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Environmental and Social Management Plan for the Proposed 400 kV Transmission Line from Auas to Kokerboom Substation

Land Risks and Impacts

ENVIRO DYNAMICS
Environmental Management Consultants

NamPower
Powering the Nation and beyond

PROJECT NAME	Proposed 400kV Transmission line from Kokerboom to Auas Substations ESIA and ESMP
REPORT	ESMP Resettlement Policy Framework
STAGE OF REPORT	Final
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GLOSSARY

BESS	Battery Energy Storage System
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
kV	Kilo Volt

TABLES AND FIGURES

1 INTRODUCTION

NamPower intends constructing a 400kV power line from the Kokerboom Substation near Keetmanshoop to the Auas Substation near Dordabis, Namibia. The line will assist in securing the supply of electricity to Namibia in future and open up opportunities for selling power to the Southern African Power Pool.

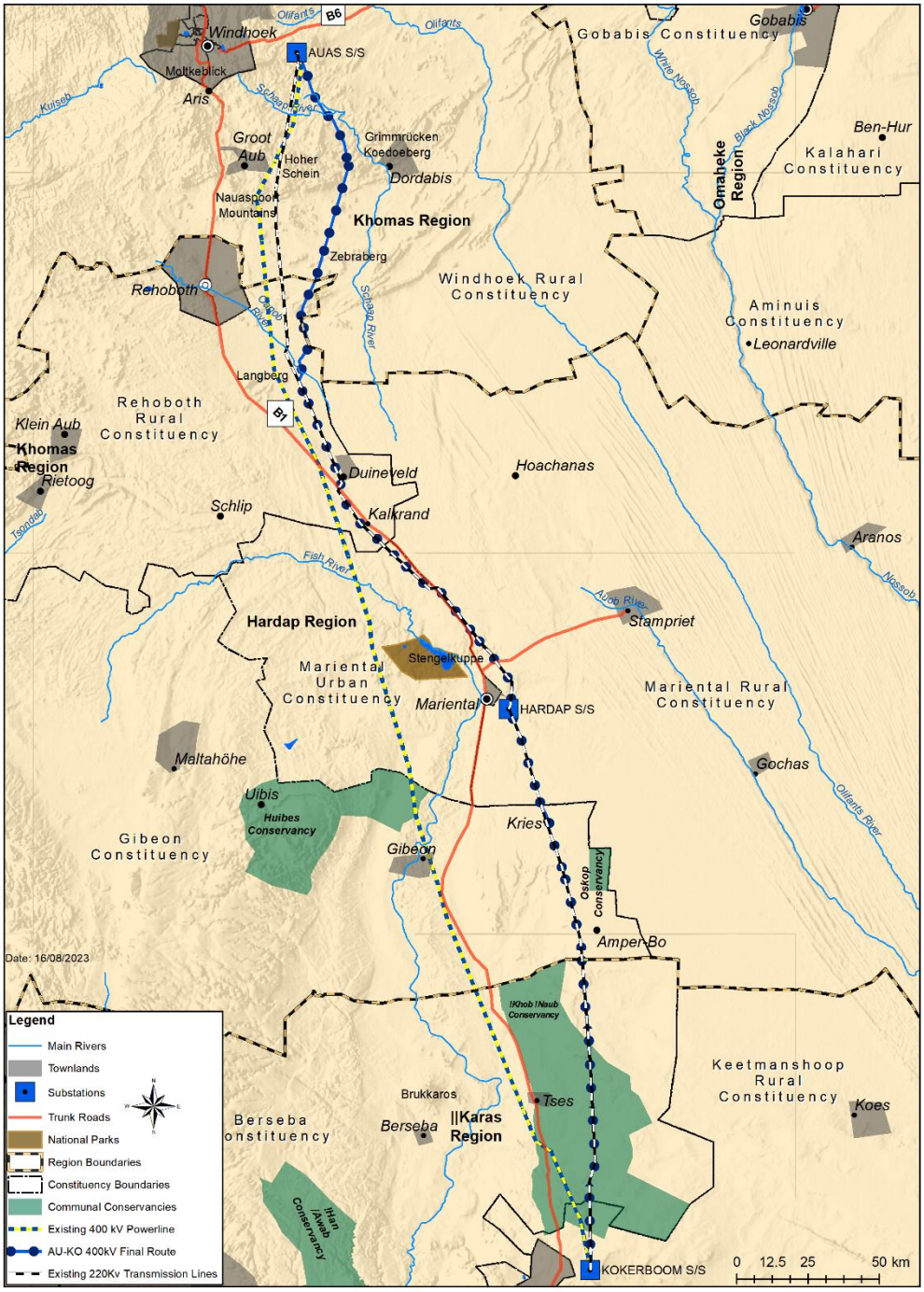

Figure 1: Locality map of the proposed Auas-Kokerboom 400kV transmission line

NamPower is seeking funding from the World Bank for the construction of the transmission line, which will have the following components:

- The new Auas-Kokerboom 400kV Transmission Line, with associated infrastructure at both substations such as switchgear and reactors.
- A Battery Energy Storage System (BESS) to be installed at Lithops Substation, that will enable NamPower to store energy generated by, amongst other, renewable sources such as solar or wind energy to allow utilisation of such energy when these resources are not available, such as after sunset.

The World Bank requires of its Borrowers to fulfil the requirements of the Environmental and Social Framework (ESF). The Framework sets out the Environmental and Social Standards (ESS) to be complied with on all projects funded by the World Bank. [1]

Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement of the World Bank's ESS, is being applied to the transmission line project in this report, and information is provided of the outcome and recommendations to comply with this Standard.

