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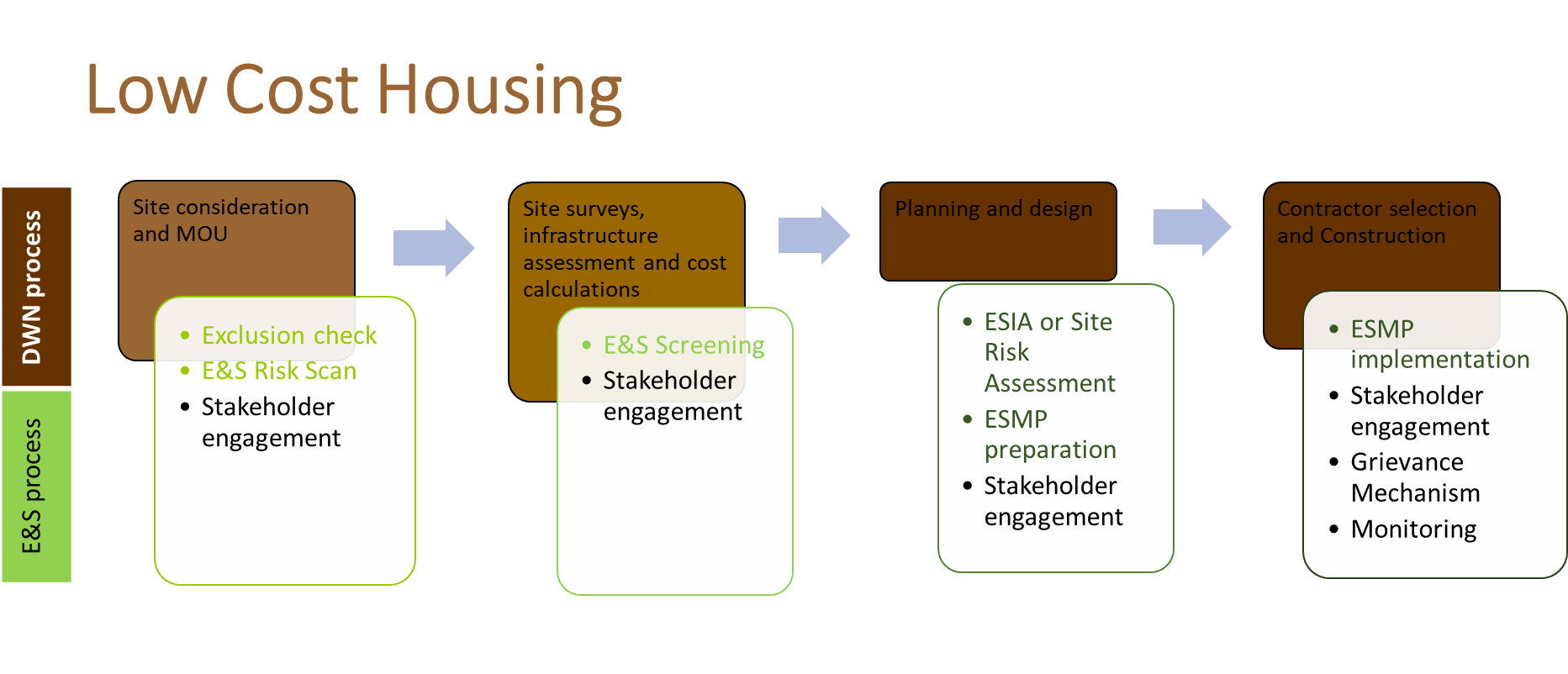
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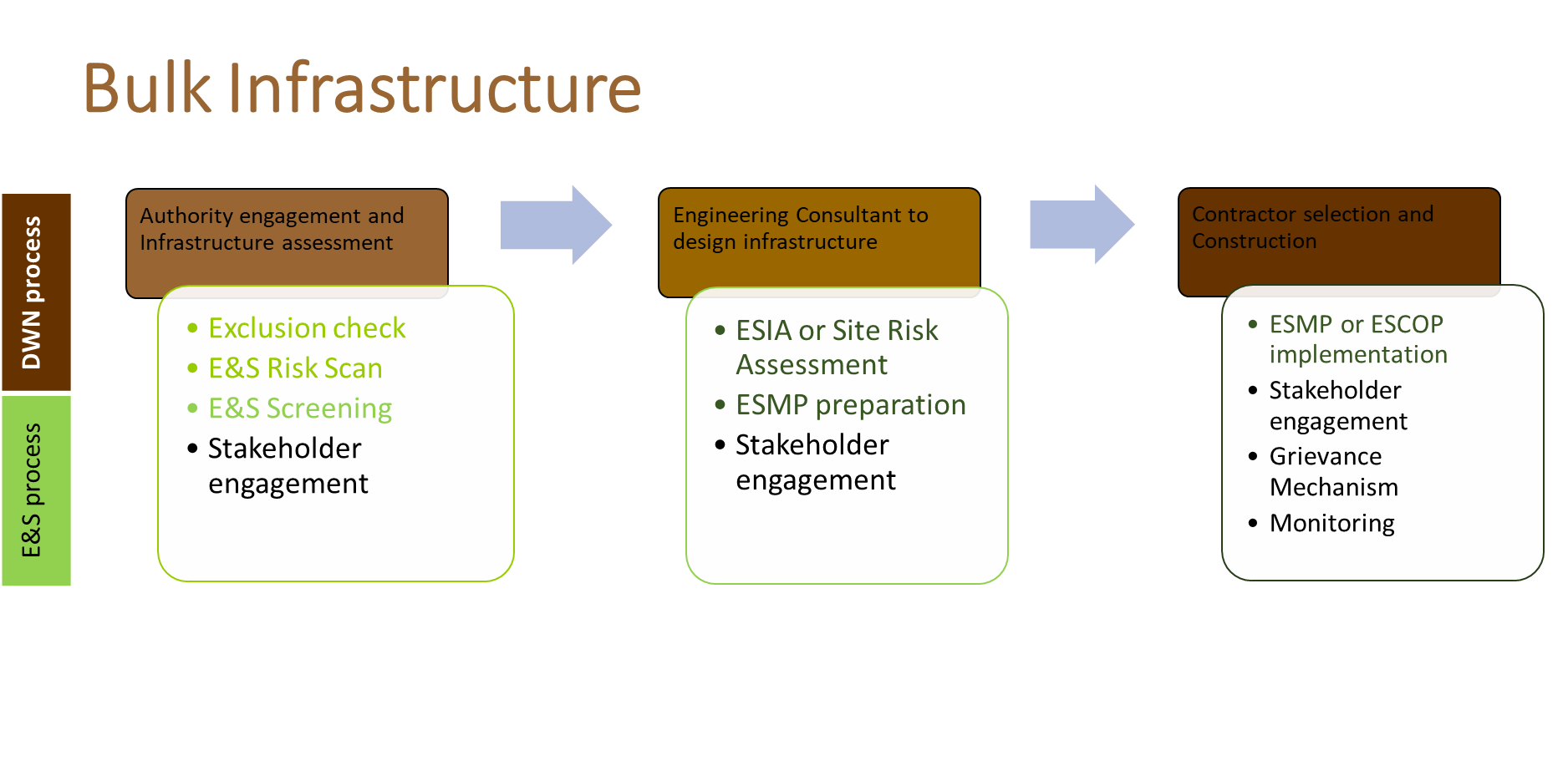
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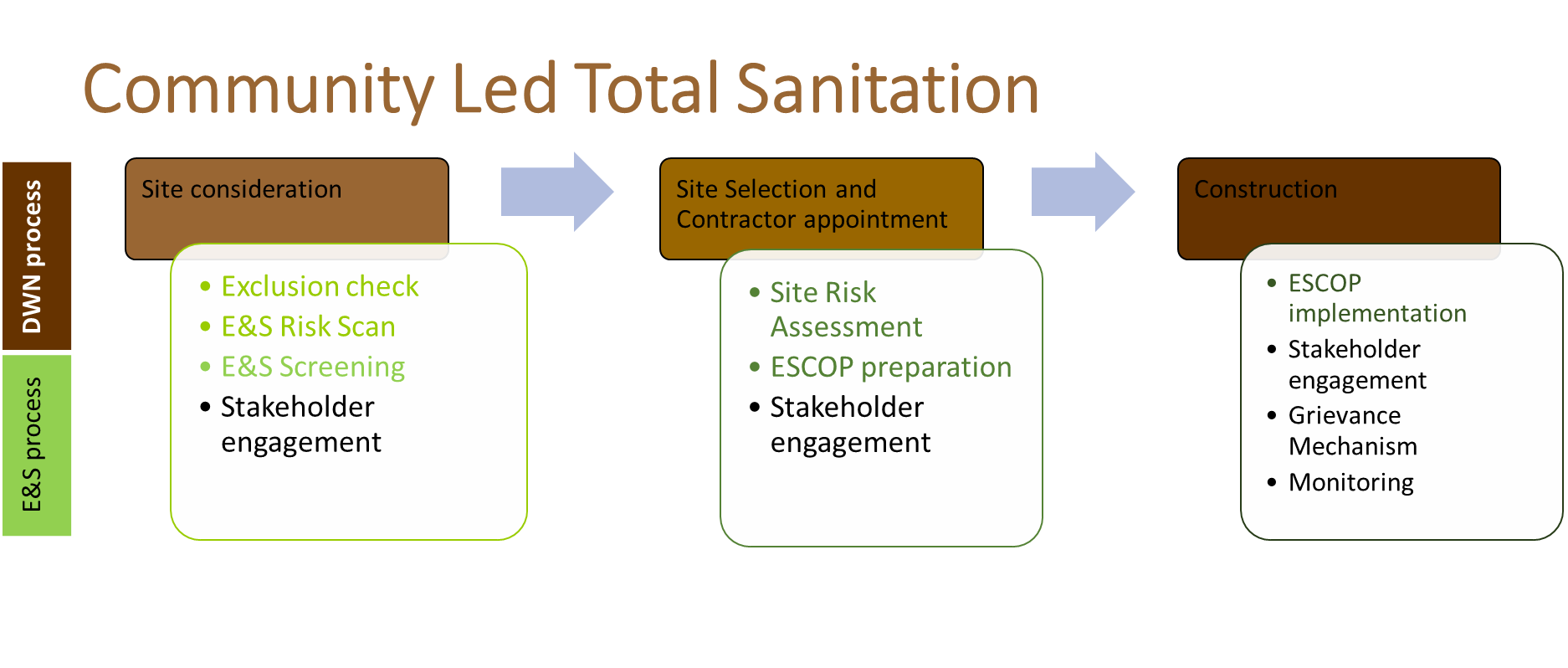
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# Non-technical SUMMARY

**X To be completed after review x**







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ACRONYMS AND ABBREVIATIONS

|  |  |
| --- | --- |
| Acronym / Abbreviation | Definition |
| CLTS | Community Lead Total Sanitation |
| DWN | Development Workshop Namibia |
| ECC | Environmental Clearance Certificate |
| EHS | Environmental, Health and Safety |
| EIA | Environmental Impact Assessment |
| EMA | Environmental Management Act (No. 7 of 2007) |
| ESIA | Environmental and Social Impact Assessment |
| ESMF | Environmental and Social Management Framework |
| ESHS | Environmental, Safety, Health and Security |
| ESS | Environmental and Social Safeguard |
| E&S | Environmental and social |
| FC | Financial Cooperation |
| GN | Government notice |
| IFC | International Finance Corporation |
| ILO | International Labour Organisation |
| KfW | KfW Development Bank |
| LACF | Land Acquisition and Compensation Framework |
| MEFT | Ministry of Environment, Forestry and Tourism |
| NCE | Namibian Chamber of Environment |
| NDP5 | Fifth National Development Plan 2017/18 – 2021/22 |
| PEA | Project Executing Agency |
| PS | Performance Standards |
| RAP | Resettlement Action Plan |
| RPF | Resettlement Policy Framework |
| SEF | Stakeholder Engagement Framework |
| SLR | SLR Environmental Consulting (Namibia) Pty Ltd |
| WB | World Bank |

# Introduction

An introduction to the framework approach to the management of environmental and social risks and impacts for the Financial Cooperation Programme between KfW and Development Workshop Namibia.

## Introduction and Rationale

The German Government is supporting Namibia to upgrade and formalise its informal settlements and develop new residential settlements in and around urban areas with the objective to create inclusive urban spaces and adequate housing for all Namibians. The German Federal Ministry for Economic Cooperation and Development identified Development Workshop Namibia’s ‘**’Poverty-oriented Development of Infrastructure in Urban Areas**’’ Programme and will provide Financial Cooperation (FC) through the KfW Development Bank (KfW).

Through the Programme, Development Workshop Namibia (DWN) aims to make a significant contribution towards more sustainable and inclusive urban development in at least 15 towns across Namibia. The concept is to plan and develop low cost residential settlements with title, with the objective to transform current informal settlements into formal urban growth. The Programme intends to change the way urban planning is undertaken for new residential areas. Through the introduction of urban design and participatory planning, the DWN aims to create socially and economically conducive living environments. The Program includes three components, aimed at sustainably improving the standard of living of the people residing in informal settlements. The planned interventions include:

1. identification and acquisition of urban land, to be provided by the Local Authorities, for servicing at low cost (affordable housing areas) and allocation of formal land rights in the newly developed residential areas to poor residents,
2. development of bulk infrastructure in four of the new residential areas, and
3. raising of awareness of public hygiene and improvement of access to basic sanitation infrastructure in the newly developed, as well as existing informal, urban areas.

The Programme is anticipated to have an overall positive and beneficial impact on the environment and especially on the socio-economic situation of the targeted communities. However, individual interventions have risks and activities could potentially result in adverse impacts. As a responsible lender KfW requires that the approach to the identification, appraisal, management and monitoring of potential adverse environmental and social risks and impacts of the Programme are in accordance with Namibian regulatory requirements and the World Banks’ Environmental and Social Standards (ESS).

Given that the specific nature and location of interventions for the Programme will vary over time, it is not practicable to identify potential risks and impacts and specify management measures ahead of time. KfW thus commissioned the development of an Environmental and Social Management Framework (ESMF) to provide guidance to the Project Executing Agency on the approach to management of environmental and social risks and impacts of the Programme. Adoption and implementation of this ESMF by DWN, for all planned interventions, would facilitate the management of environmental and social risks and impacts in line with KfW’s Sustainability Guideline (2021), the Namibian regulatory requirements and the World Banks’ ESS.

## Project Funding Arrangements

KfW Development Bank was commissioned by the German Federal Ministry for Economic Cooperation and Development to prepare a concept approach for Financial Cooperation in the field of poverty-oriented development of infrastructure in urban areas. Development Workshop Namibia’s ‘**’Poverty-oriented Development of Infrastructure in Urban Areas**’’ approach was identified as a suitable project. KfW will provide financial support to the DWN Programme through Financial Cooperation.

Central to KfW’s activities are the principles of environmental and social compatibility, as well as sustainability. Therefore, all the Financial Cooperation measures financed by KfW must be subject to a comprehensive and systematic assessment to ensure they are compatible with environmental and social aspects, as well as other crucial development policies. Furthermore, KfW actively supports the implementation of international human rights in its business operations. To qualify for funding, DWN’s Programme must be compliant with the provisions of KfW’s Sustainability Guideline (2021).

## Purpose of the ESMF

An ESMF was required by KfW as the instrument to guide the assessment, management and monitoring of environmental and social impacts of DWN’s Programme, given that the full nature, scope and geographical locations of the interventions were not known at the time of concluding the funding arrangements.

This ESMF provides a concise framework and guidance on ‘how to’: identify and document environmental and social risks; appraise potential adverse impacts and define appropriate risk mitigation safeguards and monitoring measures; and obtain environmental permitting approvals where required. The purpose of the ESMF is to guide and support the Project Executing Agency (i.e. DWN) to manage environmental and social matters in accordance with the Namibian legal framework and the World Banks’s Environmental and Social Standards. Application of the ESMF is required across all interventions proposed and implemented under the Programme.

Section 2 of the ESMF introduces and summarises the components and interventions proposed for the Programme. Section 3 highlights the Namibian legislation and regulatory framework as well as KfW’s Environmental and Social Safeguard requirement as per KfW Sustainability Guideline (2021) as applicable to the scope of the Programme. It concludes with an analysis of, and mechanisms to close, gaps between these frameworks. Section 4 presents examples of potential environmental and social (E&S) risk types, for activities ‘typical’ of the likely interventions, and conceptual mitigation that could be considered and applied.

Section 5 details the various E&S Risk Identification and Assessment tools that should be applied to identify, screen, and appraise E&S risks and impacts through the life cycle of each of the Programme’s interventions. Section 6 details the approach to E&S Risk Management tools required to avoid, reduce, mitigate, or offset risks from implementation of the interventions. It also provides guidance on monitoring requirements. Section 7 sets out the role players, resource requirements and milestones for implementing the ESMF. The image below provides an indication of the different E&S risk tools that can be applied across an intervention’s life cycle.

## Project Executing Agency

Development Workshop Namibia are the Project Executing Agency (PEA) for the “**Poverty-oriented Development of Infrastructure in Urban Areas**’’ Programme. DWN is a registered Namibian NGO with a focus on sustainable urban development, informal settlements and the disadvantaged communities that reside in them. DWN provides technical expertise, manpower and financial support to local authorities to assist them to address contemporary urban development challenges.

DWN is part of a world-wide network of Development Workshop organisations with centres in Canada, Angola and France, and offices in Vietnam and Burkino Faso. It is funded by non-governmental organisations, private citizens, and national and international development organisations. DWN is governed by a Board of Trustees that includes senior personnel from key professions within which DWN undertakes activities. The Board is responsible for control and approval of DWN’s finances and provision of guidance to DWN’s strategy and operations.

DWN is managed by an Executive Director appointed by the Board of Trustees. The Executive Director leads operations and provides support to the organisation’s different Components. Each Component has a Programme Manager, responsible for setting goals, developing, and supervising interventions within the specific programme area. To plan and bring interventions to a feasible state, DWN works with a wider project team that includes Town Planning, Engineering, Land Surveying and Conveyancing service providers. Interventions are planned and implemented by a Project Coordinator with the technical and management skills, together with local partners. In order to implement the interventions of each component, the DWN will appoint contractors.

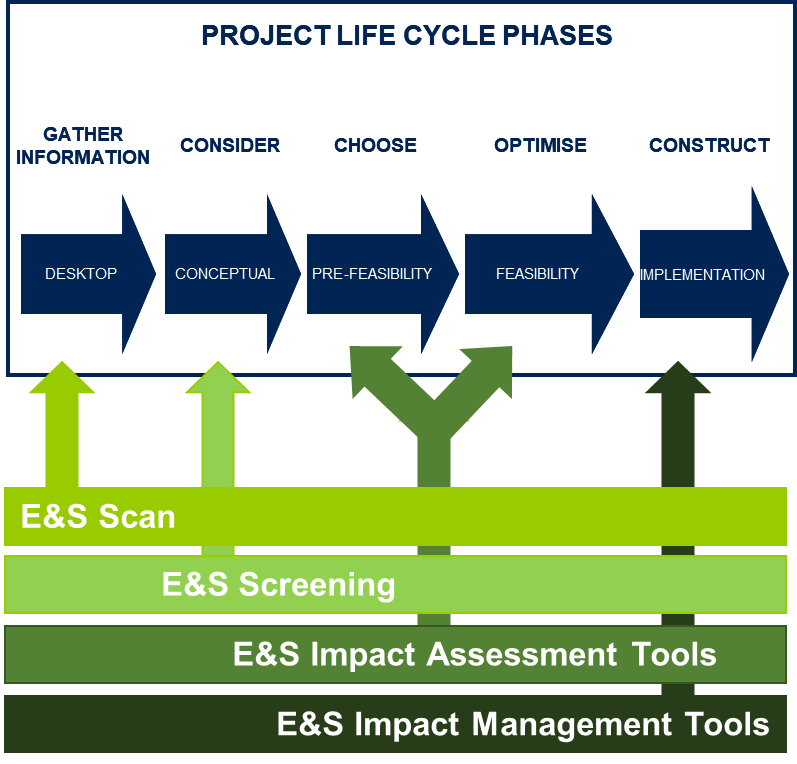


Figure 1‑1: Application of E&S Tools

## End-users of the ESMF

The ESMF has been developed for use by DWN as the appointed Project Executing Agency for the “**Poverty-oriented Development of Infrastructure in Urban Areas**’’ Programme. DWN must ensure that any partners, contractors, and sub-contractors whom it involves in the Programme are informed of the ESMF and that these parties commit to its implementation as applicable.

# Programme Scope

Introduction to the overall vision of Development Workshop Namibia for the ’Poverty-oriented Development of Infrastructure in Urban Areas’’ Programme.

## Introduction

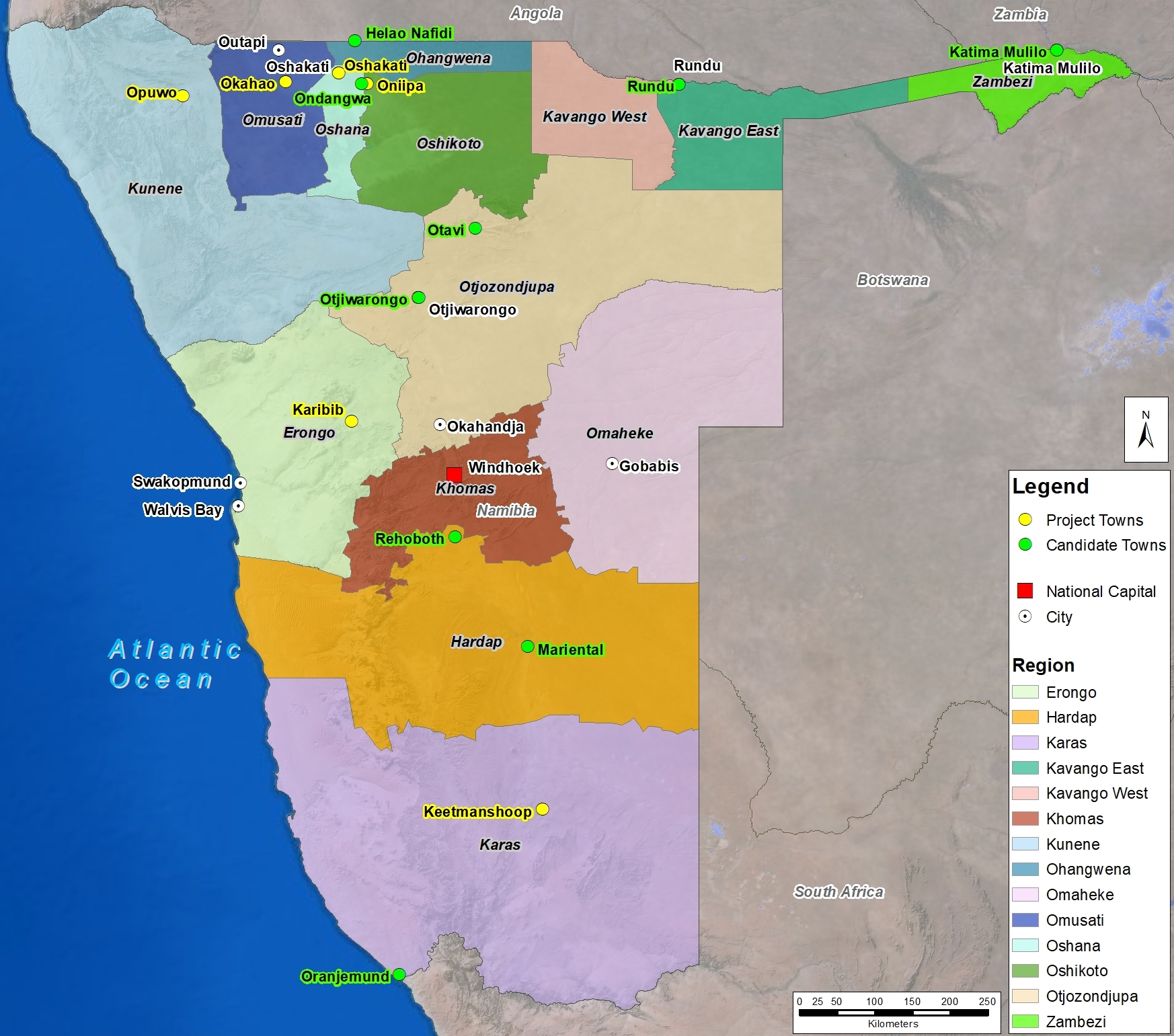
To address the rapid informal settlement growth in Namibia, DWN and the Namibian Chamber of Environment (NCE) initiated a programme for the provision of low cost land for formal housing in 2018. The programme has been implemented by DWN through partnership agreements with local authorities in selected towns. The local authorities have provided the land and DWN has provided initial funding and professional services to develop the land as serviced plots. The plots with titles are then sold to low income residents at the development costs. The sale proceeds go into a local bank account that is jointly managed by the local authority and DWN. The bank account becomes a revolving fund, financing the development of the next area, and making the programme financially sustainable. This approach has been selected as **Component One** of the proposed Programme. **Component Two** provides for the construction of critical bulk infrastructure in a selection of the new residential areas. **Component Three** includes physical (construction) and social components that aim to promote public hygiene and improve access to appropriate sanitation.

## Programme Locations

At the time of drafting of the ESMF, the exact locations and sites for all of the interventions across the different components of the Programme are not known. DWN is actively implementing Component One in six ‘Project towns’ in Namibia (see Figure 2‑1). There are an additional nine ‘Candidate Towns’ where DWN is busy with preparation engagements or intends to establish Component One of the Programme in future. Further towns, or additional locations within any of the towns, could be added to the Programme over time. Components Two and Three are likely to be implemented in towns where Component One is undertaken.

The Project and Candidate towns are widely spread across Namibia (refer to Figure 2‑1). The specific sites for the Programme, across all components, will only be determined once agreement is reach with each local authority and relevant assessments have been completed.

