified and rectified prior to the audit;
 - Contain recommendations regarding non-compliance or potential non-compliance;
 - Specify target dates for the implementation for the recommendations and whether corrective action taken for the previous audit non-compliances was adequate;
 - Confirm any major environmental incidents that occurred and details of the manner the incidents were addressed;
 - Confirm that hazardous waste is separated from general waste and that such waste is removed by a registered waste handling company for either recycling or disposal at licenced disposal facility; and
 - A complaints register and incident report must be made available to the external auditor.

Competent Authority Audits and Inspections

This may only be applicable where an authorisation / permit has been issued.

- A competent authority may reserve the right to audit and/or inspect the site without prior notification at any time.
- Any records or documentation pertaining to the management of the site must be made available to the competent authority upon request, as well as any other information that may be required.
- Records must be kept for a minimum of five years and must also be available for inspection by the competent authority.
- A complaints register and incident report must be made available to the competent authority.
- A record of any finding of non-compliance and how the manner of such non-compliances were addressed must be kept in a file and produced upon request by any relevant competent authority.

It should be noted that any authorisation or permit that has been issued may contain additional conditions for audits and inspections which must be adhered to.

Reporting

- Monitoring reports on month-to-month basis for operational effectiveness and efficiency and progress in terms of all safeguards (GCF standards), adherence and alignment to policies (both SANBI and GCF), aspects relating to SEAH and progress with the GRM.
- Compliance reporting with regards to adherence to regulatory requirements. Operational tracking of compliance using an agreed upon format (see example in the table below).

- All incidents occurring at the site, excluding those that fall within the ambit of Section 30 of the National Environmental Management Act, 1998 must be reported to the competent authority.

Table 5-4: Example of operational compliance monitoring to support reporting

Legal requirement	Authority responsible to issue	Timelines for requirement of authorisation/ permit or licence	Activities are compliant	Contractor has provided document on PMU's shared folder	Authorisation date	Notes on amendments or version tracking's	Status (including dates)	Compliance plan of action
e.g Environmental and Social Impact Assessment	DFFE	before implementation of activity	yes	draft provided	3 months' time or less	version 2 reviewed by...	no anticipated delays	n/a
ESMF	DFFE							
Environmental Management Systems								
Water use licence	DWS							

5.2.6 Emergency Contacts and Response

The Contractor shall place a list of all emergency contact numbers at the site offices and at any other relevant area. All staff shall be informed of procedures to follow in the case of various emergencies (e.g. fire, hydrocarbon spill, site incidence, etc.). The Contractor must nominate a health and safety person who should be responsible for managing any emergency. Emergency response systems will also include issues related to catchment management.

5.2.7 Method Statements

Method statements from the Contractor may be required for specific activities. A method statement forms the baseline information for work that takes place that may result in environmental impacts. Modifications of the method statements can be negotiated between the Contractor and the Environmental Programmes and Safeguards Officer as circumstances unfold. All method statements will form part of the ESMF documentation and are subject to compliance by the Contractor. The Contractor may suggest alternative methods / measures, not included in the ESMF, which would need to be approved by the Environmental Programmes and Safeguards Officer.

Method statements should be submitted at least 7 days prior to the activity taking place. As a minimum, the method statements listed in the table below shall be provided by the Contractor to the Environmental Programmes and Safeguards Officer for approval.

Table 5-5: Method statements required

METHOD STATEMENT	DETAIL/CONTENT REQUIREMENTS
Site establishment and material handling	Location, preparation and layout of the Contractor's camp must be provided prior to establishment on site. Methods of handling use and storage of materials such as spoil and material stockpiles, as well as location for all stockpiling. Search and Rescue Plan (if appropriate)
Dust and noise	Details on how dust and noise generation will be minimised and managed onsite.

METHOD STATEMENT	DETAIL/CONTENT REQUIREMENTS
Handling and management of hazardous substances	The following must be detailed by the Contractor: Methods of handling and the storage of hazardous materials. Emergency spill procedures and compounds to be used for clean-up / remediation, i.e. oil spill kits. Material safety data sheets are to be included for all hazardous chemicals stored onsite. Methods and procedures for handling hazardous spills.
Integrated waste management	Methods to record, manage, store, handle and dispose of waste generated onsite, this includes both general and hazardous waste. Waste management should also include measures for recycling and re-use of materials.
Emergency response plan	Procedures to follow in the case of various emergencies and manage environmental impacts.

Oversight will be undertaken by the PMU. Where there are reporting and data insufficiencies, the PMU will liaise with Contractors to ensure that this is rectified and aligned with contractual arrangements. Intervention level compliance reporting is required on a monthly basis using the project's monitoring and reporting system that the PMU will put in place during the project's establishment phase. An example of a typical compliance reporting format is provided in Appendix J and this will be formalised by the PMU during the project's establishment phase

Noting that the ESIA will identify any data, information and monitoring challenges that may exist, the ESMF will have identified the needed mechanisms to address such issues. In this regard, the PMU will maintain an interventions dashboard that tracks all projects and progress, that flags issues requiring redress and tracks actions to ensure redress.

5.2.8 Corrective Action

The PMU will compile regular intervention monitoring reports to submit to the PMG as per the ESMF specifications. Based on the monitoring results, the PMU will identify any necessary corrective and preventive actions, and incorporate these in an amended ESMF or the relevant management tool, in a manner acceptable to the PMG. The PMU will implement the agreed corrective and preventive actions in accordance with the amended ESMF or relevant management tool, and monitor and report on these actions.

Any avoidable non-compliance with the requirements of the ESMF shall be considered sufficient grounds for the imposition of a penalty in consultation with the Environmental Programmes and Safeguards Officer. Possible offences, which could result in the issuing of a penalty, include, but are not limited to:

- Unauthorised entrance into no-go areas.
- Improper management of hydrocarbons / hazardous materials leading to large spills or leaks (if applicable).
- Improper management and cleaning of ablution facilities where the environment is impacted by spills.
- Insufficient solid waste management (e.g. unauthorised dumping, incorrect disposal, etc.).
- Insufficient fire control and unauthorised fires.

These penalties will be outlined in the contractual arrangements between SANBI and the Contractor, indicating liabilities where offences occur.

5.2.9 Generic Implementation and Management Plan

This section outlines the potential environmental impacts, the risk ratings, the recommended control measures, responsible parties and monitoring frequency during the implementation phase. These will be augmented to include intervention specific requirements, and the risk rating must be updated.

Table 5-6: Generic implementation and management plan

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
VISUAL IMPACTS		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Visual impacts of the intervention 		
Environmental Objectives	<ul style="list-style-type: none"> Ensure that site is well managed and maintained. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 9: Stakeholder Engagement and Information Disclosure 		
Mitigation Measures	<ul style="list-style-type: none"> Good housekeeping and maintenance to reduce potential negative visual impacts. Roadways must be maintained, accessible and kept clean on a daily basis. Visual screening of the site, if applicable – wall or fence and vegetation around the perimeter which is maintained on a consistent basis. Once sites are finalised during operationalisation, engagement with communities will be held to understand possible visual impact and how this can be mitigated and/or avoided. 		
NOISE		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Noise impacts on people working onsite. Noise impacts on neighbours / residential areas near site. 		
Environmental Objectives	<ul style="list-style-type: none"> Ensure that noise levels are managed. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 4: Community Health, Safety and Security Standard 9: Stakeholder Engagement and Information Disclosure 		
Mitigation Measures	<ul style="list-style-type: none"> Limit noise levels (e.g. install and maintain silencers on machinery). Comply with Occupational Health and Safety Act (Act No. 85 of 1993) regulations regarding noise. Provision of training for workers and communities involved in implementation of interventions Provision of personal protective equipment 		
SOLID WASTE MANAGEMENT		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Contamination of soil, surface water and groundwater if not properly handled and disposed of. Impact on the environment as a result of littering. 		
Environmental Objectives	<ul style="list-style-type: none"> Properly manage all waste types onsite and encourage recycling and re-use of materials as far as possible. Ensure correct disposal of all waste generated on site and reduce volume of waste requiring disposal. 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 3: Resource Efficiency and Pollution Prevention Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<ul style="list-style-type: none"> Compile waste management plan to be incorporated in the operating manual outlining how waste will be managed onsite, temporary storage areas, waste types to be recycled, as well as methods of disposal. No onsite burying, burning or dumping of waste is allowed. Different waste types to be stored separately. PMU and/or Contractor to investigate options of “take-back” policies for any containers, drums, materials, packaging, etc., for materials not re-used on site. Examples could include used pallets, plastic wrapping, etc., prior to recycling materials. Waste shall be collected in a skip or bins onsite and disposed of periodically at a municipal landfill – skip/bins must be emptied before it is full to prevent overflowing. <p><u>General Solid Waste</u></p> <ul style="list-style-type: none"> The site must be kept neat and tidy and free of litter and waste at all times. Solid waste to be stored in refuse bins with lids, skips, or other suitable enclosed containers. Solid waste to be disposed of once storage containers are full. Solid waste to be disposed of at a registered landfill site. Disposal slips to be retained. <p><u>Hazardous Waste</u></p> <ul style="list-style-type: none"> Hazardous waste to be stored in a demarcated area (i.e. impermeable area) prior to disposal. Hazardous waste includes contaminated hydrocarbon soils, oily rags, etc. Hazardous waste to be disposed of at a registered landfill site and proof of safe disposal slips retained. 		
Evidence	<ul style="list-style-type: none"> Safe disposal slips. 		
SOIL, SURFACE AND GROUNDWATER MANAGEMENT		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Impact to groundwater and surface water quality. 		
Environmental Objectives	<ul style="list-style-type: none"> Prevent contaminated water from entering stormwater channels and groundwater. Contain all contaminated / polluted water onsite for safe disposal. Prevent soil contamination Prevent upstream and/or downstream impacts to the catchment. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 3: Resource Efficiency and Pollution Prevention Standard 4: Community Health, Safety and Security 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 8: Cultural Heritage Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<u>Stormwater management</u> <ul style="list-style-type: none"> Monitor stormwater management system. Continual monitoring for contamination. Prevent all contaminated water from leaving the site. The operational area must be hard surfaced / impermeable where there is potential for significant surface or groundwater contamination. 		
Evidence	<ul style="list-style-type: none"> Operational plan for the management of wastewater Proof of disposal of contaminated wastewater. Incident register 		
DUST MANAGEMENT		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Dust resulting from vehicles. Impact on visibility for driving, walking, etc. 		
Environmental Objectives	<ul style="list-style-type: none"> Limit dust impacts as far as possible and to an acceptable level. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<ul style="list-style-type: none"> Exposed surfaces to be limited and monitored for dust. Non-potable water to be used for dust suppression. Ensure vehicle speed limits on site are kept to a minimum and below 20 km/hour. 		
ODOUR MANAGEMENT		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Impact on staff as well as neighbouring areas/facilities. 		
Environmental Objectives	<ul style="list-style-type: none"> Limit odours and pests as far as possible. 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<ul style="list-style-type: none"> Minimise onsite storage times for any waste. Use closed containers for the storage of waste. If applicable, provision shall be made for odour control, these controls must be positioned strategically considering the prevailing wind direction at the site. Train staff on incident reporting procedures and emergency measures to address odour and pests . 		
HAZARDOUS SUBSTANCES		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Impact on stormwater systems if any spills occur which are not contained. 		
Environmental Objectives	<ul style="list-style-type: none"> Ensure the proper handling, storage and management of hazardous substance to prevent impacts to the natural environment. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 3: Resource Efficiency and Pollution Prevention Standard 4: Community Health, Safety and Security Standard 9: Stakeholder Engagement and Information Disclosure 		
Mitigation Measures	<ul style="list-style-type: none"> Compile an operational plan detailing hazardous substances, fuels, oils, etc., to be brought to site, storage measures, quantities, refuelling details and disposal methods, as well as a spill response plan and procedures for any spills / incidences. Applicable signage must be in place at all storage areas. <p><u>Hazardous Chemicals</u></p> <ul style="list-style-type: none"> Hazardous chemical substances (as defined in Regulations for Hazardous Chemical Substances GN 1179 (1995) and the Occupational Health and Safety Act 181 of 1993) used during implementation shall be stored in designated storage areas, when not in use. Relevant material safety datasheets must be available onsite for all hazardous substances. Storage areas must be enclosed with lockable access to control and limit access. The surface under the storage area shall be protected against spills (i.e. impermeable). <p><u>Fuels and Oils</u></p> <ul style="list-style-type: none"> The Contractor shall ensure that all liquid fuels and oils are stored in containers / jerrycans with lids, which are kept firmly shut. Areas for the storage of fuels and other flammable materials shall comply with standard fire safety regulations. All empty and externally dirty containers / jerrycans, etc., shall be sealed and stored on a waterproof / impermeable surface. Adequate precautions shall be provided to prevent spillage during re-fuelling on site and work areas, e.g. making use of drip trays during re-fuelling. 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> Old oil to be collected for recycling and stored on an impermeable surface prior to collection by a service provider. 		
Evidence	<ul style="list-style-type: none"> Operational plan outlining management of hazardous substances. Proof of oil recycling, if applicable. Incident register Training records 		
FIRE CONTROL		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Fire causing damage to equipment, properties, and leading to injuries, etc. 		
Environmental Objectives	<ul style="list-style-type: none"> Prevent damage caused by fire by quick response times. Ensure staff are trained in how to react should a fire breakout. Ensure proper management of hazardous materials. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<p>A fire management plan / strategy (as part of the emergency response plan) must be in place and must be in accordance with the applicable legislation and local by-laws and at a minimum contain the following:</p> <ul style="list-style-type: none"> Sufficient fire-fighting equipment that is kept in good working conditions and available onsite. Identified sources of fires that may result onsite and appropriate operational procedures to be undertaken to bring the fire under control. A firebreak or barrier constructed around the perimeter of the site to avoid the spread of fires. Clear signs must be in place and should inform the public that flammable liquids are not permitted on the site <p><u>General</u></p> <ul style="list-style-type: none"> Operator to appoint a fire safety officer who shall be responsible for ensuring immediate and appropriate actions in the event of a fire. Fire extinguishers to be located in hazardous and fuel storage areas and any other applicable areas. Staff must be trained to use the firefighting equipment. Designated smoking areas must be allocated with containers for cigarette butts. Relevant contact numbers for local firefighting services must be included on the emergency list. 		
Evidence	<ul style="list-style-type: none"> Fire management plan / strategy (as part of the emergency response plan) 		
EMERGENCY PROCEDURES		PMU	Low / Medium/ High
Environmental Objectives	<ul style="list-style-type: none"> Protection of the biophysical environment from hazardous spills. Prevent injury or loss of life as a result of operational activities. Ensure all staff are aware of emergency procedures. Prevent upstream and/or downstream impacts to the catchment. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> Standard 2: Labour and Working Condition Standard 3: Resource Efficiency and Pollution Prevention Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<u>General</u> <ul style="list-style-type: none"> Operator to compile an emergency response plan, including all emergency contact numbers, and identifying key designated staff to manage different potential emergencies. Emergency incidents must be dealt with in accordance with section 30 of NEMA, 1998 (Act No. 107 of 1998). 		
Evidence	<ul style="list-style-type: none"> Emergency response plan which must include the following: <ol style="list-style-type: none"> Emergency response plan Remedial actions; and Preventative measures Safe disposal slips. 		
EROSION CONTROL		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Loss of topsoil. 		
Environmental Objectives	<ul style="list-style-type: none"> To effectively manage stormwater onsite to prevent erosion. Prevent upstream and/or downstream impacts to the catchment. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 3: Resource Efficiency and Pollution Prevention Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<ul style="list-style-type: none"> Monitor stormwater infrastructure to ensure its operational efficiency. No polluted run-off must leave the site. 		
MEASURING, REPORTING AND VERIFICATION		PMU	Low / Medium/ High
Potential Impact:	<ul style="list-style-type: none"> Monitoring / measuring not accurate due to poor data availability Difficulty assessing the effectiveness of management actions and to understand the actual residual impact of implementation activities on the environment. 		
Environmental Objectives	<ul style="list-style-type: none"> Monitoring is a critical component of managing the site. 		
ESS	<ul style="list-style-type: none"> Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Standard 2: Labour and Working Condition Standard 3: Resource Efficiency and Pollution Prevention 		

IMPLEMENTATION PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> Standard 4: Community Health, Safety and Security Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Standard 8: Cultural Heritage Standard 9: Stakeholder Engagement and Information Disclosure Standard 10: Climate Change Resilience and Adaptation 		
Mitigation Measures	<ul style="list-style-type: none"> Ensure that all infrastructure required for monitoring and measuring is installed and calibrated / maintained as required Systems for monitoring and measuring must be out in place prior to the commencement of the intervention activities. Regular internal audits and annual external audits to take place to verify compliance with the ESMF. Adhere to the monitoring, auditing and reporting requirements set out in the ESMF as a minimum. 		