> ESS 5 "recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons. Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood), or both. The term "involuntary resettlement" refers to these impacts. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement. "

2 DESCRIPTION OF THE PROJECT

2.1 PROJECT SERVITUDE

The proposed route of the project follows an existing 220kV transmission line for most of the route. The need for land acquisition and impacts on land use, livelihoods and assets has been avoided by:

1) Aligning the route parallel to an existing line
2) Adjusting the servitude to avoid any homesteads or other structures, as well as vistas that are important to farm owners where this was possible.

[1] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards

The servitude dimensions will be as follows:

The entire length of the proposed transmission lines is estimated to be 461 km. The servitude will be 80 m wide for the entire line an estimated 12 m width needs to be totally cleared of vegetation and obstacles to create a service road **(Figure 2),** to provide access (during construction and maintenance) to the line throughout its lifespan of 30 years.

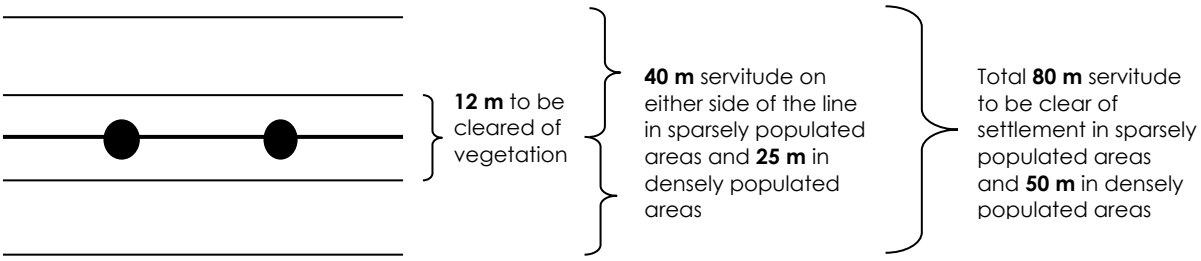

Figure 2: Servitude details for the proposed transmission line

Since the line will run parallel to an existing power line to the south, the servitude width there including the existing line will be 111m in total, consisting of a minimum distance of 46m between the two line. There will be a 40m servitude outside the centre line of the 400kV line, and 25m outside the centre line of the existing 220kV line. NamPower has historically compensated the farm owners for the land restrictions imposed as a result of the existing 200kV transmission line.

For safety and technical reasons, no permanent structures other than the towers are allowed within the servitude. Grazing and cultivation of fields with associated farming activities may be accommodated within this area, except for the 12 m strip, which is needed during construction.