Due to the dispersed geography of the Programme locations across Namibia, there is wide variability in the environmental and social conditions. Furthermore, the sites for the interventions and the layout of the infrastructure at most sites are not defined. As a result, the ESMF does not include descriptions of environmental or social baseline as this would be of limited value and constrain the universality of the ESMF.

Figure 2‑1: Project and Candidate Town Locations

## Component One: Development of new residential Areas

### Introduction

Component One includes the technical and institutional process of acquiring, planning and developing residential land, and the financial and institutional process by which poor urban residents are enabled to purchase land at affordable costs and through appropriate payment mechanisms. The Programme intends to support the implementation of Component One in fifteen towns in Namibia. The selection of target towns is demand driven, as and when local authorities interested to participate approach DWN.

DWN enters into partnership with the local authority to establish new, serviced residential areas. The local authority provides the land and DWN provides initial funding and professional services to develop the land into a new residential area. Plots in the residential are sold to low income residents at development cost. The sales proceeds become a revolving fund, financing the development of the next area, and making the programme financially sustainable. DWN also proposes to introduce new concepts, based on participatory planning, in the design of the new residential areas.

### Potential Infrastructure

The specific interventions of Component One will vary at each locality, being informed by local requirements and an infrastructure assessment, but could include:

* Pegged town layout,
* Access road(s),
* Internal road(s)- bladed or gravel,
* Internal water reticulation to stands,
* Internal sewer reticulation to stands,
* Internal electrical connections to stands,
* Stormwater drains and culverts (overland and underground).

The planning, construction and installation of the proposed infrastructure would likely include all or some of the activities indicated in Table 2‑1. An indication of the likely operational activities are also detailed in Table 2‑1. DWN will not have active control over operations as this will become the responsibility of the local authority who would incorporate management and maintenance of the service infrastructure into the local authority function. DWN has developed a training manual for sewer and water infrastructure maintenance, which will be provided to the local authority.

## Component Two: Provision of Bulk Infrastructure

### Introduction

Many towns in Namibia have not invested sufficiently in bulk infrastructure over the last two decades. As a result, many towns have a general lack of bulk services such as main water and sewer lines to which new residential areas can be connected. Thus, the supply of bulk infrastructure to new residential areas is often carried by the developer, making residential plots more expensive and unaffordable to low income residents. This component of the Programme will provide investment for the construction of critical infrastructure in four selected residential areas established through Component One. This will directly benefit the urban poor and low income residents.

The specific interventions for Component Two will only be determined following a detailed infrastructure assessment and subsequent agreement by the Programme partners. The infrastructure will be planned, designed and implemented through standard infrastructure investment and construction procedures. The investments will provide indirect support for the development of new low income residential areas in those towns (implemented by component One), by facilitating access to services and therefore lowering the costs of the new developments.

### Potential Infrastructure

The specific interventions of Component Two will only be determined following detailed bulk infrastructure assessments, but could potentially include:

* Access road(s),
* Waste collection point (formal and on municipal collection route),
* Bulk water supply pipeline,
* Elevated water tank or ground reservoir,
* Expansion of bulk sewage connections,
* Expansion of sewage treatment plant (bulk or decentralised), (oxidation ponds) and
* Bulk electricity supply and connection,

The planning, construction and installation of the proposed infrastructure would likely include all or some of the activities indicated in Table 2‑1. An indication of the likely operational activities are also detailed in Table 2‑1. DWN will not have active control over operations as bulk infrastructure established to service the new residential areas will become the responsibility of the local authority/ mandated service provider who would incorporate management and maintenance of the infrastructure into their current function (e.g. electrical to NamPower, bulk water to NamWater). DWN has developed a training manual for sewerage infrastructure maintenance, which will be provided to the local authority.

## Component Three: Community Led Total Sanitation

### Introduction

Namibia has one of the lowest levels of sanitation coverage in southern Africa. Open defecation and the failure to dispose of excreta safely are primary factors that contribute to the spread of disease and infection through the bacteriological contamination of water sources and the transmission of pathogens through the faecal-oral route. Evidence shows that if a complete community uses improved sanitation, significant reductions can be achieved in the incidence of diarrhoea, which has substantial socio-economic benefits for vulnerable households, especially single mothers. Component Three will focus on the promotion of appropriate sanitation solutions.

The Programme will provide investment in a sanitation approach called ´Community Led Total Sanitation’ (CLTS) with the aim of improving public hygiene and access to appropriate sanitation. The CLTS intervention will be established in the new residential areas developed through the Programme and existing informal settlements. The CLTS intervention will consist of two main pillars:

* A social component - training volunteers to engage households to improve hygiene and sanitation, distribute pamphlets, and encourage and support residents in the construction of on-site toilet facilities such as pit latrines.
* A construction component - developing Demonstration Sanitation Centres to provide formal toilets in the communities, to train local contractors on construction methods and simultaneously share information on construction and costs, in order to facilitate replication by local residents.

Component Three will focus on the promotion of appropriate sanitation solutions in these towns, through the design of participatory and city wide sanitation strategies, construction of demonstration low cost toilet facilities (sanitation centres), and raising of awareness on hygiene and sanitation practices. This component has gained even more importance with the outbreak of Covid-19. It will be implemented in close collaboration with the sanitation project funded by the European Commission.

### Potential Infrastructure

The physical interventions of Component Three will include the construction of numerous (circa 80) demonstration sanitation centres. These will typically comprise a formal, brick structure with a single toilet connected to seepage tank (life of 5 to 8 years) or conservancy tank. Construction will be undertaken by local contractors, who will be required to train brick-layers during the construction. Each sanitation centre will include signage detailing the CLTS and benefits of improved sanitation and providing information on construction methods and costs.

The planning, construction and installation of the proposed infrastructure would likely include all or some of the activities indicated in Table 2‑1. Demonstration sanitation centres will typically be developed on a private site (kindergarten or small business) that will be responsible for care and maintenance.

In some instances, the demonstration sanitation centres will be located adjacent to a waste collection point and both will be operated as a small business, with fees being charged for the use thereof.

Table 2‑1: Typical Programme activities

|  |
| --- |
| **Activity** |
| **Planning and design phase** |
| Selection of land parcel for development of new residential land /infrastructure |
| Selection of location/route for infrastructure |
| Surveys and assessment to facilitate planning and design, |
| Sampling and testing |
| Agreement with and approvals from local authority for land parcel (conclusion of MoU) |
| Land parcel acquisition |
| Infrastructure location/route approval |
| Layout planning |
| Detailed design (architecture/engineering) |
| Construction tender and appointment of contractor |
| Selection of community based contractor |
| Appointment of contractor staff |
| **Implementation and construction phase** |
| Mobilisation of staff to site |
| Establishment of contractor camp and laydown area |
| Labour accommodation |
| Labour care (meals, sanitation, change rooms) |
| Access control |
| Detailed surveys |
| Pegging of layout |
| Supply of materials to site (\*associated facilities) |
| Storage and handling of supplies and materials |
| Storage and handling of hazardous materials |
| Operation of vehicles and plant |
| Maintenance of vehicles and plant |
| Transport on and offsite |
| Water supply and use |
| Clearance of vegetation |
| Stripping and stockpiling of topsoil |
| Excavation and earthworks |
| Concrete batching/mixing |
| Construction and/or installation of structures |
| Backfilling of excavations |
| Shaping and landscaping |
| Spoil and rubble management |
| Waste management (packaging, food, sewage) |
| Rehabilitation and decommissioning |
| **Operations phase \*\*** |
| Maintenance of electrical sub-station, distribution network and meters (if installed) |
| Maintenance of water distribution network and meters (if installed) |
| Maintenance of road surface and signage within residential area |
| Maintenance of stormwater drains within residential area |
| Maintenance of waste collection point (collection by local authority) |
| Maintenance of bulk water supply pipeline, valves, tanks etc |
| Maintenance of the sewage reticulation and sewage treatment plant |
| Maintenance of the power supply connection |
| Selection and training of CLTS volunteers |
| Distribution of CLTS information |
| Management of CLTS demonstration sanitation facility |

\*It is unlikely that any material sources used by the Programme would meet the ‘associated facility’ definition. Volumes to be acquired would be small and the source facilities would be existing and financially independent of the Programme.

\*\* DWN will not have direct involvement in the operation and maintenance of any infrastructure developed by the Programme.

## Institutional Setting

### National level

Namibia faces significant constraints imposed by an arid climate, a huge country with low population numbers, and legacies of apartheid and colonialism. Namibia’s comprehensive, guiding strategy is “Vision 2030”. The goal of the Vision is “to improve the quality of life of the people of Namibia to the level of their counterparts in the developed world, by 2030. It is being implemented through a series of five-year National Development Plans. The Fifth National Development Plan 2017/18 – 2021/22 (NDP5) aims to achieve social transformation taking the following social development aspects into consideration:

* Gender Equality
* Housing and Land
* Sanitation
* Youth Empowerment: (Harnessing the Demographic
* Empowering People and Communities through Sports
* Arts and Culture
* Economic integration of marginalized communities

### Regional and Local level

At a regional level, the Regional Councils Act 22 of 1992 sets out the conditions under which Regional Councils must be elected and administer each delineated region. Their powers, duties and function include: to undertake the planning of the development of the region with a view to physical, social and economic characteristics, urbanisation patterns, natural resources, economic development potential, *infrastructure,* land utilisation pattern and sensitivity of the natural environment. Regional councils work together with the National Planning Commission to make a development plan which will guide growth and development in each region. Regional councils also help local governments in the region, and they have the power to establish, manage and control settlement areas.

Under the Local Authorities Act of 1992, there are three kinds of local authorities: villages, towns and municipalities. The classification of a local authority affects its duties and powers – municipalities have responsibility for more services than towns, and towns have responsibility for more services than villages. A local authority can be re-classified as it changes and develops. All local authorities must supply water, sewerage and refuse disposal services to communities which have been formally established as residential areas – which includes neighbourhoods where the local authority has laid out streets and divided the land up into plots available for purchase. When a local authority is unable to carry out its responsibilities, central government (the Ministry of Urban and Rural Development) may take steps to deal with the problem.

Most local authorities hold public meetings in different suburbs and settlements at least once a year, which are used to discuss a range of issues. Such meetings give the community a chance to air their views on how their basic needs are being met (or not as the case may be). In suburbs where households pay for water in advance using pre-paid cards, the Local Authorities will have the contact details of the head of every household holding a card. This database could be used for consultative purposes – to call users to a meeting.

The Programme activities will fall within the various local authorities’ jurisdiction, with their respective bylaws, regulations and policies. The planning processes as well as pre-construction, construction and operation of developments shall therefore be undertaken with consent and approvals of the Local Authorities in line with its town planning scheme, bylaws, regulations and polices. DWN must ensure that they are engaged with the relevant local authority.

An important community-based organisation of low-income residents in mostly informal settlements is the Shack Dwellers Federation of Namibia (SDFN). The SDFN has about 700 savings schemes nationwide, involving about 21,000 members, who come together in groups of up to 35 members with the aim of acquiring secure tenure of land, on which they can build their own house; they focus on savings as a tool for development and have built over 4,000 houses.

## ExclusionS

The Programme may not include interventions outside of the stated purpose of “*Poverty-oriented Development of Infrastructure in Urban Areas to sustainably improve the standard of living of the people residing in informal settlements*”. DWN must ensure that interventions do not comprise the criteria specified in the Exclusion List (see Appendix A1).

Furthermore, each of the interventions that are proposed should be locally appropriate, socially acceptable, economically, and environmentally sustainable and be developed with the “do no harm” approach. The applicable provisions of the ESMF, SEF and LACF should be implemented for all interventions.

# Legislative framework

Highlights the Namibian legislative and regulatory framework and lender Environmental and Social Safeguards with applicability to the DWN Programme. Concludes with an analysis of, and mechanisms to close, gaps between these frameworks.

## Namibian Legislation and Regulation

The relevant Namibia legislation, with regards to environmental and social aspects, that will require consideration during implementation of the DWN Programme, is documented in the sections that follow.

### The Constitution of the Republic of Namibia

The Constitution of the Republic of Namibia (1990) provides the set of foundational principles according to which Namibia is governed. Article 95 (Ll) of the Constitution commits the state to promote sustainable development by “*maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians both present and future…”*.

### Namibia’s Environmental Impact Assessment Policy

The Environmental Impact Assessment (EIA) Policy of 1995 promotes accountability and informed decision making through the requirement of EIAs for listed programmes and projects (activities). The Policy is enforced through the Environmental Management Act (No. 7 of 2007 (EMA)) and the EIA Regulations.

### Environmental Management Act

The EMA was promulgated in December 2007 and came into effect in January 2012. Part 1 of the EMA describes the various rights and obligations that pertain to citizens and the Government. Key aspects of the EMA include:

* Defining the environment.
* Promoting sustainable management of the environment and the use of natural resources.
* Providing a process of assessment and control of activities with possible significant effects on the environment.

Part 2 of the EMA sets out a number of principles of environmental management which give effect to the provisions of the Constitution for integrated environmental management. Decision-makers must take these principles into account when deciding whether or not to approve environmental clearance for listed activities.

### EIA Regulations

The EIA Regulations, promulgated in January 2012, provide for the control of listed activities (GN No. 29), which are prohibited until an environmental clearance certificate (ECC) has been issued by the office of the environmental commissioner in the Ministry of Environment, Forestry and Tourism (MEFT). ECC applications, which may be granted subject to conditions, will only be considered by the MEFT once there has been compliance with the EIA process detailed in the EIA Regulations 2012 (GN No. 30).

Listed activities and their likely applicability to the proposed interventions are presented in **TABLE 3‑1**. DWN must ensure a thorough review of the applicability of listed activities for each proposed intervention (refer to Section 5.3.2.3).

**TABLE 3‑1: LISTED ACTIVITIES AND THEIR LIKELY APPLICABILITY TO THE PROGRAMME**

|  |  |
| --- | --- |
| **Listed Activity** | **Applicable to this project** |
| **1. Energy generation, transmission and storage activities** | |
| *1.1.**The construction of facilities for -*  (a) The generation of electricity;  (b) The transmission and supply of electricity;  (c) Refining of gas, oil and petroleum products; and  (d) Nuclear reaction, including production, enrichments, processing, reprocessing, storage or disposal of nuclear fuels, radioactive products and waste. | Possibly 1.1(b) if new transmission lines are required. Not applicable to internal electrical reticulation services within a residential area. |
| **2. Waste management, treatment, handling and disposal activities** | |
| 2.1 The construction of facilities for waste sites, treatment of waste and disposal of waste.  2.2 Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976.  2.3 The import, processing, use and recycling, temporary storage, transit or export of waste. | Unlikely, unless a specific waste management facility is proposed. |
| **3. Mining and quarrying activities** | |
| *3.1 The construction of facilities for any process or activities which requires a license, right or other form of authorisation, and the renewal of a license, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992.*  *3.2 Other forms of mining or extraction of any natural resources whether regulated by law or not.*  *3.3 Resource extraction, manipulation, conservation and related activities.*  *3.4 The extraction or processing of gas from natural and non-natural resources, including gas from landfill sites.*  *3.5 The extraction of peat.* | Unlikely, unless a borrow pit is required to be developed for the supply of material for project infrastructure. |
| **4. Forestry activities** | |
| *4. The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.* | Unlikely, unless a declared forest area is proposed to be cleared. |
| **5. Land use and development activities** | |
| *5.1 The rezoning of land from -*  *(a) Residential use to industrial or commercial use;*  *(b) Light industrial use to heavy industrial use;*  *(c) Agricultural use to industrial use; and*  *(d) Use for nature conservation or zoned open space to any other land use.*  *5.2 The establishment of land resettlement schemes.*  *5.3 Construction of veterinary protected area or game proof and international boundary fences.* | Possibly 5.1(d) if the land parcel is used for nature conservation or zoned *open space* and requires to be rezoned.  Possibly 5.2 if a project qualifies as a “land resettlement scheme”. |
| ***6. Tourism Development Activities*** | |
| *6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.* | Not applicable |
| ***7. Agriculture and Aquaculture Activities*** | |
| *7.1 Construction of facilities for aquaculture production, including mariculture and algae farms where the structures are not situated within an aquaculture development zone declared in terms of the Aquaculture Act, 2002.*  *7.2 The declaration of an area as an aquaculture development zone in terms of the Aquaculture Act, 2002.*  *7.3 The genetic modification of any organism with the purpose of fundamentally changing the inherent characteristics of that organism.*  *7.4 The import, processing and transit of genetically modified organisms.*  *7.5 Pest control.*  *7.6 The release of genetically modified organisms into the environment where an environmental assessment is required by law.*  *7.7 The release of any organism outside its natural area of distribution that is to be used for biological pest control.*  *7.8 The introduction of alien species into local ecosystems.* | Not applicable |
| **8. Water resource developments** | |
| *8.1 The abstraction of ground or surface water for industrial or commercial purposes.*  *8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.*  *8.3 Any water abstraction from a river that forms an international boundary.*  *8.4 Construction of canals and channels including the diversion of the normal flow of water in a riverbed and water transfer schemes between water catchments and impoundments.*  *8.5 Construction of dams, reservoirs, levees and weirs.*  *8.6 Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*  *8.7 Irrigation schemes for agriculture excluding domestic irrigation.*  *8.8 Construction and other activities in watercourses within flood lines.*  *8.9 Construction and other activities within a catchment area.*  *8.10 Reclamation of land from below or above the high-water mark of the sea or associated inland waters.*  *8.11 Alteration of natural wetland systems.*  *8.12 The release of brine back into the ocean by desalination plants.* | Possibly 8.1 or 8.2 if water abstraction is required.  Possibly 8.4 if the development requires ‘canals and channels’ in a riverbed.  Possibly 8.5 if the development requires ‘a reservoir’  Possibly 8.6 if the development requires ‘*domestic wastewater treatment plants or a pipeline’*.  Possibly 8.8 if the development requires any activity within the floodlines of a watercourse.  Possibly 8.11 if the development requires any activity within a wetland. |
| **9. Hazardous substance treatment, handling and storage** | |
| *9.1 The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.*  *9.2 Any process or activity which requires a permit, license or other form of authorisation, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, license or authorisation or which requires a new permit, license or authorisation in terms of a law governing the generation or release of emissions, pollution, effluent or waste.*  *9.3 The bulk transportation of dangerous goods using pipeline, funiculars or conveyors with a throughout capacity of 50 tons or 50 cubic meters or more per day.*  *9.4 The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.*  *9.5 Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.* | Not applicable |
| **10. Infrastructure** | |
| *10.1 The construction of-*  *(a) Oil, water, gas and petrochemical and other bulk supply pipelines;*  *(b) Public roads;*  *(c) Railways and harbours;*  *(d) Airports and airfields;*  *(e) Any structure below the high water mark of the sea;*  *(f) Cableways;*  *(g) Communication networks including towers, telecommunication and marine telecommunication lines and cables;*  *(h) Motor vehicle and motorcycle racing and test tracks;*  *(i) The outdoor racing sites of motor powered vehicles including -*  *(i) Motorcars;*  *(ii) Trucks;*  *(iii) Motorcycles;*  *(iv) Quad bikes;*  *(v) Boats; and*  *(vi) Jet skis;*  *(j) Masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding*  *(i) Flag poles; and*  *(ii) Lightning conductor poles.*  *10.2 The route determination of roads and design of associated physical infrastructure where -*  *(a) It is a public road;*  *(b) The road reserve is wider than 30 meters; or*  *(c) The road caters for more than one lane of traffic in both directions.* | Possibly 10.1(b) if the development requires a public road. |
| **11. Other Activities** | |
| *11.1 Construction of military demonstration and testing sites,*  *11.2 Construction of cemeteries, camping, leisure and recreation sites.* | Not applicable |

### Water Resources Management Act

The Water Resources Management Act (No. 11 of 2013 (WRMA)) provides a framework for the management, development, protection, conservation and use of water resources in a sustainable manner. In terms of the WRMA a "water resource" is defined as “the whole or any part of a watercourse or an aquifer and includes the sea and meteoric water”.

Part 13 of the WRMA which deals with Water Pollution Control is relevant to the proposed project in light of sewage management. The opening section stipulates that “a person may not by any act or omission cause a water resource to be polluted, either directly or indirectly, unless authorised to do so by or under this Act or any other law, and in accordance with that authorisation”. The DWN Programme aims to improve sewage management and is line with the objects of the WRMA.

Currently the Water Resources Management Act (no. 54 of 1956) is still applicable law. The Water Resources Management Act (No. 11 of 2013) will become applicable law once the Government publishes a Government Notice in the Government Gazette, confirming the commencement of the new Act.

### Local Authorities Act

The Local Authorities Act (No. 23 of 1992) and Government Notice No. 116 of 1992 define the powers, duties and functions of local authority councils. Part VI deals with the supply of water and part VII with Sewerage and Drainage. Streets and public places are cover in Part IX and Part X deals with the supply of electricity and Gas. Housing schemes are covered under Part XII.

### Other relevant Namibian legislation

A summary of other relevant environmental and social legislation that may be applicable to the proposed project is provided in **TABLE 3‑2**.

**TABLE 3‑2: OTHER APPLICABLE NAMIBIAN ENVIRONMENTAL LEGISLATION**

|  |  |  |
| --- | --- | --- |
| **Sector** | **Law** | **Key Provisions and relevance to the Project** |
| Petroleum | *Petroleum Products and Energy Act, 1990 (No. 13 of 1990) and relevant regulations* | This Act provides for the application of environmental standards and the avoidance of environmental harm caused by the keeping, handling, conveying, using and disposing of petroleum products.  No person may without authorisation discard, destroy or otherwise dispose of oil or possess or store or transport oil in containers that are not suitable for preventing destruction, loss or waste of the oil.  Every person is obliged to take such precautions and exercise such care as may be reasonable in the circumstances in the storing, handling, conveying, disposing of any petroleum product in order to prevent risk of significant environmental harm. Provision is also made in the regulations for the disposal of petroleum products in a manner and at a place intended for the safekeeping of dumping thereof in accordance with good petroleum industry practices.  Petrol, diesel and other hydrocarbons will likely be stored / handled at relevant sites during the construction phase of the project. Where volumes of such materials exceed the relevant thresholds then activities will have to comply with the requirements of the Act. |
| Transport | *Road Traffic and Transport Act, 1999 (No. 22 of 1999)* | This Act provides for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, and the control and regulation of road transport across Namibia's borders.  Vehicles supplying goods and services to the project during construction and operation will have to comply with the requirements of the Act. |
| Road Ordinance 1972 (No. 17 of 1972) | This Act deals with the following aspects: Width of proclaimed roads and  road reserve boundaries; Control of traffic on urban trunk and main roads; rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed  roads; infringements and obstructions on and interference with proclaimed roads; and distance from proclaimed roads at which fences are erected. |
| Pollution / Waste | *Pollution Control and Waste Management Bill (3rd Draft September 2003)* | This Bill promotes sustainable development and provides for the prevention and regulation of the discharge of pollutants to the air, water and land; regulation of noise, dust and odour pollutions; and the establishment of a system of waste panning and management.  Hazardous and non-hazardous waste will be generated and consideration should be given of the requirements of the bill. |
| *Atmospheric Pollution Prevention Ordinance (Ordinance 11 of 1976)* | This Act provides for the prevention of the pollution of the atmosphere.  Construction activities, creating dust near third parties needs to be controlled in terms of the requirements of the Act. |
| Public health | *Public Health Act (Act No. 36 of 1919)* | This Act provides for the protection of health of all people |
| *Public and Environmental Health Act (Act No. 1 of 2015, Government Notice No. 86 of 2015)* | This Act provides a framework for a structured more uniform public and environmental health system as well as for incidences. It furthermore deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation. |
| Environmental / Conservation / Land | *National Heritage Act, 2004 (No. 27 of 2004)* | This Act provides for, *inter alia*, the protection and conservation of places and objects of heritage significance. A National Heritage Council has been established to identify, conserve, manage, and protect places and objects of heritage significance.  Permits are required for the removal, damage, alteration or excavation of heritage sites or remains. Any person who discovers an archaeological site should notify the National Heritage Council. These aspects could be relevant during the construction activities (i.e. clearing of land, etc.) of the proposed project and will require to be assessed. |
| *National Monuments Act 28 of 1969* | This Act establishes a National Monuments Council and provides for the preservation of certain property as National Monuments and the maintenance of certain burial grounds. |
| *Nature Conservation Ordinance, 1975 (No. 4 of 1975)* | This Ordinance consolidates and amends the laws relating to the conservation of nature; the establishment of game parks and nature reserves; and the control of problem animals. The Ordinance is expected to be replaced by the Wildlife and Protected Areas Management Act in the near future (latest draft 2018).  Certain future urban development areas might be adjacent to / or in close proximity to parks. |
| *Forest Act, 2001 (No. 12 of 2001), as amended, and Regulations* (Government Gazette No. 5801) | This Act provides for the protection of the environment / natural vegetation and the control and management of forest fire. The Regulations includes the list of protected plant species.  No person shall on any land which is not part of a surveyed erven of a local authority area cut, destroy or remove any living tree, bush or shrub growing within 100 m of a river, stream or watercourse, except under a licence from the Directorate of Forestry. |
| *Communal Land Reform Act, 2002 (No. 5 of 2002)* | This Act provides for the allocation and administration of all communal land and makes provision for the prevention of land degradation and for mitigating the impacts of, amongst others, water provision on the natural environment. The Act gives certain rights to communal farmers and traditional authorities and makes provision for regulations to address issues pertinent to conservation and sustainable management of water and water courses, of woods and to the combatting and prevention of soil erosion. |
| *Soil Conservation Act (Act 76 of 1969)* | The Act makes provision for the prevention and control of soil erosion and the protection, improvement and conservation of soil, vegetation and water supply sources and resources, through directives declared by the Minister.  Care is to be taken in identifying any potential impacts on soil, vegetation, water supply sources and resources by firstly trying to avoid these impacts. Where they can’t be avoided, management measures should be implemented to reduce the significance of the impact(s). |
| *Inland Fisheries Resources Act (Act 1 of 2003)* | Conservation and protection of aquatic ecosystems. |
| Hazardous Substances | *Hazardous Substances Ordinance, 1974 (No. 14 of 1974)* | These provide for the control of toxic substances which may cause injury, ill health or death of human beings.  Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export. |
| Labour | *Labour Act, 2007 (No. 11 of 2007) and its amendment: No. 2 of 2012* | These Acts stipulate, amongst other things, sound labour relations, employment equity, fair employment practices, training, minimum basic conditions of service, workplace health and safety and retrenchment. Compliance is enforced and monitored by the Ministry of Labour through the office of the Labour Commissioner. |
| *Social Security Act, 1994 (No. 34 of 199, as amended* |
| *Employees Compensation Act, 1995 (No. 5 of 1995)* |
| *Regulations relating to the health and safety of employees at work (GN 156 of 1997)* | These Regulations establish health and safety regulations for the workplace. |
| *Affirmative Action (Employment) Act, 1998 (No. 29 of 1998)* | This Act aims to achieve equal opportunity in employment by redressing, through appropriate affirmative action plans, the conditions of disadvantage in employment experienced by persons in designated groups arising from past discriminatory laws and practices. |
| *Anticorruption Act, 2003 (No. 8 of 2003)* | This Act provides for the prevention and punishment of corruption. |
| Electricity | *Electricity Act, 2007 (No. 4 of 2007)* | This Act provides for the requirements and conditions for obtaining licences for the provision of electricity and to provide for the powers and obligations of licensees. |
| Town Planning | Town Planning Ordinance (No. 18 of 1954) | This relate to the subdivision of land situated in any area to which an approved Town Planning Scheme applies. |
| Townships and Division of Land Ordinance (No. 11 of 1963) | This details the functions of the Township Board. It includes what the Board considers when receiving an application for Township Establishment. |

### Municipal By-laws, Guidelines and Regulations

Various Municipal by-laws, guidelines and Regulations exist for the different municipal areas (where relevant) in Namibia. The Programme should consider, amongst others, the following aspects

* Town Planning Schemes, which typically considers:
  + Management of all property and related public sector functions across the city / town.
  + The protection of groundwater and the environment.
  + Consent use of certain industries on industrial erven.
* Environmental Structure Plan and Environmental Policy, which integrates spatial planning decision-making, environmental planning, and environmental impact management.