5.3 CLOSURE PHASE

This section provides high-level and generic requirements to be taken into consideration when closing relevant interventions¹⁷ under Output 1.1. Each of these interventions will require a closure plan with the roles and responsibilities as outlined below. The Closure Plan will be developed using the intervention specific ESMP (where required as guided by regulations for environmental authorisations and ESIAs) as guidance, but ultimately is guided by the objectives and vision set out in the Closure Plan.

The completion requirements that should be included as a minimum are as follows:

- The site must be rehabilitated according to the closure and the rehabilitation plan approved by the competent authority.
- The rehabilitation plan shall consider and address the ecological infrastructure impacts and ensure no activities have a negative impact.
- All equipment must be removed from the site, unless motivation is provided for the equipment to remain with proof that it will not have the potential to cause environmental impacts and is required for subsequent use of the site.
- The DM, LM, DFFE or other relevant authority will remain responsible for any adverse impacts on the environment, even after operations have ceased.
- The PMU must also identify and inform the local and/or provincial authority (as applicable) of the future end use of the site.
- If there is a change of ownership, the registered owner of the land must notify the local and/or provincial authority (as applicable) in writing, within one month of such change.

The objectives of the closure plan are to:

- Provide the vision, objectives, targets and criteria for final rehabilitation and closure of the intervention;
- Explain the risk assessment approach and outcomes and link closure activities to risk rehabilitation;
- Detail the closure actions that clearly indicate the measures that will be taken to mitigate and/or manage identified risks and describes the nature of residual risks that will need to be monitored and managed post closure;
- Commit to a schedule, budget, roles and responsibilities for final rehabilitation and closure of each relevant activity;
- Detail the full closure costs for the life of intervention; and
- Outline monitoring, auditing and reporting requirements.

¹⁷ These interventions refer to those that include activities related to IAP removal, improved landscape management in degraded upper catchment areas, river rehabilitation and wetland restoration (including hard and soft interventions) and improved rangeland management (rotational resting and grazing, rotational fencing, revegetation and Zai Pits).

5.3.1 Roles and Responsibilities

The activity will also require the services of an independent Environmental Programmes and Safeguards Officer to ensure that the Closure Plan is being complied with during the closure phase. Formal responsibilities and accountability are necessary to ensure that the Closure Plan is effectively implemented during this critical phase.

Responsibility of PMU

The PMU will be responsible for overseeing the closure of interventions and will ensure that Closure Plans are adhered to during this important stage. As such, the PMU will ensure that all measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. The PMU is required to ensure that the closure of interventions is aligned to the Closure Plan, is consistent with GCF's environmental and social safeguards and policies, and is compliant with the required environmental and social regulations. The PMU will undertake compliance checks to ensure processes are in accordance with the Closure Plan and the various regulatory requirements.

In addition, the PMU, will ensure that progress and performance are monitored and reported to GCF and its stakeholders throughout the closure of the GCF-financed activities, in accordance with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports.

Key activities of the PMU, will include:

- Ensuring the inclusion of relevant analysts in the completion monitoring team and prepare completion reports,
- Undertaking desktop audits for selected interventions, and
- Undertaking evaluations of select interventions dependent on the scale of impact and levels of associated risk.

From this, the PMU, will produce an intervention Completion Report, desk-based Audit Reports for select interventions, and will commission external independent evaluation reports for selected interventions.

Role of the Beneficiary

The beneficiary is required to be familiar with the contents of the Closure Plan, adopt, support and comply with the Closure Plan.

Role of the Environmental Programmes and Safeguards Officer

The Environmental Programmes and Safeguards Officer must be independent and have expertise in conducting environmental compliance auditing, including knowledge of the environmental legislation and regulations, guidelines and policies related to environmental management. The Environmental Programmes and Safeguards Officer must conduct audits in terms of the ESMP for the interventions (where required as guided by regulations for environmental authorisations and ESIAs), these will be undertaken on a quarterly basis. A minimum of one site inspection must be undertaken per month, for the duration of the closure activities.

The Environmental Programmes and Safeguards Officer will be responsible for monitoring, reviewing, and verifying compliance with the Closure Plan by the Contractor, in alignment with the requirements of this ESMF. The Environmental Programmes and Safeguards Officer's duties in this regard will include the following:

- Be familiar with the contents of the Closure Plan with regards to intervention closure and the longer-term implications to environment and society;
- Monitor and verify that the Closure Plan is adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that environmental impacts are kept to a minimum during the closure process;
- Obtain, examine and approve method statements;
- Assist the Contractor in finding environmentally responsible solutions to problems during intervention closure;
- Report back on the environmental issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the site diary of all activities / incidents / complaints concerning the environment onsite;
- Inspect the site and surrounding working areas regarding compliance with the Closure Plan;
- Be reachable by the public regarding matters of environmental concerns as they relate to the intervention closure;
- Provide environmental awareness training for site personnel concerning long term aspects of intervention closure;
- Recommend corrective actions to the Contractor where closure activities are not in compliance with the Closure Plan;
- Inform the PMU immediately of the occurrence of non-compliances and recommend appropriate measures of rectification, e.g. issuing of fines;
- Ensure that activities onsite comply with legislation of relevance to the environment;
- Keep a photographic record of progress onsite from an environmental perspective; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, PMU and Contractor.

Role of the Social and Gender Oversight Officer

The Social and Gender Oversight Officer (i.e. Process Manager) will be responsible for monitoring, reviewing and verifying compliance with the Closure Plan by the Contractor during intervention closure. The officer must conduct audits in terms of the Closure Plan during the intervention closure. A minimum of one site inspection must be undertaken per month, for the duration of the closure activities.

Duties in this regard will include the following:

- Monitor and verify that the Closure Plan and project policies are adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that social and gender impacts are kept to a minimum;
- Must obtain, examine and approve method statements to overview processes;
- Assist the Contractor in finding socially responsible solutions to problems during intervention closure;
- Report back on the social and gender issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the site diary of all activities / incidents / complaints concerning the social and gender aspects onsite, during the closure process;
- Inspect the site and surrounding working areas regarding compliance with the Closure Plan;

- Be reachable by the public regarding matters of social and gender concerns as they relate to the intervention closure process;
- Recommend corrective actions to the Environmental Programmes and Safeguards Officer and the Contractor where closure activities are not in compliance with the Closure Plan;
- Inform the Environmental Programmes and Safeguards Officer immediately of the occurrence of non-compliances and recommend appropriate measures of rectification;
- Ensure that activities onsite comply with legislative and regulatory requirements; and
- Undertake quarterly site visits, compile and submit quarterly reports to the Beneficiary, PMU, Environmental Programmes and Safeguards Officer and Contractor.

Role of the Contractor

The Contractor has the responsibility to:

- Be familiar with the contents of the Closure Plan and intervention closure processes;
- Designate a responsible person for monitoring site activities against the Closure Plan on a daily basis;
- Communicate to the Environmental Programmes and Safeguards Officer, at least ten working days in advance, any proposed actions, which may have negative impacts on the environment;
- Designate all working areas and remain within working areas at all times;
- Comply with the environmental conditions contained in this ESMF;
- Ensure that all sub-contractors are aware of and adhere to the requirements of the Closure Plan at all times in consultation with the DEO;
- Compile the required method statements in accordance with the Closure Plan;
- Notify the Environmental Programmes and Safeguards Officer immediately in the event of any accidental infringements of the Closure Plan to enable appropriate remedial action to be taken;
- Undertake rehabilitation of all areas affected by the intervention to restore to the original states, as determined by the Environmental Programmes and Safeguards Officer and in accordance with the Closure Plan; and
- Maintain a site diary.

Role of the DEO

The appointed Contractor will be required to appoint a competent individual as the Contractor's onsite DEO. The DEO could be the same person monitoring health and safety aspects on site as long as they have sufficient environmental management experience. The selected DEO must fully familiarise him-/herself with the contents of the Closure Plan and understand the various environmental and social implications of intervention closure. The DEO should furthermore possess the necessary skills to confer environmental management to all personnel involved in the intervention closure process. The DEO's duties in this regard will include the following:

- Monitor and oversee the Contractor's internal compliance with the Closure Plan and intervention closure requirements and ensure that the environmental specifications are adhered to;
- Keep a record of all onsite environmental related incidents and how these incidents were dealt with;
- Monitor and verify that environmental impacts are kept to a minimum throughout the closure process;

- Inspect the site and surrounding areas on a daily basis regarding compliance with the Closure Plan and intervention closure requirements;
- Compile and maintain an incidents and complaints register with regards to environmental issues;
- Accompany the Environmental Programmes and Safeguards Officer during monthly site visits; and
- Ensure all issues identified by the Environmental Programmes and Safeguards Officer are rectified on site in a timely manner.

5.3.2 Reporting

The Contractor / DEO will, during the intervention closure process, maintain the environmental file for the intervention that must be handed over to the PMU once the intervention is formally closed. This file will contain all environmental related information, as well as a record of all closure processes. This would include such aspects as:

- Copy of ESMF; and any other authorisations or permits;
- Proof / signed attendance register of all environmental training sessions;
- Method statements;
- Emergency contact numbers;
- Complaints register;
- Copies of monthly Environmental Programmes and Safeguards Officer's reports;
- Waste manifests and safe disposal slips;
- Any internal environmental compliance checklists;
- Record of any incidents onsite, outlining remediation undertaken;
- Record of processes to close the intervention (including site clearance, removal of equipment, waste disposal, re-grading of land, vegetation replanting etc) and ensure long-term minimisation of impacts on environment and society; and
- Guidance onsite maintenance requirements into the future.

5.4 Monitoring and Reporting

5.4.1 Regular Monitoring and Inspection for Compliance

Adequate institutional arrangements, systems and resources will be put in place to monitor the ESMF. The goals of monitoring will be to measure the success rate of the activities, determine whether interventions have handled negative impacts, and whether further interventions are required, or monitoring is to be extended in some areas. The goal of inspection activities is to ensure that intervention activities comply with the plans and procedures laid out in the ESMF.

The main monitoring responsibilities and inspection activities will be with the PMU, which will administer the overall project-related environmental and social monitoring and implementation as laid out in this ESMF, as well as the stakeholder engagement plan and the GRM. The PMU will be responsible for the overall implementation of the environmental and social mitigation measures, as well as for monitoring and inspections for compliance. In addition, the PMU will be handling the day-to-day tasks in regard to the implementation of the ESMF.

The ESMF is the overall document that guides the development of intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs). The ESMF lays out the expectations for implementing partners and task teams who will support the PMU with intervention / site related ESMP activities including screening, impact assessments, development of intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs), monitoring of impacts, and administration of mitigation measures in regard to their respective activities. These activities may follow the internal processes of the implementing partner, where applicable. They further commit to integrate stakeholder inputs into their regular monitoring and reporting activities.

The PMU will assess the compliance of implementing partners' and task teams' activities against the ESMF and will report possible non-compliance to the PMG. The PMU will also independently conduct its own monitoring, verification and inspection of the activities of the implementing partners and task teams to ensure they are in compliance with this ESMF. Monitoring indicators will depend on specific intervention and its context.

Independent Verification Agent (IVA) will be engaged by PMU on a competitive basis to provide independent operational review of project and intervention implementation, as well as verification of all project and intervention results. This will include assessing adherence at all implementation levels to the procedures set out in relevant project documents, and in verifying outputs of all project and intervention activities. It will serve as a management tool to provide PMU with timely third-party information on weaknesses in implementation that require corrective actions to keep the project on track. The scope and methodology of the IVA will be agreed upon by SANBI, and quarterly monitoring reports will be shared by the PMU.

5.4.2 Monitoring and Reporting Responsibilities

Implementing partners, contractors and/or task teams will report the results of their screening processes, site / intervention specific ESMPs (where required as guided by regulations for environmental authorisations and ESIAs), activity impacts, monitoring results, and GRM outcomes where applicable, to the PMU on a regular basis.

The PMU will review and assess all relevant reports and develop findings to produce an overall environment and social progress report, which will be provided to the PMG. The project will follow an agreed upon reporting cycle. These periodic reports will further be shared with relevant stakeholders, as defined in the Project Design Report and Site Level Stakeholder Engagement Plan and Grievance Mechanism Report. The report will provide brief updates on environmental and social issues identified in screening; mitigation actions undertaken; capacity building implemented; stakeholders engaged; results of site / intervention specific ESIAs and ESMPs (where required as guided by regulations for environmental authorisations and ESIAs); non-compliance with the ESMF and ESMPs; and possible challenges. This will allow for immediate adjustments and assistance in the implementation of the ESMF, including the GRM.

Furthermore, the PMU will provide an annual review of ESMF implementation, with the aim of: (a) assessing the project's performance in complying with ESMF procedures, documenting lessons learned, and identifying opportunities to improve future performance; and (b) assessing the occurrence of, and potential for, cumulative impacts due to project-funded activities. In addition, data from the GRM will be analysed and presented. These reports will be the main source of information for the PMG, PSC and national authorities, as needed.

Frequency will be determined by the need but is expected to be more frequent at early stages of project implementation. The GRM will further help track complaints and effectiveness of interventions, including those with environmental and social impacts.

