

INCREASING CLIMATE CHANGE RESILIENCE OF CBNRM THROUGH ADAPTATION IN THE TOURISM SECTOR IN NAMIBIA

ENVIRONMENTAL AND SOCIAL RISKS SCREENING REPORT





Building resilience of communities living in landscapes threatened under climate change through an ecosystem-based adaptation approach

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ABBREVIATIONS

APPO	Atmospheric Pollution Prevention Ordinance
CBNRM	Community Based Natural Resources Management
CBT	Community Based Tourism
DEA	Department of Environmental Affairs
DWAF	Department of Water Affairs and Forestry
EbA	Ecosystem Based Adaptation
EIA	Environmental Impact Assessment
EIF	Environmental Investment Fund
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESS	Environmental Social Safeguards
GCF	Green Climate Fund
GHG	Green House Gases
HAN	Hospitality Association of Namibia
IFC	International Finance Corporation
IWRM	Integrated Water Resources Management
LAC	Legal Assistance Center
MAWF	Ministry of Agriculture Water and Forestry
MET	Ministry of Environment and Tourism
NASCO	Namibia Association of CBNRM Support Organisations
NCCSAP	National Climate Change Strategy and Action Plan
NPCC	Namibia Policy on Climate Change
NTB	Namibia Tourism Board
PS	Performance Standards
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention for Climate Change
WSA	Water Solutions Africa
WSASP	Water Supply and Sanitation Policy

EXECUTIVE SUMMARY

Climate change studies and models predict that the natural resource-based sectors will be most impacted by climate change because of increased water insecurities resulting from increased variability in rainfall due to drought and rising temperatures. Biodiversity and ecosystems offer opportunities for the diversification of livelihoods and creation of employment, particularly for communities that are already engaged in natural resource management activities. The Environmental Investment Fund of Namibia (EIF) is proposing to develop a Community Based Natural Resources Management (CBNRM) -related project to be submitted to the Green Climate Fund (GCF) for funding consideration. The proposed project aims *to increase climate change resilience of productive landscapes in Namibia through implementation of ecosystem-based adaptation actions that strengthen social and ecological systems to sustain livelihoods at local level and facilitate value chains of natural resources*. In line with GCF requirements, this report is an Environmental Social Safeguards (ESS) assessment of the proposed project.

The ESS assessment helps to ensure that planned activities are successfully implemented as it can lead to reduced conflicts, optimized benefits and reduced unintentional harm to people or ecosystems. This report presents the generic ESS risk assessment for Ecosystem Based Adaptation (EbA) of communities under the identified eight landscapes through enhancing the climate resilience of natural resource-based assets. These landscapes include, Central Northern Landscape, Eastern Landscape, Kavango West and East Landscape, Kunene North Landscape, Kunene South Landscape, Southern Landscape, Zambezi East, and Zambezi West and Kyaramacan Landscape. These landscapes cover 225,690 **km²** with an estimated 248,000 people. The landscapes are in three biomes, Namibia is classified into four terrestrial biomes (*desert; nama* and *succulent karoo; acacia savanna*; and *broad-leafed savanna*). Each biome is affected to different extents by land uses such as rangeland farming, agriculture, wildlife production, tourism and recreation, mining and urban development.

Several workshops and consultative meetings were conducted with various stakeholders to identify the environmental and social risks facing the proposed project. The following environmental and social risks were found to be associated with natural resource management projects in general as well as identified for the proposed project:

Environmental risks	Social risks:
1. Over abstraction of groundwater	1. Health and safety
2. Destruction of habitats	2. Unfair labour practices
3. Pollution	3. Competing demands for water at local level due to drought
4. Introduction of invasive vegetation	4. Changes in cultural practices
5. Overharvesting of natural resources	5. Inequitable distribution of benefits from biodiversity conservation
6. Uncontrolled veld fires	6. Marginalization of poorer vulnerable households
7. Increased human-wildlife conflict	7. Displacement of households to create infrastructure for climate resilience/adaptation such as earth dams
8. Increased GHG emissions from transport and tourism establishments	

Most of the identified risks were found to range from low to moderate in terms of significance. Only competing demands for water and the effect of climate change on natural resources were found to be of high significance without mitigation measures. However once mitigation measures are undertaken, these risks could be reduced to moderate or even low significance. It is advisable that the above-mentioned risks are considered in the proposed project design and implementation to enhance the acceptance and sustainability of the project. Furthermore, the interim ESS Performance Standards guide of the GCF are consistent with Namibia's legislation and policies to regulate and control activities which may have significant effects on the environment and human health, most notably the Environmental Management Act (Act No. 7 of 2007). It is imperative that the proposed project is compliant with the prevailing national legislation and policies in place so that it is accepted at both community and national level.

1. BACKGROUND

The Environmental Investment Fund of Namibia (EIF) was accredited to the Green Climate Fund (GCF) in 2015, making it eligible to access climate change funding from the GCF. The EIF subsequently obtained readiness support from the GCF to strengthen the community-based natural resources management (CBNRM) proposal currently under development. CBNRM is an approach aimed at improving natural resources conservation and management by empowering local communities to manage these resources for the upliftment of their socioeconomic status and improvement of their livelihoods.

CBNRM has a major role to play in strengthening community resilience to climate change in Namibia. The EIF is therefore developing a project proposal on EbA of communities living in Namibia's communal areas, which includes conservancies, community forests, and agricultural farming areas by enhancing the climate resilience of their natural resource-based assets. A draft project concept has been formulated. The concept was further developed into a full proposal and this report will contribute to the project development process through the identification of potential environmental and social risks as well as recommended mitigation measures.

The proposed project is expected to enable communities to EbA to respond to climate-induced risks and to safeguard their natural and cultural assets. Environmental and Social Safeguards (ESS) are required for all projects submitted to the Green Climate Fund (GCF). These are rules that reduce the environmental and social risks and the negative impacts of activities. The ESS for a project should respond to (and address) environmental and social risks and impacts, which are identified during project formulation, implementation, as well as risks that may arise after project closure. The EIF has been accredited in the Category C risk profile. This means that activities in project proposals submitted by the EIF should pose minimal or negligible adverse environmental and / or social risks and / or impacts.

ESS help ensure that planned activities are successfully implemented as they reduce conflicts, optimize benefits and reduce unintentional harm to people and ecosystems. This report focuses on the environmental and social risks associated with the proposed eight landscapes involving different community organisations managing their natural resources.

2. CLIMATE CHANGE AND ECOSYSTEM ADAPTATION

The majority of Namibia's rural population depends primarily on agriculture and other ecosystem services for their livelihoods. Climate change studies predict that the agriculture sector will be most impacted by climate change because of increased water insecurities resulting from increased variability in rainfall, drought and rising temperatures. Climate resilient ecosystems offer the opportunity for the diversification of livelihoods and creation of employment, particularly for communities that are already engaged in CBNRM through EbA. The proposed project aims to *increase climate change resilience of productive landscapes in Namibia through implementation of ecosystem-based adaptation actions that strengthen social and ecological systems to sustain livelihoods at local level and facilitate value chains of natural resources.*

Sustainable utilisation of natural resources is a critical pillar of the Namibian economy that generates income and creates employment, most especially in rural conservancies. The revenue generated from these activities sustains the majority of rural communities and is largely based on the ecosystem goods and services mainly in communal conservancies and community forests, which benefit local communities through access to food, water, and shelter.

3. POLICY AND LEGAL FRAMEWORK

The interim ESS guide of the GCF is consistent with Namibia's Environmental Management Act (Act No. 7 of 2007) as well as other related laws and policies put in place to regulate and control activities which may have significant effects on the environment and human health, while also seeking to enhance benefits to the environment and the people. The laws and policies applicable to the proposed project are listed below.

These policies, laws and regulations are consistent with the GCF interim performance standards. Therefore, the envisage project proposal should take into consideration these policies, laws and regulation during the proposal development to ensure the acceptance of the project by community members found in the conservancies and also to ensure compliance with national and international standards and laws.