### Other relevant Namibian Policies

Namibia’s policies provide the framework to the applicable legislation. Whilst policies do not often carry the same legal recognition as official statutes, policies are used in providing support to legal interpretation or guidance for civil servants and other stakeholders in the implementation of government objectives. Relevant policies (other than the aforementioned policies) currently in force include the following:

* Namibia’s Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1994)
* NDP5 and Vision 2030
* National Integrated Resource Plan (2016)
* National Forest Policy (1992)
* National Agricultural Policy (2015)
* National Land Policy, the National Resettlement Policy, the Agricultural (Commercial) Land Reform Act (1995)
* Land Tax and Communal Land Reform Act (2002)
* Poverty Reduction Strategy for Namibia (1998)
* White Paper on Energy Policy (1998)
* National Industrial Policy (2012)
* Policy for the Conservation of Biotic Diversity and Habitat Protection (1994)
* National Policy on Human Wildlife Conflict management (2009)
* Namibia’s Integrated Water Resources Management (IWRM) Plan (2010)
* The National Climate Change Policy of Namibia (2011)

### Climate Change Policy

Namibia’s National Policy on Climate Change takes a cross-sectoral approach and elaborates on climate change adaptation and mitigation in Namibia. The policy outlines a coherent, transparent and inclusive framework on climate risk management in accordance with Namibia’s national development agenda, legal framework, and in recognition of environmental constraints and vulnerability. The goal of the National Policy on Climate Change is to contribute to the attainment of sustainable development in line with Namibia’s Vision 2030 through strengthening of national capacities to reduce climate change risk and build resilience for any climate change shocks.

### Namibia Vision 2030

Vision 2030 is Namibia’s comprehensive, guiding strategy for long-term national development. The principles that underpin Vision 2030, are:

* Good governance,
* Partnership,
* Capacity enhancement,
* Comparative advantage,
* Sustainable development,
* Economic growth,
* National sovereignty and human integrity,
* Environment, and
* Peace and security.

The goal of the Vision is “to improve the quality of life of the people of Namibia to the level of their counterparts in the developed world, by 2030. The Vision acknowledges that Namibia faces significant constraints imposed by an arid climate, a huge country with low population numbers, and legacies of apartheid and colonialism. The Vision is being implemented through a series of five-year National Development Plans. Vision 2030 emphasises the importance of promoting healthy living. Chapter 4 states that “the Vision for Namibia 2030 is about the people”. The Vision includes access to safe drinking water, adequate housing and sanitation for people.

### International Conventions

Namibia is a signatory to a range of conventions as summarised below:

* Convention on Biological Diversity, 1992
* United Nations Framework Convention on Climate Change, 1992
* The Convention on International Trade in Endangered Species (CITES) of 1973
* Vienna Convention for the protection of the ozone layer (1985)
* Montreal Protocol on substances that deplete the ozone layer (1987)
* United Nations Convention on Biological Diversity (UNCBD)
* United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007

None of the conventions would have direct relevance, provided the Programme is implemented in terms of the stated exclusions (see Section 2.7).

## Lender Framework

Development of the proposed Programme is likely to be primarily financed through official development assistance from the Government of the Federal Republic of Germany. As such the Programme must be undertaken in a manner that complies with the requirements of the Federal Ministry for Economic Cooperation and Development and the KfW Development Bank. KfW subscribes to the approach set out in the World Bank Group’s Environmental and Social Standards. Relevant international criteria and standards to be adhered to throughout the Programme are described in the sections below.

### KfW’s Sustainability Guideline

All the Financial Cooperation measures financed by KfW must be subject to assessment and implementation in terms of KfW’s Sustainability Guideline 2021, or its successor. The guideline describes the principles and procedures to assess the environmental, social and climate impacts during the preparation and implementation of FC measure financed by KfW.

The KfW Sustainability Guideline (2021) sets out that the relevant national law and legal requirements as well as the Environmental and Social Standards of the World Bank Group are compulsory during the identification and assessment of environmental, social and climate risks and impacts. Additionally, the World Banks’s General and sector-specific Environmental, Health and Safety (EHS) Guidelines and the core labour standards of the International Labour Organization (ILO) must be applied. During the assessment the requirements of the Human Rights Guidelines of the BMZ must be taken into account.

### World Bank Environmental and Social Framework

The World Bank’s Environmental and Social Framework (ESF) is aimed at enabling the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. The ESF offers broad and systematic coverage of environmental and social risks. The ESF sets out the World Bank Group’s commitment to sustainable development, through a Vision for Sustainable Development, a Policy for Investment Project Financing, and a set of Environmental and Social Standards (ESS).

KfW’s Sustainability Guideline (2021) requires the application of the World Bank’s Environmental and Social Standards (see next section) to their projects, but not the overall ESF.

### World Bank Environmental and Social Standards (2018)

The World Bank’s Environmental and Social Standards (ESS) consist of ten standards as summarised below. Application of the standards intends to: (a) support Borrowers in achieving good international practice relating to environmental and social sustainability; (b) assist Borrowers in fulfilling their national and international environmental and social obligations; (c) enhance non-discrimination, transparency, participation, accountability, and governance; and (d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement.

KfW’s Sustainability Guideline (2021) requires the application of the relevant ESS. The likely applicability of each standard to the DWN Programme is indicated in Table 3‑3. A review must be undertaken for each intervention to confirm (on the basis of scope, locality and site specifics) the applicability of the ESS.

Table 3‑3: WORLD BANK e&s Standards and their applicability to the Programme

|  |  |
| --- | --- |
| **World Bank Environmental and Social Standards (ESS)** | **Applicability to this project** |
| **ESS1 Assessment and Management of Environmental and Social Risks and Impacts** sets out the Borrower’s responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). | Yes, for Category A and Category B+ projects |
| **ESS2 Labour and Working Conditions** recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. | Yes  (construction phase) |
| **ESS3 Resource Efficiency and Pollution Prevention and Management** recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project lifecycle. | Yes |
| **ESS4: Community Health and Safety** addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. | Yes |
| **ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement** - involuntary resettlement should be avoided. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented. | Only in the event Programme requires resettlement |
| **ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources** recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. ESS6 also addresses sustainable management of primary production and harvesting of living natural resources, and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a project. | Yes  (construction phase) |
| **ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities** ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities. ESS7 is also meant to avoid adverse impacts of projects on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts. | Unlikely if exclusions are applied, but must be confirmed for each intervention |
| **ESS8: Cultural Heritage** recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. ESS8 sets out measures designed to protect cultural heritage throughout the project lifecycle. | Yes  (construction phase) |
| **ESS9: Financial Intermediaries (FIs)** recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects, and monitor portfolio risk, as appropriate to the nature of intermediated financing. The way in which the FI will manage its portfolio will take various forms, depending on a number of considerations, including the capacity of the FI and the nature and scope of the funding to be provided by the FI. | No |
| **ESS10: Stakeholder Engagement and Information Disclosure** recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. | Yes |

### EHS Guidelines

The World Bank Group’s Environmental, Health, and Safety (EHS) Guidelines are technical reference documents that are required to be applied, as required by respective policies and standards, when a member of the World Bank Group is involved in a project. The Guidelines include general and industry-specific examples of Good International Industry Practice and contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project in which site-specific variables, such as host country context, assimilative capacity of the environment, and other project factors, are taken into account.

The General EHS guidelines that are likely to be relevant to the DWN Programme are indicated in Table 3‑4. A review must be undertaken for each intervention to confirm, on the basis of scope, hazards and risks, and site-specific variables, the applicability of the General EHS guidelines.

For interventions where the General EHS Guidelines are applicable, the relevant mitigation, thresholds and performance indicators must be incorporated into the respective E&S management tool. Applicable thresholds in the EHS Guidelines should be compared to Namibian regulations and the corresponding stricter regulation applied through the E&S management tool.

Table 3‑4: General EHS GUIDELINES and their applicability to the Programme

|  |  |
| --- | --- |
| **World Bank Environmental, Health, and Safety (EHS) Guidelines** | **Applicability to this project** |
| **Environmental** | Yes, in general. Note specifics below. |
| Air Emissions and Ambient Air Quality | Not directly as the Programme is unlikely to have significant emissions to atmosphere, but refer to Air Quality in Construction and Decommissioning section. |
| Energy Conservation | Not applicable |
| Wastewater and Ambient Water Quality | Yes, but limited to where relevant to the design of infrastructure for stormwater management and domestic sewage. |
| Water Conservation | Yes, but limited to where relevant to efficient use of water during construction. |
| Hazardous Materials Management | Yes, but limited to where relevant to the use of hazardous materials during construction (e.g. fuel and gas). |
| Waste Management | Not directly as the Programme is unlikely to have significant waste generation, but refer to Waste Management in Construction and Decommissioning section. |
| Noise | Not directly as the Programme is unlikely to generate significant noise, but refer to Noise in Construction and Decommissioning section. |
| Contaminated Land | Not applicable unless contamination is uncovered during development of a site. |
| **Occupational Health and Safety** | Yes, in general. Note specifics below. Primary requirements are addressed in the Construction and Decommissioning section. |
| General Facility Design and Operation | Yes, but limited to where applicable to construction. |
| Communication and Training | Yes, but limited to where applicable to construction. |
| Physical Hazards | Yes, but limited to where applicable to construction. |
| Chemical Hazards | Yes, but limited to where applicable to construction. |
| Biological Hazards | Not applicable |
| Radiological Hazards | Not applicable |
| Personal Protective Equipment (PPE) | Yes, but limited to where applicable to construction. |
| Special Hazard Environments | Not applicable |
| Monitoring | Yes, but limited to where applicable to construction. |
| **Community Health and Safety** | Yes, in general. Note specifics below. Primary requirements are addressed in the Construction and Decommissioning section. |
| Water Quality and Availability | Only in the case where the land parcel is located near to a water source and has limited controls in place for sewage |
| Structural Safety of Project Infrastructure | Not applicable |
| Life and Fire Safety (L&FS) | Not applicable |
| Traffic Safety | Yes |
| Transport of Hazardous Materials | Not applicable |
| Disease Prevention | Yes |
| Emergency Preparedness and Response | Not applicable, except if the Programme funds development at a waste water treatment facility |
| **Construction and Decommissioning** | Yes, in general. Note specifics below |
| Environment | Yes |
| Occupational Health & Safety | Yes |
| Community Health & Safety | Yes |

Industry Sector Guidelines with potential applicability to the Programme are referenced in Table 3‑5. A review must be undertaken for each intervention to confirm, on the basis of scope, hazards and risks, and site-specific variables, the applicability of the Industry Sector Guidelines.

Table 3‑5: Industry Sector Guidelines and their applicability to the Programme

|  |  |
| --- | --- |
| **World Bank Environmental, Health, and Safety (EHS) Guidelines** | **Applicability to this project** |
| **Water and Sanitation (2007)** | Yes, if a bulk water distribution system is developed AND/OR if a sewage collection system (centralised or decentralised) is developed. |
| **Electric Power Transmission and Distribution (2007)** | Yes, where the intervention involves the bulk transmission of electricity to a site AND/OR the distribution of electricity from a substation to residential sites. |

For interventions where the Industry Sector Guidelines are applicable the relevant mitigation, thresholds and performance indicators must be incorporated into the E&S management tool. Applicable thresholds in the Industry Sector Guidelines should be compared to Namibian regulations and the corresponding stricter regulation applied through the E&S management tool.

### Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security

The over-arching goals of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), 2012 are to achieve food security for all and support the progressive realization of the right to adequate food in the context of national food security. While supporting efforts towards the eradication of hunger and poverty, the VGGT are also intended to contribute to achieving sustainable livelihoods, social stability, housing security, rural development, environmental protection, and sustainable social and economic development. The VGGT are meant to benefit all people in all countries, but there is an emphasis on vulnerable and marginalized people (e.g. smallholders, women and of people with no legal rights to the land they use).

As indicated in the Programme Exclusions (Section 2.7) the interventions should not require: forced evictions or involuntary expropriation of land; resettlement or livelihood/income restoration of more than a handful of individuals; nor discriminate against or prejudice any vulnerable or disadvantaged individuals or group; or result in the loss of productive agricultural land. Compliance with these exclusions will facilitate compliance with the VGGT.

### COVID-19 Response and Preparedness

The global COVID-19 Pandemic has had far reaching and ongoing health, social and economic effects across the world, and in Namibia. While governments and global health organisations work to manage the pandemic, each organisation, project and individual needs to understand the relevant E&S risks and put in place measures to minimize the chance of infection and contain the spread of COVID-19.

For as long as COVID-19 remains a health threat, KfW requires that the Programme develop and implement a COVID-19 Response and Preparedness plan. It is acknowledged that the COVID-19 situation, restrictions and medical advice are changing with time and vary at local, national and international level. In preparing a COVID-19 Response and Preparedness plan for Programme activities, cognisance must be given to the current, and locally relevant information and guidance, from local and national authorities, international organisations or health sector professionals. Compliance with applicable National Regulations must be ensured and a best-efforts basis should be adopted.

KfW has prepared a guidance document that the PEA, together with the contractor(s), can utilise to identify the additional E&S risks associated with the COVID-19 pandemic and develop intervention specific mitigation measures. The measures Where relevant the measures can be incorporated into the ESMP/ESCOP or included in a general COVID-19 ESMP.

## Gap Analysis

A high-level Gap Analysis was done to compare the applicable Namibian regulatory requirements with relevant WB ESS standards and the relevant EHS guidelines. The Gap Analysis for the WB ESS is presented in Table 3‑6 and for the EHS guidelines in Table 3‑7.

Table 3‑6: **Gap Analysis of namibian legislation versuS WorLd Bank ESS**

| **No.** | **Guideline** | **Requirements** | **Equivalent Namibian Legislation** | **Gaps** |
| --- | --- | --- | --- | --- |
| 1 | WB Environmental and Social Standard 1: Assessment and Management of Environmental and Social  Risks and Impacts | * *Environmental and Social (ES) Framework:*   Use Borrower’s (or Applicant) ES Framework in the assessment, development and implementation of a project to address the risks and impacts of the project, and enable the project to achieve objectives materially consistent with the ESSs.   * *Environmental and social assessment:*   Carry out an environmental and social assessment of the project to assess the environmental and social risks and impacts of the project throughout the project life cycle. Key aspects to consider, include:   * Assess, in an integrated way, all relevant direct, indirect and cumulative environmental and social risks relevant to the project. Consider activities and facilities. * Baseline information. * Environmental and social risks and impacts to be informed by Scoping. * Stakeholder engagement as an integral part of the assessment. Also consider disadvantaged or vulnerable individuals or groups. * Qualified and experienced persons to assess impacts. * Consider all relevant Policies and legislation of the country; applicable requirements under the ESSs and the EHSGs; and other relevant Good International Industry Practice. * Apply a mitigation hierarchy. * Prepare environmental and social assessment of subprojects, in the case of projects involving multiple small subprojects. * Engage one or more internationally recognized independent experts for projects that are High Risk or contentious, or that involve serious multidimensional environmental or social risks or impacts. * Consider potentially significant project-related transboundary and global risks and impacts. * *Environmental and Social Commitment Plan (ESCP):* * Develop and implement an ESCP, setting out measures and actions required for to achieve compliance with the ESSs over a specified timeframe, taking the findings of the environmental and social assessment into account. * Allow for adaptive management of proposed project changes or unforeseen circumstances. * Implement the measures and actions identified in the ESCP and review the status of implementation of the ESCP as part of its monitoring and reporting. * Describe the different management tools that will be used to develop and implement the agreed measures and actions – compared to a ‘typical Environmental (& Social) Management System (ESMS)”. * *Monitoring and reporting* * Monitor the environmental and social performance of the project. * Where appropriate and as set out in the ESCP, engage stakeholders and third parties, such as independent experts, local communities or NGOs, to complement or verify its own monitoring activities. * Provide regular reports providing an accurate and objective record of project implementation, including compliance with the ESCP and the requirements of the ESSs. * Based on the results of the monitoring, identify any necessary corrective and preventive actions, and incorporate these in an amended ESCP or the relevant management tool. * *Stakeholder engagement and information disclosure* * Continue to engage with, and provide sufficient information to stakeholders throughout the life cycle of the project. * Consult with project-affected parties if significant changes to the project that result in additional risks and impacts are foreseen. | 1. Environmental Management Act 2007 (Act 7 of 2007) 2. EIA Regulations GN30, 18 January 2012. 3. List of activities that may not be undertaken without Environmental Clearance Certificate: Environmental Management Act, 2007 | * No requirement for an ES Framework, ESCP or ESMS, although there is a requirement for an EMP. * “Environment” also includes “Social” aspects per definition of the legislation. Therefore reference to “EIA” and not “ESIA”. * The EIA process requires the identification and assessment of impacts, linking to the project activities, baseline conditions, laws and guidelines and taking all project phases and cumulative effects into consideration. * Poor guidance in the Regulations on “subprojects”. * Specialists required – as needed, but not clearly defined. * Stakeholder engagement is a key component of the EIA regulations, although there is no specific requirements for engagement “throughout the life cycle of the project”- only during the EIA process. Ongoing engagement is often included as a commitment in the EMP (where relevant). No specific reference to the need for engaging with vulnerable groups or groups based on gender. This is typically included in the Terms of Reference for the EIA (where relevant). * Typically, an EMP includes an organogram and roles and responsibilities to implement the various mitigation measures including monitoring and reporting. Although this does not necessarily tie back to the implementing organisations ability to provide sufficient capacity to undertake the necessary actions. No clear requirements for adaptive management, however, renewal applications are required every three year, where the EMP needs to the reviewed and re-submitted. * While specific requirements are listed in the EIA Regulations, it does require for effects on the environment to be mitigated, controlled and monitored. Monitoring and review is typically included in the EMPs. * Unless specified as a commitment in the EMP , there is no specific requirement in the EIA regulations for ongoing reporting. * Amendment Applications (i.e. significant project changes) are covered in the EIA Regulations, however, the process and further stakeholder engagement are not defined. |
| 2 | WB Environmental and Social Standard 2: Labour and Working Conditions  (Relevant to the construction phase of the Project) | * *Working Conditions and Management of Worker Relationship:*   Develop and implement written labour management procedures applicable to the project. These procedures will set out the way in which project workers will be managed, in accordance with the requirements of national law and this ESS. The following needs to be addressed:   * Terms and conditions of employment * Non-discrimination and equal opportunity * Worker’s organizations in countries where national law recognizes workers’ rights to form and to join workers’ organizations * *Protecting the work force:*   The following issues need to be addressed:   * Child labour and minimum age. * Forced labour. * *Grievance mechanism:*   Develop a grievance mechanism which will be provided for all direct workers and contracted workers to raise workplace concerns.   * *Occupational Health and Safety:*   Measures relating to occupational health and safety will be applied to the project. Develop and implement and H&S System and procedures to establish and maintain a safe working environment. Measures will be designed and implemented to address:   * Identification of potential hazards to project workers, particularly those that may be life threatening; * Provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances * Training of project workers and maintenance of training records. * Documentation and reporting of occupational accidents, diseases and incidents. * Emergency prevention and preparedness and response arrangements to emergency situations. * Remedies for adverse impacts such as occupational injuries, deaths, disability and disease. * *Contracted workers:* * Ensure that third parties who engage contracted workers are legitimate and reliable entities and have in place labor management procedures. * Establish procedures for managing and monitoring the performance of such third parties. * Incorporate the requirements of this ESS into contractual agreements with such third parties. * *Community workers:* * Measures to be implemented to ascertain whether such labour is or will be provided on a voluntary basis as an outcome of individual or community agreement. * Apply the relevant provisions of this ESS in a manner which reflects and is proportionate to (a) the nature and scope of the project; (b) the specific project activities in which the community workers are engaged; and (c) the nature of the potential risks and impacts to the community workers. * Clearly identify the terms and conditions on which community labour will be engaged. * *Primary supply workers:* * Links to previous commitments relating to child labour, forced labour and serious safety issues which may arise in relation to primary suppliers and workers safety issues. | 1. Labour Act, 2007 (No. 11 of 2007) 2. Social Security Act, 1994 (No. 34 of 199, as amended 3. Employees Compensation Act, 1995 (No. 5 of 1995) 4. Regulations relating to the health and safety of employees at work (GN 156 of 1997) | * These Acts stipulate, amongst other things, sound labour relations, employment equity, fair employment practices, training, minimum basic conditions of service, workplace health and safety and retrenchment. Compliance is enforced and monitored by the Ministry of Labour through the office of the Labour Commissioner. * The legislation and regulations are broadly considered comprehensive and adequately compare to the WB ESS and industry guidelines. * There is no requirement for a Grievance Mechanism in the Acts. |
| 3 | WB Environmental and Social Standard 3: Resource Efficiency and Pollution Prevention and Management | * *Resource Efficiency:*   Implement technically and financially feasible measures for improving efficient consumption of energy, water and raw materials, as well as other resources.   * *Pollution Prevention and Management:*   Avoid the release of pollutants or, when avoidance is not feasible, minimize and control the concentration and mass flow of their release using the performance levels and measures specified in national law or the EHSGs, whichever is most stringent. This applies to the release of pollutants to air, water and land. The following also needs to be taken into consideration:   * Historical pollution issues. * Existing ambient conditions. * In areas already impacted by pollution, the remaining assimilative capacity of the environment. * Existing and future land use. * The project’s proximity to areas of importance to biodiversity. * The potential for cumulative impacts with uncertain and/or irreversible consequences. * Impacts of climate change. | 1. Water Act (Act 54 OF 1956 ) 2. Water Resources Management Act (No. 11 of 2013 3. Pollution Control and Waste Management Bill (3rd Draft September 2003) 4. Atmospheric Pollution Prevention Ordinance (Ordinance 11 of 1976) 5. Agricultural Pests Act, 1973 (No. 3 of 1973) 6. Hazardous Substances Ordinance, 1974 (No. 14 of 1974) 7. Environmental Management Act 2007 (Act 7 of 2007) 8. EIA Regulations GN30, 18 January 2012. | * The sustainable use of resources and pollution prevention and management are covered under the Acts. * The EIA Regulations requires an understanding of the baseline conditions, however, does not provide details on aspects like historical pollutions issues, ambient conditions, future land use, etc. * Lack off emission limits (air quality). * Effluent discharge Standards available under the Water Act (issued by the DWA). * There is no specific requirement to quantify GHG emissions and to develop management strategies to reduce GHG emissions, should this be necessary. |
| 4 | WB Environmental and Social Standard 4: Community Health and Safety | * *Community Health and Safety:*   Evaluate the risks and impacts of the project on the health and safety of the affected communities during the project life cycle, including those who, because of their particular circumstances, may be vulnerable. Take the following into consideration:   * Infrastructure and equipment design and safety * Safety of services * Traffic and road safety * Ecosystem services * Community exposure to health issues * Management and safety of hazardous materials * Emergency preparedness and response * *Security Personnel:*   Assess risks posed by security arrangements to those within and outside the project site. | 1. Environmental Management Act 2007 (Act 7 of 2007) 2. EIA Regulation GN30, 18 January 2012. | * The EIA regulations allow for the identification and assessment of social impacts or impacts on community health and safety. * Issues regarding security personnel is not specifically required or routinely addressed as part of EIAs. * The need for an Emergency Preparedness and Response is not a requirement of the EIA Regulations. |
| 5 | WB Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement  (Only in the event the Programme requires resettlement) | * *General issues:*   The following aspects are of relevance:   * Eligibility classification: Establish the status of the affected persons. * Project design: Demonstrate that involuntary land acquisition or restrictions on land use are limited to direct project requirements for clearly specified project purposes within a clearly specified period of time. Consider feasible alternative project designs to avoid or minimize land acquisition or restrictions on land use. * Compensation and benefits for affected persons: When land acquisition or restrictions on land use cannot be avoided, offer affected persons compensation and other assistance. * Community engagement: Engage with affected communities. * Grievance mechanism: Ensure that a grievance mechanism for the project is in place. * Planning and implementation: Where land acquisition or restrictions on land use are unavoidable, the Borrower will, as part of * Establish an inventory of land and assets to be affected to determine who will be eligible for compensation and assistance, as part of the environmental and social assessment. * *Other aspects to be addressed:* * Displacement (i.e. physical displacement and Economic displacement). * Collaboration with other responsible agencies or subnational jurisdictions. * Technical and financial assistance | 1. Namibia Laws on expropriation or compensation for land that is taken away.  * Article 21 of the Namibian Constitution, as amended by the Constitution Amendment Act 2010. * Communal Land Reform Act 5 of 2002, as last amended by the Communal Land Reform Amendment Act 11 of 2005.  1. National Resettlement Policy | * There is a need to identify if involuntary resettlement will be required. This can only be undertaken once the location of infrastructure has been finalised and the directly affected people and landowners identified. This will form part of the more detailed assessment within the Social Impact Assessment i.e. to identify the need for involuntary resettlement. If required a detailed gap analysis will be undertaken. * There is no requirement for a Grievance Mechanism in the Acts. |
| 6 | WB Environmental and Social Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources  (Relevant to the construction phase of the Project) | * *General:* * Assessment of risks and impacts: Through the environmental and social assessment, identify the potential risks to and impacts on habitats and the biodiversity that they support. * Consider the following: * Off-sets where relevant. * Conservation of biodiversity and habitats. * Modified habitats * Natural habitats * Critical Habitat * Legally protected and internationally recognized areas of high biodiversity value. * Invasive alien species * Sustainable management of living natural resources. * *Primary suppliers:* * The environmental and social assessment will include an evaluation of the systems and verification practices used by primary suppliers. | 1. Nature Conservation Ordinance, 1975 (No. 4 of 1975) 2. Nature Conservation Amendment Act 3, 2017. 3. Forest Act, 2001 (No. 12 of 2001), as amended, and Regulations (Government Gazette No. 5801) 4. Plant Quarantine Act, 2008 (No. 7 of 2008) 5. Namibia’s Biodiversity Strategy and Action Plan 6. The Forestry Act 12 of 2001 7. The Wildlife and Protected Areas Management Bill, 2001. 8. Environmental Management, Act 7 of 2007 | * Various acts govern the protection and conservation of natural resources and legally protected area and control of invasive alien species. * While the EIA Regulations do allow for issues regarding impacts on biodiversity to be identified and assessed, the mechanism of defining habitat as modified, natural or critical does not exist and need to be specified as part of the Terms of Reference for an EIA. * Implementing biodiversity off-sets in Namibia is not common and need to be considered on relevant projects, where required. * While the biodiversity strategy and action plan makes reference to the importance of ecosystem services, the EIA Regulations do not specifically require that ecosystem service be identified and the impact on these services assessed. |
| 7 | WB Environmental and Social Standard 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities  (Unlikely if exclusions are applied, but must be confirmed for each intervention) | * *General:* * Ensure that Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities present in, or with collective attachment to, the project area are fully consulted about, and have opportunities to actively participate. * Assess the nature and degree of the expected direct and indirect economic, social, cultural (including cultural heritage),and environmental impacts on Indigenous Peoples and develop measures and actions in consultation with these people. * *Circumstances requiring free, prior and informed consent (FPIC):* * Engage independent specialists to assist in the identification of the project risks and impacts. * Consider the following aspects: * Impacts on lands and natural resources subject to traditional ownership or under customary use or occupation. * Relocation of indigenous peoples. * Cultural heritage. * *Grievance mechanism:* * Ensure that a grievance mechanism is established which is culturally appropriate and accessible to affected Indigenous Peoples. * *Broader development planning:* * Preparation of plans, strategies or other activities intended to strengthen consideration and participation of Indigenous Peoples. | 1. United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007 2. Namibia ratified the International Convention on the Elimination of All Forms of Racial Discrimination(ICERD) in 1992 (Office of the Ombudsman 2012b: 9). | * Although the African Commission on Human and Peoples’ Rights recommended that Namibia sign the International Labour Organization’s Indigenous and Tribal Peoples Convention (ILO Convention 169 and 111), Namibia has not done so. * Indigenous Peoples living in project areas, where relevant, must be identified through normal public consultation methods as part of an EIA. * There is no requirement for a Grievance Mechanism in the Environmental Management Act. |
| 8 | WB Environmental and Social Standard 8: Cultural Heritage  (Relevant to the construction phase of the Project) | * *Stakeholder consultation and identification of cultural heritage:* * Identify stakeholders that are relevant for the cultural heritage and carry out consultations in order to identify cultural heritage that may be affected by the potential project; consider the significance of the cultural heritage affected; assess the potential risks and impacts; and explore avoidance and mitigation options: * Consider the following: * Legally protected cultural heritage areas. * Provisions for specific types of cultural heritage * Commercial use of cultural heritage. | 1. National Heritage Act, 2004 (No. 27 of 2004) | * The act provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register. * The need for a Chance Find Procedure as part of an EIA is not a requirement. * However, a procedure for chance finds and contacting the National Heritage Council of Namibia can be included in an EMP based on the input of a heritage specialist in the EIA phase. |
| 9 | WB Environmental and Social Standard 9: Financial Intermediaries | Not applicable to this project | N/A | N/A |
| 10 | WB Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure | * *Engagement during project preparation:* * Stakeholder identification and analysis. * Stakeholder Engagement Plan. * Information disclosure. * Meaningful consultation. * *Engagement during project implementation and external reporting:* * Continue to engage with, and provide information to, project-affected parties and other interested parties throughout the life cycle of the project. * *Grievance mechanism:* * Respond to concerns and grievances of project-affected parties related to the environmental and social performance of the project in a timely manner. * *Organizational capacity and commitment* * Define clear roles, responsibilities and authority for implementation and monitoring of stakeholder engagement activities. | 1. Environmental Management Act 2007 (Act 27 of 2007) 2. EIA Regulation GN30, 18 January 2012. | * The EIA regulations call for detailed public participation (stakeholder engagement) throughout the EIA process. This includes compiling a stakeholder database, informing interested and affects parties about the project and EIA via the press, engaging with key stakeholders and disclosing the Scoping/ToR Report, EIA Report and EMP for public comment before submitting it to the environmental authorities. All records of public meetings are included as Annexures to the Scoping Reports and EIA Reports. * There is no direct requirement for Stakeholder Engagement throughput the life cycle of a project, and need to be provided as a commitment in an EMP, where relevant. * There is no requirement for a Grievance Mechanism in the Environmental Management Act. |