2.2 ALTERNATIVE PROJECT SERVITUDE CONSIDERED

It is best practice to align the servitude along an existing one, in order to avoid land sterilisation, habitat impact, etc. An alternative route (western route) was considered along an existing 440kV transmission line running to the west of this current servitude **(Figure 1).** This alternative route affects some 5% more land than the current eastern one. However, NamPower wishes to avoid crossings of high voltage lines. Such anticipated crossings, as well as two 400kV lines adjoining each other, constitute significant technical risks of power failure. Since the social impact, as explained below, is considered low, the technical reasons for preferring the current route is supported.

3 PROJECT IMPACTS

3.1 AFFECTED PROJECT AREA

The proposed transmission line traverses three (3) regions (namely Khomas, Hardap and //Karas). Khomas Region is centrally located and landlocked; it has a population density of 9.3 people per km². Hardap has a low population density of 0.7 people per km². The //Karas Region is the most southern and largest region in Namibia, with an area of 161,215km²; it is the least densely populated of Namibia's 14 regions with only 0.5 people per km². The line passes through 6 constituencies, the majority of which are rural (see **Table 1**).

Table 1 Proposed Project affected areas (north to south)

Indirectly Affected Area				Directly Affected Area
Country	**Region**	**Constituency**	**Closest Town/ Settlement**	**Farms**
Namibia	Khomas	Windhoek Rural	Dordabis	101 Farms
	Hardap	Mariental Rural	Mariental (Mariental Urban)	
		Mariental Urban	Mariental	
		Rehoboth Rural	Duineveld, Kalkrand	
		Gibeon	Kries, Gibeon, Amper-Bo	
	//Karas	Berseba	Tses	
		Keetmanshoop Rural	Keetmanshoop	

There are two types of farms affected, namely commercial and communal. The commercial farms are privately owned, by one owner, sometimes a legal entity owned by more than one person. The commercial farms are used mostly for livestock farming and the areas affected by the servitude used for grazing. There are isolated cases with tourism/hunting facilities.

There are also commercial farms owned by the Government of Namibia. They are mostly leased on a 99-year agreement basis to the occupants. These farms are mostly used for subsistence purposes, which is livestock farming with cattle, goats and sheep. There are often multiple lessees on one farm, and sub-letting is also occurring. Data is often deficient and it is difficult or impossible to contact these lessees, because they change often and are not always formally registered.

The communal farms in the study area are also used for livestock farming, but owned by the Government. There is also a large conservancy in the south of the study area (!Khob !Naub Concervancy Figure 1), which is registered in terms of the Parks and Wildlife Management Act. This area has livestock farming, as well as limited hunting activities managed by a committee consisting of community members elected for this purpose.

The formal registered farms in the study area are relatively large and vary from approximately 4000-6700Ha, on average. One Government farm in the South of the area is much larger, with some small settlements on it, all unaffected by the project.

4 IMPACTS ON PROJECT AFFECTED FARMS

As for land restriction, the 80m wide strip of land will be required for the servitude, of which 12m will be completely stripped of vegetation. The grass, however, will grow back and can be used for grazing. The servitude will remain the property of the land owners, but no structures may be constructed within the servitude. Considering the relatively large size of the farms, compared to the narrow servitude required for the transmission line, the impact in terms of land use restrictions is considered low. Since most of the farms are being used for grazing, land use may continue mostly undisturbed.

The impacts with respect to land use may be summarised as follows:

- ***There is no involuntary or voluntary resettlement in the form of peopeling being displaced on the project. There are no permanent structures of any of the land owners or occupants affected.***
- **Land use restriction** as a result of easement for the project: negligible, with some disturbance and reduced grazing during construction.
- **Loss of livelihoods** as a result of the project: negligible, subsistence and commercial farming can continue undisturbed.
- **Visual impact** affecting livelihood of tourism: low impact overall, but moderate impact on limited number of farms. There is already one or more transmission lines on some of the farms and if the farms are used for tourism, farm owners sometimes feel that the transmission lines have a visual impact, affecting their visual resource used for tourism.
- **Cumulative impact** due to more than one transmission line traversing their land: Due to the large area on most of the farms, this impact is still considered low, although there are isolated cases when the farm owners have submitted their concern in this regard.