3.1. The Constitution of the Republic of Namibia (1990)

There are two Articles in the Namibian Constitution of relevance for ensuring sound environmental management practices, namely Articles 91(c) and 95(l). In summary, these oblige the State to:

1. *Guard against the over-utilization of biological natural resources;*
2. *Limit the over-exploitation of non-renewable resources;*
3. *Ensure ecosystem functionality;*
4. *Protect Namibia's sense of place and character;*
5. *Maintain biological diversity; and*
6. *Pursue sustainable natural resource use.*

These Articles commit the State to actively promote and sustain the environmental welfare of the nation by formulating and institutionalizing policies to accomplish sustainable

development objectives. These Articles must be upheld in the development and implementation of the proposed project.

3.2. Namibia's Environmental Management Act (EMA) (Act No. 7 of 2007)

As the main piece of legislation guiding environmental sustainability, the EMA has formulated principles for sound management of the environment and natural resources in an integrated manner. It also puts into place the process of assessment and control of activities which may have significant effects on the environment.

Part 1 of the Act provides the definitions and object of the Act, which is to prevent and mitigate the significant effects of activities on the environment. Part 2 of the Act is of significance to ESS and sets out 12 principles of environmental management, as follows:

1. *Renewable resources shall be utilized on a sustainable basis for the benefit of current and future generations of Namibians.*
2. *Community involvement in natural resource management and sharing in the resulting benefits shall be promoted and facilitated.*
3. *Public participation in decisions affecting the environment shall be promoted.*
4. *Fair and equitable access to natural resources shall be promoted.*
5. *Equitable access to sufficient water of acceptable quality and adequate sanitation shall be promoted and the water needs of ecological systems shall be fulfilled to ensure the sustainability of such systems.*
6. *The precautionary principle and the strategy of preventative action shall be applied.*
7. *There shall be prior environmental assessment of projects and proposals which may significantly affect the environment or use of natural resources.*
8. *Sustainable development shall be promoted in land-use planning.*
9. *Namibia's movable and immovable cultural and natural heritage, including its biodiversity, shall be protected and respected for the benefit of current and future generations.*
10. *Generators of waste and polluting substances shall adopt the best practicable environmental option to reduce such generation at source; and the polluter pays principle shall be applied.*
11. *Reduction, reuse and recycling of waste shall be promoted.*
12. *Promotion of the coordinated and integrated management of the environment;*

In terms of the Environmental Assessment Policy of 1994, the EMA (Act No. 7 of 2007) and its regulations, tourism development activities require an environmental clearance certificate, which must be applied for from the Department of Environmental Affairs at the Ministry of Environmental and Tourism (MET: DEA).

Due to the nature of the potential impacts of the proposed project / program, a full Environmental Impact Assessment (EIA) or scoping studies may be required in order to obtain an Environmental Clearance Certificate. This will depend on the nature and scale of the proposed interventions and pilot activities. In this ESS, a holistic view of the proposed activities

should be assessed, and risks should be identified. Mitigation measures must be assigned for each of the risks under the International Finance Corporation (IFC) performance standards, as have been adopted by the GCF in the interim.

Section 5 of the EMA, states that if a proposal is likely to affect people, certain factors should be considered in scoping reports and environmental assessments. The following factors are of relevance to ESS:

1. *The location of the development in relation to interested and affected parties (I&APS), communities or individuals;*
2. *The number of people likely to be involved;*
3. *The reliance of such people on the resources likely to be affected, the resources, time and expertise available for scoping;*
4. *The socio-economic status of affected communities;*
5. *The level of organization of affected communities;*
6. *History of any previous conflict or lack of consultation;*
7. *Social, cultural or traditional norms within the community; and*

The above-mentioned guidelines are also similar to the GCF interim ESS and are applicable under the fifth performance standard: Land acquisition and involuntary resettlement. If these factors are not incorporated in the scoping exercise, the envisaged project may be met with resistance from communities and ownership challenges may arise.

3.3. Namibia Vision 2030

Vision 2030 states that natural environments are disappearing quickly and the natural beauty that many areas in Namibia provide are becoming sought after commodities and must therefore be regarded as valuable natural assets. Vision 2030 also promotes healthy environments, access to basic services, economic growth and sustained livelihoods.

The principles that underpin Vision 2030, a policy framework for Namibia's long-term national development, complement the ESS performance standards in tourism-related activities through:

1. *Good governance;*
2. *Partnership;*
3. *Capacity enhancement;*
4. *Comparative advantage;*
5. *Sustainable development;*
6. *Economic growth;*
7. *National sovereignty and human integrity;*
8. *Environment; and*

9. Peace and security.

This envisaged project should support the goals set out in Vision 2030, by aligning its development and management plans to the principles as services provided by healthy and functional ecosystems in rural areas have the potential to create employment opportunities and ultimately contribute to national wealth.

3.4. National Policy on Climate Change for Namibia (2011)

The National Policy on Climate Change (NPCC) pursues constitutional obligations of the Government of the Republic of Namibia, particularly Article 95 (l) for the State *“to promote the welfare of its people and protection of Namibia’s environment for both present and future generation.”*

The policy recognizes Namibia’s environmental constraints and vulnerabilities, and seeks to outline a coherent, transparent and inclusive framework on climate risk management in accordance with Namibia’s national development agenda and legal framework. Similarly, the policy takes cognizance of Namibia’s comparative advantages about its abundant potential for renewable energy exploitation, which this proposed project should also take into account. The overall goal of the policy is to strengthen national capacities to reduce climate change risks and build resilience against any climate change-related shocks.

The proposed project should contribute to the implementation of this policy by sensitizing local communities on matters of climate change and by intensifying awareness education and developing training packages on climate-resilient and sustainable management practices or techniques.

3.5. National Climate Change Strategy and Action Plan (NCCSAP) 2013 – 2020

Climate change is a complex and cross-cutting issue and it impacts directly on the entire chain of national development. The NCCSAP was developed because of the growing concern and discourse focusing on climate variability and climate change risks and impacts affecting Namibia’s social, environmental and economic development potential. Therefore, in order to implement the NPCC, the NCCSAP was adopted in 2013 as a key instrument and comprehensive practical tool, which offers strategic direction on the mechanisms, means and manner of implementation necessary for climate change adaptation and mitigation in Namibia.

Climate change awareness, knowledge and understanding, both in terms of the risks, impacts and responses, is rapidly developing in Namibia. This may call for a mid-term review process of the implementation and impact of the NCCSAP in order to improve the adaptation mechanisms and guide future projects such as those related to CBNRM and community-led ecosystem-based adaptation.

3.6. Water Resources Management Act (Act no. 11 of 2013)

This Act provides a framework for managing water resources based on the principles of integrated water resources management (IWRM). It provides for the management, development, protection, conservation, and use of water resources. This relates to the performance standards assessing resource efficiency and pollution prevention as well as biodiversity conservation and the sustainable management of living natural resources.

Relevant principles of the Act include *inter alia*:

1. *Equitable access for all people to safe drinking water is an essential basic human right to support a healthy productive life;*
2. *Harmonization of human water needs with the requirements of environmental ecosystems and the species that depend on them, while maintaining the water quality;*
3. *Promotion of the sustainable development and integrated management of water resources which incorporates social, technical, economic, and environmental issues;*
4. *Development of the most cost-effective solutions, including conservation measures, to infrastructure for the provision of water; and*
5. *Prioritizing water awareness and the participation of interested and affected stakeholders in the decision-making process of any water resource development initiative.*

The Department of Water Affairs and Forestry (DWAF) in the Ministry of Agriculture, Water and Forestry (MAWF) is the legal custodian for the implementation of the Act. The principle on the harmonisation of human water needs with the requirements of environmental ecosystems and the species that depend on them, while maintaining water quality, relates specifically to the objectives of the proposed project.

3.7. Water Act (Act 54 of 1956)

This Act is partially replaced by the Water Resources Management Act, which consolidates and amends the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. This Act will phase out once regulations for the Water Resources Management of 2013 come into effect. The main purpose of the Water Act is to provide for the sustainable development and use of water resources, and to restrict the pollution of waters by means of any activity.

This Act requires proposed developments to investigate and implement measures to ensure the sustainable use of water resources and to ensure that no pollution of any above or below ground water takes place.