Table 3‑7: **Gap Analysis of namibian legislation versuS applicable WorLd Bank EHS Guidelines**

| **No.** | **Guideline** | **Requirements & issues to consider** | **Equivalent Namibian Legislation / Standards** | **Gaps** |
| --- | --- | --- | --- | --- |
| **General EHS GUIDELINES** | | | | |
| **ENVIRONMENTAL** | | | | |
| 1 | Wastewater and Ambient Water Quality | * *General Liquid Effluent Quality:* * Discharge to Surface Water: Discharges should not result in contaminant concentrations in excess of local ambient water quality criteria or, in the absence of local criteria, other sources of ambient water quality. * Discharge to Sanitary Sewer Systems: * Meet the pre-treatment and monitoring requirements of the sewer treatment system. * No impacts to the current collection and treatment systems, or worker health and safety. * Discharged into municipal or centralized wastewater treatment systems that have adequate capacity. * Land Application of Treated Effluent: Quality of wastewater discharged on land, including wetlands, should be established based on local regulatory requirements. * Septic Systems: only be used for treatment of sanitary sewage and properly designed in areas of stable soils. * *Wastewater Management:* * Industrial Wastewater * Sanitary Wastewater: * Segregation of wastewater streams. * Segregation and pre-treatment of oil and grease containing Effluents. * Sludge should be disposed in compliance with local regulatory requirements, in the absence of which disposal has to be consistent with protection of public health and safety, and conservation and long term sustainability of water and land resources. * Emissions from Wastewater Treatment Operations, including potential odour impacts. * Residuals from Wastewater Treatment Operations: Sludge needs to be evaluated on a case-by-case basis to establish whether it constitutes a hazardous or a non-hazardous waste and managed accordingly. * Occupational Health and Safety Issues in Wastewater Treatment Operations * *Monitoring:* * Develop and implement a wastewater and water quality monitoring program with adequate resources and management oversight. | * *Pollution Control and Waste Management Bill (3rd Draft September 2003)* * Water Act (Act 54 OF 1956 ) * Water Resources Management Act (No. 11 of 2013 * Pollution Control and Waste Management Bill (3rd Draft September 2003) * Agricultural Pests Act, 1973 (No. 3 of 1973) * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012. | * Promotes sustainable development and provides for the prevention and regulation of the discharge of pollutants to the air, water and land; regulation of noise, dust and odour pollutions; and the establishment of a system of waste panning and management. * Effluent discharge Standards available under the Water Act (issued by the DWA). * Regulations under the Water Resources Management Act still to be finalised. * Effluent discharges are typically assessed as part of an EIA process and the relevant management and mitigation measures and monitoring requirements included in the EMP. |
| 2 | Water Conservation | * *General:* * Water conservation programs should be implemented commensurate with the magnitude and cost of water use. * *Water Monitoring and Management:* * Identification, regular measurement, and recording of principal flows within a facility. * Account for changes in major factors affecting water use. * Identify where action should be taken to reduce water use. | * Water Act (Act 54 OF 1956 ) * Water Resources Management Act (No. 11 of 2013 * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012. | * The need for water services and plans and efficient water management practices included. |
| 3 | Hazardous Materials Management | * *General Hazardous Materials Management:* * Hazard Assessment * Management Actions: * Release Prevention and Control Planning * Occupational Health and Safety * Process Knowledge and Documentation * Preventive Measures. * Hazardous Materials Transfer * Overfill Protection * Reaction, Fire, and Explosion Prevention * Control Measures * Secondary Containment (Liquids) * Storage Tank and Piping Leak Detection * Underground Storage Tanks | * *Pollution Control and Waste Management Bill (3rd Draft September 2003)* * Pollution Control and Waste Management Bill (3rd Draft September 2003) * Agricultural Pests Act, 1973 (No. 3 of 1973) * Hazardous Substances Ordinance, 1974 (No. 14 of 1974) * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012. | * Hazardous substance list not well defined. * Requirements for management of hazardous materials included and typically included as part of an EIA and EMP. * Detailed regulations / standards missing. * Only two hazardous waste facilities in Namibia. |
| **Occupational Health and Safety** | | | | |
| 4 | General Facility Design and Operation | * *Integrity of Workplace Structures:* * Permanent and recurrent places of work should be designed and equipped to protect OHS. * *Severe Weather and Facility Shutdown:* * Design and construct structures to withstand the expected elements for the region and have an area designated for safe refuge and evacuation plan, if appropriate. * *Workspace and Exit:* * Safe execution and emergency exits also for disabled persons. * *Fire Precautions implemented.* * *Adequate Lavatories and Showers.* * *Adequate Potable Water Supply.* * *Clean Eating Area.* * *Lighting: Receive natural light and be supplemented with sufficient artificial illumination.* * *Safe Access.* * *First aid to be provided where required.* * *Sufficient fresh air.* * *Appropriate Work Environment Temperature.* | * Labour Act, 2007 (No. 11 of 2007) * Social Security Act, 1994 (No. 34 of 199, as amended * Regulations relating to the health and safety of employees at work (GN 156 of 1997) | * These Acts stipulate, amongst other things, sound labour relations, employment equity, fair employment practices, training, minimum basic conditions of service, workplace health and safety and retrenchment. Compliance is enforced and monitored by the Ministry of Labour through the office of the Labour Commissioner. * The legislation and regulations are broadly considered comprehensive and adequately compare to the WB ESS and industry guidelines. * There is no requirement for a Grievance Mechanism in the Acts. |
| 5 | Communication and Training | * *OHS Training:* * OHS orientation training to all new employees. * Basic OHS training programme * *Visitor Orientation* * *New Task Employee and Contractor Training:* * Adequate training to workers and contractors prior to commencement of new assignments. * *Area Signage.* * *Labeling of Equipment.* * *Communicate Hazard Codes.* |
| 6 | Physical Hazards | * *Rotating and Moving Equipment* * *Noise:* * No employee should be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection. * *Vibration:* * Control exposure to hand-arm vibration from equipment such as hand and power tools, or whole-body vibrations from surfaces. * *Exposed or faulty electrical devices* * *Eye hazard:* * Solid particles from a wide variety of industrial operations, and / or a liquid chemical spray to be considered. * *Welding /hot work issues. Use PPE, etc.* * *Industrial Vehicle Driving and Site Traffic* * *Working Environment Temperature – use PPE, etc.* * *Ergonomics, Repetitive Motion, Manual Handling.* * *Working at heights.* * *Adequate illumination.* |
| 7 | Chemical Hazards | * *Prevented chemical hazards through a hierarchical approach.* * *Air quality: appropriate measures to maintain air quality in the work area.* * *Prevention and control of Fire and Explosions.* * *Controls for corrosive, oxidizing, and reactive chemicals.* * *The use of asbestos containing materials (ACM) should be avoided in new buildings.* |
| 8 | Personal Protective Equipment (PPE) | * *Active use of PPE if alternative technologies, work plans or procedures cannot eliminate, or sufficiently reduce, a hazard or exposure.* |
| 9 | Monitoring | * *Occupational health and safety monitoring programs to verify the effectiveness of prevention and control strategies.* |
| **Community Health and Safety** | | | | |
| 10 | Water Quality and Availability | * *Water quality:* * Drinking water sources, whether public or private, should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality. * Air emissions, wastewater effluents, oil and hazardous materials, and wastes should be managed with the objective of protecting soil and water resources. * *Water availability:* * Assess the potential effect of groundwater or surface water abstraction. * Activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. | * *Pollution Control and Waste Management Bill (3rd Draft September 2003)* * Water Act (Act 54 OF 1956 ) * Water Resources Management Act (No. 11 of 2013 * Pollution Control and Waste Management Bill (3rd Draft September 2003) * Agricultural Pests Act, 1973 (No. 3 of 1973) * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012 * *Road Traffic and Transport Act, 1999 (No. 22 of 1999)* * Road Ordinance 1972 (No. 17 of 1972) * *Public Health Act (Act No. 36 of 1919)* | * The EIA regulations allow for the identification and assessment of social impacts or impacts on community health and safety, incliding impacts on water quality and availability, traffic impacts. * Issues regarding security personnel is not specifically required or routinely addressed as part of EIAs. * The need for an Emergency Preparedness and Response is not a requirement of the EIA Regulations. * Detailed regulations missing. |
| 11 | Traffic Safety | * *Promoted traffic safety.* * *Adopt best transport safety practices.* * *Regular maintenance of vehicles.* * *Minimizing pedestrian interaction with construction vehicles* * *Collaboration with local communities and responsible* * *authorities to improve safety.* * *Coordinate with emergency responders.* * *Use locally sourced materials, whenever possible* * *Employ safe traffic control measures.* |
| 12 | Disease Prevention | * *Communicable Diseases (including sexually-transmitted diseases (STDs), such as HIV/AIDS.):* * Provide surveillance and active screening and treatment of workers. * Prevent illness among workers in local communities. * Provide treatment through standard case management in on-site or community health care facilities. * Promote collaboration with local authorities. * *Vector-Borne Diseases:* * Reduce the impact of vector-borne disease on the long-term health of workers. |
| **Construction and Decommissioning** | | | | |
| 13 | Environment | * *Additional issues to be considered on prevention and control of community health and safety impacts during construction and decommission activities:* * Noise and vibration during construction and decommissioning activities. * Soil erosion issues * Sediment mobilization and transport * Clean runoff management * Road design * Disturbance to water bodies * Structural (slope) stability * Air Quality – largely dust generation * Solid waste handling storage and disposal * Managing Hazardous Materials * Wastewater Discharges * Contaminated Land | * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012 | * Construction phase activities are typically considered as part of an EIA. Mainly “mining projects” considering the decommissioning (and closure) phase as part of an EIA. * Separate EIA to be undertaken for decommission and closure. * Limited requirements. |
| 14 | Occupational Health & Safety | * *Additional issues to be considered for OH&S issue during construction and decommission activities:* * Over-exertion * Slips and Falls * Work in Heights * Struck By Objects * Moving Machinery * Dust * Confined Spaces and Excavations * Other Site Hazards. | * See earlier comments | |
| 15 | Community Health & Safety | * *Additional community H&S issues to be considered during construction and decommission activities:* * General Site Hazards * Disease Prevention * Traffic Safety | * See earlier comments | |
|  |  |  |  |  |
| **Industry Sector Guidelines** | | | | |
| 1 | Water and Sanitation  (potentially applicable to Component 2 intervention) | *Industry-Specific Impacts and Management:*   * *Environment* * Drinking water: * Water withdrawal * Water treatment: consider issues associated with solid waste, wastewater, hazardous chemicals air emissions and ecological impacts. * Water distribution: consider Water System Leaks and Loss of Pressure and Water Discharges * Sanitation: * Faecal Sludge and Septage Collection * Sewerage: consider Domestic Wastewater Discharges and Leaks and Overflows. * Wastewater and Sludge Treatment and Discharge: consider Liquid effluents,· Solid waste, Air emissions and odours, Hazardous chemicals and Ecological impacts. * *OH&S* * Accidents and Injuries * Chemical Exposure and Hazardous Atmospheres * Pathogens and Vectors: consider Wastewater and Sludge Treatment, Land Application * Noise. * *Community H&S* * Drinking Water: * Water Intake (Water Supply Protection) * Water Treatment: consider Drinking Water Quality and Supply and hazardous chemicals. * Water distribution * Sanitation: * Wastewater and Septage Collection * Wastewater and Sludge Treatment: consider Liquid effluents, Air emissions and odours and Physical hazards. * Land application.   *Performance Indicators and Monitoring:*   * *Environmental Performance:* * Guidelines for Drinking Water, Sanitation, * Monitoring * *OH&S performance:* * Occupational Health and Safety Guidelines * Accident and Fatality Rates * Occupational Health and Safety Monitoring | * See earlier comments | |
| 2 | Electric Power Transmission and Distribution  (potentially applicable to Component 2 intervention) | *Industry-Specific Impacts and Management:*   * *Environment* * Terrestrial Habitat Alteration: * Construction of Right-of-Way * Right-of-Way Maintenance * Forest Fires * Avian and Bat Collisions and Electrocutions * Electric and Magnetic Fields: * Evaluate potential exposure to the public against the reference levels developed by the International Commission on Non-Ionizing Radiation Protection * *Occupational Health and Safety* * Live Power Lines * Working at height * Electric and magnetic fields * Exposure to chemicals * *Community Health and Safety* * Electrocution * Electromagnetic interference * Visual amenity * Noise and Ozone * Aircraft Navigation Safety   *Performance Indicators and Monitoring:*   * *Environmental:* * ICNIRP exposure limits for general public exposure to electric and magnetic fields * Monitoring * *OH&S performance:* * Alternating Current - Minimum Working Distances for Trained Employees * ICNIRP exposure limits for occupational exposure to electric and magnetic fields. * Accident and Fatality Rates * Occupational Health and Safety Monitoring | * Environmental Management Act 2007 (Act 7 of 2007) * EIA Regulations GN30, 18 January 2012 * Electricity Act, 2007 (Act No. 4 of 2007) | * An EIA is required for electric power transmission infrastructure. As part of the EIA, environmental and social (including community H&S) issues need to be considered and management and mitigation measures and monitoring requirements incuded in the EMP. * See earlier comments relating to OH&S aspects. * Electric and magnetic fields not covered in the legislation. |

# Profile of Potential Environmental & Social RISKS and Mitigation

Presents examples of E&S risk and potential impacts types, for ‘typical’ Programme scope activities, and conceptual mitigation that could be applied.

## Introduction

The identification/determination of E&S risks and impacts of the DWN Programme will require specific consideration of the type and scale of the activities for each intervention and the nature and sensitivity of receptors at the selected locality. The approach to identify, appraise, manage and monitor E&S risks and impacts of different intervention types are addressed in subsequent sections of the ESMF. However, the development of new residential areas and the related infrastructure can typically result in a reasonably predictable basket of risks and potential impacts. Through comprehension of the likely risks and impacts, DWN will be better informed to facilitate the incorporation of appropriate avoidance and minimisation measures in management documents and systems. In this regard the objective of DWN and the wider project team should be to maximise the benefits that are derived while avoiding or minimising the effects of adverse impacts.

The purpose of this section of the ESMF is firstly, to the highlight the E&S risk types that should be given consideration through planning, design, construction, and operation of interventions and secondly, to highlight the mitigation approach that could be adopted. In all instances the selection of mitigation should follow the mitigation hierarchy (see Table 4-1) and where possible should enhance positive impacts.

Table 4‑1: Sequential application of the mitigation hierarchy

|  |  |
| --- | --- |
| **Avoid at Source** | Avoiding or reducing at source is essentially ‘designing’ the Project so that a feature causing an impact is designed out (e.g. a waste stream is eliminated). |
| **Abate on Site** | This involves adding something to the basic design or procedures to abate the impact (often called ‘end-of-pipe’) or altered (e.g. reduced waste volume) and is referred to as minimisation. Pollution controls fall within this category. |
| **Abate Offsite/at Receptor** | If an impact cannot be abated on-site then measures can be implemented off-site – an example disposing of waste generated at a proper waste facility. Measures may also be taken to protect a receptor. |
| **Repair or Restore** | Some impacts involve unavoidable damage to a resource, e.g. loss of soil from construction. Repair essentially involves restoration and reinstatement type measures, such as topsoil recovery and use. |
| **Compensate or Offset** | Where other mitigation approaches are not possible or fully effective, then compensation, in some measure, for loss, damage and general intrusion might be appropriate. An example could be compensation for loss of earnings if an income were to be permanently impacted by a Project activity. |

## Typical risks and mitigations

Examples of E&S risks typical of, and mitigation that could be considered for, the Programme interventions are presented in Table 4-2. In order to develop a full understanding of the E&S risks for each intervention, the mandated E&S risk identification and assessment steps, as per Section 5, must be completed.