5.5 ADDITIONAL PROCEDURES

5.5.1 Labour Management Procedures

Labour management procedures involve the systematic planning, organisation, and oversight of the workforce involved in a project. This includes hiring, training, assigning tasks, ensuring workplace safety, monitoring performance, and addressing any issues that arise among the workers.

In GCF-funded projects, these procedures are crucial for several reasons:

- i. **Efficient Resource Utilisation** - Proper labour management ensures that the right people are employed for the right tasks, maximising productivity and minimising resource wastage.
- ii. **Project Timelines** - Effective management helps in meeting project deadlines by ensuring tasks are assigned appropriately and completed on time.
- iii. **Quality Control** - Monitoring the workforce allows for better quality control as it ensures that work is done according to the required standards and specifications.
- iv. **Risk Mitigation** - Labour management procedures also contribute to risk identification and mitigation strategies, helping to prevent accidents, delays, and other project-related risks.
- v. **Compliance and Accountability** - Following labour management protocols ensure compliance with legal and ethical labour practices, promoting accountability within the project.

The GCF-funded projects are required to implement efficient labour management to ensure that resources allocated for environmental conservation and climate change mitigation are utilised optimally. These projects often involve intricate tasks that demand specialised skills, and effective labour management ensures that these skills are utilised efficiently.

5.5.2 Procedures for Partnering with Third Parties

Successful project implementation requires collaboration with multiple stakeholders, including private sector, local non-governmental organisations (NGOs), civil society and research institutions. SANBI will engage in various partnership agreements to support project and intervention implementation, focusing on priority locations. The agreements with implementing partners will specify the roles, responsibilities, partner contribution and financial support of participating institutions, as well as the project's objectives, compliance with GCF's safeguards, adherence to ESMF procedures, and timelines for submission of progress reports.

Partner induction training sessions or meetings will need to be organised to familiarise partners with project tools and requirements. These sessions will cover important topics such as GCF's safeguards, gender equality, stakeholder engagement, ESMF and gender action plan procedures, accountability mechanisms, monitoring and evaluation, and reporting. Continuous monitoring will track partnership progress and ensure alignment with project goals. Flexibility is essential for adapting strategies and reallocating resources to meet evolving needs.

5.6 DISCLOSURE REQUIREMENTS FOR ENVIRONMENTAL AND SOCIAL DOCUMENTS

Noting that, overall, the Eco-DRR project is a Category B with some elements of Category C, SANBI shall disclose and announce to the public and, via the Secretariat, to the Board and Active Observers the ESIA and an Environmental and Social Management Plan at least 30 days in advance of SANBI's or GCF's Board decision (whichever is earlier). As per GCF's Information Disclosure Policy, SANBI will ensure that this, as well as any relevant environmental and social reports produced under the Eco-DRR project, will be available in both English and the local language (if not English). The reports will be available via electronic links in both the SANBI's and the GCF's website (in the case of the GCF website, upon submission of a funding proposal to the Board) as well as in locations convenient to affected peoples.

6 Gender Assessment and Action Plan

The Eco-DRR project has developed a comprehensive gender assessment and action plan that covers all four targeted DMs where the project is to be implemented. The ESMF ensures alignment with this gender assessment and action plan to guarantee that all project initiatives are responsive to gender considerations. This is crucial for promoting inclusivity, equity, and effectiveness in project outcomes.

Integrating a gender perspective into project and intervention design, implementation, and evaluation is essential for several reasons. Firstly, it recognises that the impacts of climate change affect men and women differently due to their distinct roles, access to resources, and societal norms. By conducting a gender assessment, GCF-funded projects can better understand these disparities and tailor solutions to address the specific needs, vulnerabilities, and capacities of different genders within climate-affected communities.

Furthermore, incorporating a gender-responsive action plan ensures that projects not only address environmental challenges but also promote social empowerment and resilience. By actively involving women in decision-making processes, providing equitable access to resources, and considering their unique knowledge and perspectives, GCF-funded projects become more sustainable, impactful, and reflective of the diverse needs of the communities they aim to serve. In the context of this project, the importance of gender analysis and action plans cannot be overstated. GCF aims to catalyse climate finance to support low-emission and climate-resilient development. By integrating gender considerations, this project becomes more holistic and effective. Gender analysis ensures that interventions are not one-size-fits-all but rather customised to address the diverse realities of men and women. Additionally, gender-responsive action plans promote social equality and empower marginalised groups, thereby fostering more sustainable and resilient communities in the face of climate change. Ultimately, by prioritising gender-inclusive approaches, this project can achieve greater impact, ensure long-term success, and contribute meaningfully to both environmental sustainability and social equity.

More details on the gender action plan can be found in Annex 8: Site-Based Gender Assessment and Action Plan.

7 Grievances Redress Mechanism (GRM)

7.1 GRM OBJECTIVES AND SCOPE

The Eco-DRR project has drafted a GRM that will be used by communities, affected stakeholders, workers or any parties that will be involved in the project. The GRM will be in place by the start of the EcoDRR project and it will be strengthened and refined after consultations with the community during the Operationalisation Phase. The GRM entails establishing grievance handling committees and systems that will undergo testing and refinement during the Operationalisation Phase before full implementation, so that it adequately responds to the needs of the communities.

Its purpose is to ensure that project implementers foster accountability and that any issues are addressed promptly. The GRM will also provide a channel for communities and other impacted parties to air grievances related to the project thus empowering them and giving them a sense of ownership. The GRM is a tool that helps in identifying potential risks, challenges or unintended project consequences. It will, in turn, allow SANBI to address the issues and mitigate risk effectively. Feedback through GRMs can provide insights into community needs, perceptions and suggestions for enhancing the project's outcomes and sustainability. Lastly, the GRM provides a structured way of resolving issues fairly and transparently.

The proposed GRM is designed to address a wide range of issues pertinent to the project's impact and risks throughout its life cycle. These include environmental impacts, land use conflicts, socio-economic disruptions, discrimination in benefit sharing, violation of rules or cultural practices, and cultural heritage preservation. The GRM will handle complaints and requests related to various issues, including misconduct of project workers and contractors, gender-based sexual harassment, water and land pollution, damage to assets and infrastructure, inappropriate waste disposal, and environmental degradation. However, it will not address complaints arising from other projects in the area, government policy and institutions, criminal matters, complex labour issues covered by labour management acts, or contractors' contractual agreements.

7.1.1 Project-Level GRM

The GRM outlined in this section is designed to support the Eco-DRR project and serves as a platform for targeted communities, affected stakeholders, project workers, and other involved parties at the local level to address any grievances related to the project. The GRM presented in the report would not impede access to South Africa's judicial or administrative procedures. Three key GRMs are presented for the Eco-DRR project: 1) Project-Level GRM; 2) SANBI's Whistleblowing Hotline and SANBI's Environmental and/or Social Harms and Gender Discrimination complaints process and 3) GCF's Independent Redress Mechanism (IRM).

Project-level GRMs will be developed for each of the DMs and be in place at the start of the Eco-DRR project. The project-level GRMs will be strengthened and refined after thorough consultations with the community throughout the Operationalisation Phase of the Eco-DRR project in response to the needs of the communities. The project-Level GRM requires community approval before implementation and these communities will be identified before or by project commencement. These communities should be linked to the targeted LMs identified in each of the DMs for the

interventions under Outcomes 1 and 2 and can include traditional authorities. It entails establishing grievance handling committees and systems that will undergo testing and refinement before full implementation.

The Eco-DRR Project-Level GRM addresses a variety of pertinent issues related to the project, including environmental impacts, land use conflicts, socio-economic disruptions, discrimination in benefit sharing, violation of rules or cultural practices, and cultural heritage preservation. It focuses specifically on the impacts and risks stemming from the Eco-DRR project throughout its life cycle. Stakeholders involved or affected by the project, such as local communities, government agencies, and project implementers, are within the purview of this mechanism.

This framework will handle complaints and requests, which may include but are not limited to:

- Misconduct of project workers towards communities;
- Gender-based sexual harassment;
- Misconduct of project contractors;
- Water and land pollution;
- Damage to private assets, community, and public infrastructure;
- Inappropriate waste disposal;
- Environmental degradation; and
- Other related concerns.

For local communities to access the project-level GRM, a number of procedures will be implemented. These are:

- **Awareness and Communication:** The project's implementing partners will ensure that the affected communities are aware of the existence and purpose of the GRM. The information will be shared through community meetings, local radio, posters in vernacular, and any other opportunities that may arise. The awareness will include disseminating information on how the GRM works, its purpose, procedures and contact details.
- **Clear Procedures:** For people to access the GRM they will need to know the procedures, and these will clearly be defined. The process for submitting complaints is outlined in the sections below. Once the project commences, information on designated contact persons, hotline numbers, or physical complaint box's locations will be publicised.
- **Training and Capacity Building:** Community members shall be provided with training on how to use the GRM effectively which is described and budgeted for in Annex 6: ESMF. The training will be provided by the PMU and relevant agencies / staff (where appropriate). This may involve workshops or training sessions to educate them about their rights, the process of filing a complaint, and what to expect after submitting a grievance.

All the above steps will be implemented to encourage communities to effectively access and utilise the GRM as a way of ensuring sustainability.

The GRM will be established by the start of the Eco-DRR Project by the PMU (as part of the Executing Entity functions in SANBI). During the Operationalisation Phase the GRM will be strengthened and refined to suit specific community needs. The refinement process requires a systematic approach that prioritises community engagement and procedural fairness.

The process for strengthening and refining the GRM entails the following:

Initially, conducting a comprehensive stakeholder analysis and consultation process to identify key community representatives and their concerns could take approximately 2-3 months.

Following this, reviewing this proposed mechanism in collaboration with relevant stakeholders, including local authorities and NGOs, might take another 2-3 months.

Implementing the mechanism, including training local facilitators and setting up communication channels, could require an additional 3-6 months.

The GRM will be developed by the time that the project starts, and it will be improved upon during the Operationalisation Phase which is 18 months. This timeline allows for thorough planning, inclusive participation, and effective execution, ensuring the GRM's credibility and responsiveness to local needs.

Once operating, the GRM shall ensure reasonable timelines for addressing complaints, prioritising swift and transparent resolutions while ensuring thorough investigation and fair treatment. A typical framework proposed from this GRM is:

- i) Acknowledging receipt of a complaint within 5 working days,
- ii) Conducting an initial assessment within 10 working days to determine its validity and severity, and
- iii) Resolving straightforward complaints within 30 working days, with more complex cases requiring up to 60 working days.

Regular updates to complainants should be provided throughout the process to maintain trust and engagement with the community.

More details on the project-level GRM can be found in the Annex 7: Site Level Stakeholder Engagement Plan and Grievance Mechanism.

7.1.2 SANBI GRM

Grievances related to any SANBI activities can be raised through SANBI's Whistleblowing Hotline and through SANBI's Environmental and/or Social Harms and Gender Discrimination complaints process. Information on communication channels for inquiries and complaints can found in the Annex 7: Summary of Consultations, Site Level Stakeholder Plan and Grievance Mechanism.

Communication channels for inquiries and complaints received

SANBI has an environmental and/or social harms and gender discrimination complaints process. SANBI's flowchart on complaints regarding Environmental and/or Social Harms and Gender Discrimination demonstrates the mechanism used to deal with complaints. In 2024 minor changes were made to the process to receive and respond to complaints to better align with SANBI's operational procedures. The process is reflected in the flowchart which is available on the "Contact" page of SANBI's website, as per the description below.

SANBI's high-level statement communicating its zero tolerance for environmental and/or social harms and gender discrimination arising from SANBI's activities appears on SANBI's official website (<https://www.sanbi.org/contact/>). The main

landing page (<https://www.sanbi.org/>) includes the following text: “Report complaints on environmental and/or social harms and gender discrimination arising from SANBI’s activities Email: safeguards@sanbi.org.za”.

This is linked to further details on the Contact page (<https://www.sanbi.org/contact/>) on the official SANBI website where it states: “Environmental and/or social harms and gender discrimination... SANBI has zero tolerance for environmental and/or social harms and gender discrimination arising from SANBI’s activities. To report complaints on environmental and/or social harms and gender discrimination: Email: safeguards@sanbi.org.za”

Whistle blowing

A Whistleblowing Hotline is fully functional and is administered and managed by Advance Call: Ethics and Fraud Hotline. Advance Call reports any cases of fraud or misconduct to SANBI Management for investigation if warranted. The Whistleblowing Hotline can also be used to receive complaints regarding Environmental and/or Social Harms and Gender Discrimination. The Advance Call system allows for anonymous whistleblowing. SANBI also receives and administers formal, informal and anonymous matters from various communication mediums. This includes a dedicated internal SANBI fraud email address, administered by SANBI’s Director: Governance, Risk and Compliance. The protection of Whistleblowers is included in SANBI’s Fraud Prevention Policy.

SANBI maintains Hotline Registers of all reported matters reported through the hotline. SANBI’s Risk Management and Fraud Prevention Committee, which is chaired by the Chief Operations Officer, adjudicates on alleged cases reported through the whistleblowing system or other approved means. These cases are reported quarterly to the Audit and Risk Committee, which is a sub-Committee of the SANBI Board. Enterprise Risk Management Reports are presented at SANBI’s Audit and Risk Committee, as per the process above. SANBI’s Hotline Registers include details of the incident, progress in its resolution, status and responsible party.

SANBI’s Whistleblowing Hotline is accessed through SANBI’s website, as per the description below.

SANBI’s high-level statement communicating its zero tolerance for fraud and corruption appears on SANBI’s official website (<https://www.sanbi.org/contact/>). The main landing page (<https://www.sanbi.org/>) includes the following text: “To report suspected fraud at SANBI. Email: sanbi@behonest.co.za. Call: 0800 160 999”. This is linked to further details on the Contact page (<https://www.sanbi.org/contact/>) on the official SANBI website where it states:

- Ethics and fraud hotline reporting channels
 - SANBI has zero tolerance of fraud and corruption. To report suspected fraud at SANBI:
 - Tel.: 0800 160 999
 - WhatsApp: 0860 004 004
 - SMS number: 48691
 - Free post: BNT165, Brooklyn Square, 0075
 - E-mail: sanbi@behonest.co.za
 - Website and chat link: www.behonest.co.za

7.1.3 The GCF's Independent Redress Mechanism (IRM)

The GCF's IRM¹⁸ serves as a crucial avenue for individuals or communities affected by GCF-funded projects. It's an accountability tool designed to address grievances related to these projects, ensuring that concerns are heard, investigated, and resolved impartially. The IRM operates independently from the GCF Secretariat and Board, offering an accessible platform for affected parties to voice their complaints regarding potential environmental or social harm caused by GCF-funded initiatives. It facilitates mediation or dispute resolution, aiming to find equitable solutions and provide remedies to affected individuals or communities. It also accepts requests from developing countries seeking reconsideration of funding proposals that were denied by the GCF Board.

Complaints can be sent to the IRM mail or email with voice or video recordings and the completion of online forms. Complaints can be filed in any language as long as they are accompanied by a translated English version.