3.8. Water and Sanitation Policies

The existing water and sanitation policy in place are the Water Supply and Sanitation Sector Policy (WSASP). This policy, which was adopted in 2008, replaced the National Water Policy of 2000. A National Sanitation Strategy was also adopted to implement the key provisions of the WSASP during the period 2010/11 – 2014/15.

In terms of the Water Resources Management Act of 2013 and the Water Supply and Sanitation Policy, a developer or client will:

1. Take steps to prevent *“any public or private water on or under that land, including rainwater that falls on or flows over or penetrates such land”* from being polluted; and
2. Require a permit for the disposal of effluent / brine and or industrial wastewater.

Of concern in the WSASP is the prevention of surface and groundwater pollution. Therefore, the collection, storage, disposal of waste from toilet facilities and others should be conducted in compliance with permit requirements.

In terms of the National Sanitation Strategy, the developer/contractor must put in place strategies to:

1. Guarantee safe and affordable sanitation, encouraging decentralized sanitation systems where appropriate; and
2. Promote recycling through safe and hygienic recovery and use of nutrients, organics, trace elements, water and energy, and the safe disposal of all human and other wastes, including sewage and industrial effluent, in an environmentally sustainable fashion.

The provisions of the WSASP may become relevant for the implementation of the activities under Component 2 of the proposed project that pertains to increasing the resilience of natural resource-reliant communities to climate change and disaster risks. The proposed activities for climate-proofing rural infrastructure to develop resilience, especially the water-related infrastructure, will draw guidance heavily from these policy provisions.

3.9. Code of Practice: Volume 2 – Pond Systems (2008)

In the Water Resources Management Act, 2013 (Act No. 11 of 2013), there are conditions laid down to ensure that proper wastewater treatment is provided and to facilitate good operation of different wastewater treatment systems and their methods of disposal. One of the main objectives is to use and protect Namibia’s most valuable natural resources, namely water, and to encourage the reuse of treated wastewater where possible.

Biological treatment processes, which include activated sludge processes, trickling filters (bio filters), oxidation ponds and even the self-purification powers of rivers, all operate on essentially the same fundamental biochemical principles. They differ from one another primarily in the method of utilising dissolved Oxygen.

Appropriate wastewater treatment and reuse methods will significantly reduce the various demands and pressure on the water resource in the proposed project areas and lessen adverse impacts on the environment. Therefore, proposed projects must identify and incorporate cost-effective and environmentally-friendly wastewater treatment options in their developmental plans. Human health and safety aspects should also be prioritized.

3.10. Code of Practice: Volume 6 – Wastewater Reuse (2012)

In this manual, the treatment and reuse of wastewater are discussed, and water quality standards for effluent are also listed in Appendix A of the manual. This guideline addresses the use of grey water and treated domestic and industrial effluents / waste water for reuse in industrial, agricultural and aqua cultural applications. Namibia is an arid country and the Water Resources Management Act (Act No. 11 of 2013) therefore also encourages the reuse of suitably treated wastewater. Conversely, it is important to realize that there is a certain risk

to the public from wastewater reuse and carelessness can lead to widespread public health hazards, water borne diseases and can even result in epidemics and fatalities.

Although wastewater reuse can be beneficial, because it can prevent over-exploitation of natural water resources, emphasis must be placed on continuous monitoring and the safe use thereof, especially where treated wastewater ultimately comes into direct contact with humans, or plants and animals consumed by humans, in order to guarantee public health and safety at all times.

Wastewater further contains valuable nutrients and no fertiliser needs to be added when reusing treated domestic effluent for agricultural purposes. Thus, the advantages and disadvantages of wastewater reuse must be carefully weighed up when determining areas of application for such reuse. In the case of the proposed project, appropriate methods pertaining to waste water reuse, as outlined in this manual, should be identified and incorporated in the proposed project development plans.

3.11. Guideline for disposal of solids from water and wastewater treatment processes (2012)

This guideline addresses the use and disposal of solids generated during the treatment process from both drinking water and wastewater treatment plants. Due to the costs associated with landfill disposal options, environmental concerns and globally increasing awareness about waste reduction and recycling, the purpose of this guideline is to inform plant owners how to safely discard their solid waste and to promote the safe and feasible reuse of such waste.

Possible risks and hazards related to sludge use include:

1. *Water-borne diseases caused by helminths, bacterial, viral and/or protozoan infections.*
2. *Aesthetic issues such as odour, pollution or decreased product sales due to consumers not wanting to buy products that were produced using wastewater.*
3. *Environmental issues including groundwater contamination, endangering of marine life and pollution of water bodies used for recreational purposes.*

For the proposed projects, monitoring and evaluation measures for the safe use of wastewater sludge, especially where it comes into direct contact with humans, or plants and animals consumed by humans, must be developed.

3.12. Forestry Act (Act 12 of 2001), As Amended

This Act deals with issues of forest management in general and matters incidental thereto. Of importance to the proposed project is that the Act affords general protection of the environment (Part IV). Section 22 affords protection to natural vegetation stipulating that no living tree, bush or shrub within 100 m from any river, stream or watercourse may be removed without the necessary license. Permits are required for the removal of trees, bushes or shrubs, or any indigenous plants. Therefore, any proposed developments relating to implementation of the proposed project must comply with these requirements.

3.13. Soil Conservation Act (Act 76 of 1969), As Amended

Similar to the other Acts and Ordinances described in 3.6-3.12 above, this Act addresses the issues of vegetation and ground water protection, but also includes the matter of soil. The Act focuses on combating and preventing soil erosion as well as the conservation, protection and improvement of soil and vegetation and water sources and resources. The proposed project should therefore comply with the soil conservation measures outlined in this Act to prevent soil erosion in the proposed project areas.

3.14. Pollution Control and Waste Management Bill (in preparation)

This Bill seeks to regulate and prevent the discharge of pollutants to the air and water as well as providing for general waste management measures. The Bill will repeal the Atmospheric Pollution Prevention Ordinance (Act No. 11 of 1976) when it comes into force.

In terms of water pollution, it will be illegal to discharge of, or dispose of, pollutants into any watercourse without a Water Pollution Licence (apart from certain accepted discharges). Similarly, an Air Quality Licence will be required for any pollution discharged to air above a certain threshold.

The Bill also provides for noise, dust and odour control that may be considered a nuisance and advocates for duty of care with respect to waste management affecting humans and the environment. It also calls for a waste management licence for any activity relating to waste or hazardous waste management in any area.

3.15. Atmospheric Pollution Prevention Ordinance (No.11 of 1976), As Amended

The Atmospheric Pollution Prevention Ordinance (APPO) (No. 11 of 1976) addresses the following:

1. *Part II: Controls of noxious or offensive gases;*
2. *Part III: Atmospheric pollution by smoke;*
3. *Part IV: Dust control; and*
4. *Part V: Air pollution by fumes emitted by vehicles.*

This Ordinance serves to control air pollution from point sources, but it does not consider ambient air quality. Any person carrying out a 'scheduled process', which is defined as a process resulting in emissions of noxious or offensive gases, must obtain a registration certificate from the Department of Health. The Ordinance is clear in requiring that:

(1) Any person who in a dust control area –

(b) has at any time or from time to time, whether before or after the commencement of this Ordinance, deposited or caused or permitted to be deposited on any land a quantity of matter which exceeds, or two or more quantities of matter which together exceed, twenty thousand cubic meters in volume, or such lesser volume as may be prescribed, and which in the opinion of the Director causes or is liable to cause a nuisance to persons residing or present in the vicinity of such land on account of dust originating from such matter becoming dispersed in the atmosphere.

Although it is not anticipated that the project would generate any significant levels of noxious or offensive gases, the proponent needs to ensure that a registration certificate (air pollution permit) is obtained, if required. As duty of care, the proponent should implement the necessary

mitigation measures set out in this Ordinance in order to limit emissions to air in the form of dust and emissions during construction and operations where applicable.

3.16. Hazardous Substance Ordinance (No. 14 of 1974), As Amended

This Ordinance provides for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure therefrom in certain circumstances. It covers the manufacturing, sale, use, disposal and dumping of these substances as well as their import and export. These substances are grouped (Group I, II, III, and IV) in terms of section 3 (1) of the mentioned Ordinance.