Table 4‑2: Risks and Potenital ImpactS and MitiGation

|  |  |
| --- | --- |
| **Risks and Impacts** | **Mitigation** |
| **Biophysical** | |
| Alteration of ecological/habitat connectivity and ecosystem services  *Assess if the site provides habitat, local connectivity or ecosystem services of significance*. | **Avoidance:** Avoid protected areas and critical habitat.  Decline to develop a portion or all of the land parcel.  **Mitigation:** Adjust the layout to retain, or enhance the significant aspects of these components (i.e. corridors, green belts, buffers etc).  Plan to rehabilitate disturbed ecosystems.  **Repair:** Rehabilitate disturbed ecosystems. |
| Loss of vegetation  *Assess if the site contains vegetation of significance.* | **Avoidance:** Adjust the layout to retain, or enhance significant vegetation.  Decline to develop a portion or all of the land parcel.  **Mitigation:** Provide for management of significant vegetation during construction.  Provide for a ‘search and rescue’ procedure in the case of the discovery of vegetation of significance within development footprint.  **Repair:** Provide for the establishment of green belts, use of locally appropriate species etc. |
| Loss and/or contamination of soil  *Assess if the site contains important or vulnerable soil resources.* | **Avoidance:** Adjust the layout to retain the significant soils.  Identify potential soil contamination sources and/ or pathways.  **Mitigation:** Provide for management measures to prevent soil erosion.  Provide for the managed recovery, stockpiling and reuse of topsoil.  Provide for management to prevent spillages of contaminating materials.  **Repair:** Implement a spill response strategy. |
| Loss of fauna  *Assess if the site hosts, or provides corridors for, fauna of significance.* | **Avoidance:** Adjust the layout to avoid sensitive ecosystems.  Adjust the layout to retain, or enhance the significant fauna.  Decline to develop a portion or all of the land parcel.  **Mitigation:** Provide for management of contractors not to interfere with or harm fauna.  Provide for a ‘search and rescue’ procedure in the case of the discovery of fauna of significance. |
| Alteration of a watercourse and/or stormwater flows  *Assess if the site includes or is adjacent to a watercourse and determine the flood lines*. | **Avoidance:** Adjust the layout to provide for water flow during high flow conditions.  Adjust the layout to facilitate stormwater flows under anticipated conditions.  Provide for stormwater management, ensuring that altered flows do not affect downstream recipients.  **Mitigation:** Determine the stormwater patterns of movement.  Manage the movement of stormwater on and around the site.  Provide for stormwater management mitigating soil erosion.  **Repair:** Rehabilitate affected watercourses. |
| Reduction in water quality  *Assess if the site has surface or groundwater resources and determine the quality.* | **Avoidance:** Adjust the layout to provide for the protection of water resources.  **Mitigation:** Provide for the management of soils, materials, chemicals, hydrocarbons and wastes so that they do not impact water quality.  Provide for the management of construction water (wash, grey and sewage) so that that they do not impact water quality.  Provide for stormwater management so that erosion does not impact water quality.  Provide for appropriate sanitation solutions to prevent sewage from impacting water quality.  **Repair:** Implement a spill response strategy. |
| Loss of aquatic habitat  *Assess if the site contains aquatic habitat of significance.* | **Avoidance:** Adjust the layout to retain, or enhance the significant aquatic habitat.  Decline to develop a portion or all of the land parcel.  Schedule workings in watercourse during appropriate timing (seasons).  Restrict the timing and duration of activities in proximity to watercourses.  **Mitigation:** Provide for the management of soils, construction water, wastes and chemicals.  Provide for management of significant aquatic habitat during construction. |
| Introduction of alien and invasive plant species  *Assess if the site contains alien and invasive plant species.* | **Avoidance:** Incorporate management and removal of alien and invasive plant species during construction.  **Mitigation:** Provide for management of introduced materials to limit chance of alien and invasive plant introduction.  **Repair:** Implement an alien and invasive plant management plan. |
| Poor waste management  *Identify the nature and volume of wastes likely to be produced.* | **Avoidance:** Minimise the generation of waste  **Mitigation:** Provide for the responsible management of construction wastes in terms of the waste hierarchy.  Maintain records of safe waste disposal.  **Repair:** Implement response/clean up in the event any waste is poorly spilt. |
| General environmental impacts | **Avoidance:** Ensure that contractors are contractually obliged to manage E&S risks  Provide for raising of awareness amongst workers on E&S risks  **Mitigation:** Provide for training of workers responsible for tasks that have higher risks  **Repair:** Provide for Emergency Preparedness and Response  Provide for reporting of E&S incidents  Operation of grievance mechanism for stakeholders to lodge concerns. |
| **Socio-Economic** | |
| Conversion of land use  *Assess the current use of the site and determine the users (agriculture, recreation, commuters, sense of place).*  *Asses the adjacent use and users.* | **Avoidance:** Adjust the layout to retain, or enhance the significant aspects of these components (i.e. corridors, green belts, buffers etc).  Adjust the layout to limit current or future conflict with adjacent users.  Decline to develop a portion or all of the land parcel. |
| Conflict with town planning  *Review the local authority planning documents and confirm compatibility of the site with this planning.* | **Avoidance:** Adjust the layout to limit current or future conflict with adjacent users.  Decline to develop a portion or all of the land parcel |
| Change in visual resource and sense of place  *Assess the visual and sense of place value/relevance to local receptors.* | **Avoidance:** Adjust the layout to limit reductions and enhance improvements in the sense of place value.  **Mitigation:** Provide for lighting design to minimise light pollution. |
| Reduction in air quality  *Determine direction of local prevailing winds and identify potentially sensitive air quality receptors.* | **Avoidance:** Prevent dust generation or emissions, particularly in areas near receptors.  Prevent open burning of solid wastes.  **Mitigation:** Provide for the minimisation and management of dust from wind blown, material handling and vehicle entrainment sources during construction. |
| Increase in ambient noise or vibration | **Avoidance:** Determine direction of local prevailing winds and identify potentially sensitive noise receptors.  **Mitigation:** Provide for the minimisation and management of noise during construction.  Limit the period during which noisy activities are permitted.  Avoid or minimise project transportation through community areas. |
| Generation of wastes | **Avoidance:** Identify the nature and volume of wastes likely to be produced.  **Mitigation:** Provide for the responsible management of construction wastes in terms of the waste hierarchy. |
| Increase in Traffic  *Ascertain local traffic levels in comparison with road infrastructure and service levels.* | **Avoidance:** Adjust location and configuration of the development access to limit traffic concerns.  **Mitigation:** Provide for management of bulk material delivery times.  Provide for traffic control and accommodation. |
| Public health and safety  *Identify likely user groups on and adjacent to the land parcel.* | **Avoidance:** Provide for communication with these groups on the development and the H&S risks.  Provide for access control to the development site or high risk areas.  Provide for signage and active management of areas or activities of high risk to public safety  Provide for contractor compliance with traffic safety on and off the site.  Provide for traffic control and accommodation.  Ensure that all stakeholders have access to and are aware of the Grievance Mechanism |
| Sourcing and consumption of resources  *Ascertain the material requirements and plan for sustainable acquisition and efficient use of the resources* | **Avoidance:** Plan for preferential use of locally suitable, green-technology based, alternate materials where this is sustainable and makes practical sense.  Provide for the efficient transport of materials to site and use of materials on site |
| Employment and local economic expenditure | **Mitigation:** Comply with KfW Guidelines for Procurement (January 2019, or its successor).  The use of local labour should be maximised where this makes practical sense.  The procurement of supplies and services from local sources should be maximised where quality requirements can be met.  Skills development/the transfer of skills to local labour should be maximised. |
| Labour influx | **Avoidance:** The use of local labour should be maximised where this makes practical sense.  Non-local labour must be informed of local sensitivities and minimum behaviour expectations.  Zero tolerance for alcohol consumption while on duty, and any transgressions, or police-reported serious crimes must carry the severest consequences of infringement (e.g. immediate loss of job). |
| Occupational Health and Safety  *Assess potential occupational Health and Safety risks of proposed activities.* | **Avoidance:** Provide for training of workers on occupational and health risks  Ensure that workers, suppliers and subcontractors are familiar and comply with the OHS requirements and specifications  **Mitigation:** Provision of PPE where required  Undertake risk assessment for key tasks and implement appropriate actions  Use of approved equipment  Reporting of OHS incidents and accidents, |
| Labour conditions | **Avoidance:** Ensure application of minimum legal labour standards as per ILO regulations.  Ensure that all direct and indirect workers have access to and are aware of the Grievance Mechanism |
| Human rights | **Avoidance:** Ensure application of human rights-based approach BMZ Guidelines (2013).  Ensure no forced evictions or involuntary expropriation of land;  No discrimination or prejudice against any vulnerable or disadvantaged individuals or group;  No loss of productive agricultural land.  **Mitigation:** If resettlement or livelihood/income restoration (maximum of a handful of individuals) is required then comply with LARC.  Operation of grievance mechanism for stakeholders to lodge concerns. |
| **Heritage** | |
| Destruction of heritage sites  (Commission a heritage study to identify and classify heritage resources) | **Avoidance:** Decline to develop a portion or all of the land parcel.  Adjust the layout to retain, or enhance the heritage resource.  **Mitigation:** Provide for a ‘chance find’ procedure in the case of the discovery of a heritage resource during development.  **Repair:** Provide for a professional heritage discovery and recovery, if acceptable to the NHC . |
| Destruction of graves  (Commission a graves study to identify grave sites.) | **Avoidance:** Adjust the layout to retain, or enhance the grave site.  Decline to develop a portion or all of the land parcel.  **Mitigation:** Provide for a ‘chance find’ procedure in the case of the discovery of a grave during development.  **Repair:** Relocate graves by way of local customary and regulatory process. |

# Environmental & Social Risk Identification and Assessment

This section details the various E&S tools that should be applied to identify, screen, and appraise E&S risks and impacts through the life cycle of Programme interventions.

## Introduction

The interventions proposed for the Programme have Environmental and Social risks and potential impacts, as described in Section 4, that must formally be anticipated and appraised. There are a variety of E&S Risk Tools that can be applied to provide for the anticipation and appraisal of the risks and impacts. Each of these different E&S risk tools require varying levels of input and information, which come at increasing levels of cost that should be proportionate to the intervention.

The required approach for the Programme is elaborated on in the following sections. Use of the E&S Risk Tools relevant to each stage of an intervention’s life cycle is the responsibility of the Programme Manager Land Development and Basic Infrastructure and/or the Programme Manager Sanitation Centres (refer to Section 7.1).

## E&S Risk Scan for Land Parcel Identification/ACQUISITION

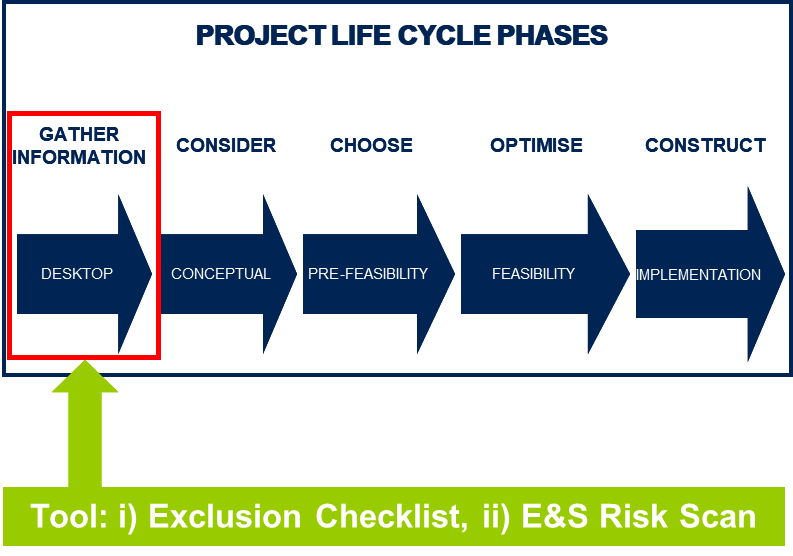
Details a questionnaire for a rapid, high-level scan of E&S risks on prospective land parcels prior to the conclusion of a Memorandum of Understanding with a local authority or agreement with a partner.

### Introduction

The WB ESS promotes the early identification of EHS project hazards and associated risks and the incorporation of EHS considerations into the site selection process and engineering planning. Each intervention and its potential location must be assessed against the Programme’s **Exclusion Checklist** to ensue acceptability for funding.

Component One of the Programme is reliant on the local authority partner proposing and providing land parcels. Certain interventions for Component Two may also require activities on undeveloped land parcels. DWN must be aware that not all land parcels are equivalent and certain land may be flawed or poorly suited to proposed development as a new residential area. Pursuing interventions on a flawed or poorly suited site could exacerbate E&S risks and/or result in substantially increased costs. When undertaking the process of identifying, selecting, and acquiring a land parcel for the Programme, each target property should be subject to an **E&S Risk Scan** (in addition to other checks and balances that DWN already implement).

The approach should focus on a high-level and cost efficient review of key environmental and social risks. The E&S Risk Scan must be undertaken prior to the signing of a Memorandum of Understanding with the local authority. The Exclusion Checklist and E&S Risk Scan should be conducted by the E&S Manager, with support from a locally informed Environmental Practitioner, where necessary. Completion of the Exclusion Checklist and E&S Risk Scan is the responsibility of the Programme Manager.



### Approach

Comparison of each proposed intervention against the Exclusion Checklist (see Appendix A1) must be completed prior to any investment of time or resources into a proposed intervention. If an intervention does not comply with the Exclusion criteria it should not be considered further.

The E&S Risk Scan (see Appendix A2) shall include a rapid review of target land parcels, using readily available, high-level information (i.e. desktop). The aim of the scan is to eliminate any land parcels that are flawed or poorly suited to proposed development as new residential areas and to highlight key E&S factors for consideration through the town planning and engineering inputs. For demonstration sanitation centres, a modified E&S Risk Scan (see Appendix A3) shall be undertaken for proposed locations. The following impact categories should be taken into account:

* the project’s impact on E&S features of the site,
* the project’s impacts on the local E&S context,
* the site’s E&S features with influence on layout and design, and
* site adaptation requirements to changing climate.

Possible sources of information for the E&S Risk Scan include: Google Earth, Surveyor General Topographical Maps, Satellite and Orthophotos, Atlas of Namibia, Namibian Environmental websites (NCE), the Environmental Information Service (EIS), Conservation Plans, and Local Authority planning documents. To undertake the E&S Risk Scan, DWN must know the boundary of the land parcel proposed by the local authority and the approximate scope of the interventions proposed.

### Output

The Exclusion Checklist must be documented for each intervention.

Information gathered during the E&S Risk Scan must be documented in writing with specific emphasis on sensitive features, key risks, and fatal flaws. Where possible the sensitive features should be mapped. The E&S Risk Scan will provide comprehension of the status of the prospective land parcel (and/or the related knowledge gaps), which can be compared to the status of alternate land parcels (where applicable) in order to guide the selection of preferred sites. From this information a considered view on the appropriateness of the land parcel for development as a new residential area must be made. The results of the E&S Risk Scan should be shared with the wider technical team to ensure their awareness of the E&S status and key factors requiring planning and design consideration. When there are substantial concerns relating to E&S aspects, it may be necessary to decline all or part of the land parcel or to substantially alter the scope of the proposed intervention.

The Exclusion Checklist, output of the E&S Risk Scan and decision on whether to proceed with, or pass on, a land parcel/site must be documented and shared with KfW.

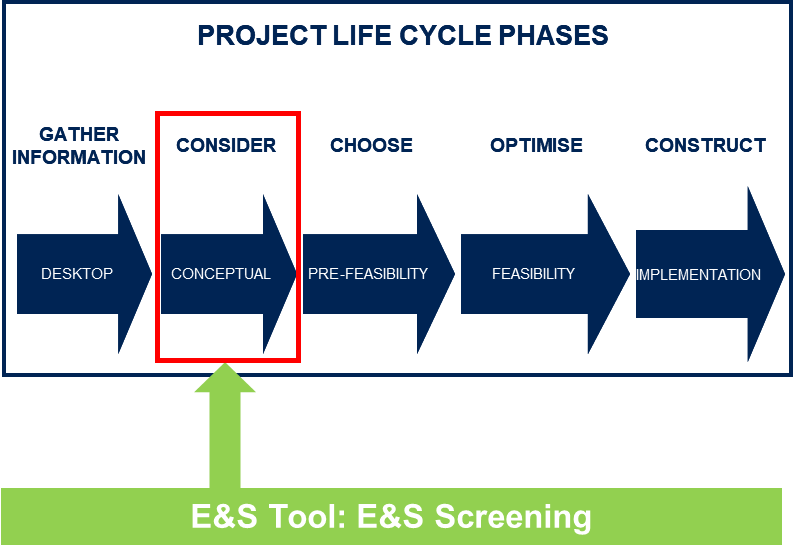
*NB*. It may not be possible to answer all of the questions during the E&S Risk Scan. In such cases, the lack of information does not automaticallyrequire the land parcel to be declined, but such gaps should be documented and carried forward to the more detailed investigation phases (see Sections 5.3 and 5.4).

## E&S Screening

Details an approach to E&S Screening of proposed interventions in order to identify the risks, understand their relevance and determine the level of E&S appraisal required in terms of WB ESS and Namibian legislation.

### Introduction

It is a WB requirement that E&S risks and potential impacts must anticipated such that they can be appraised and managed. Failure to adequately understand E&S risks and impacts could result in locations, layouts and designs of poor suitability, increased opposition to the interventions, fatal flaws and substantially increased costs. Thus, an E&S Screening is advocated for all interventions.



At the outset of the process of conceptualising and planning the Programme’s interventions an **E&S and climate** **screening** must be undertaken. The approach should focus on a high-level, cost efficient review of key environmental and social risks, but may require information derived from the site. The objectives of the E&S Screening are to:

* identify potential environmental, social and climate risks of the interventions,
* determine the relevance of potential risk,
* ascertain if interventions trigger activities listed in Namibian legislation, and
* classify the intervention’s risk category.

E&S Screening must take place during the interventions’ conceptualisation phase, in conjunction with the initial surveys and/or bulk infrastructure assessment and concluded prior to/or in parallel with the preparation of preliminary engineering designs and site layouts. The E&S Screening should be undertaken by the E&S Manager and, where necessary, with support from a locally informed Environmental Practitioner with WB ESS experience. E&S Screening is the responsibility of the Programme Manager Land Development and Basic Infrastructure and/or the Programme Manager Sanitation Centres.

### Approach

The E&S Screening should build on the initial E&S Risk Scan undertaken for the land parcel (see Section 5.2), where applicable. The aim is to highlight key E&S risks and determine the level of appraisal process required in terms of Namibian legislation and the WB ESS1.

To undertake the E&S Screening, DWN must know the boundary of the land parcel proposed by the local authority, the scope of the proposed development, the key E&S features of the site and surrounds (desktop level), and potential influences of climate change on the site (desktop level). The E&S Screening can be considered in phases, with the first using a matrix to identify risks, the second determining relevance, the third considering the legislative triggers and concluding in a project classification.

Possible sources of information for the E&S Screening include: Google Earth, Surveyor General Topographical Maps, Satellite and Orthophotos, Atlas of Namibia, Namibian Environmental websites (NCE), the Environmental Information Service (EIS), Environmental Practitioners / subject matter specialists (i.e. geohydrologist, biodiversity specialist, arachnologist etc), Conservation Plans, Town Planners and Local Authority planning documents. A site visit may be required. The method is detailed in the sections below:

### Activity and Receptor matrix

The initial step of E&S Screening is the compilation of an Activity and Receptor matrix for each intervention. The Activity and Receptor matrix is designed to highlight where a project’s activities will interact withE&S receptors (or features), as a way of focussing the screening and subsequent impact assessment.

To complete the Activity and Receptor matrix (see Appendix A4), enter the possible activities of the proposed interventions in the matrix rows and the environmental and social receptors in the columns. Mark with an ‘X’ each instance where the particular activity will interact with the environmental and social receptors. In identifying the activities consideration must be given to the full project lifecycle (e.g. planning and design, construction and operation).

Completion of the Activity and Receptor matrix should be jointly completed by the Programme and E&S Managers and, where necessary, with support from a locally informed Environmental Practitioner with WB ESS experience. Design details may need to be obtained from the engineer.

### Relevance

The second step in E&S Screening is the determination of the relevance of the environmental, social and climate risks. ‘Relevance’ relates to the potential for adverse environmental and social impact and is a function of the nature, scale and duration of the activity and the sensitivity of the receiving environment. The determination of relevance is a subjective process, requiring consideration of a variety of factors in light of the available information. The primary components to be considered include the “sensitivity of the receptor”, the “change predicted to occur” due to the activity and the “probability of occurrence” of the impact.

Each interaction noted in the Activity and Receptor matrix (see Section 5.3.2.1) should be assigned a colour coding to reflect the relevance. Refer to the legend in the Activity and Receptor matrix.

The determination of relevance should be undertaken by the E&S Manager, where necessary, with support from a locally informed Environmental Practitioner or subject matter specialist with WB ESS experience.

*NB*. It may not be possible to arrive at a satisfactory/conclusive determination of relevance during the screening. In such cases, a conservative approach should be adopted, and the matter highlighted as a potential adverse impact requiring detailed investigation.

### Listed Activity Triggers

The third step in E&S Screening is the confirmation of listed activity triggers under Namibian environmental legislation. All Programme activities must be referenced against the “***list of activities that may not be undertaken without environmental clearance certificate***” as detailed in the Namibian Environmental Impact Assessment Regulations (see Table 3-1 in Section 3.1.4). A determination must be made as to whether the intervention(s) would trigger a listed activity or not.

The determination of listed activity triggers should be undertaken by the E&S Manager. If there is any uncertainty, the activity trigger review should be confirmed in writing by a suitably experienced Environmental Practitioner or the MEFT.

Any intervention that triggers a listed activity will require an Environmental Impact Assessment process (in terms of the EIA Regulations, 2012) to inform an application for Environmental Clearance.

### Classification

The final step in E&S Screening is the classification of the Programme interventions. Based on i) the relevance of adverse environmental and social risks and ii) the listed activity trigger, each intervention must be classified as category A, B+, B or C.

Programme interventions should be classified as per the triggers detailed in TABLE 5‑1. In the case of a multi-intervention project, the most conservative relevance/trigger of any one intervention determines the overall classification of the project.

**TABLE 5‑1: CLASSIFICATION KEY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Category A (High)** | **Category B+ (Substantial)** | **Category B (Moderate or Lower)** | **Category C (Low)** |
| **KfW trigger** | Diverse and significantly adverse impacts and risks on the environment and/or the social conditions of the affected population.  Potential criteria include:  • adversely impact important features such as tropical forests, coral reefs, natural protection areas, wetlands, natural/near-natural forests, important cultural heritage sites;  • significant transboundary impacts or relevance with regard to international treaties (such as conventions on international waste management regulations or on marine conservation, or agreements on the protection of biodiversity);  • lead to a high consumption of resources, in particular soil, land or water;  • are associated with high risks to human health or safety (e.g., industry or traffic facilities located adjacent to residential areas with considerable noise pollution and harmful emissions during construction and/or operation or handling hazardous substances);  • require large scale resettlement or lead to a significant loss of livelihood; and/or  • are anticipated to have an adverse impact upon indigenous peoples. | As for Category B, but where a single environmental or social impact could be significantly adverse.  Criteria for substantial risk include (one of):  • limited physical displacement,  • economic displacement of more than 15 persons. | Potentially adverse risks and impacts upon the environment and on the social conditions of those concerned, but to a lesser extent than Category A. Typically limited to a local area and in most cases reversible and easier to mitigate through appropriate measures. Risks and impacts can usually be mitigated through standard, best available mitigation approaches.  Criteria indicating Moderate risk:  • no physical displacement,  • limited economical displacement (not more than 15 households),  • no project ‘associated facilities’,  •no electric power production and transmission projects (except individual / local power facility),  • no need of UXO clearance activities on the site  • no manipulation of asbestos is required / no asbestos present.  Criteria indicating Lower risk:  • no heavy or vibratory machinery  • no bulk earthworks.  • no demolition.  • no works higher than one storey or deeper than 150 cm.  • no lifting equipment or scaffolding.  • no confined spaces.  • less than 50 workers  • no on-site material manufacturing. | Expected to have no or only minor adverse environmental and social impacts or risks. The implementation and operation of the intervention does not require any particular protection, compensation or monitoring measures. |
| **Namibian trigger for ECC** | One or more listed activities. | One or more listed activities, but possibly none. | Potentially none, but could include a listed activity. | None. |
| **KfW ESDD requirement** | Mandatory to analyse and appraise any adverse environmental and social effects as part of an independent ESIA study including an ESMP.  May require Livelihood Restoration Plan (LRP), Resettlement Action Plan (RAP) or Resettlement Policy Framework (RPF). | An independent ESIA study, including an ESMP.  May require Livelihood Restoration Plan (LRP), Resettlement Action Plan (RAP) or Resettlement Policy Framework (RPF). | Scope, priorities and depth of assessment determined on a case by case evaluation. Normally via an Environmental Statement. If “moderate risk”, then develop an ESMP per KfW Guidance Document. If “lower risk”, then Environmental and Social Code of Practices (ESCOP) per KfW Guidance Document. | Typically, no further analysis or due diligence is required.  However, category C measures should be monitored for any relevant changes over their life cycle. |
| **Namibian requirement** | Scoping and EIA, with ESMP process to inform a decision on an Environmental Clearance Certificate. | Scoping and EIA process OR scoping level EIA, with ESMP, to inform a decision on an Environmental Clearance Certificate.  If no listed activity, then Duty of Care | Duty of care.  If a listed activity, then scoping level EIA, with ESMP, to inform a decision on an Environmental Clearance Certificate. | Duty of care |

With adherence to the Programme’s Exclusion List (see Appendix A1) no Category A projects are anticipated. Interventions involving construction cannot classify as Category C projects. Thus all Programme interventions are likely to classify as B+ or B, depending on the specifics of the type and scale of the activities, the nature and sensitivity of receptors at the selected locality. All of the Component Three interventions are anticipated to classify as Category B-lower risk. An indicative classification of the Programme interventions is provided in Table 5-2. The classification of each intervention must be provided to KfW for no objection.

**TABLE 5‑2: INDICATIVE CLASSIFICATION OF PROGRAMME INTERVENTIONS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicative classification of Programme Interventions** | | | | | |
|  | **Category A (High)** | **Category B+ (Substantial)** | **Category B (Moderate or Lower)** | | **Category C (Low)** |
| **Component 1 Land program** | No, if compliant with exclusion list | Possible | Likely | Unlikely | No |
| **Component 2 Bulk Infrastructure** | No, if compliant with exclusion list | Unlikely | Likely | Possible | No |
| **Component 3**  **Sanitation** | No | No | Unlikely | Likely | No |

### Climate Assessment

The Programme considered in this ESMF is not anticipated to have climate protection relevance as significant Greenhouse Gas (GHG) emissions are not predicted from any of the potential interventions. Proposed interventions would result in GHG emissions during construction, primarily from the operation of motor driven plant and vehicles. However, the potential volumes arising during these activities are not of significance. No further screening or specific assessment of the risks of GHG emissions is required for Programme interventions. However, DWN is advised that every opportunity to reduce GHG emissions during construction activities should be adopted. The primary GHG emissions reduction mechanisms to be incorporated into ESMPs are the preferential use of cleaner energy sources and the minimisation of energy consumption during construction.

Many of the Programme interventions may be subject to the influences of climate change and could benefit from the consideration of adaption relevance. The key considerations include:

* Could a change in rainfall (more or less, higher or lower intensity, altered temporal distribution) affect the suitability of the location for housing and related infrastructure?
* Could a change in temperature (higher daily maximum, higher averages, altered seasonal profile) affect the suitability of the location for housing and related infrastructure?
* Could a change in vegetation affect the suitability of the location for housing and related infrastructure?
* What aspects of the layout and design could be altered to increase resilience to change?

*NB*. It may not be possible to arrive at a conclusive determination of climate change adaptation relevance during the screening. In such cases, a conservative approach should be adopted, and the matter highlighted as a potential concern requiring further investigation. Adopting a conservative approach to climate change adaptation is most relevant for Category A projects.

### Output

The E&S Screening process should provide a reasonably comprehensive understanding of E&S risks and potential impacts of proposed interventions and clearly determine the level of appraisal necessary to address Namibian legislation requirements and WB ESS1.

The results of the E&S Screening should be shared with the wider technical team to ensure their awareness of the E&S risks and impacts. The incorporation of E&S information into the planning, assessment and design of the interventions has the potential to avoid or reduce risks and impacts. At this point in the project life cycle there is significant opportunity to address E&S risks through changes to the locality, layout planning and engineering design. If the screening identifies substantial concerns relating to E&S aspects, then it may be necessary to reconsider use of the land parcel or to substantially alter the scope of the proposed interventions.

After E&S Screening DWN must be in a position to define a scope of work for an ESIA or Site Risk Assessment for each intervention.