5 LEGAL FRAMEWORK FOR ADDRESSING COMPENSATION

5.1 ELECTRICITY ACT (4 OF 2007)

Section 35 of the Electricity Act makes provision for the expropriation of land for the purposes of providing electricity, on condition that there was a process of consultation and a reasonable attempt to acquire the rights for the project. Such a reasonable attempt involves the process of fair compensation for the right to use the land for the transmission line.

NamPower does not currently have an approved, formal policy for dealing with easement and compensation cases, but it does have a standard compensation protocol, which is also used for this current project and is as described below.

A compensation policy is currently being considered by the NamPower Board in this regard. The consultant did no have access to the draft policy, since it is under consideration.

5.2 CURRENT EASEMENT PROCESS

When NamPower intends to develop a new transmission line, the most suitable route is contemplated from available cartography. In the development of such a route, the design team attempts to find an optimal route regarding the needs of all parties. The most direct route is often preferable, but topography such as mountains and rivers may necessitate bend points. Once such an optimal route is selected, landowners are approached in order to negotiate wayleaves over the route.

In these negotiations, NamPower aims to find a mutually beneficial agreement with the landowner. The current as well as future land use on the property is considered, and often the line route is deviated to incorporate the comments received from landowners. On commercial farms, land uses such as livestock farming and game farming as well as tourism is often considered. Especially in the latter, NamPower takes cognizance of the fact that transmission lines have a visual impact. The line route is often deviated in order to minimize the impact on the landowner, and if an agreement is then reached, a wayleave is signed. The landowner is then paid a compensation based on the fair value of land. The wayleave does not expropriate the property from the landowner, but provides NamPower with the right to build, operate and maintain a transmission line within the area described in the wayleave (see Appendix A). The landowner's rights in terms of the wayleave is limited only to the extent that no permanent structures may be placed in the wayleave area.

In the event that no agreement is reached, an alternative route is considered to avoid the property of the landowner, and route changes are negotiated with neighbouring landowners. In the event where no agreement can be reached, and NamPower has no alternatives for route deviation, the Electricity Act allows for the land to be expropriated, against a fair compensation. In this event, the land portion would become the property of NamPower (Section 5.1 above). To date, this measure has not yet been used.

The wayleave form used for the compensation process is attached as Appendix A. This wayleave is to be confirmed once the line is built and the exact portion of land has been determined. A formal servitude is not registered over the farm, there is only an agreement of this nature between Nampower and the landowner. In case of Government farms, the applicable ministry is paid the easement compensation.

The easement compensation is calculated according to the valuation of the Ministry of Lands, Water and Land Reform. Nampower provides an additional incentive of N$ 500.00 per Ha over and above the Government valuation. In the case of the current valuation example in Appendix A, it would be N$ 200.00 (Government valuation) + N$ 500.00 (Nampower incentive) = N$ 700.00/Ha as a once-off payment.

5.3 PROGRESS ON THIS PROJECT REGARDING WAYLEAVES

There are 101 farms affected in total (based on the current route however subject to change depending on diversions), of which:

a) Thirty owners have signed the wayleave agreement. Of these, 5 owners have been paid compensation, 3 owners' payment is in process, and 1 servitude has been registered.

b) Thirty six owners are in the engagement process, in preparation of the wayleave agreement. Of these, 26 are Government farms, and 10 servitude agreements are with the land occupants waiting for confirmation.

c) One owner is not willing to sign.

d) The information of eight farms are in the process of being gathered/researched.

e) Twenty-six farm owners are yet to be approached.

Appendix A is an example of a wayleave form that has been signed on this project.

5.4 STAKEHOLDER ENGAGEMENT

The full stakeholder engagement process of this project is documented in the Stakeholder Engagement Report for this ESIA. Each individual farm owner is approached directly and personally as part of the waybill process, by Nampower. Besides this, the environmental and social consultants who have been involved on the project have, since 2016, provided several opportunities for farm owners to voice their concerns. In 2016 there were 7 regional meetings as well as local consultations with farm owners. During 2020, farm owners with concerns were personally consulted and public meetings were held in Windhoek and Rehoboth. Overall, land owners have been in agreement with the proposed transmission line. There are individual cases where farm owners had concerns and these have mostly been addressed by rerouting the line to avoid sensitivities, including homesteads,

vistas, a grave yard and a vulture breeding area. There remain isolated cases of farm owners (at the time of the report and to the knowledge of the consultant, two cases) who are dissatisfied with the cumulative effect of more than one line traversing their land.