The responsibility lies with the proponent of the project to conform to the Hazardous Substances Ordinance (No. 14 of 1974). Caution is required in the storage and handling of any hazardous substances as it poses potential harm to humans and the natural environment if incorrectly applied or handled.

3.17. The Public Health Act (Act No. 36 of 1919)

This Act covers a variety of aspects with relevance to the general wellbeing and health of the public. With relevance to the development of infrastructure, this Act refers to the control of nuisances but also to the prevention of pollution of public waters.

Section 119 of the Act prohibits the existence of a 'nuisance' on any land owned or occupied by any person. Having relevance to the proposed development, the Act defines 'nuisance' as:

1. *any stream, pool, lagoon, ditch, gutter, watercourse, sink, cistern, water closet, earth closet, privy, urinal, cesspool, drain, sewer, dung pit, slop tank, ash pit or manure heap so foul or in such a state or so situated or constructed as to be offensive or to be injurious or dangerous to health;*
2. *any well or other source of water supply or any cistern or other receptacle for water, whether public or private, the water from which is used or is likely to be used by man for drinking or domestic purposes or in connection with any dairy or milk shop or in connection with the manufacture or preparation of any article of food intended for human consumption, which is polluted or otherwise liable to render any such water injurious or dangerous to health;*
3. *any factory or trade premises not kept in a cleanly state and free from offensive smells arising from any drain, privy, water closet, earth closet, or urinal, or not ventilated so as to destroy or render harmless and inoffensive as far as practicable any gases, vapours, dust or other impurities generated, or so overcrowded or so badly lighted or ventilated as to be injurious or dangerous to the health of those employed therein;*
4. *any factory or trade premises causing or giving rise to smells or effluvia which are offensive, or which are injurious or dangerous to health;*

5. *any area of land kept or permitted to remain in such a state as to be offensive, or liable to cause any infectious, communicable or preventable disease or injury or danger to health; and*
6. *Any other condition whatever which is offensive, injurious or dangerous to health.*

Part III of the General Regulations promulgated under the Health Act (Act No. 36 of 1919) focuses on the prevention of pollution of public surface or ground water by various means.

3.18. The Ministry of Environment and Tourism (MET) Policy on HIV and AIDS

The relevance of this policy for the proposed project stems from the fact that construction activities may require the establishment of a temporary construction workforce within the rural conservancies. Experience with other construction projects in a developing-world context has shown that, where construction workers have the opportunity to interact with the local community, a significant risk is created for the development of social conditions and behaviours that contribute to the spread of HIV and AIDS.

In response to the threat this pandemic poses, the MET has developed a policy on HIV and AIDS. This policy provides for a non-discriminatory work environment and for workplace programs managed by a Ministry-wide committee. Adhering to these programs should be mandatory for this proposed project.

3.19. The Labour Act (Act No. 27 of 2004)

In this Act, the occupational exposure of employees to risks is covered under the regulations relating to the health and safety of employees at work. Sub-contractors are however not subject to any provisions of the Act, as sub-contractors are not considered to be employees in terms of Namibian common law.

Section 3 (1) of the regulations stipulates that in areas where it is suspected that noise levels are above 85dB(A) over an eight-hour period, the employer shall take reasonable steps to reduce the levels to below 85dB(A). If this is not possible, noise areas (those above 85 dB (A)) must be clearly marked and measured every 36 months.

Employees that work in noisy areas must be provided with hearing protection devices free of charge and must undergo medical surveillance at least once every 36 months. Employees that are exposed to levels exceeding 85 dB (A) must be adequately and comprehensively informed and trained regarding the wearing of personal protective equipment and the potential risks of exposure to noise and the precautions to be taken to protect against the risks associated with the exposure to noise.

Chapter IV of the regulations stipulates that all employees have the right to health and safety in the workplace. A Health and Safety Officer must be appointed to maintain a healthy and safe environment for all workers during the construction phase. Prior to the promulgation of the Labour Act in 1997, many regulations had been gazetted dealing with different aspects of employer and employee rights and obligations. Included in these are regulations relating to health and safety in the workplace. The administration of these regulations is assigned to various ministries by Proclamation 10/1997, as published in Government Gazette 1615 of 1997.

3.20. The National Heritage Act (Act No. 27 of 2004)

This Act makes provision for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. The National Heritage Council was established through this Act to identify, conserve, manage and protect places and objects of heritage significance.

Section 46 of the Act prohibits the removal, damage, alteration or excavation of heritage sites or remains (defined in Part 1, Definitions 1), while Section 48 (f) sets out the procedure for the application and granting of permits such as might be required in the event of damage to a protected site or object occurring as an inevitable result of development. Section 51 (3) sets out the requirements for impact assessment. Section 55 (3) and (4) require that any person who discovers an archaeological site should notify the National Heritage Council.

3.21. National Rangeland Management Policy and Strategy (2012)

The Ministry of Agriculture, Water and Forestry developed the National Rangeland Management Strategy and Action Plan to promote the sustainable management of rangelands for better livestock production. Many of the rangelands in Namibia are degraded because of overgrazing and bush encroachment resulting in the sub-optimal provision of rangeland related ecosystems.

Most rural communities engaged in natural resource management activities rely on rangelands for their livelihoods in the form of livestock rearing. To adapt to changing climatic conditions that are expected to impact negatively on rangeland productivity, communities must ensure the sustainable management of rangelands to ensure that they are resilient and able to provide much needed ecosystem services.

3.22. International Conventions and Treaties

3.22.1. United Nations Convention on Biological Diversity (UNCBD), 1993

As the demands on natural resources such as soil, water and vegetation increase, the state of these resources continues to deteriorate. The pressures are aggravated by changes in climate and these impacts heavily on already vulnerable communities. The objective of the UNCBD is therefore to maintain biological diversity, ensure the sustainable use of its components, and to ensure the equitable sharing of benefits derived from these resources including access thereto.

The proposed project should contribute to these objectives by ensuring that its activities enhance the conservation and sustainable use of biodiversity and deliver benefits to the affected communities.

3.22.2. United Nations Framework Convention on Climate Change (UNFCCC), 1992

Namibia is signatory to the UNFCCC and is committed to develop programs to reduce its anthropogenic emissions of greenhouse gases (GHG) by sources and removal by sinks. The overall objective of this Convention is to achieve the stabilization of GHG concentrations in the

atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This should be done in accordance with the relevant provisions of the Convention.

The proposed project will play an important role in implementing the provisions of this Convention by reducing effects of climate change in the tourism industry and the proposed activities should take into consideration the commitments provided for in this Convention during development.

3.22.3. Bamako Convention, 1991

The African States, signatory to this Convention, of which Namibia is one, are mindful of the growing threat to human health and the environment due to the increased generation of hazardous waste. This Convention acknowledges that mechanisms must be put in place to ensure that the producer of the waste carries the responsibility of transporting and disposing the waste in a manner that protects human health and the environment.

The Bamako Convention emphasizes the importance of a 'toxic free' environment through the implementation of environmentally sound legal instruments and management systems for the welfare of current and future generations.

3.23. Overview of EIF's ESS Policy

The EIF has adopted ESS standards to guide the management of environmental and social risks that may emanate from its projects and programmes. The EIF's ESS standards are aimed at ensuring that any un-intended adverse environmental and social consequences of proposed projects and programs are identified and evaluated by EIF prior to a final decision to proceed with the project, and that appropriate safeguards and measures to avoid or minimize environmental and social impacts are put in place when necessary. The standards are adapted from the IFC Performance Standards (PS) and conform to internationally accepted procedures, *inter alia*, those of the Global Environment Facility, Adaptation Fund, GCF and the World Bank. It is the intention of EIF to test and refine these procedures over time in order to further strengthen their effectiveness and application.

The EIF will not finance projects and programmes that do not comply with its ESS standards, nor will it finance projects that do not comply with the environmental laws and regulations of the Republic of Namibia, including those laws implemented under obligations of international law. The ESS standards apply to all EIF-financed and/or EIF-administered projects and their components, regardless of the source of financing. These include investment projects funded through loans and / or grants as well as through other means, such as equity and / or guarantees.