The output of the E&S Screening, the listed activity trigger revie, the project classification, and the determination of the required level of appraisal must be documented and provided to KfW for no objection.

*NB*. It may not be possible to develop complete understanding of all the E&S risks and impacts during screening (notably for Category A and B+ projects). Any information gaps should be documented and carried forward to the appraisal phase where the scope should include specific requirements to address the gaps (see Section 5.4).

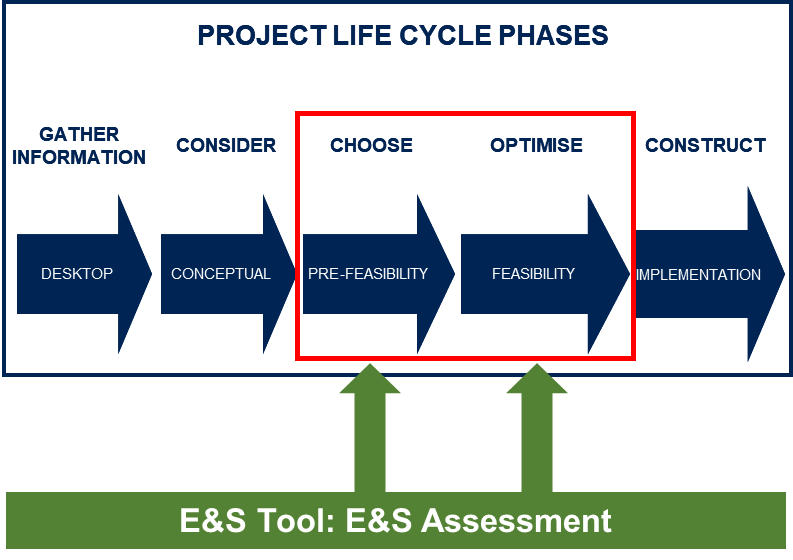
## E&S Risk Appraisal

### Introduction

Where the E&S risks and impacts of Programme interventions have been determined to be of relevance (i.e. Category A or B+), DWN must ensure that these are appraised through an Environmental and Social Impact Assessment (ESIA) undertaken independently in terms of WB ESS1 and Namibian EIA Regulations (where required). Where an intervention is classified as Category B, DWN must ensure appraisal through a Site Risk Assessment[[1]](#footnote-2). Category C interventions do not require appraisal.

The scope of the ESIA or Site Risk Assessment should be proportionate to the risks and impacts of the proposed interventions and sensitivity of the location; inform the design of the project; the consideration of alternatives; be used to identify mitigation measures and actions; and improve decision making.

It is the responsibility of the E&S Manager, with support of the relevant Programme Manager to determine the scope of an E&S Assessment and appoint an appropriately qualified and experienced Environmental Practitioner, where required.



### Approach

E&S Assessment is a flexible instrument, comprising a process designed to identify and assess the potential environmental and social impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures. DWN must ensure that the ESIA or Site Risk Assessment of each intervention:

* has a scope appropriate for and specific to the proposed interventions,
* is compliant with relevant Namibian legislation and WB ESS and EHS standards, as required, and
* is conducted by a suitably qualified and experienced person.

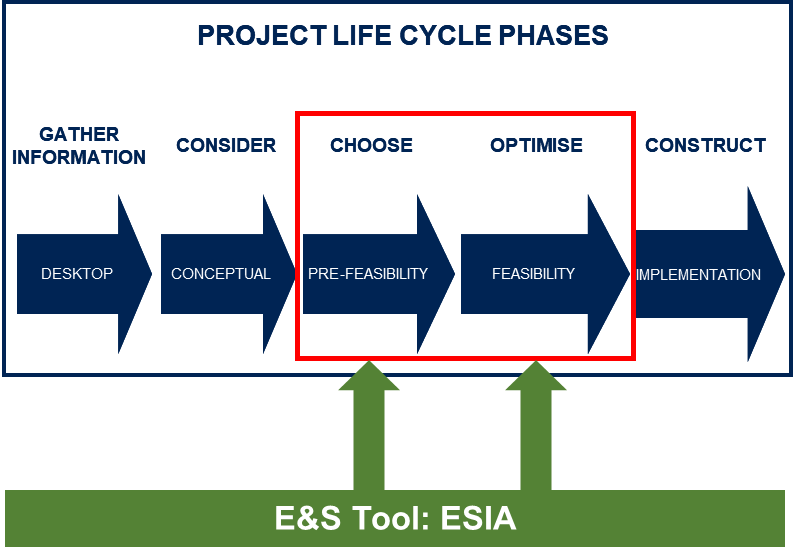
The ESIA or Site Risk Assessment should follow on from the E&S Screening undertaken for the proposed interventions (see Section 5.3). In order to complete the appraisal the following must be known:

* the location and layout of the planned interventions (to detailed planning level),
* scope of the planned interventions (to detailed design level), including the associated facilities and primary suppliers,
* details on key E&S features of the site and surrounds, and
* influences of climate change on the site (desktop level).

DWN must report on the determination of the ESIA or Site Risk Assessment scope to KfW and provide opportunity for KfW input.

The E&S Assessment must take place in parallel with the preparation of detailed engineering designs and site layouts and be completed prior to the commencement of the intervention. The wider technical team should be involved with the E&S Assessment process to provide inputs and make adjustments to designs and layouts, based on resulting knowledge of E&S aspects. The incorporation of E&S information into the planning and design of the interventions should avoid or reduce E&S risks and impacts. Where authorisation(s) is required from local authorities this must be obtained prior to commencement of site preparation or construction activities.

### ESIA for Category A and B+



Category A and B+ interventions must be subjected to a detailed ESIA that complies with the Namibian EIA Regulations (where required) and addresses the WB ESS1 approach. The scope, priorities and depth of the ESIA must be agreed with KfW. DWN must appoint and manage an independent Environmental Practitioner to undertake the ESIA.  In this regard DWN must:

* draft a comprehensive Terms of Reference for the ESIA (refer to Appendix B1) that includes requirements of the applicable ESSs and Namibian EIA Regulations,
* appoint a qualified and suitably experienced Environmental Practitioner,
* provide the necessary project information to the Environmental Practitioner,
* facilitate interaction between the Environmental Practitioner and wider technical team, and
* engage with and manage the Environmental Practitioner up until receipt of the deliverables.

The ESIA must include a Scoping Phase and an impact assessment Phase, each of which must result in a report. Scoping shall describe the project and document the baseline environment, identify the key issues, determine the level of assessment and specialist input required, identify the stakeholders and confirm the consultation process. See Appendix B2 for a Table of Contents template of a Scoping Report.

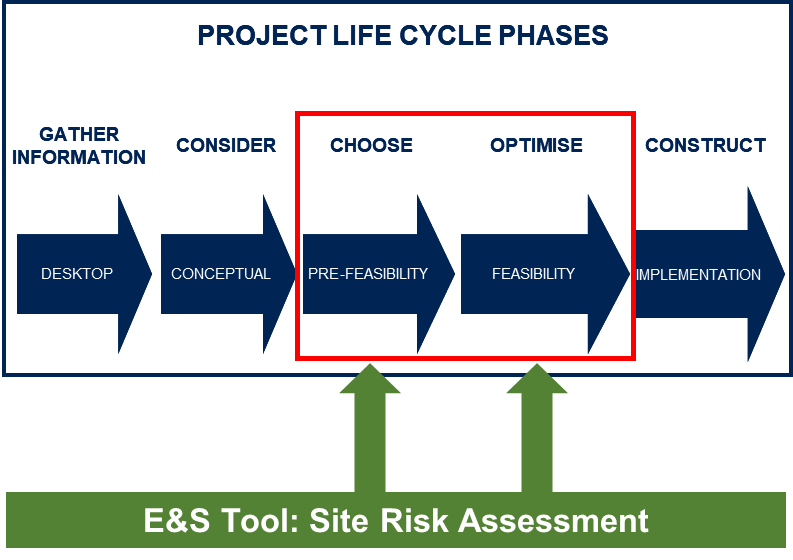
The impact assessment phase must determine the significance of potential impacts, including through consideration of specialist input where necessary. The ESIA must result in an Environmental and Social Management Plan (ESMP) that describes, in an action-orientated manner, the measures that need to be taken to avoid, mitigate, offset any adverse impacts and risks that have been identified by the ESIA (refer to Section 6.3). The ESIA must include provision for stakeholder engagement and information disclosure in terms of the Namibian EIA Regulations and ESS 10 (refer to Section 5.5). See Appendix B3 for a Table of Contents template of an ESIA Report.

DWN must provide KfW opportunity to review and comment on the draft ESIA report prior to completion and submission.

The ESIA process for a Category A and B+ projects is likely to take a minimum of four to six months to complete. The process could take longer where significant specialist input is required, where stakeholders oppose the project, or where the findings of the ESIA necessitate substantial modifications to the location, layout or design of the interventions. Site preparation or construction activities should not commence until the ESIA is accepted by KfW and the Environmental Clearance Certificate is obtained.

**Shortened ESIA Process** – Namibian legislation provides for the MEFT to issue an ECC decision at conclusion of a Scoping process, rather than after a full Scoping and EIA process. Where projects require an ECC, but are of a small scale/simple nature/known hazard and can be effectively mitigated, an ECC could be issued after Scoping. If likely to be an option, the Environmental Practitioner should consult with the MEFT and obtain documented agreement. Such shortened process could result in a decision within three to four months.

### Site Risk Assessment for Category B



Category B projects should be subject to an E&S Site Risk Assessment (unless there is a local listed activity trigger (refer to section 5.3.2.3) in which case an ESIA will be required[[2]](#footnote-3)). The E&S Manager should undertake, or (alternately) appoint an Environmental Practitioner to undertake, an E&S Site Risk Assessment. Reference should be made to the Activity and Receptor matrix prepared during E&S Screening. The appraisal must include a site visit (to locality and surrounds) to assess document safety, environmental, health, labour and community issues. The baseline, identification and appraisal of the risks and potential impacts must be recorded in an Environmental Statement.

The E&S Site Risk Assessment should be undertaken substantially as per the requirements of KfW’s ESMP - Site Assessment Tool (2020, No. 2), with adaptations for the project and location specifics. In the case of Component One and Two interventions the scope, priorities and depth of the E&S Site Risk Assessment must be determined on a case by case basis, and agreed with KfW. See Appendix B4 for a generic Table of Contents. For Component Three interventions the E&S Site Risk Assessment should focus on occupational H&S risks from excavations and working at height, community safety and general housekeeping.

DWN must ensure that key stakeholders are identified, consulted with and provided with access to the Environmental Statement (refer to Section 5.5). Where the E&S Site Risk Assessment concludes that the intervention has a **moderate risk**, an action-orientated ESMP must be developed per the KfW Guideline (refer to Section 6.4.1). Where the E&S Site Risk Assessment concludes that the intervention has a lower risk, the Environmental and Social Code of Practices (ESCOP) from the KfW Guideline should be prescribed (refer to Section 6.4.2).

DWN must provide KfW opportunity to review and comment on the draft Environmental Statement prior to its completion.

The Site Risk Assessment and ESMP/ESCOP should not take longer than four to six weeks to prepare. The process could take longer if specialist input is required, where stakeholders oppose the project, or where the findings necessitate modification to the location, layout or design of the interventions. Site preparation or construction activities should not commence until the Environmental Statement is accepted by KfW.

NB. Should any critical risks be identified during the E&S Site Risk Assessment, DWN must immediately inform the E&S experts from KfW for further support.

### Category C

As the Programme interventions require construction activities, they will not be Category C projects per KfW approach to classification. Category C projects do not require E&S risk assessment or specific management of E&S risks.

## Stakeholder Engagment

Stakeholder engagement, during planning and implementation of the programme, is central to the management of environmental and social risks, as well as community expectations. Stake holder engagement must aim to enable any stakeholder to engage with the programme, via open and transparent dialogue, to access accurate information on each intervention, make meaningful representation and lodge concerns and grievances. The Stakeholder Engagement Framework (see Appendix D) must be applied throughout the Programme to meet the WB ESS 10 and Namibian legal requirements, and in a manner that is proportionate to the scale of the intervention and potential environmental and social risk.

Formal stakeholder engagement is mandatory for this ESMF and for interventions that require environmental clearance and town planning processes. In this regard the principal requirements are for the identification of, and notification to, Interested and Affected Parties (I&AP), the disclosure of relevant information to I&APs to enable meaningful participation, and the facilitation of I&AP comment on all reports produced for the application process.

For interventions not requiring formal regulatory approval processes (i.e. Category B), a voluntary Public Outreach approach is recommended (see Appendix D).

DWN must also establish a Grievance Mechanism for receiving and facilitating the resolution of stakeholder comments, suggestions and objections related to all Programme interventions. Contact details and information on the grievance procedure must be distributed to local/intervention affected communities.

## climate Change Adaptation

Where climate change risks are considered relevant, further assessment should be undertaken to ensure that the desired developmental impacts of the FC measure are not endangered despite the forecasted effects of climate change. The assessment should consider potential direct effects (e.g. more frequent flooding or reduced water availability) and indirect effects of climate change where relevant.

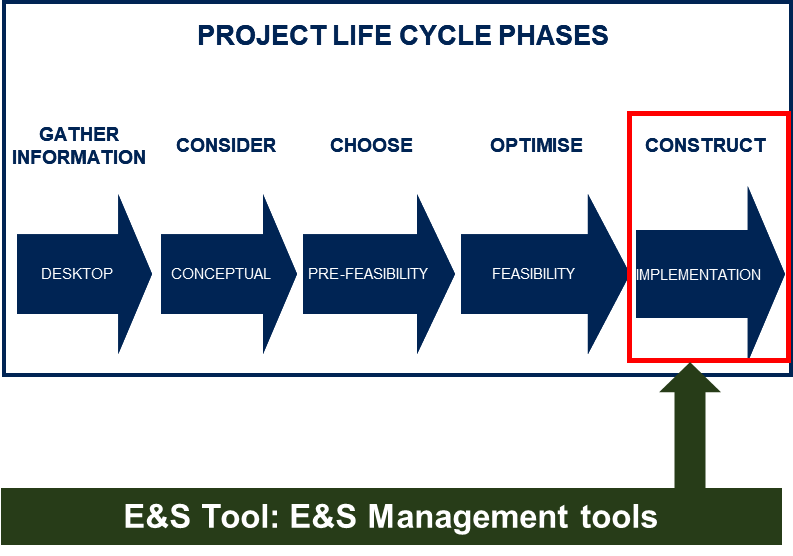
# Environmental & Social Risk Management

This section details the approach to the management tools which should be implemented to avoid, reduce, mitigate, or offset risks from activities conducted for Programme interventions. It also provides guidance on monitoring requirements.

## Introduction

Where appraisal of the proposed interventions indicates that E&S risks and impacts could result, these must be managed through the application of appropriate E&S management tools. The E&S impact management tools must apply the mitigation hierarchy, and incorporate measures and actions so that the project will meet the requirements of Namibian regulatory framework, the Environmental, Health and Safety General guidelines and applicable Industry Sector EHS guidelines. The objective is to ensure that risks and impacts are addressed in a systematic manner, proportionate to the nature and scale of the project and the risks and impacts. The desired outcomes should be defined in measurable terms. The E&S impact management tool should detail the institutional arrangements, assign responsibilities, and resource requirements for implementing such measures and list the costs involved. The E&S performance of the project shall be monitored in accordance with agreed measures.

It is the responsibility of the E&S Manager, with support of the relevant Programme Manager to determine the approach to, and applicable standard of, the E&S management tool and to appoint an appropriately qualified and experienced Environmental Practitioner, where required.



## Approach

The E&S impact management tool should build on information obtained from the Screening and Appraisal undertaken for the proposed intervention (see Sections 5.3 and 5.4). The scope, range of mitigation and level of detail included in the management tool should be proportionate to the risks and impacts of the intervention and sensitivity of the location. DWN must ensure that E&S management tool for each intervention:

* has a scope appropriate for and specific to the proposed interventions,
* is compliant with relevant local legislation and WB ESS standards and requirements, and
* is prepared by a suitably qualified and experienced person.

In order to develop an E&S impact management tool, the following must be known:

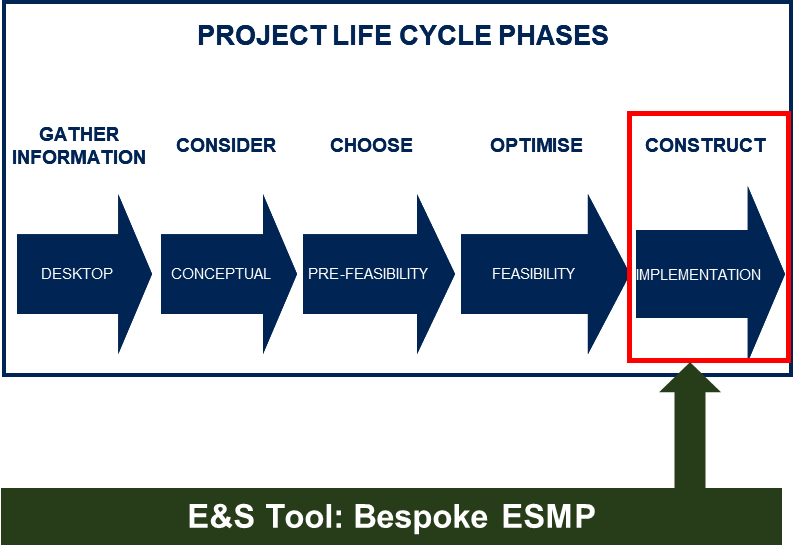
* the location and layout of the planned interventions (to detailed planning level),
* scope of the planned interventions (to detailed design level), including the associated facilities and primary suppliers,
* details on key E&S features of the site and surrounds,
* assessment of the E&S risks and impacts, and
* influences of climate change on the site (desktop level).

The E&S impact management tool must be developed after conclusion of detailed engineering designs and site layouts, but prior to the commencement of site preparation or construction activities. In some instances commitments arising from the &S impact management tool may require the wider technical team to make adjustments to the designs and layouts.

The E&S impact management tool for an intervention must be detailed in tender documentation such that contractors can make provision for the requirements thereof. Compliance with the E&S impact management tool must be included as a contractual condition on appointment of contractors.

## Category A and B+

Category A and B+ interventions require a bespoke Environmental and Social Management Plan (ESMP) to describe all measures that need to be taken to avoid, mitigate, offset, and monitor any adverse impacts and risks that have been identified by the ESIA. The project-specific ESMP must be prepared in compliance with Namibian legislation and address WB ESS1 standards. The ESMP must incorporate the thresholds and performance indicators specified by the relevant general and specific EHS Guidelines. The ESMP should give cognisance to and ensure alignment with the “Specifications for Environmental, Social, Health and Safety Management (ESHS) of the Works” from KfW’s applicable Standard Bidding Document.

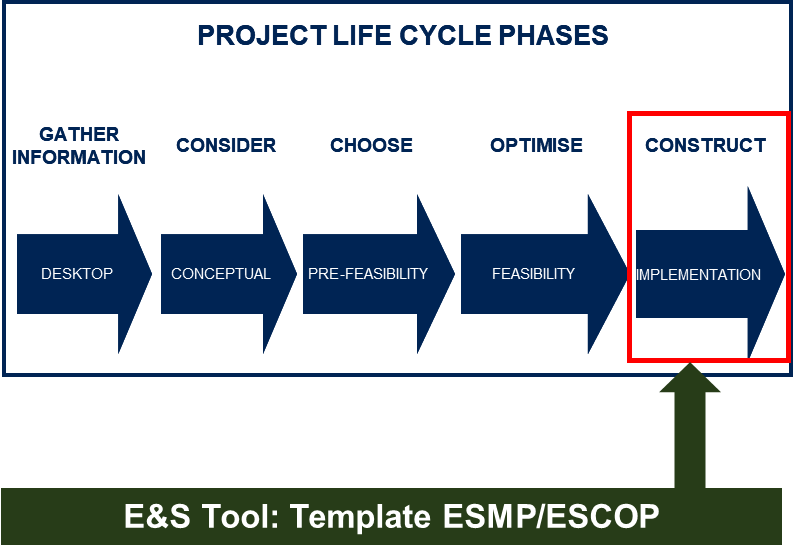


DWN must appoint and manage an independent Environmental Practitioner to develop an ESMP during the ESIA process. It is the responsibility of the E&S Manager, with support from the relevant Programme Manager, to ensure development of an accurate and appropriate ESMP. DWN shall:

* draft a comprehensive Terms of Reference for the ESMP (refer to Appendix C1),
* appoint a qualified and suitably experienced Environmental Practitioner to develop an ESMP,
* provide the necessary project information to the Environmental Practitioner,
* facilitate interaction between the Environmental Practitioner and wider technical team, and
* engage with and manage the Environmental Practitioner up until receipt of the ESMP deliverable.

Refer to Appendix C2 for a Table of Contents and template for an ESMP template. Such a bespoke ESMP is unlikely to be required for the Programme, expect for the largest conceivable Component 1 interventions, and where interventions trigger local listed activities (refer to Section 5.3.2.3).

## Category B



### Moderate Risk

For Category B interventions appraised to have a moderate risk, the E&S Site Risk Assessment should result in an ESMP to describe all measures that need to be taken to avoid, mitigate, offset, and monitor any adverse impacts and risks that have been identified (refer to Section 5.4.4).

The ESMP should be based on the template detailed in the KfW ESMP Guideline (2020, no. 3.1 and 3.2) (unless there is a local listed activity trigger (refer to section 5.3.2.3) in which case a project-specific ESMP will be required[[3]](#footnote-4)). The ESMP should be commensurate with the scope and risks of the intervention and based on detail derived from the Site Risk Assessment.

The ESMP must incorporate the thresholds and performance indicators detailed in the relevant general and specific EHS Guidelines, where applicable, and ensure alignment with the “Specifications for Environmental, Social, Health and Safety Management (ESHS) of the Works” from KfW’s applicable Standard Bidding Document. Where specifications in the Standard Bidding Document are considered not applicable or not relevant, this should be agreed in writing by DWN and the contractor.

The ESMP should include provision for ESHS Management, Protection of Environment, Workers Health & Safety, Labour and Relations with Local Communities. The ESMP is required to include a written report, an actions table and the relevant annexes. Key annexures include a Code of Conduct, Grievance Mechanism, H&S Plan and Incident Reporting.

The E&S Manager at DWN should prepare the ESMP. DWN must provide KfW opportunity to review and comment on the draft ESMP prior to its completion. Intervention

Refer to Appendix C3 for a generic ESMP template, as likely to be required for many of the Component 1 and 2 interventions.

### Lower Risk

For Category B projects appraised to have a lower risk, an Environmental and Social Code of Practices (ESCOP) should be prepared to address impacts and risks that have been identified (refer to Section 5.4.4).

The ESCOP should be based on the KfW ESCOP Template (2020, No 4), with adaptations for the project and site specifics. These details shall be drawn from the Site Risk Assessment.

The ESCOP should be aligned with the requirements of the “Specifications for Environmental, Social, Health and Safety Management (ESHS) of the Works” as detailed in KfW’s Standard Bidding Document. Where measures in the ESCOP or Standard Bidding Document are considered not applicable or not relevant, this should be agreed in writing by DWN and the contractor.

The E&S Manager at DWN should prepare the ESCOP. DWN must provide KfW opportunity to review and comment on the draft ESCOP prior to its completion.

Refer to Appendix C4 for a Generic ESCOP for Component Three interventions.

## Category C

It is not necessary to implement a specific E&S impact management tool for Category C projects. As the Programme interventions require construction, they will not be Category C projects per KfW approach to classification.

## Monitoring

### Primary monitoring by Contractors

The contractor is responsible for the day-to-day monitoring to assess the implementation and effectiveness of the impact management requirements/actions as set out in the E&S Management tool applicable to the intervention. Such monitoring may include:

* field measurement of environmental parameters (if any);
* compliance auditing against the E&S Management tool;
* stakeholder engagement activities; and
* grievances (workforce and stakeholder).

For Category A, B+ and B interventions the monitoring requirements, format and frequency will be specified in the ESMP/ESCOP. The contractor must develop an ESMP Monitoring Table against which auditing can be undertaken and recorded as required. The checklist must include consideration of:

* Safety hazards
* Health hazards
* Environmental impacts
* Labour and Human rights
* Stakeholders
* ESHS Management

Where monitoring of environmental parameters is required this must be done in terms of a formal procedure that details key requirements (sampling method/location/frequency, use of calibrated equipment, chain of custody, analytical requirements, etc). Compliance monitoring should be documented against an audit checklist developed from the E&S Management tool and may include physical site inspections, interviews and review of records. Where non-compliances are identified, appropriate corrective actions must be recorded in the ESMP Monitoring Table and progress against these should be assessed in the subsequent audit.

Reporting on monitoring must be per Section 7.5.1. A template for an E&S Monitoring Table is given in Appendix D.

### Secondary Monitoring by DWN

DWN is responsible for secondary monitoring of contractor performance against the E&S requirements specified in the contract. The depth and frequency of secondary monitoring shall be commensurate with the E&S risk of the intervention and length of the construction contract. DWN audits shall assess overall compliance with the performance indicators detailed in the E&S Management tool. Auditing of ESHS performance shall follow KfW’s ESHS Site inspection, with specific consideration of the interventions ESMP/ESCOP.

For lowest risk interventions DWN must visit the location and audit the intervention on hand over to the contractor and again on completion, as a minimum. For other inventions the audits shall be monthly, including on handover and at completion. The monitoring is the responsibility of the E&S Risk Manager.

Reporting on monitoring must be per Section 7.5.1. A template for an E&S Monitoring Table is given in Appendix D.

# ESMF implementation

This section details integration of the ESMF with DWN operations, the role players, resource requirements, and milestones for implementing the ESMF.