6 GAPS IDENTIFIED IN COMPENSATION PROCESS AND RECOMMENDATIONS

6.1 POLICY

It is important that NamPower has a policy for dealing with land compensation on their transmission line projects and it is therefore supported that such a policy has been drafted and is currently being circulated for approval. Compensation and negotiation strategies need to be fair and consistent. A policy also needs to be disclosed to the land owners involved and used as backing by those doing the actual negotiations. This current evaluation cannot include a scrutiny of this policy, since it has been not disclosed and is therefore acknowledged as a limitation. However, it is assumed that the policy is a formalisation of the current procedure used, as explained in Section 5.2.

6.2 EVALUATION OF THE CURRENT PROCEDURE

The impact assessment outcome is that the effects of the land restrictions for the transmission line is generally low, since the land to be utilised is mostly grazing land, with the exception of limited impact on tourism and hunting activities due to vistas being affected. The hunting activities of the !Khob !Naub conservancy are not affected to any measurable extent. Grazing access on the servitude will continue and livelihoods therefore unaffected. Even though the land is restricted for the erection of physical structures, the farms are large, with ample space remaining and this impact is therefore negligible.

It is confirmed that NamPower has done their best to avoid impacts and to accommodate farm owners. Avoidance of impacts has been carried out successfully.

As far as the compensation for the mentioned land restriction (i.e. no structures to be erected) goes, the use of the Government evaluation of farmlands is considered fair and consistent. The adding by Nampower of a further incentive is considered generous and this is applied consistently. The *replacement cost principle* is therefore generously met.

The only matter which remains unresolved is the isolated cases where NamPower could not avoid impacts mentioned. It is recommended that the policy includes a hierarchy of criteria for compensating such cases, which provides for the land owner's loss in a consistent way, and facilitates smooth implementation for Nampower, avoiding the red tape of expropriation, as follows:

1. An additional rate per Ha added when there are cumulative high voltage lines crossing a farm

2. A rate per Ha added when the land owner's income is affected directly or indirectly by the transmission line, for instance the existence or proven planned lodge which could not be avoided.
3. A mandate provided to the negotiator for cases where the land owner requests an alternative form of assistance instead of the cash compensation, for instance the moving of an existing power line, or the grading of a road by the Contractor, which is reasonably equal in value to the cash compensation.

These are provided as a basis for further discussion and refinement.

It is also proposed that NamPower determines a cut-off date for those persons which cannot be reached beyond best efforts and that the funds for this compensation be kept in a fund for another grace period.

6.3 EVALUATION OF THE WAYLEAVE FORM

It is proposed that the current standard wayleave form be updated to include a more detailed diagram of the power line servitude, with coordinates, and entered into the Nampower system on GIS. The standard wording should also be updated to reflect the outcome of the policy that is to be approved.

6.4 CAPACITY AVALUATION

NamPower has proven capacity to implement the compensation process to the satisfaction of the World Bank. One qualified position is available for the compensation process and this position is currently filled. Nampower should evaluate the capacity to include the diagrams on their GIS system.

6.5 SUMMARY OF RECOMMENDATIONS

6.5.1 That the NamPower Policy for Land Compensation for Transmission Line Servitudes be finalised as a matter of urgency.

6.5.2 That additional criteria be considered for compensation as discussed in Section 6.2

6.5.3 That a cut-off date be formalised for the payment of compensation which will apply beyond best efforts to reach eligible land owners.

6.5.4 That NamPower update the current standard wayleave form to reflect the contents of the Land Acquisition Policy when approved.

6.5.5 That NamPower improve the current content of the Diagrams attached to the wayleave forms, to include coordinates and that the data be entered into the current GIS system.

7 EASEMENT BUDGET

The total land required for the project, that will be restricted in terms of land use, is 3728 Ha. At N$ 700,00/Ha, this constitutes a total budget of N$ 2,609,600. This does not include an amount as additional compensation for cumulative impact, should this be approved.