This mechanism embodies transparency and fairness, empowering stakeholders to engage in the decision-making process and hold the GCF accountable for its actions. It follows a structured process, including filing complaints, thorough investigations, and transparent reporting of findings and recommendations. If requested by a complainant, the IRM will provide confidentiality of names and identities of complainants and their representatives. By fostering trust and inclusivity, the IRM reinforces the GCF's commitment to sustainable and responsible project implementation while promoting environmental and social integrity within its initiatives.

7.2 OTHER AVAILABLE GRIEVANCE MECHANISMS

In South Africa, there are several official grievance mechanisms available beyond the formal justice system. Project beneficiaries will be made aware of these sources for seeking resolution to conflicts. These mechanisms are:

- i. **Public Protector:** This is an independent institution established to investigate complaints against government agencies or officials regarding improper conduct or maladministration.
- ii. **Commission for Conciliation, Mediation, and Arbitration:** It deals primarily with labour disputes and provides conciliation, mediation, and arbitration services for conflicts arising in the workplace. It is important for people who may be employed on various components of the Eco-DRR project.
- iii. **South African Human Rights Commission (SAHRC):** SAHRC investigates human rights violations and discrimination cases, promoting the respect and protection of human rights. Specific to the Eco-DRR project, aggrieved parties may approach the Commission if they believe that there has been violation of their rights within the project realm.
- iv. **Legal Aid South Africa:** Legal Aid offers legal assistance and representation to those who cannot afford it in various legal matters. Legal Aid may serve anyone who wishes to take the grievance through the formal justice system but is not able to afford the costs involved.

¹⁸ Independent Redress Mechanism | Green Climate Fund

These mechanisms provide avenues for redressal and resolution outside of the formal court system, focusing on specific areas of concern or disputes within the society and providing accessible means for people to seek justice or remedy.

It should also be noted that SANBI has its own hotline number for anything related to ethics and fraud, as well as for environmental and/or social harms and gender discrimination. Numbers and channels are detailed at the bottom of SANBI's webpage¹⁹. However, these channels are not specific for the Eco-DRR project and there is need for a project-level GRM that is specific to the Eco-DRR project.

7.3 SEAH IN RELATION TO THE GRM

The Eco-DRR project will develop and implement a zero tolerance approach to sexual harassment to ensure a safe and respectful environment for all participants and stakeholders across the targeted DMs. The prevention of SEAH requires an approach that will address both individual behaviours and systemic factors. The project will, from the onset, implement the following to prevent SEAH:

- **Policy Development:** The project will develop a clear and comprehensive SEAH policy that outline expected behaviours, define prohibited conduct, and establish consequences for violations. The policy will be communicated to all project participants and stakeholders during the Operationalisation Phase through training and workshops.
- **Training and Awareness:** Throughout the project gender awareness training will be conducted including regular sessions and awareness campaigns to educate project staff, volunteers, beneficiaries, and partners about SEAH, its impact, and ways to prevent and respond to incidents. The SEAH sessions will include topics such as consent, boundaries, power dynamics, and reporting procedures and should be led by trained gender focal points or other issue experts. Engagements with local communities and stakeholders will help to raise awareness about SEAH, build trust, and foster collaboration in prevention efforts. Community leaders, religious leaders, and other influential figures will be involved in promoting positive social norms and values.
- **Code of Conduct:** To ensure compliance, contractors and implementing partners will be required to sign a code of conduct which will include guidelines for respectful communication, appropriate interactions, and the avoidance of abusive behaviour and consequences should one violate the agreement.
- **Promotion of Gender Equality:** SEAH can also be prevented by promoting gender equality and women's empowerment within the project as well as challenging gender stereotypes and norms that perpetuate SEAH.
- **Safe Reporting Mechanisms:** The project will establish accessible and confidential reporting mechanisms for individuals to report incidents of SEAH. Multiple reporting options, such as hotlines, email, physical drop-boxes, and designated focal points, will be provided to accommodate different preferences and ensure survivors' privacy and safety. In addition, the project will encourage open communication channels and feedback mechanisms to empower individuals to raise concerns and grievances.

¹⁹ <https://www.sanbi.org/>

- **Response and Support Services:** The project will refer survivors of SEAH to established local-level appropriate support services, including psychosocial support, medical assistance, Legal Aid, and referrals to specialised service providers. The project will also facilitate access to support resources and follow-up services as needed.
- **Monitoring and Evaluation:** The project will collect data on reported incidents, response times, and outcomes to identify areas for improvement and adjust approaches as necessary. This will enable evaluation of the effectiveness of SEAH prevention strategies and interventions. As per Annex 8 (Site Based Gender Assessment and Gender Action Plan), intervention level SEAH monitoring and evaluation frameworks will be developed including specific indicators and monitoring tools to assess the effectiveness of SEAH prevention measures.

7.4 DISSEMINATION OF THE GRM

To disseminate the Project-Level GRM, SANBI's GRM and GCF's IRM, several strategies will be employed:

- **Community Meetings:** Meeting will be organised with the affected communities to introduce the GRM.
- **Local Media:** Various channels that include local radio stations, social media platforms and any other community channels will be utilised to publicise the GRM. Videos explaining the GRM and how community members can access it will be circulated on social media.
- **Community Workshops:** Funds permitting workshops and training sessions focused on the GRM will be held to provide an opportunity for interactive discussions and clarification of any doubts.
- **Poster Distribution:** Posters will be placed at community locations such as schools, markets, and community centres to raise awareness about the GRM.
- **Local Partnerships:** In different districts, the project PMU will collaborate with local NGOs, community-based organisations, and government agencies to amplify the outreach efforts and ensure the GRM reaches its target audience.

By employing a combination of these strategies, the GRM can be effectively disseminated and publicised, ensuring accessibility and awareness among the affected populations.

8 CAPACITY BUILDING / TRAINING FOR ESMF IMPLEMENTATION

Delivery institutions have the responsibility for ensuring systems are in place so that relevant employees, contractors and other workers are aware of the environmental and social requirements for project implementation, including the ESMF. All project personnel will attend an induction that covers all relevant ESMF requirements, including health, safety, environment and cultural requirements. Any personnel engaged in activities with the potential to cause serious social and environmental harm will receive task specific training.

Effective implementation of this ESMF will require adequate capacity enhancement within institutions and stakeholders, especially regarding monitoring and evaluation. This calls for building the capacity of the relevant Eco-DRR governance structures, the PMU and other project implementing entities including at a national, provincial and local level.

8.1 ENVIRONMENTAL AND SOCIAL AWARENESS, CAPACITY BUILDING AND TRAINING

8.1.1 Capacity Needs and Training Requirements

Effective execution of responsibilities for environmental and social risk management requires institutional strengthening. Capacity building will include all PMU staff and any other relevant personnel in SANBI, relevant executing institutions, the relevant implementing departments and municipalities, and contractors. As part of the ESMF, the PMU will prepare a training plan that includes training modules for project staff, contractors, and other key actors. Capacity building will be carried out in liaison with SANBI, DFFE and the South African Local Government Association (SALGA). Below are some of the envisaged capacity building training needs:

- Capacity building at the national and district levels on the ESMF / ESS.
- Training on ESIA and occupational safety and health national processes.
- Monitoring of ESIAs, ESMFs, vulnerable communities (where applicable) and related safeguard management plans.
- Training in GRM and public consultations in the stakeholder management plan process.
- Community mobilisation / participation and social inclusion.
- Training communities regarding GBV, specifically with regards to changes in household power dynamics that may unintentionally increase levels of GBV through male engagement strategies.
- Integration of intervention ESMFs into the Eco-DRR project cycle during implementation stages.

A capacity development and training schedule is presented in Table 8-1. This schedule will be updated once site-specific intervention ESMFs have been developed.

8.2 TECHNICAL ASSISTANCE / CONTRACTORS

Specialised and technical inputs into the interventions - for example rehabilitation, mid-term project evaluations, monitoring of aspects of the project such as GBV and SEAH - will require expertise which may be procured outside of the

PMU. The PMU will need to be trained to carry out effective procurement that does not compromise the project and interventions.

Table 8-1: Capacity development and training plan for the Eco-DRR project

Capacity Building and Training Plan						
Objectives	Issues for engagement	Method of engagement	Stakeholders / Target population and area	Responsible person	Timeline	Potential Costs (USD)
Project GRM	Consultation on different GRM mechanisms in place, development of overall GRM, and training of all relevant agencies / staff	Consultations and training	Eco-DRR relevant agencies / staff responsible for the implementation of environmental and social instruments.	PMU	Prior to commencement of activities (Year 1)	10,000
Project GRM	Project GRM as described in the stakeholder engagement plan	Information disclosure and training	Communities in intervention locations, with particular focus on vulnerable communities	PMU, all relevant agencies / staff	Prior to commencement of activities (Year 1-2)	10,000
GBV procedures for reporting and prevention	Training and monitoring during project implementation to prevent GBV and support reporting of cases	Training and monitoring	Community members / vulnerable groups	Process Managers, GBV / Gender Consultant	Prior to commencement of activities (Year 1-2)	10,000
ESMF	Training of all relevant agencies / staff in the ESMF	Training	Eco-DRR relevant agencies / staff responsible for the implementation of environmental and social instruments.	PMU, Process Managers, Gender Specialist	Prior to commencement of activities (Year 1-2)	12,000
GBV / SEAH	Training of all relevant agencies / staff in the ESMF	Training	Eco-DRR relevant agencies / staff responsible for the implementation of environmental and social instruments.	PMU, Process Managers, Gender Specialist	Prior to commencement (Year 2)	16,000
GBV	Response to domestic issues in a non- gender biased manner. This considers the changes in household power dynamics that may unintentionally increase levels of GBV. To address this potential risk, male engagement strategies will also be included under this activity to mitigate these concerns.	Training	Local leaders in intervention locations	PMU, Process Managers	Prior to commencement of activities (Year 2)	10,000

Capacity Building and Training Plan						
Objectives	Issues for engagement	Method of engagement	Stakeholders / Target population and area	Responsible person	Timeline	Potential Costs (USD)
Community health and safety	Communicable diseases, HIV/AIDS, sexually transmitted infections etc. awareness and prevention , GBV / SEAH	Training and awareness raising	Communities in intervention locations	PMU; all relevant agencies / staff	Prior to commencement of activities (Year 2-3)	16,000
GBV procedures for reporting and prevention	Training and monitoring during project implementation to prevent GBV and support reporting of cases	Training and monitoring	Community members / vulnerable groups	Process Managers, GBV / Gender Consultant	Prior to commencement of activities (Year 2-3)	16,000
Create awareness of labour management procedures and health and safety standards for community workers	Labour management procedures and health and safety standards	Training	Community workers in intervention locations	All relevant agencies / staff	Prior to deployment (Year 2-3)	5,000
Mitigate impact of workers on local communities (Labour management procedures and GBV / SEAH)	Implement training of contracted project workers designed to heighten awareness of risks and to mitigate impacts on local communities and their rights	Training	Contracted workers and community workers in intervention locations	All relevant agencies / staff	Prior to deployment (Year 2-3)	5,000
Health and safety standards	Health and safety standards for workers	Training	Contracted workers and community workers in intervention locations	All relevant agencies / staff	Prior to deployment (Year 2-3)	5,000
Support emergency response measures	Communication of emergency response measure to communities	Information and training	Communities in intervention locations	PMU	Prior to commencement of activities (Year 2 - 3)	5,000
Year 1 Costs (USD)						26,000
Year 2 Costs (USD)						48,000
Year 3 Costs (USD)						46,000

These budgets have been factored into the overall project budgets with much of the training being provided by local NGO and implementation partners, supported by the local SANBI staff and Provincial DFFE staff. Thus, this will include some consulting time to prepare materials, as well as staff time to present these. Refresher events will be held by staff as the project progresses and will be timed according to the needs of each intervention.

9 STAKEHOLDER ENGAGEMENTS

9.1 SUMMARY OF CONSULTATIONS DURING FFP DEVELOPMENT

The planned process followed for stakeholder engagements is summarised in the figure below:

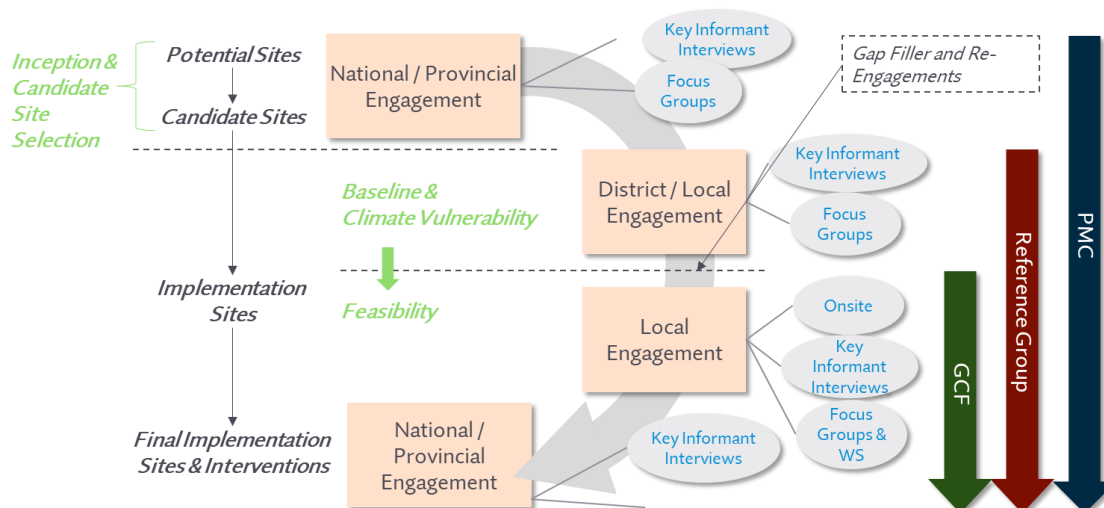


Figure 9-1: Stakeholder engagement process

Effectively, the stakeholder engagement process included a suite of initial engagements to provide the basis for future and ongoing engagement across the course of the project development and design. These were then followed up with a series of re-engagements and consultations focused on refining findings, aligning with stakeholders' evolving priorities, and moving forward the project development (Figure 9-2).