For this reason, the EIF ESS Policy will act as a guiding document for implementation of the proposed project activities in addition to the existing national and international conventions and best practices so that environmental integrity is maintained, and local communities are not negatively affected.

4. METHODOLOGY

Water Solutions Africa (WSA) participated in stakeholder consultation workshops organized by the EIF from 10-20th July 2017. During these workshops, environmental and social risks and associated mitigation measures were identified, in consultation with the stakeholders from the CBNRM areas found in Namibia. Following on from these initial workshops, WSA participated in further stakeholder consultations in Windhoek from 20-28th July 2017. This section presents the methods and approaches used to engage stakeholders and to identify the environmental and social risks.

4.1. Approach

To ensure the identification of representative risks and impacts of the proposed project, the following approaches were used: (a) Workshops with community members in rural conservancies and (b) Consultative meetings with key stakeholders in Windhoek. These approaches were found to be adequate and representative as enough information was collected for the ESS assessment.

4.2. Workshops

The workshops were held in five major towns representing all the administrative regions of Namibia as depicted in the table below. In addition to the workshops, consultative meetings were also held in Windhoek with key stakeholders as shown in the table below.

Table 1: Workshops

<i>Town</i>	<i>Date of workshop</i>	<i>Regions represented</i>	<i>Key stakeholders who attended the meeting</i>
Mariental	10 July 2011	Ilkaras, Hardap	Traditional leaders, conservancy representatives, Farmers Associations
Otjiwarongo	12 July 2017	Otjozondjupa, Erongo, Khomas, Omaheke	Conservancy representatives, community members, Farmers Associations
Opuwo	14 July 2017	Kunene	Conservancy representatives, community members, Directorate of Environmental Affairs/ Forestry
Ondangwa	17 July 2017	Oshana, Omusati, Ohangwena, Oshikoto	Ministry officials (Directorate of Forestry), Youth group representatives, Community members
Rundu	19 July 2017	Kavango East, Kavango West, Zambezi	Ministry officials (Directorate of Forestry, Department of Environmental Affairs), Conservancy representatives
Windhoek	19 July 2017	Khomas	MET (Department of Environmental Affairs; Directorate of Wildlife and National Parks; CBNRM) and Legal Assistance Centre

<i>Town</i>	<i>Date of workshop</i>	<i>Regions represented</i>	<i>Key stakeholders who attended the meeting</i>
Windhoek	20 July 2017	Khomas	Eco Awards Namibia; FNB Agri & Tourism; HAN; NACSO; Namibia Tourism Board (NTB) and Namibia University of Science and Technology School Hospitality and Tourism

To ensure a holistic approach and the inclusion of marginalized and vulnerable groups in the discussion, especially women, the following approaches were used to engage the stakeholders at each workshop:

1. **Approach 1:** Presentation to all attendees.

At each workshop, an overview of what ESS is, its objectives and the performance standards criteria, were presented to the participants in order to (re)introduce them to the concept, engage their understanding on the matter, and to provide clarifications where needed. This set the scene for the group work activities conducted later in the day, following another brief recap of the concept.

2. **Approach 2:** Focus group discussion with a facilitator.

Participants were then divided into groups and asked to identify potential environmental and social risks in their respective conservancies, which may emanate from the proposed activities and how they may impact their livelihoods. These were listed on flip charts. For each risk identified, the mitigation measures were identified collectively with the communities

This exercise identified the key environmental and social risks that threaten the sustainability of CBNRM in the respective rural settings.

4.3. Consultative meetings

Consultative meetings were held in Windhoek with key stakeholders for their inputs into the project proposal as per the table below.

Table 2: Consultative meetings

<i>Town</i>	<i>Date of workshop</i>	<i>Regions represented</i>	<i>Key stakeholders who attended the meeting</i>
Windhoek	19 July 2017	Khomas	MET (Department of Environmental Affairs; Directorate of Parks & Wildlife Management; CBNRM) and Legal Assistance Centre
Windhoek	20 July 2017	Khomas	Eco Awards Namibia; FNB Agri & Tourism; HAN; NACSO; Namibia Tourism Board (NTB) and Namibia University of Science and Technology School Hospitality and Tourism

Town	Date of workshop	Regions represented	Key stakeholders who attended the meeting

The following key stakeholders were visited:

1. MET (Department of Environmental Affairs; Directorate of Wildlife and National Parks; Directorate of Tourism and Gaming);
2. Legal Assistance Centre (LAC);
3. Eco Awards Namibia;
4. First National Bank of Namibia's Agriculture & Tourism Division;
5. Hospitality Association of Namibia (HAN);
6. Namibia Association of CBNRM Support Organizations (NACSO);
7. Namibia Tourism Board (NTB); and
8. Namibia University of Science and Technology

During these meetings the project concept was explained to the attendees and relevant questions from the specialists were posted for inputs. Moreover guidance was also received from the stakeholders on how to approach the proposed project.

4.4. Outcomes

4.4.1. Workshops

In terms of the outcomes from the regional workshops, participants were found to support the proposed project as it will bring to the conservancies the following benefits:

- Job opportunities for the locals;
- Better marketing and networking opportunities;
- Skills development and transfer (benefits to local communities);
- Improvement and diversification of livelihoods;
- Capacity to adapt to climate change; and
- Increased levels of knowledge and awareness about climate change.

Despite the benefits identified, the following challenges were identified in terms of the sustainable provision of ecosystem services, many of which relate to tourism-based services:

1. Lack of financing;
2. Inadequate legal knowledge of understanding contracts (understanding the contracts and obligations once contract is signed);
3. Limited mandates of conservancies and community forests;
4. Occasional interference of Traditional Authorities in the mandates of conservancies and community forests;
5. Limited equipment such as patrol gear and vehicles;
6. Poor telecommunication networks in remote areas;
7. Poor road infrastructure and connections to other conservancies;
8. Overlapping policy instruments;
9. Insufficient information dissemination;
10. Inadequate skills transfer;
11. Limited skilled human resources;
12. Unemployment and poverty levels;
13. Inadequate advertising and marketing of community projects / tourism activities;

14. Inadequate management and operational structures; and
15. Limited patrol equipment and firefighting gear.

Given the above-mentioned challenges found in conservancies, the proposed project should consider addressing some of these to ensure the success and active participation of community members residing in the conservancies.

In view of the above-mentioned challenges found in rural conservancies, the proposed project should consider the following possible risks:

1. Over abstraction of groundwater;
2. Destruction of habitats and land degradation;
3. Surface and groundwater water pollution;
4. Introduction of invasive vegetation;
5. Overharvesting of natural resources;
6. Destruction of grazing areas;
7. Changes in vegetation cover;
8. Land degradation;
9. Impacts of climate change on sustainability of nature-based development;
10. Climate change may pose a risk to the sustainability of activities;
11. Increased GHG emissions in transport and tourism establishment;
12. Health and safety;
13. Employment creation;
14. Unfair labour practices or joint venture agreements;
15. Increased human-wildlife conflict;
16. Indirect changes in land uses;
17. Increased wildlife poaching;
18. Competing demands for water at local level due to drought and increasing temperatures;
19. Loss of identity, culture and natural resource-based livelihoods;
20. Unequal distribution of benefits from conservation; and
21. Changes in cultural practices.

4.4.2. Consultative meetings

At the consultative meetings, the visited stakeholders were found to support the proposed project. All the visited institutions have existing programs in place in support of the project activities. The main challenges and risks associated with CBNRM related projects were described as droughts, flooding, pollution or littering, poaching of wildlife, competition between lodges found in rural conservancies, access to financing for lodge development in communal areas and skills shortages. It was also mentioned that an environmental clearance certificate is required for building new lodges and upgrading existing facilities. This could be a costly and cumbersome process.

4.5. Limitations with stakeholder consultations

The greatest limitations regarding the consultative process were the time constraints, which made it difficult to engage with stakeholders at the regional level. The risks and mitigation measures were discussed in a one-day workshop, which covered many other issues including different aspects of project development such as confirmation of the project concept, ESS, gender and communication requirements.