## Integration of E&S approach with DWN Implementation

The ESMF, as approved by KfW, must be implemented across the Programme and in a manner that is commensurate with the E&S risk profile of the specific interventions. Where the ESMF introduces requirements for the identification, assessment, management and monitoring of E&S risks and impacts of the Programme, these should be integrated through DWN structures and operations in as much as this is possible. The following tables provide an overview of where ESMF tools are required with respect to the DWN implementation steps.

Table 7‑1: Implementation of Component 1 (land Program)

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **ESMF tool** | **Requirement** | **Schedule and responsibility** |
| 1. **Project preparation**    1. MoU with local authority | | | |
| unknown | **Exclusion check**  **E&S Risk Scan**  see ESMF Section 5.2  **Stakeholder Engagement** | Complete Exclusion Checklist see Appendix A1.  Complete E&S Risk Scan questionnaire (see Appendix A2) | **E&S Risk Scan** to be undertaken prior to the signing of a MoU.  Conducted by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| * 1. Aerial / topographical survey   2. Bulk infrastructure assessment   3. Erf cost calculations for project design   4. Setting up of the project revolving fund bank account | | | |
| unknown | **E&S Screening** (relevance, legislative triggers and project classification)  see ESMF Section 5.3  **Stakeholder Engagement** | Complete E&S Screening matrix (see Appendix A4), listed activity trigger (see Section 5.3.2.3 and classification 5.3.2.4) | **E&S Screening** to place in conjunction with the surveys and/or bulk infrastructure assessment.  Conducted by E&S Manager, with support from a locally informed Environmental Practitioner with WB ESS experience  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| 1. **Planning and pegging**    1. Preparation of draft layout | | | |
| **All** | Integrate findings of E**&S Screening** into layout  **Stakeholder Engagement** |  | Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| * 1. Environmental Impact Assessments   2. Preliminary engineering designs | | | |
| **Category A and B+ interventions** | **E&S Risk Appraisal – ESIA**  see ESMF Section 5.4.3  **Stakeholder Engagement**  **Grievance Mechanism** | Application for ECC  Complete ESIA (see Appendix B) | Appoint and manage an independent Environmental Practitioner to undertake the **ESIA**.  Environmental Practitioner managed by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B intervention** | **E&S Risk Appraisal - Site Risk Assessment**  see ESMF Section 5.4.4  **Stakeholder Engagement**  **Grievance Mechanism** | Complete Environmental Statement (refer to KfW’s Site Assessment Tool) | **Site Risk Assessment** conducted by E&S Manager OR independent Environmental Practitioner.  Environmental Practitioner managed by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| * 1. Pegging and production of the General Plan   2. Date stamping of the layout and submission to Townships Board | | | |
| All | Integrate findings of E**&S Risk Appraisal** into layout planning  **Stakeholder Engagement**  **Grievance Mechanism** |  | Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| 1. **Beneficiary registration and financial management**    1. Beneficiary registration    2. Payment regulations and control | | | |
| All | **Stakeholder Engagement**  **Grievance Mechanism** | none | none |
| 1. **Servicing & plot occupation**    1. Contractor selection, construction of services and supervision | | | |
| **Category A and B+ interventions** | **E&S Risk Management – ESMP**  see ESMF Section 6.3  **Stakeholder Engagement**  **Grievance Mechanism** | Environmental Clearance Certificate  Complete ESMP and obtain KfW “no objection” (see Appendix C)  Contractor commitment to implement ESMP | Contractor to implement ESMP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions of Moderate risk** | **E&S Risk Management – ESMP**  see ESMF Section 6.4.1  **Stakeholder Engagement**  **Grievance Mechanism** | Complete ESMP and obtain KfW “no objection” (see Appendix C)  Contractor commitment to implement ESMP | Contractor to implement ESMP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions of Lower risk** | **E&S Risk Management – ESCOP**  see ESMF Section 6.4.2  **Stakeholder Engagement**  **Grievance Mechanism** | Complete ESCOP and obtain KfW “no objection”  Contractor commitment to implement ESCOP | Contractor to implement ESCOP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| * 1. Beneficiary plot occupation | | | |
| **All** | **Stakeholder Engagement**  **Grievance Mechanism** | none | none |
| 1. **Conveyancing**    1. Townships board approval    2. Opening of townships registry, transfer of title | | | |
| All | **Stakeholder Engagement**  **Grievance Mechanism** | none | none |
| 1. **Project monitoring and ongoing developments**    1. Building control    2. Incremental service upgrading | | | |
| **Category A and B+ interventions** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions of Moderate risk** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions**  **of Lower risk** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |

Table 7‑2: Implementation of Component 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **ESMF tool** | **Requirement** | **Schedule and responsibility** |
| **Project Preparation Phase**   1. Identification of target towns 2. Provision of project information to local authority 3. Selection of consultant for Infrastructure assessment 4. Undertake Infrastructure assessment | | | |
| unknown | **Exclusion check**  **E&S Risk Scan**  see ESMF Section 5.2  **Stakeholder Engagement** | Complete Exclusion checklist see Appendix A1.  Complete E&S Risk Scan questionnaire (see Appendix A2) | **E&S Risk Scan** to be undertaken prior to the signing of a MoU.  Conducted by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| unknown | **E&S Screening** (relevance, legislative triggers and project classification)  see ESMF Section 5.3  **Stakeholder Engagement** | Complete E&S Screening matrix (see Appendix A4), listed activity trigger (see Section 5.3.2.3 and classification 5.3.2.4) | **E&S Screening** to place in conjunction with the infrastructure assessment.  Conducted by E&S Manager, with support from a locally informed Environmental Practitioner with WB ESS experience  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| 1. Present the Infrastructure assessment to all parties to determine critical components, noting E&S risks | | | |
| **Project Preparation Phase**   1. Preparation of terms of reference for design, tender process and construction supervision 2. Evaluation of proposals and appointment of engineering consultant 3. Contract negotiation with engineering consultant 4. Engineering consultant to design infrastructure proposed for financing | | | |
| **Category A and B+ interventions** | **E&S Risk Appraisal – ESIA**  see ESMF Section 5.4.3  **Stakeholder Engagement**  **Grievance Mechanism** | Application for ECC  Complete ESIA (see Appendix B) | Appoint and manage an independent Environmental Practitioner to undertake the **ESIA**.  Environmental Practitioner managed by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B intervention** | **E&S Risk Appraisal - Site Risk Assessment**  see ESMF Section 5.4.4  **Stakeholder Engagement**  **Grievance Mechanism** | Complete Environmental Statement (refer to KfW’s Site Assessment Tool) | **Site Risk Assessment** conducted by E&S Manager OR independent Environmental Practitioner.  Environmental Practitioner managed by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| 1. Preparation of terms of tender documents for construction contract 2. Award of construction contract 3. Site handover to contractor, construction and construction supervision. | | | |
| **Category A and B+ interventions** | **E&S Risk Management – ESMP**  see ESMF Section 6.3  **Stakeholder Engagement**  **Grievance Mechanism** | Environmental Clearance Certificate  Complete ESMP and obtain KfW “no objection” (see Appendix C)  Contractor commitment to implement ESMP | Contractor to implement ESMP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions**  **of Moderate risk** | **E&S Risk Management – ESMP**  see ESMF Section 6.4.1  **Stakeholder Engagement**  **Grievance Mechanism** | Complete ESMP and obtain KfW “no objection” (see Appendix C)  Contractor commitment to implement ESMP | Contractor to implement ESMP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions**  **of Lower risk** | **E&S Risk Management – ESCOP**  see ESMF Section 6.4.2  **Stakeholder Engagement**  **Grievance Mechanism** | Complete ESCOP and obtain KfW “no objection”  Contractor commitment to implement ESCOP | Contractor to implement ESCOP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
|  |  |  |  |
| **Project monitoring** | | | |
| **Category A and B+ interventions** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions**  **of Moderate risk** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B interventions**  **of Lower risk** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |

Table 7‑3: Implementation of Component 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **ESMF tool** | **Requirement** | **Schedule and responsibility** |
| **Preparations Phase**   1. Meeting with the local authority team in target towns 2. Prepare the logistical arrangements for local DWN staff 3. Select the CLTS task force group together with Local Authority 4. Training of CLTS task force groups and community leaders 5. Site selection for the demonstration sanitation centres | | | |
| unknown | **Exclusion check**  **E&S Risk Scan**  see ESMF Section 5.2 | Complete Exclusion checklist see Appendix A1.  Complete E&S Risk Scan questionnaire (see Appendix A3) | **E&S Risk Scan** to be undertaken prior to the confirmation of sites.  Conducted by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| unknown | **E&S Screening** (relevance, legislative triggers and project classification)  see ESMF Section 5.3 | Complete E&S Screening matrix (see Appendix A4), listed activity trigger (see Section 5.3.2.3 and classification 5.3.2.4) | **E&S Screening** to place in conjunction with the infrastructure assessment.  Conducted by E&S Manager, with support from a locally informed Environmental Practitioner with WB ESS experience  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Category B intervention** | **E&S Risk Appraisal - Site Risk Assessment**  see ESMF Section 5.4.4  **Stakeholder Engagement**  **Grievance Mechanism** | Complete Environmental Statement (refer to KfW’s Site Assessment Tool) | **Site Risk Assessment** conducted by E&S Manager OR independent Environmental Practitioner.  Environmental Practitioner managed by E&S Manager.  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Demonstration sanitation centre construction Phase**   1. Selection of community-based contractor 2. Construction and on-the-job training of brick layers | | | |
| **Category B interventions of Lower risk** | **E&S Risk Management – ESCOP**  see ESMF Section 6.4.2  **Stakeholder Engagement**  **Grievance Mechanism** | Complete ESCOP and obtain KfW “no objection”  Contractor commitment to implement ESCOP | Contractor to implement ESCOP  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |
| **Monitoring Phase** | | | |
| **Category B interventions of Lower risk** | **E&S Monitoring**  see ESMF Section 6.7  **Stakeholder Engagement**  **Grievance Mechanism** |  | Contractor to implement Monitoring  E&S Manager to oversee and audit  Responsibility of the Programme Manager Land Development and Basic Infrastructure. |

## Role players and responsibilities

### DWN

Application and implementation of the ESMF across all Programme interventions is the responsibility of DWN. Key employees at DWN include the Executive Director, Programme Manager Land Development and Basic Infrastructure and Programme Manager Sanitation. The Executive Director is ultimately responsible to KfW for compliance with the ESMF across all of the Programme interventions. Each of the Programme Managers shall be responsible for implementation of the ESMF requirements across the components planned and undertaken by the teams under their management. The Programme Managers must be fully versed on the ESMF requirements and ensure that the co-ordinators, consultants, and contractors supporting their programmes are adequately informed of the ESMF requirements for each intervention (Refer to Section 7.3.1 regarding the E&S Manager position).

Other role players such as the local authority, E&S experts from KfW, independent Environmental Practitioners, subject matter specialists, the MEFT, and stakeholders may make contributions to the understanding of E&S risk. Ultimate responsibility for the management of the E&S risk component resides with DWN. This includes the following responsibilities:

* Application of the relevant E&S Risk Tools detailed in the ESMF to each Programme intervention.
* Ensure that the design and planning is in compliance with national requirements and aligned with international best practise (i.e. EHS Guidelines).
* Reporting to and receipt of “no-objection” from KfW, where required.
* Ensuring that bidding documents issued to tenderers contain the relevant specifications for Environmental, Social, Health and Safety management.
* Ensure contractual obligation of appointed contractors to implement the Environmental, Social, Health and Safety Management specifications (i.e. ESMP, ESCOP, specifications).
* Training of construction workers to raise awareness in the fields of E&S topics and in general implementation of the applicable E&S management tool.
* Ensuring compliance with all relevant national legislation, as well as with the environmental controls and mitigation measures contained in the applicable E&S management tool.
* Monitoring the performance of contractors and sub-contractors used for providing workforce, supplies and services.
* Communicate and report on environmental issues and incidents to KfW.
* Acting as point of contact for consultation and feedback to stakeholders and the public (stakeholder engagement).

DWN must ensure that the output arising from the E&S risk and impact identification, assessment and management process for each intervention is documented and shared with KfW. Where relevant, confirmation of “no-objection” must be obtained from KfW before advancing the intervention.

### Consulting team

The DWN team for components One and Two includes private sector consulting partners that provide Town Planning, Engineering, Land Surveying and Conveyancing services. Each of the consulting partners contribute essential skills and inputs to the Programme. While each member of the consulting team may be focussed on their particular service, they must be informed of the ESMF and commit to ensuring adoption of the advocated E&S risk approach and tools, through each intervention’s life cycle.

### Contractor(s)

Contractors will undertake the activities to implement the interventions. Doing so has the potential to result in E&S risks and impacts. Each Contractor is required to fulfil the commitments as set out in the E&S impact management tool prescribed for the intervention, and also to ensure that their sub-contractors (if any) fulfil these commitments. This includes the following:

* Commit to undertaking and managing the works in compliance with the Environmental, Social, Health and Safety management specifications.
* Ensure that sub-contractors are informed of the relevant specifications for Environmental, Social, Health and Safety management and contractually obligated to implement these.
* Provide appropriate staff and resources to implement the ESHS commitments.
* Support the PEA with the training of construction workers to raise awareness in the fields of E&S topics and in general implementation of the E&S management tool.
* Conduct monitoring and on-site audits to verify implementation of the E&S management tool and report on findings to the PEA (per Section 6.7.1).
* Communicate any environmental issues and incidents to the PEA immediately.

### Local authority/Mandated Entity

New residential areas and bulk infrastructure established to service the new residential areas will become the responsibility of the local authority/ mandated service provider on completion of development. The DWN Programme will not have direct control over these parties or their management of the assets. During handover of new residential area and/or new/upgraded bulk infrastructure, the local authority/ mandated service provider must commit to:

* Implement operations and maintenance training for relevant staff,
* provide budget and resources for operations and maintenance.

## Capacity and Resourcing Requirements

### Resource Requirements

Implementation of the ESMF requires personnel with E&S risk comprehension, management and reporting skills that Programme Managers may not be familiar with or have capacity for. It is recommend that DWN employ a suitably qualified and experienced Environmental and Social Manager, to support the Programme Managers. The E&S Manager’s role will be to facilitate implementation of the ESMF across all the DWN Programme, by ensuring adequate understanding, providing support and training to relevant employees and contractors, monitoring and auditing and reporting to KfW. The E&S Manager should also be tasked to manage the Stakeholder Engagement Framework, including the disclosure of information and management of the Grievance Mechanism. Given the widely distributed locality of intervention sites it is further recommend that the E&S Manager be supplied a vehicle.

Where an intervention’s classification and Namibian EIA regulation requires, DWN will appoint a qualified and suitably experienced, independent Environmental Practitioner to manage the ESIA and application for an environmental clearance certificate. Each of the Town Planning processes should be addressed by a qualified and suitably experienced professional.

### Capacity Building

To enable DWN to implement the ESMF consistently across all of the Programme interventions at all locations the following capacity improvements are recommended:

* Employment of an E&S Manager to support the Programme Managers and Project Coordinators.
* Detailed training of the Executive Director and Programme Managers on the ESMF requirements.
* Updates to the Programme Manuals and Internal Guidelines to reference the ESMF.
* EMSF introduction for current staff and core consultant team.

### Induction Training

DWN shall provide induction training to all its employees and Contractor’s personnel. The induction training shall address E&S risks and their management as well as Occupational Health & Safety (OHS) related issues.

The E&S component shall ensure that workers are aware of the site operations, the key environmental risks and consequences of non-compliance to the EMSP/ESCOP. Specific environmental awareness training should be provided to personnel whose work activities could have a significant impact on the environment. The OHS component shall ensure that workers can understand work hazards and protect themselves and others. The training shall address the main risks on workers’ health and safety related to work place, the safe work practices, the emergency procedures and the requirement of incident reporting.

The training shall be tailored to the risks and be provided to workers before they commence on any intervention, and whenever new risks are identified. Induction training shall be documented (signed attendance lists bearing as a minimum date and training topic) and be available for inspection by authorities and KfW, if requested.

## Public Information and Disclosure

Stakeholder engagement refers to the ongoing process of sharing information and knowledge; seeking to understand and respond to the concerns of others; and building relationships based on collaboration. Refer to the Stakeholder Engagement Framework in Appendix D for further details. The disclosure of information is a key element of stakeholder engagement and essential for the successful delivery of the Programme. In this regard DWN must ensure disclosure of:

* the Programme, including details on each intervention;
* the ESMF;
* E&S information and documentation arising from the E&S Risk Identification and Assessment for each intervention; and
* the Stakeholder Grievance Mechanism.

All of the above should be available on the DWN website. In addition, the disclosure of information for the ESIA and town planning processes must meet the regulated requirements.

## Reporting

### Contractors to DWN

ESHS performance and progress must be documented by the Contractor for the duration of the contract and reported to DWN on a monthly basis. The ESHS reporting must provide details on compliance with:

* the requirements from the intervention’s permit(s);
* the E&S Risk Management Tool;
* local and international OHS standards; and
* ILO core conventions.

The detail of ESHS reporting shall be commensurate with the E&S risk of the intervention, but include detail on:

* Project Progress and Status
* Human Resources management
* Training and Induction
* Inspections, Accidents and Incidents
* Results of monitoring conducted as per Section 6.7
* Stakeholder Engagement activities
* Grievance Record and Resolution.

In the ESHS reporting the contractor must detail any difficulties/challenges encountered with compliance requirements and note corrective actions taken and the resulting effect on compliance. Where formal changes are required to approved documents, procedures or requirements these should be reported on with a relevant motivation. For reporting on accidents and incidents refer to Section 7.5.3.

### DWN to KfW

Both ESMF implementation and ESHS performance and progress must be documented by DWN and reported to KFW on a quarterly basis. With regards the ESMF implementation, the quarterly report must include a summation of the ESMF activities undertaken in the reporting period. However, each of the ESMF implementation items listed below must be reported to KfW on a ‘as and when required’ basis to ensure timeous progression of the interventions. Reporting on each intervention must include:

* Exclusion Checklist completed for each intervention.
* E&S Risk Scan and the resulting decision on a land parcel/site.
* E&S Screening, the listed activity triggers, project classification, and determination of the required level of appraisal for each intervention.
* Determination (scope, priorities and depth) of the ESIA or Environmental Statement scope for each intervention, with opportunity for KfW to make input on this determination.
* Notice of opportunity to review and comment on draft Environmental Statement, ESIA and ESMP/ESCOP documents prior to their completion and submission.
* Final Environmental Statement, ESIA and ESMP/ESCOP reports must be provided to KfW.

ESHS performance and progress reporting should include a summation of performance across all interventions active in the reporting period. The ESHS reporting shall include detail on:

* Programme Progress and Status
* Human Resources management
* Training and Induction
* Inspections, Accidents and Incidents
* Results of monitoring conducted as per Section 6.7
* Stakeholder Engagement activities
* Grievance Record and Resolution.

The ESHS reporting detail for specific interventions shall be commensurate with the E&S risk of the intervention, but must provide details for each intervention on compliance with:

* the requirements from permit(s);
* the E&S Risk Management Tool(s);
* local and international OHS standards; and
* ILO core conventions.

Where DWN, or contractors, have encountered difficulties/challenges with ESMF implementation or compliance requirements, these must be reported on. If corrective actions were taken these, and the resulting effect on compliance, must be documented. Where formal changes are required to approved documents, procedures or requirements these should be reported on with a relevant motivation.

For reporting on accidents and incidents refer to Section 7.5.3.

### Accident and Incident Recording and Reporting

All accidents, incidents or near miss/dangerous occurrences relating to Environment, Social, Health and Safety (ESHS) aspects of an intervention must be reported and investigated in a structured and transparent manner. This enables lessons to be learned and actions to be taken to prevent reoccurrence and reduce the number and severity of future incidents.

A ‘reportable incident’ includes any accident to any person on site requiring medical attention or resulting in the loss of working hours or that resulted, or could have resulted in injury, damage or a danger to the works, persons, property or the environment.

In the event of a reportable ESHS accident or incident, the Contractor must report this to DWN immediately (within 24 hrs). In the event of a near miss, the Contractor must report this to DWN as soon as possible. DWN shall instruct the contractor to report (or do so directly) on the accident, incident or near-miss to national or local authorities, as required by relevant legislation. Such reporting is the responsibility of the E&S Manager.

The format and content for reporting on ESHS accidents or incidents shall be detailed in the ESMP/ESCOP, but shall as a minimum contain the information presented in the KfW ESMP Guideline (2020).

## Review and updates/Change management

The ESMF, as approved by KfW, must be implemented across the Programme for its duration. However, the ESMF should be considered as a dynamic document and it must be regularly reviewed and updated to ensure its relevance and effectiveness for the Programme. Suggestions for revisions or updates to the ESMF should be directed to, and approved by, KfW.

|  |  |  |
| --- | --- | --- |
| Matthew Hemming  (Report Author) |  | Stuart Heather-Clark  (Project Reviewer) |

# Reference MAterial

KfW Development Bank, Guidance for Environmental and Social Management Plan (ESMP) and Environmental and Social Code of Practices (ESCOP) Package for Category B Projects with Moderate or Lower Risks, 2020.

KfW Development Bank. Standard Bidding Document for Procurement of Small Works in Projects with Financing from KfW, January 2019.

KfW Development Bank. Sustainability Guideline: Assessment and management of Environmental, Social, and Climate Performance: Principles and Procedures, February 2021.

World Bank. World Bank Environmental and Social Framework, 2016.

World Bank. Borrower Requirements - Environmental and Social Standards 1-10, 2016.

World Bank. Environmental, Health, and Safety (EHS) Guidelines, 2017.

# Appendices

Appendix A: Checklists/Questionnaires

**A1: DWN Exclusion Checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Intervention details** | | | | |
| Intervention name |  | Date of check |  | |
| Method (desktop/site) |  | Completed by |  | |
| Location/Property description |  | | | |
| Notes |  | | | |
| Criteria | | | | Yes/No |
| Development that is not fundamentally ‘urban infrastructure’. | | | |  |
| Development not 100% pro-poor and -low income residents of target towns approved by the Programme. | | | |  |
| Development outside of, or contrary to the rules of, an approved town planning scheme. | | | |  |
| Development motivated by, or favouring, one political or corporate entity over any other. | | | |  |
| Development on land owned or claimed by Indigenous Peoples, except with their free, prior informed consent. | | | |  |
| Development requiring forced evictions or involuntary expropriation of land. | | | |  |
| Development requiring resettlement of more than a handful of individuals. | | | |  |
| Development requiring livelihood/income restoration of more than a handful of individuals. | | | |  |
| Development that discriminates against or prejudices any vulnerable or disadvantaged individuals or group. | | | |  |
| Development that would damage cultural properties, such as archaeological and historical sites, religious monuments or cemeteries. | | | |  |
| Development resulting in the loss of critical habitat or nationally or internationally protected areas. | | | |  |
| Development resulting in the loss of productive agricultural land. | | | |  |
| Development resulting in the material loss of wetland systems. | | | |  |
| Development requiring more than incidental infrastructure within the 1:100 floodline of a watercourse. | | | |  |
| Development located over the source aquifer of a water supply scheme. | | | |  |

**A2: E&S risk Scan Questionnaire for Land Parcel Identification - Component 1 and 2 (if land take is required)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Intervention details** | | | | |
| Intervention name |  | | Date of E&S Scan |  |
| Method (desktop/site) |  | | Completed by |  |
| Location/Property description |  | | | |
| Notes |  | | | |
| **Query to be asked?** | | **Relevance** | | |
| 1. Does ownership of the land parcel lie with the local authority? | | If no, the land parcel cannot be considered for the Programme. | | |
| 1. Is the land parcel occupied? If so, are the occupants informed and willing participants? | | If occupied by more than 10 persons, the land parcel cannot be considered for the Programme. | | |
| 1. Is the land parcel utilised by external parties for commercial, cultural or recreational use? If so, are the external users informed and willing participants? | | If livelihood restoration could be required, the land parcel would not be favourable for the Programme. | | |
| 1. Does the title deed(s) for the land parcel provide for any servitudes, restrictions or other endorsements? | | Potential conflict with the proposed use. | | |
| 1. What is the zoning of the land parcel? | | Conversion from ‘open space’ requires ECC. | | |
| 1. Is the topography suitable for housing and supporting infrastructure? | | Suitability and cost implications. | | |
| 1. Is the geology suitable for housing and supporting infrastructure? | | Suitability and cost implications. | | |
| 1. Is the land parcel’s vegetation indigenous, sensitive, protected or of conservation concern? | | If yes, and of conservation significance, then the land parcel cannot be considered for the Programme. | | |
| 1. Does the land parcel provide habitat for faunal species (i.e. mammals, avifauna, reptiles) of conservation concern? | | If yes, and of conservation significance, then the land parcel cannot be considered for the Programme. | | |
| 1. Is there a groundwater supply scheme under or adjacent to the land parcel? | | Decreasing suitability, the closer to a supply scheme. | | |
| 1. Is there a river, drainage line, wash, wetland on or adjacent to the land parcel and is the extent of the 1:100 year floodline known? | | Decreasing suitability, the closer to watercourse/wetland. | | |
| 1. Are there, or could there be, heritage resources (old buildings, archaeology, palaeontology, graves) on the land parcel? | | Decreasing suitability if heritage resources are present. | | |
| 1. Are there any features of the land parcel that should be retained, enhanced or protected during development? | | Suitability and cost implications. | | |
| 1. Are any of the land uses undertaken (or planned) on immediately adjacent property likely to conflict with or constrain development of the land parcel? | | Decreasing suitability if conflicts or constraints. | | |
| 1. Are there any features of the land parcel that would require substantial deviation from a standard layout and design for a residential area? | | Suitability and cost implications. | | |
| 1. Is there bulk infrastructure (e.g. road, potable water, electricity and waste water) to which the new residential area can be connected. | | Additional costs to provide bulk services. | | |
| 1. Could any aspect of the site be affected by climate change and require intervention to manage? | | Suitability and cost implications if there is need for climate change adaptation. | | |