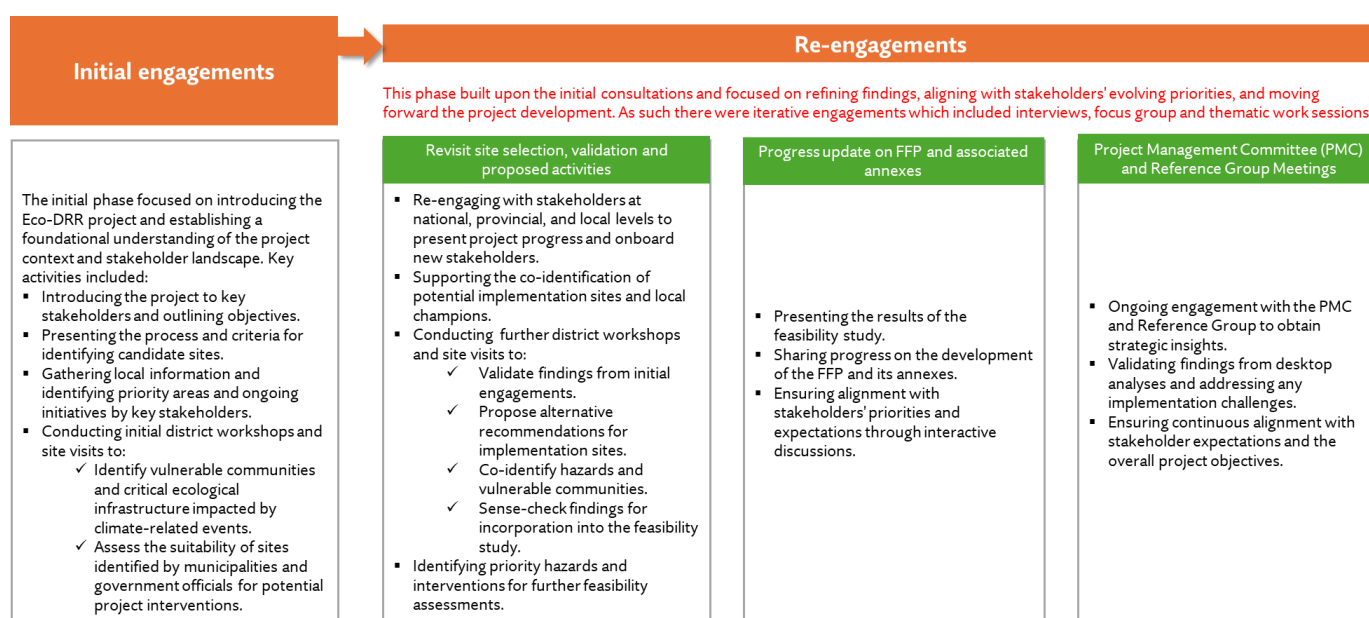


Figure 9-2: Overview of the purpose underpinning the stakeholder engagement journey

In the planning and implementation of stakeholder engagements gender and cultural aspects were carefully considered and supported. This included all engagements at national, provincial and local levels, with the more local level engagements taking cultural aspects into consideration of process.

The initial engagements were focused on introducing the project and understanding the background and context of Eco-DRR project. This was followed by engagements where the consulting team presented the process and selection criteria to be used to identify candidate sites, sourced local information and identified priority areas / projects being undertaken by key stakeholders. Thereafter, follow-up engagements were held to validate and align the candidate sites as well as identify stakeholders to engage with at a local-level. In support of this, district workshops and site visits were also conducted so as to:

- Provide an opportunity for stakeholders to identify vulnerable communities, important ecological infrastructure and locations impacted by climate-related incidents to inform refinement of candidate sites.
- Visit specific sites as identified by municipalities and other government officials to assess their appropriateness for the project.

A re-engagement process was undertaken with national, provincial and local level stakeholders to re-engage with key actors; to present progress to date; introduce the project to new stakeholders; support the co-identification of potential implementation sites; and identify local champions. A second round of district workshops and site visits was then conducted to explain process to identify implementation sites, assist in validating findings, propose alternatives recommendations, and co-identify hazards and vulnerable communities to sense-check findings. Through this process, potential implementation sites were identified coupled with the identification of priority hazards and possible interventions that could be taken into the feasibility study. The next round of engagements entailed presenting the results from the feasibility study, progress on the development of the FFP and annexes and ensuring alignment with stakeholders' priorities.

Further to the above, engagements with the Project Management Committee (PMG) and Reference Group were held throughout the project to obtain strategic insights, validate the findings from desktop analysis and address any challenges that may have been encountered during implementation.

Key outcomes from the engagements that shaped the Eco-DRR project are listed below:

1. **Identification of priority hazards:** In the early stages of the project, floods, wildfires and droughts were identified as the priority hazards. During the candidate site selection process, flooding was identified as the priority hazard. Stakeholder engagements, site visits and workshops supported this finding and in 2022/23, it was agreed that the project would focus on flood as a primary hazard with drought as a secondary hazard. Wildfire was not considered at this stage as local engagements revealed that wildfires were linked to poor practices and management. However, engagements with GCF and other stakeholders in 2024 revealed that all three hazards should be considered as all three hazards impact the 4 district municipalities (DMs). As a result, the final FFP considers all three hazards within the 4 DMs.
2. **Site selection:** Through a consensus-driven approach coupled with a Project Site Selection Workshop in 2021, seven priority DMs were selected within the high-priority at-risk tertiary catchments. At the outset of FFP development, further analysis was undertaken, focusing on a sub-set of quaternary catchments within the seven DMs. As a result of this analysis, the project scope was narrowed to 5 DMs that were subjected to further analysis

and feasibility assessments. Significant stakeholder engagements including site visit and workshops were undertaken to assess the 5 DMs and identify implementation sites (and interventions) that could be taken into the feasibility study. Towards the end of 2023, these sites in the 5 DMs (and interventions) were finalised and were subsequently assessed in the feasibility study from a technical and economic perspective. In 2024, stakeholder engagements were conducted to validate the findings from the feasibility study. During these engagements, key stakeholders' inputs resulted in changes in sites which led to exclusion of Joe Gqabi DM and expansion of certain sites in the remaining 4 DMs.

3. **The approach to community-level engagements:** While the involvement of and inputs from communities is critical to any project, national, provincial and local stakeholders noted the need to approach these types of engagements with caution. DMs and LMs emphasised the need to engage with communities only when the project has landed and is close to implementation. This would help to manage communities' expectations as well as minimise stakeholder fatigue.
4. **Alignment with past / current and planned projects was assured:** Throughout the engagement process, stakeholders kept the consulting team abreast of projects that have been / are being / will be implemented in the 4 DMs which helped to ensure that synergies were identified as well as minimising duplication of efforts. This also ensured that the Eco-DRR project would build on the lessons learned from these projects.
5. **Buy-in was secured from key actors in the natural resource management space:** By engaging with relevant government entities, civil society and NGOs, support for the Eco-DRR project was obtained with many entities showcasing their willingness to partner with SANBI during implementation of the Eco-DRR project

9.2 STAKEHOLDER ENGAGEMENT PLAN FOR THE ECO-DRR PROJECT

Developing a stakeholder engagement strategy is crucial for ensuring that the project's goals align with the needs and concerns of the impacted communities. This strategy should involve various stakeholders, including experts in gender, culture, and related fields. To reiterate, the goal of the project is to upscale ecosystem-based techniques to manage disaster risks that are intensified by climate change in South Africa's vulnerable areas. Ecosystem-based strategies are widely regarded as a viable and affordable method of fostering resilience in at-risk areas. Being upfront about a project, taking in and considering the feedback from the stakeholders, and doing so not only makes the project operate more smoothly, but it also actively improves the organisation's reputation and fosters support for the initiative.

The stakeholder consultation and engagement process should follow the Batho Pele Principles (people first), adopted by the South African Government, as well as being aligned with the principles and approaches outlined in Gann et al (2019) and Dudley et al. (2021) and was benchmarked against global principles and the GCF's Sustainability Guidance Note: Designing and ensuring meaningful stakeholder engagement on GCF-financed projects (Gann, et al., 2019; Dudley, et al., 2021).

Emphasising the local-level scale that the interventions will take place and ensuring meaningful inclusive participation will be important. Guidance from GCF's environmental and social management system, the environmental and social safeguards (GCF, Development Bank of Southern Africa), the Revised Environmental and Social Policy, and the Indigenous Peoples Policy of GCF will be key guidance documents. In addition to the above, consideration of gender will strongly influence the approach to stakeholder engagements. Stakeholder engagements will need to be designed to be gender-responsive and

sensitive to gender-based power dynamics and aligned with SANBI's Gender Mainstreaming Framework and their Gender Mainstreaming Policy together with the DFFE's Gender Strategy and GCF's Toolkit for Mainstreaming Gender and Gender Policy.

Given the scale of the four DMs as well as the need to manage expectations, it is proposed that the stakeholder engagement process for the Eco-DRR project follow a top-down and bottom-up approach:

- a) With national- and provincial-scale stakeholders; and
- b) With local-level and site-level stakeholders, once a suite of potential sites and ecosystem-based approaches have been identified.

Using the above, an overall approach can be outlined to guide stakeholder engagements going forward for the project, which ensures inclusivity, transparency, accountability and non-discrimination. In addition, this emphasis ensures that gender considerations are included throughout the planning and engagement processes going further. Identification and mapping of stakeholders will be critical, both at the early phases of the project as well as when the candidate and implementation sites were selected. Early involvement makes it possible to identify important issues and influence relevant decisions.

While developing stakeholder groups might not be necessary at national- and provincial-level, identifying the different stakeholder groups will be a key step when implementing interventions at a local level, which encourages the development of more versatile processes. Possible groups included public sector / government officials; training and educational service providers; funders and donors; media; industry and civil society.

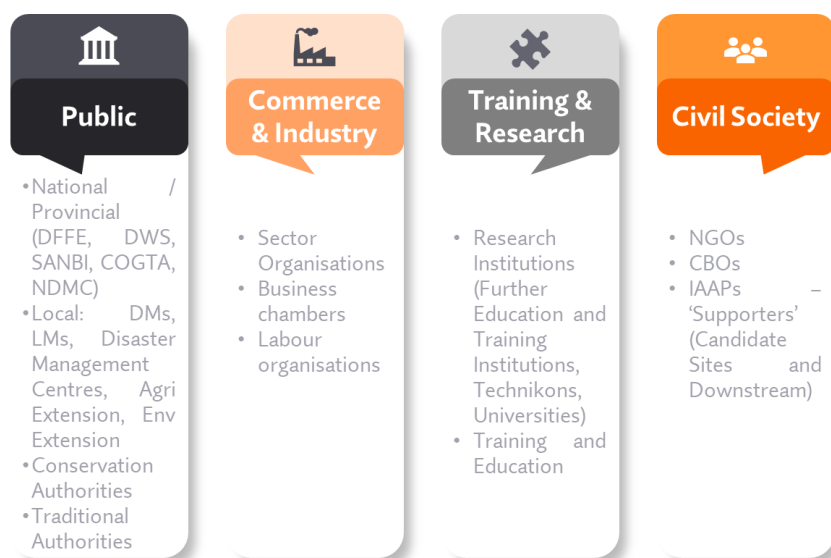


Figure 9-3: Proposed stakeholder groups

In accordance with Step 2 of GCF's five-step methodology to planning and conducting a successful stakeholder engagement process, a stakeholder mapping process should be undertaken to understand the various groupings. During this step, thought should be given to the type of information and level of consultations (who will be engaged, communicated with and informed based on level of impact) required from the different groups, which determined the approaches to be used e.g., questionnaires, interviews, FG meetings, workshops etc. as well as the format of these engagements i.e. virtual or in-person.

Where physical events are suggested, careful consideration will need to be given to the sites and locations to maximise stakeholder participation. All interactions should promote inclusivity across gender, culture, and generations, including marginalised groups, while paying close attention to the cultural customs, practises, and values of all parties. Engaging with civil society and NGOs will be crucial, as it offers insight into their experiences on the ground as well as exploring potential partnerships for intervention implementation. Many of these stakeholders possess a deep understanding of local conditions and are well-acquainted with the community dynamics. Therefore, when engaging stakeholders at the district and local levels, it will be essential to identify these key players.

Moreover, it will be necessary to grasp any ongoing or future initiatives planned by these organisations, which could be integrated into or synergised with the proposed interventions. Additionally, partnering with the private sector will need to be explored further to understand alternate funding avenues that are vital for sustaining the interventions beyond the funding provided by GCF. This multifaceted engagement will broaden the understanding of potential roles, resources, and collaborative opportunities within diverse sectors, and contribute to the sustainability and effectiveness of the Eco-DRR project beyond the project's lifecycle.

More details on the stakeholder engagement plan and the findings from consultations to date can be found in Annex 7: Project-Level Stakeholder Engagement Plan and GRM.

10 CONCLUSION

In conclusion, the implementation of an ESMF within the Eco-DRR project in South Africa stands as an important stride towards sustainable DRR. This comprehensive plan not only integrates ESS but also aligns with the principles of the GCF, underscoring SANBI's commitment to fostering resilient communities amidst climatic adversities. By meticulously outlining mitigation measures, stakeholder engagement strategies, and monitoring protocols, this proposal ensures that the Eco-DRR initiative not only protects vulnerable ecosystems but also empowers local communities, ensuring their active involvement in shaping and sustaining these interventions.

It is expected that the Eco-DRR project will have both minimal to no adverse impacts and some limited adverse impacts on the biophysical and socioeconomic environment. As such, overall, **the Eco-DRR project can be classified as a Category B project with some elements of Category C.** This means that there will be 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. This is because the project is not complex and/or large and does not involve activities that have a high potential for harming people or the environment. As such, the potential risks, impacts and issues are likely to have the following characteristics: (i) predictable and expected to be temporary and/or reversible; (ii) low in magnitude; (iii) site-specific, without likelihood of impacts beyond the actual footprint of the project; and (iv) low probability of serious adverse effects to human health and/or the environment. The project's risks and impacts can be easily mitigated in a predictable manner.

The table below lists the identified impacts and mitigation measures that are to be considered during implementation of any of the selected interventions.

Table 10-1: Impacts and mitigation measures for interventions – particularly those linked to Output 1.1

Potential Impacts/Risks	Possible mitigation measures
Change in landscape and land use	Good housekeeping and site management to reduce potential negative visual impacts and limit areas that are disturbed Design of facility to be in keeping of surrounding environment
Visual impact of site	Screening of site camp visual elements Good housekeeping of the site Once sites are finalised during operationalisation, engagement with communities will be held to understand possible visual impact and how this can be mitigated and/or avoided.
Dust	Keep roads clean Ensure vehicle speed limits onsite are kept to a minimum and below 20 km/hour Maintain groundcover for as long as possible to reduce the total surface area exposed to wind Wet dry and dusty areas using non-potable water Cover fine material stockpiles
Noise	Limit noise levels (e.g. install and maintain silencers on machinery) Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise Provision of training for workers and communities involved in implementation of interventions Provision of personal protective equipment
Litter and waste generation	Manage waste collection areas (weather / windproof and animal proof) Daily litter collection Provision of adequate bins with lids Weekly disposal scheduled

Potential Impacts/Risks	Possible mitigation measures
	Proper management of any hazardous wastes generated
Surface, groundwater, and soil contamination	Ensure use of best available technologies Contain wastewater before correct disposal e.g. contaminated water discharged into a conservancy tank / lined area Manage run-off and stormwater from intervention activities Site to provide adequate sanitation facilities Introduction of best available technologies to support contamination prevention.
Loss of vegetation / habitat and ecological processes / biodiversity	Undertake search and rescue before implementation commences Consider establishing a no-go area and habitat / vegetation buffer around the site Limit working area as far as possible where there is natural vegetation
Impact on existing site operations (due to shared access road / entrance)	Facility vehicles / staff to have right of way over other vehicles (including delivery vehicles and subcontractors) Appropriate security controls in place Existing facility and infrastructure to be regarded as a no-go area
Labour	Source labour force locally Ensure SEAH procedures and grievance redress mechanisms (GRMs) are in place and operationalised Implement gender action plan recommendations Comply with Occupational Health and Safety Act (No. 85 of 1993)
Community / Stakeholders	Engage with stakeholders and implement stakeholder engagement plan recommendations
Community safety	Develop community safety plan together with stakeholders.
SEAH	Undertake an intervention level due diligence of exposure to these risks and develop, implement and monitor a sexual exploitation, abuse and harassment management plan. The management plan will form part of the project specific SEAH policy and protocol, which will be in place before the start of the project, and strengthened through the Operationalisation Phase, if required.