Detailed environmental assessments should be conducted for each specific project of the proposal. This will assist in providing a deeper interrogation of major risks and mitigation measures that were identified in the workshops and consultative meetings. However, for this exercise, the collected information for the identification of the risks and the proposed mitigation measures is considered sufficient.

5. IDENTIFICATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS / IMPACTS

The risks identified in the workshops and consultative meetings were grouped into environmental and social risks.

5.1. *Environment risks*

1. Over abstraction of groundwater;
2. Destruction of habitats;
3. Pollution;
4. Introduction of invasive vegetation;
5. Overharvesting of natural resources;
6. Uncontrolled veld fires;
7. Increased human-wildlife conflict; and
8. Increased GHG emissions from transport and tourism establishments.

5.2. *Social risks*

1. Health and safety, especially the risks related to water-borne diseases in areas where earth dams may be established to harvest and store rainwater for longer periods;
2. Unfair labour practices;
3. Competing demands for water at local level due to drought;
4. Changes in cultural practices;
5. Inequitable distribution of benefits from conservation; and
6. Displacement of households to create room for the development of climate proof infrastructure such as earth dams for water harvesting.

6. SCREENING OF ENVIRONMENTAL AND SOCIAL RISKS

Table 3 below focuses on screening the environmental and social risks identified in workshops and during consultative meetings. The risks or impacts relevant to the ESS requirement performance standards, impact of the risks and their significance were all assessed. The identified risks were screened based on their impact and probability, and significance of the risks if it occurs.

Impact and probability were rated on a scale of 1-5, with a rating of 1 indicating low impact and 5 indicating high impact. In terms of probability, a rating of 1 represented a slight probability with 5 representing expected probability. The significance of the potential social and environmental risks was determined based on the combination of the probability and impact rating of the risks. The significance of the risks was rated as low, moderate or high risk.

Table 3: Environmental and social risks screening

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Sight; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
Environmental Risks					
Over abstraction of groundwater	PS3	I=1 P=1	Low	For any proposed facilities that will require groundwater for usage, an application for an abstraction permit should be made. In the permit the amount of water to be taken from any boreholes will be stipulated by the Department	To ensure that groundwater resources are protected, all proposed boreholes should be granted permits from the Department of Water Affairs. Monitoring systems must be put in place to monitor and report on the amount of water abstracted from all new and existing boreholes. Measures must be put in place to recycle and re-use water as much as possible.

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Sight; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
				of Water Affairs. Existing boreholes should also be registered in all conservancies with the Department of Water Affairs if they are not already registered. This will ensure the sustainable management of the aquifers for future uses.	
Destruction of habitats	PS3, PS6	I=1 P=1	Low	During the construction of new or during renovation of existing facilities, the land may be cleared for the development. This could result in the destruction of biodiversity habitats.	Awareness creation and community education about the importance of habitats for biodiversity. Enact tailored land use plans in the respective areas to minimize project impacts to the environment. Strengthen and enforce environmental conservation and protection guidelines to ensure compliance, and take to task those failing to comply. EIAs must be conducted for any development and environmental clearance must be obtained before commencement of any project activity. Rehabilitate habitats through for example reforestation projects. Zone off areas for different land uses to assist in better land planning and management. EIAs conducted should consider the impact of the proposed development on the land and proposed mitigation measures for such to be identified and implemented in Environmental Management Plans (EMPs):

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Sight; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
					Stock piling of top soil in 30cm for all trenches. The top soil should be returned back and re-vegetated to its normal state.
Introduction of invasive vegetation	PS6	I=1 P=1	Low	The transportation of construction and other materials from different regions could act as a means of transporting invasive species and seeds into the conservancies.	All materials transported into the project site for construction or other purposes should be checked for potential seeds and if possible cleaned or sprayed with water by placing the seeds on plastic papers. Landscapes with water ways or rivers should ensure that boats coming from other regions are clean prior to entering their water ways. The colonization of disturbed areas by invasive alien species should be monitored and measures taken to eliminate any alien species.
Overharvesting of natural resources	PS6	I=3 P=3	Moderate	Natural resources could be overharvested if not controlled for the construction of houses and infrastructure.	Rehabilitate habitats through reforestation and other methods. Enforce controlled harvesting of natural resources. Reduce harvesting quotas. Strengthen enforcement efforts at conservancy and community forest level to ensure that overharvesting of resources is controlled.
Uncontrolled veld fires	PS6	I=3 P=3	Moderate	Destruction of grazing areas could happen if there will be more people visiting and if minimal control measures are	Establish fire cut-lines and practice early burning to avoid / contain the spread of fires. Capacitate fire fighters through skills training.

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Sight; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
				in place.	Develop the capacity of landscapes organisations to manage un-wanted fires effectively. Support the development and implementation of integrated fire management plans in fire-prone conservancies to manage the impact of frequent anthropogenic fires.
Increased conflict human-wildlife	PS6	I=4 P=2	Moderate	<p>The increase in the number of facilities and improved infrastructure could lead to human and wildlife conflicts if not properly managed. However, given the good practices in the country, this risk should not be a major concern to manage.</p> <p>The increased facilities could also lead to more cases of wildlife poaching if not managed and controlled. The Government is deeply committed to eliminating poaching and measures are in place and are sufficient to control the current and future challenge of poaching in the</p>	<p>Improve awareness and education of landscape committees to enable them to co-exist with wildlife.</p> <p>Develop water points for wildlife away from human settlements.</p> <p>Strengthen patrols and capacitate game guards (skills and equipment).</p> <p>Intensify awareness campaigns to combat poaching.</p> <p>Establish penalties and take punitive measures against those in defiance of laws and regulations. Strengthen law enforcement patrols.</p> <p>Control wildlife hunting quotas.</p>

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Signif; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
Social Risks				conservancies.	
Health and safety	PS2, PS4, PS6	I=3 P=3	Moderate	<p>During the construction of new facilities or renovation of existing facilities, the safety of employees involved in the construction of the facilities could be a concern if not well managed.</p> <p>The lack of effective sanitation systems, waste disposal sites / facilities and good quality water is a significant health risk in all landscape.</p> <p>The collection and storage of rainwater in earthdams may increase the risk and spread of waterborne diseases such as malaria and cholera.</p>	<p>Capacity building and awareness creation on health and safety should be undertaken. This should greatly enhance the health and safety consciousness of community members found in the conservancies.</p> <p>Devise incentives or compensation packages for resettlement due to injuries incurred due to proposed project activities.</p> <p>Demarcate waste disposal sites and ensure the appropriate design of structures to mitigate health and safety risks.</p> <p>All conservancies and community forest areas must put in place a basic health and safety policy to ensure that the wellbeing and safety of all people affected by the project activities are not exposed to risks.</p> <p>Measures must be put in place, in consultation with the Ministry of Health and Social Services, to ensure that rainwater collection and storage does not contribute to the ill-health of affected communities.</p>
Unfair labour practices	PS2	I=3	Moderate	Local workers could be exploited and subjected to poor	Implement and enforce principles of good labour

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Signif; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
		P3		working conditions and low wages.	practice in the project development process to ensure the welfare and dignity of workers. Provide workers with capacity building and skills training in each landscape. Local first principles should apply so that local workers are employed. Local headmen should be involved in the recruitment process.
Competing demands for water at local level due to drought.	PS3	I=4 P=2	Moderate	Namibia is an arid country and therefore the possibility of drought occurring is very high. If this happens, the water demand of competing users will be difficult to meet and could lead to conflict. Alternative water sources for emergency or for usage during drought periods need to be discovered to ensure the sustainability of the proposed project.	Determine water allocations for different users. Strengthen and enforce environmental conservation and protection guidelines. EIAs should determine water resource capacity versus land-use demands in the area. Drill emergency boreholes in water stressed conservancies.
Changes in traditional and cultural practices	PS6, PS7, PS8	I=2 P=2	Low	New and modern facilities and approaches could interfere with the cultural identity	Ensure representation of the marginalized and the poor in all project structures at local level. Make stakeholder consultations an integral part of all project activities.