**A3: E&S Scan Questionnaire for Demonstration Sanitation Centre Site Identification**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Intervention details** | | | | |
| Locality name |  | | Date of E&S Scan |  |
| Method (desktop/site) |  | | Completed by |  |
| Location/Property description |  | | | |
| Notes |  | | | |
| **Query to be asked?** | | **Relevance** | | |
| 1. Is property ownership known and is the land owner agreed to the sanitation centre? | | If no, the site cannot be considered. | | |
| 1. Is the site occupied? If so, are the occupants informed and willing participants? | | If no, the site cannot be considered. | | |
| 1. Is the site utilised by external parties for commercial, cultural or recreational use? If so, are the external users informed and willing participants? | | If no, the site cannot be considered. | | |
| 1. Are the immediate neighbours of the property informed of the sanitation centre? If so, do they have any concerns or objections? | | If yes, the site cannot be considered. | | |
| 1. Can the sanitation centre be built an appropriate distance from existing infrastructure on the property? | | Potential conflict with the proposed use. | | |
| 1. Is the topography suitable for the sanitation centre? | | Suitability and cost implications. | | |
| 1. Is the soil/geology suitable for the sanitation centre? | | Suitability and cost implications. | | |
| 1. Are there any signs/knowledge of shallow (>5 mbgl) groundwater? | | If yes, the site should not be considered (or will require an engineered conservancy tank). | | |
| 1. Is the site within 100 m of a borehole, or an aquifer, used for potable water supply? | | If yes, the site should not be considered (or will require an engineered conservancy tank). | | |
| 1. Is there a river, drainage line, wash, wetland on, or within, 100 m of the site? | | Decreasing suitability, the closer to watercourse/wetland. May require an engineered conservancy tank. | | |
| 1. Does the site contain any sensitive or protected vegetation or fauna? | | If yes, then reconsider site and layout. | | |
| 1. Are there, or could there be, heritage resources (old buildings, archaeology, palaeontology, graves) on the property? | | Decreasing suitability if heritage resources are present. | | |
| 1. Are there any features of the property that should be retained, enhanced or protected during development? | | Suitability and cost implications. | | |
| 1. Are there any features of the land parcel that would require substantial deviation from a standard layout and design for the sanitation centre? | | Suitability and cost implications. | | |
| 1. Does the title deed for the property detail servitudes, restrictions or other endorsements? | | Potential conflict with the proposed use. | | |
| 1. Are there, or could there be, buried bulk infrastructure (e.g electrical, water, sewage pipe)? | | Avoid disturbing these. | | |

A4: E&S Activity and Receptor matrix

This matrix should be adapted at each use, to be relevant to the scope of the proposed intervention and the receiving environment of the site.

| **Project Phase** | | **Resource / Receptors (e.g.)**  **Project Activities (e.g.)** | | | **Sensitive receptors in the receiving environment** | | | | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Physical** | | | | | | | **Biological** | | | | | | |  | **Socio-economic/Cultural** | | | | | | | |
| **Geology** | **Topography** | | **Soil and land capability** | | **Watercourse, wetland and floodplains** | **Aquifer** | **Terrestrial Habitats and Ecosystems** | **Floral communities** | **Faunal communities (mammals, birds, reptiles)** | **Aquatic Habitats and Ecosystems** | **Protected Areas & other designated sensitive areas** | **Alien and Invasive species** |  |  | **Land use (agriculture, open space, recreation)** | **Heritage** | **Traffic** | **Occupational health and Safety** | **Public Health and Safety** | **Infrastructure and services** | **Visual and Sense of Place** | **Employment & Income** |
| Planning and design | | Selection of land parcel for development of new residential land | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Selection of location/route for infrastructure | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Surveys and assessment to facilitate planning and design | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sampling and testing | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Agreement with and approvals from local authority(conclusion of MoU) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Land parcel acquisition | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Infrastructure location/route approval | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Layout planning | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Detailed design (architecture/engineering) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction tender and appointment of contractor | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Selection of community based contractor | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Appointment of contractor staff | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Implementation and construction | | Mobilisation of staff to site | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establishment of contractor camp and laydown area | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labour accommodation | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labour care (meals, sanitation, change rooms) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Access control | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Detailed surveys | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pegging of layout | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Supply of materials to site (\*associated facilities) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Storage and handling of supplies and materials | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Storage and handling of hazardous materials | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation of vehicles and plant | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of vehicles and plant | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transport on and offsite | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Water supply and use | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clearance of vegetation | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stripping and stockpiling of topsoil | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Excavation and earthworks | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Concrete batching/mixing | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction and/or installation of structures | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Backfilling of excavations | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shaping and landscaping | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spoil and rubble management | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Waste management (packaging, food, sewage) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rehabilitation and decommissioning | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operations | | Maintenance of electrical sub-station, distribution network and meters (if installed) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of water distribution network and meters (if installed) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of road surface and signage within residential area | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of stormwater drains within residential area | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of waste collection point (collection by local authority) | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of bulk water supply pipeline, valves, tanks etc | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of the sewage reticulation and sewage treatment plant | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maintenance of the power supply connection | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Selection and training of CLTS volunteers | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Distribution of CLTS information | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Management of CLTS sanitation facility | | |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | | |  | |  | |  | | Colour key: | | | | | | | | | | | | | | | | | | |
|  | No/very minor interaction | | | x | Minor negative interaction | | | | | | | x | Moderate / major negative interaction | | | | | | | | x | Positive interaction | | | | | |

Appendix B: E&S Risk Appraisal

**B1: Terms of Reference for ESIA**

When procuring the services of an independent Environmental Practitioner for interventions requiring an ESIA, the Terms of Reference for the ESIA must incorporate all of the following requirements as a minimum:

* Confirmation from the Practitioner of their knowledge of and experience in conducting assessments (i.t.o. Namibian and WB standards as relevant),
* Confirmation from the Practitioner of their independence,
* Determination of the project’s listed activity triggers and the competent authority,
* Determination of the applicability of the WB’s ESS and EHS Guidelines,
* Consideration of full project scope and lifecycle in the ESIA, inclusive of risk and impacts from “associated facilities” and “primary suppliers”,
* Determination of the specialist studies necessary to define the E&S baseline and assessment of impacts,
* Completion of an application for environmental clearance certificate on the prescribed form and submission to the competent authority via the prescribed method,
* Management of public participation process as required per Namibian legislation and WB ESS10,
* Undertaking of Scoping per Namibian legislation and the WB ESS1 to determine:
  + the project standards,
  + the current baseline condition of the receiving environment,
  + the potential E&S risks of the proposed interventions on the receiving environment,
  + whether and to what extent the potential E&S risks can be mitigated, and
  + if there are significant issues and effects that require further investigation;
* During Scoping the following are also required:
  + Undertaking of research and studies to document the receiving environment,
  + Description of the need and desirability of the activities,
  + Examination of project alternatives,
  + Consideration of critical biodiversity and habitat and ecosystem services,
  + Consideration of climate change risk, adaptation and resilience,
  + Consideration of labour, human rights, cultural heritage and community safety, specifically of disadvantaged vulnerable groups and indigenous people, and
  + Consideration of direct, indirect cumulative risks and impacts.
* Produce a Scoping Report, which must be subject to disclosure and review, that details a terms of reference for assessment. The terms of reference for EIA must:
  + Describe all tasks to be undertaken, including specialist studies if needed,
  + Detail the method to assess impacts (compliant with Namibian legislation and the World Bank’s ESS1), and
  + Confirm the nature and extent of the public consultation processes.
* Undertaking of an Environmental and Social Impact Assessment per Namibian legislation and WB ESS1 to:
  + describe the receiving environment to be affected,
  + document the need and desirability of the activities,
  + describe and compare the alternatives,
  + incorporate findings of any specialist impact assessment or modelling,
  + produce an assessment of the E&S risks of significance in terms of the agreed methodology,
  + detail the measures and actions to enhance beneficial impacts and avoid, reduce, mange or offset adverse impacts to acceptable levels (i.e. an ESMP), and
  + set out the Practitioner’s conclusion and recommendations.
* Produce an Environmental and Social Impact Assessment Report, which must be subject to disclosure and review, for consideration by the authority.

\*In the case of some Category B (moderate risk) projects, the Impact Assessment and ESMP components can potentially be bundled into the Scoping Report (with impact assessment), provided that agreement has been obtained from the MEFT for this approach.

**B2: Table of Contents for Scoping Report**

Set out below is an indicative table of contents for a Scoping Report. The effort to generate content for the report should be proportionate to the risks and impacts of the Programme interventions and sensitivity of the location. This should be determined on a case by case basis with inputs from DWN, the Environmental Practitioner, the E&S experts at KfW, the MEFT, subject matter specialists and stakeholders, as the case may be. The structure and content can be modified as necessary by the independent Environmental Practitioner completing the ESIA, to address the identified risks as deemed suitable by best professional judgement.

**TOC for a Scoping Report**

1. **INTRODUCTION**

**2. PROJECT DESCRIPTION**

2.1. Overview

2.2 Need and Desirability

2.3. Alternatives

3. **PROJECT STANDARDS**

3.1 Regulatory Framework

3.2 Namibian Environmental Legislation

3.3 International Lender Standards

4. **ESIA APPROACH AND METHODOLOGY**

**5. BASELINE CONDITIONS**

5.1 Introduction

5.2 Physical Environment

5.3 Biological Environment

5.4 Social Environment

6. **STAKEHOLDER ENGAGEMENT**

6.1 Methods

6.2 Summary of Issues Raised

7. **IDENTIFICATION OF POTENTIAL RISKS AND IMPACTS**

7.1 Topic #1 (repeat)

7.1.1 Overview

7.1.2 Impacts of Concern

7.1.3 Detailed Assessment

7.2 Draft Management Plan

**8. TERMS OF REFERENCE FOR EIA**

8.1 Tasks to be undertaken, including Specialist Studies

8.2 Method of Impact Assessment

8.3 Stakeholder Engagement

**B3: Table of Contents for ESIA**

Set out below is an indicative table of contents for an **ESIA Report**. The scope and level of detail included in the ESIA report should be proportionate to the risks and impacts of the Programme interventions and sensitivity of the location. This should have been determined during Scoping and agreed on in the Terms of Reference for ESIA. The structure and content can be modified as necessary by the independent Environmental Practitioner completing the ESIA, to address the identified risks as deemed suitable by best professional judgement.

**TOC for an ESIA Report**

**1. INTRODUCTION**

**2. PROJECT DESCRIPTION**

2.1 Overview

2.2 Associated facilities

2.3 Primary Suppliers

**3. ALTERNATIVES**

3.1 Overview

3.2 Location and Layout Alternatives

3.3 Technology Alternatives

**4. PROJECT STANDARDS**

4.1 Regulatory Framework

4.2 Namibian Environmental Legislation

4.3 International Lender Standards

**5. ESIA APPROACH AND METHODOLOGY**

5.1 Impact Assessment Methodology

5.2 Specialist Studies

**6. BASELINE CONDITIONS**

6.1 Introduction and sources of Information

6.2 Physical Environment

6.2.1 Key Sensitivities

6.3 Biological Environment

6.3.1 Key Sensitivities

6.4 Social and Cultural Environment

6.4.1 Key Sensitivities

6.5 Land Use

6.5.1 Key Sensitivities

**7. STAKEHOLDER ENGAGEMENT**

7.1 Methods

7.2 Summary of Issues Raised

**8. IMPACT ASSESSMENT**

8.1 Introduction

8.2 Scope of Assessment

8.3 Topic #1 (repeat)

8.3.1 Overview

8.3.2 Impact Assessment

**9. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

(see Appendix C2)

**B4: Table of Contents for Environmental Statement**

Set out below is an indicative table of contents for an Environmental Statement. The scope and level of detail included in the report should be proportionate to the risks and impacts of the intervention and sensitivity of the location. The structure and content can be modified as necessary by the E&S Manager, as deemed suitable by best professional judgement.

**TOC for an Environmental Statement**

**1. PROJECT INFORMATION**

1.1 Project Description

1.2 Permitting Requirements

1.3 Stakeholder Engagement

**2. SITE ASSESSMENT**

2.1 Baseline Characteristics (features, risks and mitigation)

2.2 Project Features (features, risks and mitigation)

2.3 Working Conditions (features, risks and mitigation)

**3. ESMP/ESCOP**

(see Appendix C3 for generic ESMP template or C3 for ESCOP template)

Appendix C: ESMP Templates

**C1: Terms of reference for ESMP arising from ESIA**

When procuring the services of an independent Environmental Practitioner for an ESIA, the Terms of Reference must include a requirement to develop an ESMP, which must deliver the following as a minimum:

* apply the mitigation hierarchy throughout the project lifecycle (see Table 4-1),
* detail outcomes in clear and measurable terms, over specified timeframes,
* set out measures and actions required to avoid, minimize, reduce, or otherwise mitigate the environmental and social risks and impacts of the project as identified through the ESIA,
* incorporate the thresholds and performance indicators specified by Namibian legislation and the relevant general and specific EHS Guidelines (apply corresponding stricter regulation),
* specify the organisational structure, systems, and resources required,
* detail roles and responsibilities for implementation personnel required,
* provide measures for monitoring and reporting of performance,
* identify any other plans/documents that are required (e.g. Waste Management Plan), and
* provide a mechanism for adaptive management of change.

**C2: Table of Contents/Template for an ESMP arising from ESIA**

Set out below is an indicative table of contents for an ESMP. The scope, range of mitigation and level of detail included in the ESMP should be proportionate to the risks and impacts of the intervention and sensitivity of the location. This should have been determined during the ESIA. The structure and content can be modified as necessary by the independent Environmental Practitioner completing the ESIA, to address the identified risks as deemed suitable using best professional judgement.

**1. INTRODUCTION**

**2. PROJECT DESCRIPTION**

2.1 Project Activities

2.2 Summary of E&S Impacts

2.3 Stakeholders

3. **ROLES AND RESPONSIBILITES**

3.1 DWN

3.2 Contractors

3.3 Training

4. **PROJECT STANDARDS**

4.1 Namibian

4.2 International

**5. STAKEHOLDER ENGAGEMENT and GRIEVANCE MECHANISM (see Appendix E and F of the ESMF)**

**6. E&S ASPECTS AND MANAGEMENT**

6.1 Impact Management Objectives

6.2 Actions for Planning and Design Phase

*Insert ESMP table 1*

6.3 Actions for Implementation Phase

*Insert ESMP table 2*

6.4 Actions for Operations Phase (if applicable)

*Insert ESMP table 3*

6.5 Actions for Rehabilitation Phase (if applicable)

*Insert ESMP table 4*

**7. MONITORING AND REPORTING (see Appendix D1 of the ESMF)**

**8. APPENDICES**

8.1 Worker Code of Conduct/ Do and Don’ts

8.2 Grievance Mechanism

8.3 Health and Safety Plan

8.4 Incident Reporting

8.5 Other Plans (e.g. Waste Management Plan, Soil Management Plan)

**ESMP Table: Actions for xx Phase**

The Table below provides an indication of measures and actions potentially applicable to programme interventions. The measures and actions should be relevant and proportionate to the risks and impacts of the intervention and sensitivity of the location.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Topic Area/ Impact** | **Measures and Actions** | **Implementation Programme** | | | **Monitoring Measures** |
| **Frequency/ Schedule** | **Responsible Party** | **Performance Indicator** |
| General ESHS Requirements | | | | | |
| Roles and responsibilities | * DWN accepts ultimate responsibility for the implementation of and compliance with the ESMP. * DWN will assign responsibility for adherence to the ESMP as a condition of the relevant Managers contract. * DWN will ensure that every person with responsibilities at the Site in terms of this ESMP has access to the document. |  |  |  |  |
|  | * The relevant Manager is responsible for implementation, monitoring and auditing of compliance with the ESMP during construction. * The relevant Manager shall ensure that contractors and employees with responsibility for implementation of the ESMP are fully informed of the responsibilities and equipped to comply with the assigned responsibilities. * The relevant Manager shall ensure that all employees and contractors working at the Site have been subject to an induction covering the key environmental risks and consequences of non-compliance to the ESMP. |  |  |  |  |
|  | * DWN will ensure that adherence to relevant aspects of the ESMP is included as a contractual commitment for contractors working at the Site. * DWN will ensure that all contractors are aware of and familiar with Site operations, the key environmental issues and consequences of non-compliance to the ESMP. |  |  |  |  |
| Resources for ESHS management | * DWN will ensure the provision of resources to the relevant Manager for implementation of the ESMP at the Site. * During tender review DWN will assess the provision made by each contractor for implementation of the ESMP requirements. |  |  |  |  |
|  | * The Contractor will ensure the provision of resources and equipment for implementation of the ESMP requirements |  |  |  |  |
| ESHS Induction and Training | * DWN will provide ESHS induction, training and awareness to all employees and contractors regarding risks and mitigation measures tailored to Project scope. |  |  |  |  |
| Code of Conduct | * Establish a Code of Conduct taking into consideration legislation, safety rules, substance abuse, environmental sensitivity, communicable diseases, gender issues (sexual harassment), respect for local beliefs and customs, community interactions etc. * Ensure that all employees and contractors working at the Site have committed to adhere to the Code of Conduct |  |  |  |  |
| Reporting |  |  |  |  |  |
| Monitoring |  |  |  |  |  |
| Incidents and Emergencies | * All environmental incidents or emergencies at the Site will be recorded in a register. * Significant environmental incidents will be reported in accordance with the requirements of Section 7.5.3. * All environmental incidents will be investigated and an action plan will be developed that details reasonable measures to contain and minimise effects of the incident, clean-up procedures, remedial measures and measures taken and to be taken to avoid a recurrence. |  |  |  |  |
| Protection of the Environment | | | | | |
| Protection of adjacent areas |  |  |  |  |  |
| Soils and erosion | * The top 60 cm (greater if available) of soil removed during earthworks must be considered as topsoil (not applicable if the in-situ material comprises fill). * Topsoil should be stripped and stockpiled separately from other soils. * No foreign materials should be mixed with topsoil. * Soils should not be stockpiled in water flow paths. * Soils should be handled in dry weather conditions as far as practically possible. * Stripped soil must be used on site in construction, as far as possible. * Topsoil may only be used for final shaping and landscaping and not as fill or spoil. * Rehabilitate and landscape disturbed areas not occupied by infrastructure. * Protect exposed areas, soil stockpiles and rehabilitated sites from erosion. |  |  |  |  |
|  | * Maintain vehicles and plant per manufacturer’s specification. * Manage construction waste generated on site to prevent contact with soil. * If emergency repair of vehicles or plant is required, use should be made of impermeable surfaces. * Manage spills in accordance with the emergency response procedure. |  |  |  |  |
| Vegetation | * Do not allow alien invasive plant species to establish on disturbed ground. * Utilize locally appropriate, indigenous plant species in the landscaping. |  |  |  |  |
| Biodiversity |  |  |  |  |  |
| Effluents and Water Quality |  |  |  |  |  |
| Pollution Prevention |  |  |  |  |  |
| Air emissions and dust |  |  |  |  |  |
| Noise and Vibration | * Operations will be undertaken in a manner that noise levels at the site boundary do not exceed the acceptable limits. |  |  |  |  |
| Waste Management |  |  |  |  |  |
| Rehabilitation |  |  |  |  |  |
| Health and Safety | | | | | |
| Public health and safety | * Establish a site perimeter and maintain access control measures for the site. * Erect/display signage that appropriately indicates the H&S risks that can be encountered and details the safety requirements. * Only allow authorised personnel to access the site. Such personnel must be appropriately informed, trained and equipped for the site risks. * Construction activities shall only take place within the site and no activities shall be permitted outside the perimeter. |  |  |  |  |
| Occupational Health and safety |  |  |  |  |  |
|  | * Ensure the provision of adequate space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, fire and disease-carrying animals, adequate sanitary and washing facilities, adequate lighting, and basic medical services, in accordance with all applicable health and safety regulations and norms. |  |  |  |  |
|  | * Ensure provision of hygienic and sanitary facilities at the site, including shaded welfare areas, bathrooms, changing rooms and potable water. * Ensure toilets and changing rooms are separated between male and female employees. |  |  |  |  |
|  | * Ensure the provision of Personal Protective Equipment (PPE) for workers (hardhats, masks, safety glasses, safety boots etc. depending on project type). * Ensure that all employees utilize PPE in the correct manner for the tasks being undertaken. |  |  |  |  |
|  | * Ensure acceptable first aid provisions on site (suitably stocked first-aid kits; an adequate number of first-aid responders and that staff and workers are informed about first-aid arrangements) |  |  |  |  |
|  | * Report any occurrence of any communicable diseases amongst the workforce (STD, HIV/AIDS, TB, malaria and Hepatitis B and C). |  |  |  |  |
| Traffic Management |  |  |  |  |  |
|  |  |  |  |  |  |
| Labour and Community Relations | | | | | |
| Heritage resources | * Establish specific procedures to manage the protection of archaeological and historical sites, chance finds and fossils. * Ensure all finds of cultural heritage (e.g. graves, old ceramic, old building fragments) are reported immediately to the relevant authority and avoid excavation in the ultimate neighbourhood of a chance find, fence the chance find and await instructions from the competent authority. |  |  |  |  |
| Socio-economic |  |  |  |  |  |
| Labour conditions |  |  |  |  |  |
| Human Rights |  |  |  |  |  |
| Stakeholder engagement |  |  |  |  |  |
| Grievance Mechanism | * Ensure that all direct and indirect workers have access to and are aware about the Grievance Mechanism so that they can raise workplace relevant complaints anonymously. * Ensure that all stakeholders have access to and are aware about the Grievance Mechanism so that they can raise relevant complaints. |  |  |  |  |

**C3: Generic ESMP for Category B Moderate Risk**

Set out below is an indicative structure for an ESMP, based on the KfW ESMP Guideline (2020 No. 3.1 and 3.2). The scope, range of mitigation and level of detail included in the ESMP should be proportionate to the risks and impacts of the intervention and sensitivity of the location. This should have been documented in the Environmental Statement. The structure and content can be modified as necessary by the E&S Manager using best professional judgement.

**1. INTRODUCTION**

**2. PROJECT DESCRIPTION**

2.1 Project Activities

2.2 Summary of E&S Impacts

2.3 Stakeholders

**3. ROLES AND RESPONSIBILITIES**

3.1 DWN

3.2 Contractors

3.3 Other entities

3.4 Training

**4. PROJECT STANDARDS (National and International)**

**5. STAKEHOLDER ENGAGEMENT AND GRIEVANCE MECHANISM (*Refer to SEF and LARC)***

**6. REGISTER OF E&S ASPECTS**

6.1 Planning and Design

6.2 Project implementation

*Insert ESMP Actions Table*

1. **MONITORING**

(see Appendix D1 of the ESMF)

**Annexes**

Annex A – Code of Conduct

Annex B – Grievance Mechanism (refer to Appendix E of the ESMF)

Annex C – Health and Safety Plan

Annex D – Incident Reporting

Annex E – Land Acquisition and Compensation Guidance (refer to Appendix F of the ESMF)

***See separate electronic documents for ESMP Report and Actions Table templates***

**C4: Generic ESCOP for Category B Lower Risk**

Set out below is an indicative structure for an ESCOP, based on the KfW ESCOP Template (2020 No. 4). The scope, range of mitigation and level of detail included in the ESCOP should be proportionate to the risks and impacts of the intervention and sensitivity of the location. The structure and content can be modified as necessary by the E&S Manager using best professional judgement. The key requirements/sections of the ESCOP include:

* General Requirements
* Confirmation of project details
* Stakeholder notification and engagement
* Establishment of a Grievance Mechanism (Annex B)
* Do’s and Don’t’s
* Determine PPE Requirements
* Monitoring
* Code of Conduct (Annex A)
* Incident Reporting (Annex C)

***See separate electronic document for ESCOP Template***

Appendix D: ESMP Monitoring

**D1. Example of ESMP Monitoring Table**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Potential Impact** | **Mitigation, Management and Enhancement Measures** | | **Means of Verification** | | **Responsibility** | | | **Monitoring Procedure** | **Date of Inspection/ Review/ ESMP Monitoring** | |
| **DD/MM/JJ** | |
| **e.g. Occupational Health and Safety** | | | | | | | | | **Findings/ Observations** | **Corrective Action** |
| **…** | |  | |  | |  |  | |  |  |
|  | |  | |  | |  |  | |  |  |
| **??** | | | | | | | | | **Findings/ Observations** | **Corrective Action** |
|  | |  | |  | |  |  | |  |  |
|  | |  | |  | |  |  | |  |  |

|  |
| --- |
| ***Colour Code for Findings/ Observations*** |
| *Red Flag. Major Non-compliance with ESMP requirements. Urgent Action needed to protect physical, biological or human environment and avoid risks to the Project.* |
| *Minor Non-compliance. Action needed but no immediate threat for physical, biological or human environment or Project.* |
| *In compliance with ESMP commitment.* |

Appendix E: Stakeholder Engagement Framework

***See separate electronic file***

Appendix F: Land Acquisition and Compensation Framework

***See separate electronic file***

AFRICAN OFFICES

|  |
| --- |
| South Africa  CAPE TOWN  T: +27 21 461 1118  FOURWAYS  T: +27 11 467 0945  DURBAN  T: +27 11 467 0945  Namibia  WINDHOEK  T: + 264 61 231 287 |

1. If there is a listed activity trigger, an ESIA compliant with the Namibian EIA Regulations will be required. [↑](#footnote-ref-2)
2. In the case of a local listed activity trigger, an ESIA compliant with the Namibian EIA Regulations will be required and must be undertaken by an independent Environmental Practitioner. [↑](#footnote-ref-3)
3. In the case of a local listed activity trigger, an ESMP compliant with the Namibian EIA Regulations will be required and must be prepared by an independent Environmental Practitioner . [↑](#footnote-ref-4)