This ESMF underscores SANBI's dedication to fostering a harmonious relationship between nature and society while fortifying resilience against climate-induced risks. The incorporation of robust ESS not only exemplifies our compliance with international best practices but also reflects SANBI's profound responsibility towards the wellbeing of both the environment and the communities it supports. By fostering a collaborative approach that prioritises environmental integrity and social inclusivity, this proposal for the Eco-DRR project in South Africa aspires to serve as a model for sustainable development and resilience-building efforts globally, aligning with the core ethos of GCF.

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APPENDIX A EXCLUSION LIST

The following types of interventions will not be financed under this Programme:

1. Interventions that contravene the Constitutional Rights of South Africans and in particular Indigenous Peoples rights.
2. Interventions that are not compliant with South Africa's labour laws including, but not limited to, the Occupational Health and Safety Act, Unemployment Insurance Act, Compensation Fund Act, Basic Conditions of Employment Act, and National Minimum Wage Act.
3. Interventions that entail the use of herbicides that pose a risk to the surrounding environment or communities' health and are not compliant with national legislation and local by-laws regarding use and disposal of hazardous chemicals and wastes.
4. Interventions that result in negative visual impacts for communities.
5. Interventions that undermine Indigenous Peoples' community rights to land, natural resources, language and indigenous knowledge.
6. Interventions that result in involuntary resettlement or land acquisition.
7. Interventions that permanently or temporarily result in access restrictions on resources.
8. Interventions that negatively impact or harm cultural resources / areas.
9. Natural forest harvesting or plantation development that will involve conversion or degradation of critical forest areas or related critical natural habitats.
10. Interventions that will significantly convert or degrade critical natural habitats, including forests.
11. Interventions that contravene applicable national and international laws.
12. Category A interventions as defined by ESS policy – Interventions with potential significant adverse and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible or unprecedented.
13. Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements.
14. Production or trade in ozone depleting substances subject to international phase out.
15. Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale use of hazardous chemicals.
16. Interventions located within a critical biodiversity area or any other natural area that has been designated for conservation may only be considered if there is existing infrastructure and the development footprint will not be increased and the intervention results in an improvement and restoration as well as a nett positive impact on the catchment and ecological infrastructure.
17. Interventions that negatively affect specific socio-economic groups such as ethnic groups, women, minorities, etc., their basic needs (e.g. reducing income and food supply) and strategic needs (e.g. limiting agency and decision-making power).
18. Interventions that are likely to intensify discriminatory practices particularly against women, including gender-based violence.
19. Interventions that involve harmful or exploitive forms of forced and/or child labour including the employment of children (i.e. younger than 18 years of age).

20. Interventions with high biodiversity risk that potentially result in irreparable damage to terrestrial, soil and aquatic biodiversity including identified threatened species and habitats.
21. Intervention with high social risk that potentially result in significant socio-economic impacts, that result potential for loss, conflict or societal instability.
22. Interventions that require the use or purchase of genetically modified organisms.
23. Interventions that entail the production or trade in pesticides / herbicides subject to international phase outs or bans.

APPENDIX B DRAFT OUTLINE OF E&S SCOPING REPORT

A Scoping Report must be prepared by the Intervention Owner managing the process. The Scoping process commences at the start of the environmental assessment process and focuses on a broad range of issues.

The Scoping Report must provide sufficient information to facilitate an understanding of these issues. **Contents of the Scoping Report**

The National Regulations (NEMA, Act 107 of 1998) stipulate that the Scoping Report must include the following:

- Details and expertise of the Environmental Assessment Practitioner who prepared the report.
- A description of the proposed activity.
- A description of feasible and reasonable alternatives including the advantages and disadvantages that the proposed activity and the alternatives may have on the environment.
- A description of the property on which the activity is to be undertaken and the location of the activity. If it is a linear activity, then a description of the route should be detailed.
- A description of the environment that may be affected by the proposed activity and the manner in which the various aspects of the environment may be impacted.
- All legislation and guidelines that have been considered in the preparation of the report.
- A description of environmental issues and potential impacts, including cumulative impacts that have been identified.
- Details of the public participation process that has been conducted including:
 - the steps taken to notify interested and affected parties.
 - proof of noticeboards, advertisements and notices notifying interested and affected parties.
 - a list of all persons, organisations and organs of state who were registered as interested and affected parties in relation to the application.
 - a summary of the issues raised by the interested and affected parties and the responses of the Environmental Assessment Practitioner.
- A description of the need and desirability of the proposed activity.
- A description of any identified alternatives and the advantages and disadvantages that these and the proposed activity may have on the environment and community.
- Any representations or comments received in respect of the Scoping Report.
- The minutes of any meetings held by the Environmental Assessment Practitioner with interested and affected parties and other role-players which record the views of the participants and the associated responses of the Environmental Assessment Practitioner.
- A plan of study for environmental impact assessment which includes:
- A description of the tasks to be undertaken as part of the environmental impact assessment process including any specialist studies.
- An indication of the stages at which the CA will be consulted.
- A description of the proposed method of assessing the environmental issues and alternatives.
- Particulars of the Public Participation Process that will be conducted during the environmental impact assessment process.

- Any specific information required by the CA.

APPENDIX C DRAFT OUTLINE OF ESIA REPORT

Annotated Table of Contents is provided below.

Item	Brief description
0	Executive summary
1	Introduction <ul style="list-style-type: none"> Purpose of the report Structure of the report
2	Presentation of the proposed intervention <ul style="list-style-type: none"> Brief introduction of the Applicant / Beneficiary Brief presentation of the intervention, introducing the technical elements proposed as investments Brief description of intervention area of influence, including intervention boundaries and limitations
3	Regulatory and policy framework <ul style="list-style-type: none"> National legislation and environmental permitting process Brief presentation of ESS applicable for this intervention –GCF
	3.1. Environmental <ul style="list-style-type: none"> Identify gaps between national legislation and GCF safeguards
	3.2. Social (including gender)
4	ESIA methodology <ul style="list-style-type: none"> Briefly describe the methodology for: <ul style="list-style-type: none"> - screening - data collection - assessing impacts, their significance, magnitude, etc, cumulative impacts - engagement of relevant stakeholders during ESIA, disclosure of ESIA package - risks and uncertainties
5	Assessment of potential alternatives <ul style="list-style-type: none"> Brief description of <ul style="list-style-type: none"> Alternative 0 – no intervention Alternative 1. Other investments Alternative 2. The intervention Methodology of alternative analysis Outcomes of the assessment – brief justification why the intervention investment are needed
5	Environmental conditions <ul style="list-style-type: none"> Introduce the environmental conditions in the intervention area <ul style="list-style-type: none"> - air quality - water quality - soil - groundwater - geology - hydrology - Biodiversity - climate change indicators - etc. - also to introduce the current environmental performance of the waste management system at municipal level
6.	Socio-economic conditions <ul style="list-style-type: none"> Introduce the socio-economic conditions in the intervention area: <ul style="list-style-type: none"> - population - waste management practices and level of access to service - land use - public infrastructure available in the intervention area - employment - livelihood – sources of incomes - public health - cultural heritage - indigenous groups – if any - social disadvantaged groups

		<ul style="list-style-type: none"> - gender gap analysis (this could be a sub-chapter and could reference the stand alone document – Gender Assessment – that needs to be prepared) - stakeholder analysis – briefly present the main stakeholders relevant for the intervention etc. - also to introduce the current environmental performance of the waste management system at municipal level
7	Environmental impact assessment (including climate change mitigation and adaptation assessment)	<p>For both, environmental and social impact assessment, a tabular format can be used to describe:</p> <ul style="list-style-type: none"> - positive impacts - negative impacts - mitigation measures envisaged for negative impacts (including gender actions) - residual impacts , if any - cumulative impacts , if any
8	Social impact assessment (including gender assessment – this could be a sub-chapter that includes a summary of the stand-alone gender assessment document that needs to be prepared)	
9	Consultation, disclosure and grievance mechanism	<p>Briefly introduce what has been done during national environmental impact assessment procedure in terms of engagement, consultations, disclosure</p> <p>Brief description of engagement during ESIA disclosure – outcome of public disclosure session – to be filled in the end of the process</p> <p>Introduce further actions that are needed during intervention implementation process , including actions for gender mainstreaming (cross-reference here with the stand alone document – Gender Action Plan – that needs to be prepared)</p>
10	Conclusions	Summarising the main impacts and how to address them

APPENDIX D DRAFT OUTLINE OF ESMF REPORT

Annotated Table of Contents is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the intervention</p>
2	<p>Approach to environmental and social management</p> <p>National, regional , local regulations and management systems applicable to this intervention</p> <p>International standards required for proper:</p> <ul style="list-style-type: none"> -Construction management -Operations management <p>Priorities for this intervention:</p> <ul style="list-style-type: none"> - example: fair employment or gender balanced employment, health and safety regulations, SEAH etc.
3	<p>Management of environmental, health and safety and social commitments</p> <p>Tabular format where the following is presented:</p> <ul style="list-style-type: none"> - the mitigation measures identified in ESIA - actions which will help to implement the mitigation measures - responsible for implementing the mitigation measures - estimated costs - estimated timeframe for implementation - monitoring indicators - management plans that need to be further developed by sub-contractors / entities that will implement the intervention - cross reference Gender Action Plan – since this is a Management Plan and is a standalone document
4	<p>Environmental and social monitoring</p> <ul style="list-style-type: none"> - reporting requirements - frequency of monitoring - key performance indicators
5	<p>Conclusions</p> <p>Summarising the main impacts and how to address them</p>

APPENDIX E DRAFT OUTLINE OF A STAKEHOLDER ENGAGEMENT PLAN

Annotated Table of Contents is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the intervention and the importance of stakeholder engagement</p>
2	<p>Designing the engagement process</p> <p>Stakeholder engagement principles</p> <p>Outlining the types of engagement required</p> <p>Stakeholder mapping and analysis noting the differing levels of engagement required</p> <p>Current participative processes and platforms</p>
3	<p>Stakeholder engagement implementation plan</p> <p>Structuring engagement</p> <p>Programming engagements</p> <p>Communications and awareness</p> <p>Budgeting for engagements</p>
4	<p>Reporting and monitoring</p> <p>Reporting requirements</p> <p>Feedback mechanisms</p> <p>Frequency of monitoring</p> <p>Stakeholder database management</p>
5	<p>Conclusions</p> <p>Summarising key steps to ensure effective engagement</p>

APPENDIX F DRAFT OUTLINE OF AN INDIGENOUS PEOPLES PLAN

Annotated Table of Contents is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the intervention and the importance of engaging with Indigenous People</p>
2	<p>Description of the intervention</p> <p>Purpose of the intervention, providing objectives and outcomes</p> <p>Geographic location and spatial context</p> <p>Stakeholder mapping and analysis</p> <p>Current participative processes and platforms</p>
3	<p>Baseline information</p> <p>Policy and legal frameworks</p> <p>Description of the indigenous peoples including a summary of the socio-economic, health, education and environmental profile of the indigenous community, their circumstances, livelihoods, capacities, natural resources, social norms, tangible and intangible cultural heritage.</p> <p>Include natural features or objects that embody cultural values, social and economic structures, mechanisms and institutions, political and/or administrative structures and procedures, the position of the indigenous community within society, its relations with government and with other communities in the area, and national laws relating to Indigenous Peoples</p> <p>The cost estimates and financing plan for the indigenous peoples plan</p>
4	<p>Consultation</p> <p>Processes undertaken to ensure engagement including outcomes from each engagement to date. Identify if FPIC is required and if so, summarise FPIC results that led indigenous peoples to support the intervention.</p> <p>Outline of ongoing engagement processes as the intervention is undertaken</p> <p>Overview of findings from the engagement process and outline of how these will be addressed</p> <p>Where FPIC is required, a framework for ensuring FPIC with the affected Indigenous Peoples communities during intervention implementation.</p>
5	<p>Intervention Impacts</p> <p>Overview of potential impacts and opportunities</p> <p>Agreed culturally appropriate measures to mitigate adverse impacts and enhance opportunities and benefits</p> <p>Develop plan with targets with interim milestones and an agreed schedule and responsibilities for implementation</p> <p>Outline of GRM and response approaches</p> <p>Communications and awareness approaches</p>
5	<p>Monitoring and evaluation</p> <p>Outline of processes and procedures to monitor and report on the implementation of the plan</p> <p>Reporting frameworks and feedback to communities</p> <p>Evaluation process and approaches to ensure adaptive management</p> <p>Review processes including the frequency and timing of the plan review</p>

APPENDIX G DRAFT OUTLINE OF A CULTURAL HERITAGE SITE MANAGEMENT PLAN

An outline of the contents of a cultural heritage site management plan is provided below.

<i>Item</i>	<i>Brief description</i>
1 Introduction	Purpose of the report Structure of the report Brief description of the intervention
2 Site description	Statement of site significance (including values) Site description, including environmental setting History of the site Present and past uses of the site Site condition and history of conservation, including SWOT analysis
3 Consultation and engagement	Framework for structured engagement and feedback Awareness creation and information exchange
4 Legal framework	Policy and legal frameworks Management context
5 Strategic framework	Guiding principles Objectives and strategies Action plan including impact management, site conservations and safety Alteration approvals and processes
6 Monitoring and evaluation	Monitoring of performance against the plan Evaluation and impact review

APPENDIX H DRAFT OUTLINE OF A BIODIVERSITY ACTION PLAN

An outline of the contents of a biodiversity action plan is provided below.

<i>Item</i>	<i>Brief description</i>
1	Introduction Importance of conserving biodiversity Purpose of the report Structure of the report Brief description of the intervention
2	Outline of the biodiversity action plan process Outline of policy and legal frameworks The biodiversity audit Evaluating and prioritising habitats and species History of the site Setting objectives, targets and indicators Implementation processes Monitoring, reporting and reviewing processes
3	Biodiversity audit Introduction and approach Current plans Biodiversity audit boundary and method Sources of data (habitat and species)
4	biodiversity assessment Geology, hydrology and landscapes Nature conservation sites (national and local) Habitat audit summary Species audit summary
5	Implementation plan Strategic goals objectives Action plan including budgets, targets, milestones and indicators Procedures and processes Roles and responsibilities
6	Monitoring and evaluation Monitoring of performance against the plan, including reporting frameworks Evaluation and impact review

APPENDIX I ENVIRONMENTAL AND SOCIAL COMPLIANCE REPORT

An outline of the contents of an environmental and social compliance reporting format is provided below.