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I: 1= Low; 5= High) (P: 1= Sight; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
				of the people residing in certain landscapes.	<p>Ensure that capacity building interventions also target indigenous people through including mentoring as part of capacity development. Support indigenous people through value-addition to local nature-based products. Preserve and protect cultural heritage and practices as well as indigenous knowledge through granting patents and protection to indigenous communities.</p> <p>Undertake community consultations and engagement.</p> <p>Comply with the authorization procedures of traditional leaders.</p> <p>Put in place clear benefit distribution plans that promote equity principles.</p> <p>Ensure the protection of identified endangered (indigenous) flora and fauna species. Invest in research to establish and quantify the benefits derived from ecosystem services and sites of national importance.</p> <p>Create awareness among the community members that the changing climate may require</p>

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Signif; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
					changes in traditional methods of farming such as farming with smaller herds of locally-adapted live-stock instead of with big herds that degrade the rangelands and reduce the resiliency of the ecosystem, thereby compounding droughts and poverty.
Unequal distribution of benefits from conservation	PS2, PS6, PS7	I=4 P=3	Moderate	Benefits from new and existing facilities and project activities could be unfairly distributed among the members leading to the marginalization of some community members. Households could be displaced to make room for the development of climate proof infrastructure such as earth dams for water harvesting.	Strengthen and enforce compliance to existing CBNRM Benefit Sharing Plans in order to ensure equitable distribution. Establish grievance mechanisms through existing community based organisations and other methods. Build capacity and create awareness of the ecosystem functions and the type of benefits that could be derived therefrom. Enlist technical and expert assistance to develop marketing strategies for community crafts, and legal support on contractual agreements. Develop measures and initiatives to ensure that vulnerable and marginalized communities within the project implementation areas are specifically targeted and involved in project activities. Avoid project activities that displace people from their areas of residence as far as possible. If this

Risk Description	Performance Standard relevant to ESS requirements	Impact (I) and Probability (P) of risk (I:1= Low; 5= High) (P:1=Signht; 5 expected)	Significance of risk (Low, Moderate, High)	Comments	Environmental and social management measures required to address the risks
					cannot be avoided, put in place mechanisms to ensure that relocated people are adequately compensated and resettled.

7. CHECK LIST FOR ENSURING COMPLIANCE WITH GCF PERFORMANCE STANDARDS

To ensure compliance of the proposed project with relevant policies, the ESS assessment was guided by the EIF ESS Policy, which is also in line with GCF ESS standards. It is worth noting that the GCF adopted the IFC PS as interim standards, while it develops its own standards. The IFC PS has eight standards, namely:

1. *PS 1: Assessment and Management of Environmental and Social Risks and Impacts;*
2. *PS2: Labour and Working Conditions;*
3. *PS3: Resource Efficiency and Pollution Prevention;*
4. *PS4: Community Health, Safety, and Security;*
5. *PS5: Land Acquisition and Involuntary Resettlement;*
6. *PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;*
7. *PS7: Indigenous Peoples; and*
8. *PS8: Cultural Heritage*

7.1. PS1: Assessment and Management of Environmental and Social Risks and Impacts

PS1 consists of elements that need to be in place to ensure that the seven PS below are implemented. PS1 comprises of the following elements:

1. *Environmental and social policy;*
2. *Process of identifying risks and impacts;*
3. *Management program;*
4. *Organisational capacity and competency;*
5. *Process for monitoring and evaluation; and*
6. *External communication.*

The EIF is accredited by the GCF for category C projects. The EIF uses the IFC PS adopted by the GCF, which is in the process of developing its own ESS Management system. The study assumes that the ESS policy and system of the EIF must be considered rigorous as the GCF awarded funding amounting to over N\$300 million to the EIF in 2016. It is however noted that the current climate readiness funding includes significant separate and additional work aimed at improving the internal capacities of EIF on matters of ESS management and governance. It was not part of the brief of this report to assess EIF's capacity to manage ESS processes.

7.2. PS2: Labour and Working Conditions

PS 2 recognizes that economic growth through employment creation and income generation should be accompanied by the protection of the fundamental rights of workers. The workforce is the most valuable asset of any business for the successful implementation of its plans and operations. This PS looks at the overall basic conditions of employment provided to enhance productivity and economic growth.

Health and safety issues were identified by the stakeholders as risks even though local communities' benefit from job opportunities created by project developments. These risks resonate most among local communities where the potential loss of income resulting from injury and or loss of life would impact heavily on a wide number of dependants. Therefore, the proposed project should incorporate measures to ensure that health and safety issues are considered in planned activities.

Although generic EbA activities are meant to benefit all stakeholders involved, the participants of consultative meetings felt that the unequal distribution of benefits was still rife due to inadequate directives or limited governance structures with regard to the benefits generated and how these benefits are shared. The proposed project must ensure that all labour-related opportunities, arising from the project, respect and adhere to the labour laws of Namibia, and that gender equity is ensured. Measures must be taken to ensure that working conditions are safe and conducive.

7.3. PS3: Resource Efficiency and Pollution Prevention

PS 3 recognizes the risk of increased levels of pollution to air, water and land due to urbanization and the increased demand for economic activities in a manner that may consume finite resources, thereby threatening the health of people and the environment at the local, regional, and global levels. PS 3 aims to i) avoid or minimize adverse pollution impacts from project activities on human health and the environment; ii) promote more sustainable use of resources, including energy and water; and iii) reduce project-related GHG emissions.

Under PS3, over abstraction of groundwater was identified as a risk. Groundwater was found to be the dominant source of water in most of the conservancies and community forests, except for those situated along perennial rivers. Therefore, the over abstraction of groundwater needs to be prevented to ensure the sustainability of existing and future CBNRM projects. Applications for water abstraction permits should be made for all project-related infrastructure developments from the Department of Water Affairs.

The destruction of habitats and land degradation were also identified as risks under this PS. The construction of new facilities or the renovation of existing facilities in the conservancies could lead to habitat destruction and land degradation. Consideration should be given to managing these risks by applying the mitigation measures mentioned in Table 3 above.

Water pollution is also a major risk under this PS. Although lodges and campsite concessions are the potential tourism activities of choice, the stipulated environmental and / or waste management regulations are often not complied with. Most tourism establishments in the areas concerned make use of septic tanks, which are outdated or of an inadequate standard to handle the growing number of tourists. There are also inadequate landfill facilities for the treatment of waste. If not well addressed and managed, this could lead to the potential pollution of groundwater resources and put pressure on this precious and scarce resource.

Local communities depend heavily on natural resources for their day-to-day livelihoods, such as trees for firewood and craft making. Deforestation or over harvesting of natural resources was identified as a risk to be addressed in any future CBNRM projects. Deforestation accelerates the process of soil erosion, intensifies wind erosion (over barren land) and inhibits the germination of seeds to a great extent. Deforestation also contributes to the reduction of wildlife populations, which is typically one of the main tourist attractions in the rural conservancies.

7.4. PS4: Community Health, Safety, and Security

PS 4 recognizes that project activities, equipment and infrastructure can increase community exposure to risks and impacts. Efforts to provide a safe and healthy work environment should be consistent with good international and industry practices and consider the nature of potential hazards including physical, chemical, biological, and radiological hazards, and specific threats to women. Therefore, in order to safeguard personnel and property, the project will ensure that competent professionals are involved in the design, construction and certification of infrastructure where structural elements are required.

Increased human-wildlife conflict was identified as a safety and security risk to the livelihoods of communities. The main driver of this risk was highlighted as being the increased construction of infrastructure as well as the limited availability of water to satisfy the various competing demands on the resource.

Destruction of grazing areas, forests and properties by veld fires was identified as a risk which needs to be considered in any future projects. This risk affects the co-habitation of humans, livestock and wildlife resulting in the loss of animals and migration to areas of safety. This has adverse impacts on income generating activities in strategic areas.

The construction of new facilities may require the clearing of land. Land clearing was identified as a risk if not well managed and addressed in any future CBNRM projects. It is considered that this could lead to the intensification of flooding as some of the areas are located within floodplains. In an event of intense rainfall, livelihoods could be disrupted through loss of lives, homes and livestock. This disruption of livelihoods could increase the vulnerability and health and safety-related risks of the communities found in rural conservancies.