<i>Item</i>	<i>Brief description</i>
1 Introduction	Importance of environmental and social compliance Purpose of the report Structure of the report Brief description of the intervention Intervention Implementation Arrangements Intervention Implementation Status
2 Summary of ESS and regulatory requirements	Outline of ESS Outline of regulatory requirements Summary of monitoring actions Reporting and reviewing processes
3 Compliance progress and actions	GCF ESS Regulatory requirements
4 Participative monitoring	Engagement framework Summary of engagements Comments register Identified corrective actions
5 Recommendations	Key issues Prioritised actions

APPENDIX J SEAH MANAGEMENT PLAN

An outline of the contents of a SEAH management plan is provided below.

<i>Item</i>	<i>Brief description</i>
1 Introduction	Importance of addressing SEAH and the associated policy, standard, and guidelines that underpin the approach. Intervention Implementation status and arrangements Brief description of the intervention context and associated risks Purpose of the plan Structure of the plan
2 Risk assessment and management	Situation analysis to understand the external context Intervention governance and accountability mechanisms Identification of SEAH risks, mitigations and institutional roles Risk Assessment and register Summary of oversight and monitoring actions Reporting and reviewing processes
3 GRM	Outline of legislative and policy requirements Outline of codes of conduct Scope of the GRM Processes and procedures Reporting and monitoring
4 Management plan	Tabulated plans providing actions, timelines, milestones and indicators, roles for all identified risks in the register

APPENDIX K INTERVENTION CLOSURE REPORT

An outline of the contents of a intervention closure report is provided below.

<i>Item</i>	<i>Brief description</i>
1 Introduction	Background of the Intervention Brief description of the intervention Importance of environmental and social compliance Purpose of the report Structure of the report Intervention Implementation Arrangements and Status
2 Outline of the intervention works	Site location and geographic aspects Overview of the assets Plants design, capacity, flow regimes and loading dynamics Operational history Performance of the asset in terms of regulatory requirements and Environmental and social safeguard standards
3 Decommissioning processes	Description of the future use of the site Overview of the decommissioning plan Decommissioning process Site plan and status post closure Closure adherence to regulatory requirements and environmental and social safeguard standards Record of stakeholder engagements and comments
4 Environmental impact	Overview of geology, hydrology, environment and landscapes Environmental impacts from intervention closure Outline of future long-term impacts Environmental impact minimisation plan
5 Social impact	Overview of local social economy Social impacts of intervention closure Outline of future long-term impacts Social impact minimisation plan
6 Future management and monitoring	Management and maintenance requirements Safety plans Site monitoring and regulatory compliance Reporting requirements

APPENDIX L INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

IP Impact Screening and Assessment Factors
Concept Note Stage Screening
<p>Presence and Recognition of Indigenous Peoples</p> <ul style="list-style-type: none"> <input type="checkbox"/> Confirm presence of indigenous peoples in or near the project area <input type="checkbox"/> Identify local terminology used to refer to indigenous groups (e.g., local communities, ethnic minorities, tribal groups) <input type="checkbox"/> Confirm application of policy regardless of specific terminology <input type="checkbox"/> Verify self-identification criteria: <ul style="list-style-type: none"> • Evidence of distinct social and cultural group identity • Collective attachment to specific geographical areas • Distinct cultural, economic, social, or political systems • Unique language or dialect
<p><i>Within the South Africa context, indigenous people refer to the San and the Khoekhoe (IWGIA, n.d.). These groups mainly reside in the Kalahari region, Kimberley (Free State), Northern Cape and Western Cape (IWGIA, 2024). As such, no indigenous people are located in the 4 DMs (Alfred Nzo, Ehlanzeni, Ngaka Modiri Molema and Sekhukhune) selected for the Eco-DRR project.</i></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Identify potential for impact on Indigenous Peoples <ul style="list-style-type: none"> • Potential impacts on livelihoods, health and cultural heritage • Opportunities for co-benefits and transformative change
<p><i>As noted above, no indigenous people are located within the 4 DMs selected for the Eco-DRR project.</i></p>
Funding Proposal Development Assessment
<ul style="list-style-type: none"> <input type="checkbox"/> Document potential impacts on: <ul style="list-style-type: none"> • Traditional territories and land ownership • Customary land use and resource patterns • Collective land attachments • Existing land disputes • Access to natural resources • Cultural and sacred sites
<p><i>The project may have potential impacts on customary land use and resource patterns as some interventions under Output 1.1. may occur on communal land. In addition, with the project's activities under Output 1.2. focusing on ecosystem-based livelihoods, there may be potential impacts on access to natural resources. The project design has considered this and will ensure ongoing engagement and consultation with those communities that reside on communal land that may be impacted in the project as well as ensuring they benefit from the project's activities. In addition, Output 2.1. seeks to promote local gender-inclusive and sustainable ecosystem-based livelihoods that support locally led adaptation – which will enhance communities' access to natural resources.</i></p>

☐ Assess potential effects on:

- Traditional livelihoods
- Cultural heritage and practices
- Social governance systems
- Intergenerational knowledge transfer
- Vulnerable group dynamics

There may be potential effects on traditional livelihoods, noting that Outcome 1's site-based interventions entail IAP removal, restoration, rehabilitation etc. However, one of the aims of Output 1.2 is to promote local gender-inclusive and sustainable ecosystem-based livelihoods that support locally led adaptation – something that will have a positive impact on traditional livelihoods.

APPENDIX M SEAH RISK SCREENING

Part A: Risk Factors

Please indicate your answers to the questions below and provide an explanation on the response selected.

Ensuring basic risk mitigation measures are in place ahead of stakeholder engagement	YES	NO
Does the AE have a SEAH Policy (or SEAH provisions in another policy)? <i>SANBI's Policy on Gender Mainstreaming (2023) focuses on zero tolerance for sexual harassment and discrimination by providing a working environment that is free from sexual harassment, intimidation and discrimination including not tolerating any form of sexual harassment, intimidation and discrimination in the workplace.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If the AE has contracted out stakeholder consultations, does that entity have a SEAH Policy (or are they contractually bound to apply the AE's)? <i>If SANBI contracts out stakeholder consultations, the contractor will be contractually bound to apply SANBI's SEAH Policy i.e. SANBI's Policy on Gender Mainstreaming (2023).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the AE have an employee Code of Conduct? <i>Yes, SANBI has a Policy on Code of Conduct (2024)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If the AE has contracted out stakeholder consultations, does that entity have an employee Code of Conduct (or are they contractually bound to apply the AE's)? <i>If SANBI contracts out stakeholder consultations, the contractor will be contractually bound to apply SANBI's Policy on Code of Conduct (2024)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Have AE employees and consultants conducting stakeholder consultations been trained on preventing SEAH and the Code of Conduct? <i>All SANBI employees are exposed to the Code of Conduct during the mandatory Induction procedures. SANBI's Employee Relations team holds regular webinars for all SANBI staff on relevant policies – the Anti-Harassment and Anti-Discrimination Policy was covered in 2024.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the AE have a grievance mechanism in place in case of early SEAH complaints from stakeholder engagement? <i>No, but SANBI has a its own hotline number and channels, for anything related to ethics and fraud, as well as for environmental and/or social harms and gender discrimination. Numbers and channels are detailed at the bottom of SANBI's webpage.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the AE have a specialist on staff who can undertake the more advanced assessment in Stage 4 as well as deal with early SEAH complaints if they arise; and if not, does the AE require budget and /or assistance with this? <i>SANBI has expertise related to SEAH matters, and an Employee Wellness Programme (administered by an external service provider) available to staff members. However, capacity is limited and additional resources would be required to expand the reach of the current SANBI to team to include any GCF project overseen or implemented by SANBI.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Contextual Level (and Baseline Conditions)		
Does the country have laws prohibiting sexual harassment/ stalking generally? <i>Yes, this includes the Constitution of the Republic of South Africa (1996), Promotion of Equality and Prevention of Unfair Discrimination Act (Act 4 of 2000), Domestic Violence Act (Act 116 of 1998), and Criminal Law (sexual offences and related matters) Amendment Act</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ensuring basic risk mitigation measures are in place ahead of stakeholder engagement (Act 32 of 2007).	YES	NO
Do labour laws prohibit sexual harassment in the workplace? Yes, as per the Employment Equity Act (Act 55 of 1998) and Promotion of Equality and Prevention of Unfair Discrimination Act (Act 4 of 2000).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the country have laws prohibiting intimate partner violence (IPV)? Yes, as per the Domestic Violence Act (Act 116 of 1998).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What is the prevalence of GBV in the country? GBV is prevalent in South Africa with lifetime physical violence (among all females aged 18 years and older regardless of partnership status being 33.1%, lifetime sexual violence being 9.8% and lifetime physical and/or sexual violence being 35.5%. (State of the Nation, 2024).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What is the legal age a person can marry? 18 years of age for both males and females.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Despite any laws, what is the prevalence of child marriage in the country? In 2021, it was estimated that there were 207 child marriages (Department of Social Development, 2023). According to Girls Not Brides, the prevalence rate of child marriage by 18 is 4% (Girls Not Brides, n.d.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What is the income level of the country? According to the World Bank (2023), South Africa is classified as upper middle income (GNI per capita between \$4,466 and \$13,845 (Hamadeh, et al., 2023)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Where does the country rank on global gender indices? In 2023, South Africa had a gender gap index score of 0.79, ranking 20 out of 146 countries globally (Statista, 2023).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there a national action plan on GBV and/or sexual harassment? Yes, this includes the National Policy Framework for Women's Empowerment and Gender Equity, South African National Gender Programme, Gender Equality Strategic Framework (GESF) for Public Service (2009), Strategy Toward Gender Mainstreaming in the Environment Sector 2016 – 2021 (Extended to 2025) and Gender Responsive Planning, Budgeting, Monitoring, Evaluation, and Auditing Framework (2019).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the country have specialised services for survivors of GBV (at both the national and local level) including women's shelters, adequate medical facilities and facilities which provide psycho-social support? Yes. There are several hotlines including National GBV Helpline, 24 hours Gender Based Violence National Command Centre, National Counselling Line, People Opposing Women Abuse, National Shelter Movement of South Africa (NSMSA) – Helpline, amongst others. Thuthuzela Care Centres established as one-stop facilities to provide services to victims of sexual offences and operate in public hospitals across the country. The country also has several NGOs at grassroots, local, provincial and national levels that provide specialised services such as women's shelters, medical facilities, legal services and psycho-social support.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the country currently experiencing war, internal conflict or humanitarian disaster? No, South Africa is not experiencing any war, internal conflict or humanitarian disaster as of the time completing this form.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Project Level Risks		

Ensuring basic risk mitigation measures are in place ahead of stakeholder engagement	YES	NO
<p>Are women concentrated in lower paid roles and mostly line-managed and supervised by men?</p> <p><i>No, the project provides a fairly even and balanced distribution between women and men in terms of salary levels and responsibilities.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Are piece-rate systems or other performance-related pay structures used where individuals are in control of how much other workers get paid?</p> <p><i>No, these elements will be managed through contractual arrangements overseen by the project's governance arrangements.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will project workers have control over life- changing resources such as the allocation of compensation for displacement or access to basic or highly sought-after resources?</p> <p><i>No, these arrangements will all be contractually managed and defined.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

APPENDIX N ENVIRONMENTAL AND SOCIAL RISK SCREENING CHECKLIST

EsS Risk Factors <i>Please refer to applicable Sector Guidance Note(s)</i>	Yes	No	Risk Category
1. Will the project involve infrastructure development or significant physical elements that could generate substantial adverse environmental impacts? (including direct impacts from construction, operation and decommissioning phases)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale <input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Likelihood <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Irreversible <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<i>The Eco-DRR project may entail some infrastructure development, but these will not generate substantial adverse environmental impacts, noting that the project will focus on rehabilitation of vulnerable catchments, the integration of ecosystem-based approaches into settlement planning and DRR, and the creation of an enabling environment that unlocks private sector finance and scales best practices across South Africa.</i>			
2. Will the project involve infrastructure development or significant physical elements that could generate substantial adverse social impacts? (impacts on local community, livelihoods, and social dynamics)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale <input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Likelihood <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Irreversible <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<i>The Eco-DRR project will may entail some infrastructure development, but this will not generate substantial adverse social impacts, noting that the project will focus on improving the resilience in communities vulnerable to climate change through capacity development, awareness raising and training of targeted communities.</i>			
3. Does the project involve associated facilities that would not exist without the project and on which the project's viability depends? <i>Note: Associated facilities are facilities that are not funded as part of the project and that would not have been constructed or expanded if the project did not exist and without which the project would not be viable. Associated facilities may include railways, roads, captive power plants or transmission lines, pipelines, utilities, warehouses, and logistics terminals</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale <input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Likelihood <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Irreversible <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<i>The Eco-DRR project will not involve the construction of any associated facilities that would not exist without the project and on which the project's viability depends on.</i>			
4. Could the project result in transboundary impacts affecting other countries, including air pollution extending to multiple countries, use or pollution of international waterways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C

EsS Risk Factors				Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)						
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
The Eco-DRR project's targeted implementation sites do not occur near any national borders and will not have any transboundary impacts that may affect other countries. The project will have a national and local focus						
5. Will the project result in adverse impacts beyond the project's immediate footprint or primary site boundaries (Including cumulative impacts)? <i>Note: Cumulative impacts are limited to those impacts generally recognised as important on the basis of scientific concerns and/or concerns from Affected Communities. Examples of cumulative impacts include: incremental contribution of gaseous emissions to an airshed; reduction of water flows in a watershed due to multiple withdrawals; increases in sediment loads to a watershed; interference with migratory routes or wildlife movement; or more traffic congestion and accidents due to increases in vehicular traffic on community roadways</i>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
The Eco-DRR project will not have adverse cumulative impacts beyond the project's immediate footprint - noting that the project aims to prevent and/or minimise these impacts through the implementation of Eco-DRR interventions in targeted sites whereby ecosystems will be rehabilitated, maintained and sustainably managed.						
6. Will the project contribute to significant cumulative impacts in combination with other existing or planned activities in the locality?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
No, the Eco-DRR project will seek to improve ecosystem health through rehabilitation, maintenance and/or improved management that will not contribute to cumulative impacts. In addition, current and or planned activities in the implementation sites will also not result in cumulative impacts.						
7. Will the project potentially cause significant adverse impacts to critical habitats, endangered species, or sensitive environmental resources, protected areas and areas of ecological significance, key biodiversity areas, and internationally recognised conservation sites?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
No, the Eco-DRR project aims to improve ecosystem health through rehabilitation, maintenance and/or improved management – thus it will not cause adverse impacts to the surrounding environment. The design of the interventions seek to protect and improve the management of these areas. Alignment and compliance with all related legislation and by-laws will be assured. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESIAs) will identify these and provide management measures.						

EsS Risk Factors				Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)						
8. Will the project generate significant quantities of greenhouse gases or generate emissions to air, create discharges to water, and/or produce noise and vibration?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>There are no activities within the Eco-DRR project that will entail significant greenhouse gas emission, discharges into water resources or noise production. Activities undertaken are focused on improved functioning of ecological infrastructure. Local scale impacts are kept to a minimum through the use of environmentally sound methods and protocols. Due diligence will be performed by SANBI as the Executing Entity during operationalisation to confirm if an environmental authorisation or water use licence will be required which will determine if an environmental impact assessment is needed. Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence.</p>						
9. Does the project involve significant extraction, diversion, or containment of surface or ground water?				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>Some of the activities in the Eco-DRR project may involve extraction, diversion, or containment of surface or ground water. If, during the Operationalisation Phase, it is determined that the site-based activities under Output 1.1. cause some diversion of surface water resources, this will trigger the requirements for a water use licence. Engagements with DWS will be undertaken as well as compliance with the National Water Act, relevant regulations (if applicable) etc.</p>						
10. Will the project generate hazardous waste requiring specialised management and disposal?				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>The Eco-DRR project will not produce any hazardous wastes. However, some herbicides may be used to support IAP clearing and these will be appropriately managed, used and disposed off as per this ESMF. Any herbicides that pose a risk to the surrounding environment or communities' health will not be used. This will also be guided by national legislation and local by-laws regarding use and disposal of hazardous chemicals and wastes. Assessments will be undertaken prior to implementation to determine the most appropriate and safe option regarding IAP removal that will have the lowest impact on the surrounding environment and communities. If there are risks of pollution during intervention implementation, detailed regulatory impact assessment of these in the Operationalisation Phase will be undertaken. Management plans will also be developed that adhere to NEMA, environmental, water use and health regulations.</p> <p>If herbicides are selected as the most appropriate option to remove IAPs, an integrated pest management approach will be implemented that targets economically significant pest infestations of public health significance. In the strategic use of suitable herbicides, various other methods like cultural practices and biological controls, will be implemented to provide a holistic approach manage IAP removal effectively and sustainably. If the use of herbicides is selected as the best option to remove IAPs, a risk assessment of the herbicides and mitigation plan will be undertaken and developed. The risk assessment and mitigation plan will ensure that the use of the herbicide will have the lowest possible impacts on human health, affected communities and environment which links to Performance Standard 2: Labour and Working Conditions, Performance Standard 3: Resource Efficiency and Pollution Prevention and Performance Standard 4: Community Health, Safety, and Security.</p>						
11. Will the project utilise significant amounts of natural resources including water and energy?				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			

EsS Risk Factors				Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)						
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
<p>The Eco-DRR project will use some natural resources (land and water) with most of the activities under Output 1.1. focusing on ecosystem rehabilitation, maintenance and improved management through partnerships with local NGOs and communities. Due diligence will be performed by SANBI as the Executing Entity in operationalisation to confirm if an environmental authorisation or water use licence will be required which will determine if an environmental impact assessment is needed. Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence.</p>						
12. Will the project require land acquisition resulting in physical displacement (relocation or loss of shelter) and/or economic displacement (loss of assets or access to assets)?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
The Eco-DRR project will not result in physical and/or economic displacement.						
13. Will the project involve resettlement and dispossession, create restrictions on land use or access to resources?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>The Eco-DRR project will not result in resettlement or dispossession, and the project has been designed with this in mind. In addition, it is envisioned that none of the activities will result in restrictions on land use or access to resources. Engagements with the communities and traditional authorities during the Operationalisation Phase will help to determine how natural resources are used and what livelihoods exist within the communities. This will allow for the co-development of appropriate strategies to ensure access to resources are not restricted and livelihoods not affected during intervention implementation.</p>						
14. Will the project affect Indigenous Peoples or their lands, territories, resources, or cultural heritage and require free, prior and informed consent (FPIC)?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>Within the South Africa context, indigenous people refer to the San and the Khoekhoe (IWGIA, n.d.). The Eco-DRR project targets four DMs in the country and there are no indigenous people in these areas. This will be further assessed during inspection and if there are interventions that will impact upon indigenous peoples, an indigenous peoples plan (Appendix F) will be developed, and this plan will outline the actions necessary to minimise and/or compensate for any adverse impacts and identify opportunities and actions to enhance the advantageous impacts of a project. Where appropriate, FPIC will be followed in alignment with GCF's requirements.</p> <p>With regards to cultural heritage, final site selection during the Operationalisation Phase will ensure that no interventions will negatively impact heritage areas or resources. If, during operationalisation, it is determined that heritage resources / areas will be impacted, this will trigger the requirements for a heritage impact assessment (see Section 3.1). A Heritage Specialist will be required to submit a Notice of Intent to Develop should the interventions trigger the Act's requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Where appropriate, FPIC will be followed in alignment with GCF's requirements.</p>						
15. Will the project have direct/indirect adverse impacts on indigenous peoples, ethnic minorities, or vulnerable and marginalized groups?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	C

EsS Risk Factors				Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)						
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>Within the South Africa context, indigenous people refer to the San and the Khoekhoe (IWGIA, n.d.). The Eco-DRR project targets four DMs in the country and there are no indigenous people in these areas. This will be further assessed during inspection and if there are interventions that will impact upon indigenous peoples, an indigenous peoples plan (Appendix F) will be developed, and this plan will outline the actions necessary to minimise and/or compensate for any adverse impacts and identify opportunities and actions to enhance the advantageous impacts of a project. Where appropriate, FPIC will be followed in alignment with GCF's requirements.</p> <p>With regards to vulnerable or marginalised groups, the project will not have a negative impact on them as the project actively seeks to improve the resilience of these groups to climate change.</p>						
<p>16. Will the project impact cultural heritage sites or areas of cultural significance?</p> <p>Note: Cultural heritage refers to (i) tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.</p>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				
<p>The Eco-DRR project site does not intend to have any activities that negatively impact cultural heritage sites or resources. If, during operationalisation, it is determined that heritage resources / areas will be impacted, this will trigger the requirements for a heritage impact assessment (see Section 3.1). A Heritage Specialist will be required to submit a Notice of Intent to Develop should the interventions trigger the Act's requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Where appropriate, FPIC will be followed in alignment with GCF's requirements.</p>						
<p>17. Will the project contain features considered as critical cultural heritage and/or restrict access to cultural heritage sites and properties?</p>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			
<p>The Eco-DRR project site does not intend to have any activities that negatively impact cultural heritage sites or resources. If, during operationalisation, it is determined that heritage resources / areas will be impacted, this will trigger the requirements for a heritage impact assessment (see Section 3.1). A Heritage Specialist will be required to submit a Notice of Intent to Develop should the interventions trigger the Act's requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Where appropriate, FPIC will be followed in alignment with GCF's requirements.</p>						
<p>18. Will the project be located in areas with archaeological, paleontological, historical, cultural, artistic, or religious values?</p>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Likelihood	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low			

EsS Risk Factors		Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)				
The implementation sites for the Eco-DRR project will only be finalised in the Operationalisation Phase. If, during operationalisation, it is determined that the sites occur in areas that have archaeological, paleontological, historical, cultural, artistic, or religious values, this will trigger the requirements for a heritage impact assessment (see Section 3.1). A Heritage Specialist will be required to submit a Notice of Intent to Develop should the interventions trigger the Act's requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Where appropriate, FPIC will be followed in alignment with GCF's requirements.				
19. Will the project involve dangerous or hazardous working conditions that could result in significant occupational health and safety risks?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
While the interventions under Output 1.1 may be associated with occupational as well as community safety and health risks, it is expected these risks will be minimal to none. This risk will be managed and mitigated by ensuring that all workers and contractors comply with the Occupational Health and Safety Act, Labour Relations Act, the Basic Conditions of Employment Act and the Employment Equity Act as well as GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and assessment phase in operationalisation.				
20. Will the project affect working conditions of vulnerable categories of workers (migrant workers, women, children), impact supply chain workers?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale	<input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
The project will not impact working conditions of vulnerable categories of workers by ensuring compliance with the Occupational Health and Safety Act, Labour Relations Act, the Basic Conditions of Employment Act and the Employment Equity Act as well as GCF's safeguard standards. Due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and assessment phase in operationalisation.				
21. Will the project involve significant influx of temporary or permanent labour, including contractors and sub-contractors?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low			
While it is anticipated that there may be some temporary or permanent labour employed for the activities, this will be kept to minimum as the aim is to involve local communities in site-level activities. Use of conflict resolution mechanisms, GRM, SEAH procedures, gender-based approaches and ongoing stakeholder engagements will support the management of these risks.				
22. Will the project create community health and safety risks through the transport, storage, or use/disposal of hazardous materials?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale	<input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Intensity	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
Likelihood	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low			
Irreversible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
The Eco-DRR project may entail the use of herbicides to remove IAPs. However, the community health and safety risks associated with this will be kept to a minimum. Any hazardous materials such as herbicides will be appropriately managed, used and disposed of as per this ESMF. Any herbicides that pose a risk to the surrounding environment or communities' health will not be used. This will also be guided by national legislation and local by-laws regarding use and disposal of hazardous wastes. Assessments will be undertaken prior to implementation to determine the most appropriate and safe option regarding IAP removal that will have the lowest impact on the surrounding environment and communities. If there are risks of pollution				

EsS Risk Factors	Yes	No	Risk Category
Please refer to applicable Sector Guidance Note(s)			
during intervention implementation, detailed regulatory impact assessment of these in the Operationalisation Phase will be undertaken. Management plans will also be developed that adhere to NEMA, environmental, water use and health regulations. If herbicides are selected as the most appropriate option to remove IAPs, an integrated pest management approach will be implemented that targets economically significant pest infestations of public health significance. In the strategic use of suitable herbicides, various other methods like cultural practices and biological controls, will be implemented to provide a holistic approach manage IAP removal effectively and sustainably. If the use of herbicides is selected as the best option to remove IAPs, a risk assessment of the herbicides and mitigation plan will be undertaken and developed. The risk assessment and mitigation plan will ensure that the use of the herbicide will have the lowest possible impacts on human health, affected communities and environment which links to Performance Standard 2: Labour and Working Conditions, Performance Standard 3: Resource Efficiency and Pollution Prevention and Performance Standard 4: Community Health, Safety, and Security.			
23. Will the project require an emergency preparedness and response plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
The activities under the Eco-DRR project will not require such a plan. Activities will be ecosystem focused as well as local community engagements linked to livelihood options. The need for such a plan will be determined and developed during the Operationalisation Phase of the project.			
24. Will the project pose risks through security arrangements to workers and affected communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Scale <input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Likelihood <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
This risk is low in the Eco-DRR project as the project will work with local communities. However, there is a possibility of conflict between the contractors / consultants and the community at intervention level. SANBI will be required to adhere to GCF's clear policies and South African legislation in this regard. SANBI will ensure that these policies are applied at intervention level. A GRM will provide a channel through which affected parties can report such issues.			
25. Will there be vulnerable populations in the project area who may suffer disproportionate adverse impacts as a result of the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Likelihood <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
The Eco-DRR project will not have adverse impacts on vulnerable populations, noting that this project seeks to enhance the resilience of communities vulnerable to climate change.			
26. Will the project create decent work opportunities for local communities, considering core labour standards of the International Labor Organisation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C
Yes, the Eco-DRR project aims incorporate ways that vulnerable members of the communities will be included and will benefit from the project. Where appropriate, decent work opportunities will be explored that will comply with national labour laws as well as GCF's safeguard standards and labour standards of the International Labor Organisation.			
27. Will the project require significant consultation with multiple stakeholder groups?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C
Scale <input type="checkbox"/> Large <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Intensity <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low Likelihood <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low Irreversible <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
The project will require significant stakeholder engagements with various groups including communities, government, civil society and private sector. This will be critical to support implementation and secure buy-in for the sustainability of the project. To ensure appropriate management of stakeholders and planned consultations, the stakeholder engagement plan will be updated and implemented throughout the project. In addition, grievance redress mechanisms will be put in place during operationalisation to support stakeholder engagements.			

EsS Risk Factors <i>Please refer to applicable Sector Guidance Note(s)</i>	Yes	No	Risk Category
28. Will the project potentially impact on vulnerable populations? <i>Note: Please refer to IFC Performance Standards for information on continuing stakeholder engagement process and grievance redress mechanism</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C
Likelihood <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low			
The project will positively impact vulnerable populations as it seeks to improve the resilience of said groups. The vulnerable populations identified for the project will be engaged throughout the project which will be guided by the stakeholder engagement plan and the grievance redress mechanism. In addition, capacity building, training and awareness will be conducted that targets vulnerable populations within the implementation sites.			
29. Will the activities potentially introduce invasive alien species of flora and fauna affecting the biodiversity of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Likelihood <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
The likelihood is low to none within the Eco-DRR project as the activities seek to do the opposite i.e. remove invasive alien species. In addition measures will be put in place to ensure that restoration works does not introduce IAPs. Alignment and compliance with all related legislation and by-laws will be assured. The ESMP for each relevant intervention (where required as guided by regulations for environmental authorisations and ESAs) will identify these and provide management measures.			
30. Will the project involve the construction, maintenance, and rehabilitation of critical infrastructure (like dams, water impoundments, coastal and riverbank infrastructure) that would require further technical assessment and safety studies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
Scale <input type="checkbox"/> Large <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low Likelihood <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Irreversible <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
While the Eco-DRR project focuses on ecosystem-based adaptation and Eco-DRR interventions that target ecological infrastructure, there may be some maintenance and rehabilitant of critical infrastructure. Due diligence will be performed by SANBI as the Executing Entity during the Operationalisation Phase to confirm if an environmental authorisation, water use licence or other assessments / safety studies will be required which will determine if an environmental impact assessment is needed. Adherence to NEMA and the National Water Act regulates these impacts, and monitoring and compliance reporting requirements will be determined based on the environmental authorisation and/or water use licence. Compliance with the Occupational Health and Safety Act, Labour Relations Act, the Basic Conditions of Employment Act and the Employment Equity Act as well as GCF's safeguard standards will be assured. Due diligence will be performed by SANBI as the Executing Entity during the screening, categorisation and assessment phase in operationalisation			
31. Will there be potential risks of discrimination or exclusion of certain groups or individuals from project benefits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
Likelihood <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low			
The likelihood is low, but due diligence will be performed by SANBI as the Executing Entity during the Operationalisation Phase. This will ensure that no discrimination or exclusion of certain groups or individuals from project benefits takes place. Conflict resolution mechanisms and GRM procedures coupled with ongoing stakeholder engagements will support the management of these risks.			
32. Is this country on the Fragility and Conflict Situations (FCASS) list?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
<i>Note: If yes, please be advised to a conflict and sensitivity assessment will be required at funding proposal (FP) stage</i>			