Apart from the above-mentioned risks under this PS, the stakeholders also noted the inadequate recycling and waste management systems present at some tourism establishments, and in many rural areas. This situation exacerbates health risks as informal 'dumpsites' tend to emerge in non-demarcated sites. This observed trend has resulted in the contamination of land and nearby water sources while also posing a risk to human health.

7.5. PS5: Land acquisition and involuntary resettlement

PS 5 aims to recognize project-related land acquisition and restrictions on land use that can have adverse impacts on communities and persons that use this land. It is applicable to projects that would result in the resettlement of people and cause changes in land uses.

The project is not expected to cause involuntary resettlement of people but may result in direct or indirect changes in land uses. The project intends to strengthen local level institution thereby promoting conservation objectives in communal rural areas that have multiple land uses. This may lead to a shift from agriculture towards conservation-based land uses such as tourism and value addition to natural resources.

Stakeholders identified changes in vegetation cover (including grass cover) as a major risk that could change settlement patterns and land uses. Community forestry aims for example to reduce pressure on vegetation (including grass) and to maintain and increase vegetation cover. Land use plans also follow comprehensive consultation processes and are approved by communities through local leadership structures and by the government in order to avoid negative effects on the people.

7.6. PS6: Biodiversity conservation and sustainable management of living natural resources

PS 6 is concerned with the protection and conservation of biodiversity, maintenance of ecosystem services, and the sustainable management of living natural resources as fundamentals for sustainable development. The requirements set out in this PS have been guided by the Convention on Biological Diversity.

PS 6 is particularly relevant to the proposed project because the project's target areas are sites of conservation importance. The proposed project desires to strengthen conservation mechanisms through community-based approaches while simultaneously enhancing income for communities through conservation efforts. Some of the proposed project activities involve the primary production of living natural resources such as aquaculture and the construction of tourism establishments, which may require some clearing of land. In some of the workshops, notably in Kunene Region, the harvesting and development of natural products is seen to have potential to boost income at local level to support conservation.

The following risks under this PS were identified:

- 1. Increased human-wildlife conflict;*
- 2. Increased wildlife poaching;*
- 3. Competing demands for water at local level due to drought and increasing temperatures (climate change induced);*
- 4. Impacts of climate change on the sustainability of nature-based development;*
- 5. Overharvesting of natural resources that may reduce the attraction of the areas to tourists;*
- 6. Land degradation; and*
- 7. Increased GHG emissions from transport and tourism establishments.*

7.7. PS7: Indigenous Peoples

Indigenous people in this context refer to social groups with identities that are distinct from mainstream groups in national societies. Indigenous people are often among the most marginalized and vulnerable segments of the population. They are characterized by self-identification, attachment to territory and their distinct languages.

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. Indigenous peoples are particularly vulnerable if their lands and resources are transformed, encroached upon, or significantly degraded.

Their languages, cultures, religions, spiritual beliefs, and institutions may also come under threat. Therefore, indigenous peoples may be more vulnerable to the adverse impacts associated with project development than non-indigenous communities. This vulnerability may expose them to loss of identity, culture, and natural resource-based livelihoods as well as to impoverishment and diseases.

The risks, which were identified in the workshops, included the unequal distribution of benefits from the projects, whereby the marginalized are likely to be excluded from benefits. Marginalized groups often have strong links to cultural practices and heritage sites, and induced changes in cultural practices were also identified as risks being considered in the new proposed project.

Indigenous people such as the San, Himba and Zemba are the most marginalized groups in the eight landscapes identified. In Namibia, indigenous people are defined as people who have a special attachment to their land, who are marginalized, dispossessed and discriminated against. To date, indigenous people such as the San remain the landless and have yet to reap the benefits from democracy and independence.

Although indigenous people have the formal rights to participate, they have little influence over national issues or projects and are rarely consulted on issues affecting them directly. It should be noted that these people have been subjected to unequal treatment and discrimination over many years and therefore special consideration to empower them should be made in the proposed project to complement the special program which the government is currently undertaking. Furthermore, the Constitution of Namibia provides the legislative and normative framework for the protection of indigenous minorities. This legislative and normative framework should be followed and applied in the proposed project to ensure its acceptance and success.

7.8. PS8: Cultural heritage

PS 8 recognizes the importance of cultural heritage for current and future generations and the equitable sharing of resources. It refers to immovable objects, property, sites, structures, natural features, religious and cultural values and cultural knowledge.

For the proposed project, care should be taken if and when sites and objects (historical sites, historical artefacts, rock art sites, ruins, fossils and archaeological objects etc.) protected by law are encountered, that these are reported to the National Heritage Council of Namibia as prescribed by the National Heritage Act.

8. PS ALIGNMENT WITH RELEVANT NATIONAL POLICIES AND LAWS

Table 4 below shows the alignment of relevant national policies and laws with the PS of GCF and the potential implication of the policies and laws on the proposed project. The implications mentioned below should be considered during the development of the proposal to ensure the acceptance of the proposed project at both community and national level.

Table 4: PS alignment with relevant policies and project implication

PS	Relevant policies/laws	Implication to the proposed project
PS1: Assessment and Management of Environmental and Social Risks and Impacts	Environmental Management Act (Act No. 7 of 2007)	Need for stakeholder consultations.
	The Constitution of the Republic of Namibia (1990)	Sound environmental management practices to ensure ecosystem functionality must be considered in the proposal.
PS 2: Labour and Working Conditions	The Labour Act (Act No. 27 of 2004)	Good labour practices must be incorporated in all aspects of

PS	Relevant policies/laws	Implication to the proposed project
		project implementation.
PS3: Resource Efficiency and Pollution Prevention	Environmental Management Act (Act No. 7 of 2007)	Permits for waste management sites. Need for stakeholder consultations. Compilation of EIAs and EMPs for environmental clearance certificate for any proposed facilities in the rural areas.
	Water Resources Management Act (Act No. 11 of 2013)	Permits for groundwater abstraction. Permits for surface water abstraction. Compliance to water quality standards.
	Code of Practice: Volume 2 – Pond Systems (2008)	Compliance to code of practice for designing a pond system
	Code of Practice: Volume 6 – Wastewater Reuse (2012)	Compliance to the code of practice for designing and operation of a wastewater treatment system.
	Guideline for disposal of solids from water and wastewater treatment processes (2012)	Waste water discharge permits.
PS4: Community Health, Safety, and Security	Water & Sanitation Policies	Consider the inclusion of good and modern sanitation facilities which have no impact to water resources and thus contribute to the protection of human health.
	The Public Health Act (Act No. 36 of 1919)	Prevention of pollution of public water.
PS5: Land Acquisition and Involuntary Resettlement	Forestry Act (Act No. 12 of 2001), As Amended	Put in place measures to minimize deforestation.
PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	United Nations Convention on Biological Diversity (UNCBD), 1993 Access and Benefit Sharing Act (Act No. 2 of 2017) Nature Conservation Ordinance, 1974	Consider the inclusion of measures to ensure the conservation and sustainable use of biological diversity and the equal sharing of benefits arising therefrom.
PS8: Cultural Heritage	The National Heritage Act (Act No. 27 of 2004)	Prohibit the removal, damage, alteration or excavation of heritage sites or remains.

9. CONCLUSION

At the time of analysis, the proposed project was not fully developed. This paper presents generic and preliminary ESS risks for EbA under the eight landscapes to be supported by the project. The paper provides comprehensive guidance on potential risks and mitigation measures to be used in project design and implementation. The identified risks were screened and aligned with ESS requirements. Most of the identified environmental risks were found to be of moderate to low risk before mitigation measures and it is considered that after mitigation measures the risks could be reduced to minimal. As a result the project is Classified as Category C under the environmental and social safeguard measurements. From a social risk perspective, some identified risks were found to be of significance. To ensure the success of the project and environmental sustainability, critical mitigation measures were proposed for these risks. Overall, the proposed project risks or impacts are manageable if the proposed mitigation measures are taken into consideration and implemented.

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