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# BOSA

TRANSMISSION PROJECT

## BOSA TRANSACTION ADVISORY SERVICES

PLAN OF STUDY FOR THE ESIA

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Document control						
<b>Report title</b>		Plan of Study for the ESIA – BOSA Transaction Advisory Services: Draft Scoping Report – BOSA Transaction Advisory Services				
<b>Document ID</b>		112581REP001	<b>Project number</b>		112581	
<b>File path</b>		P:\Projects\112581 Botswana-South Africa (BOSA) Transm\03 PRJ Del\6 REP\07 Environment\7. Draft EIR\Ann F_Plan of Study				
<b>Client</b>		SAPP CC	<b>Client contact</b>		Mr. Alison Chikova	
<b>Rev</b>	<b>Date</b>	<b>Revision details/status</b>	<b>Author</b>	<b>Reviewer</b>	<b>Verifier (if required)</b>	<b>Approver</b>
0	28 September 2017	Draft Scoping Report	Wendy Mlotshwa	Diane Erasmus	Nigel Waters	Andries van der Merwe
<b>Current revision</b>		<b>0</b>				

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# 1. INTRODUCTION

The purpose of this Plan of Study is to describe how the ESIA This Plan of Study for ESIA process has been compiled in accordance with the National Environmental Management Act (No.107 of 1998) (NEMA) requirements and sets out how the ESIA will be conducted.

# 2. CONTENTS

This Plan of Study (PoS) for ESIA has been compiled in terms of the content requirements listed in Appendix 2 to the South African EIA Regulations of 2014 (GN R 982) as amended and EIA Regulation of 2012 (Botswana).

The Plan includes:

- i. a description of the **alternatives to be considered and assessed** within the preferred site, including the option of not proceeding with the activity;
- ii. a description of the **aspects to be assessed** as part of the environmental impact assessment process;
- iii. **aspects to be assessed by specialists;**
- iv. a description of the **proposed method of assessing the environmental aspects**, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;
- v. a description of the **proposed method of assessing duration and significance;**
- vi. an indication of the **stages at which the competent authority will be consulted;**
- vii. particulars of the **public participation process / stakeholder engagement process** that will be conducted during the environmental impact assessment process;
- viii. a description of the **tasks that will be undertaken** as part of the environmental impact assessment process;
- ix. identification of suitable **measures to avoid, reverse, mitigate or manage identified impacts** and to determine the extent of the residual risks that need to be managed and monitored.

# 3. ALTERNATIVES TO BE CONSIDERED

The following alternatives have been identified and will be considered in the ESIA Phase (**Table 1**):

**Table 1: Summary of the project alternative considered**

Alternative type	Description	Alternatives considered	Preferred option
Location	Powerline route	Route C to new Watershed B location	√
		Route E	

Alternative type	Description	Alternatives considered	Preferred option
		Route S	
Design	Tower structures	a518 lattice tower series (Quad Zebra)	All the alternatives considered will be used where appropriate
		515 Guyed-V lattice towers	
		529 Cross-roped lattice towers	
		520 Guyed-V lattice towers	
		517A Self-Supporting Suspension towers	
Technology	Conductor	<b>Triple Tern ACSR conductor</b>	√
No-Go alternative	No development	No development of the BOSA transmission line	

## 4. ASPECTS TO BE ASSESSED

During the screening process various potential impacts on the biophysical and socio-economic environment were identified. **Table 2** indicates the specialist baseline that have already been undertaken as part of the scoping phase. During the ESIA phase the specialists will undertake detailed impact assessments, which will be incorporated into the Draft EIR.

**Table 2: Specialist studies**

Potential Impact	Assessment	Specialist
Impacts on avifauna	Avifaunal Assessment	Chris van Rooyen <b>Chris van Rooyen Consulting</b>
Impacts on aquatic and terrestrial biodiversity	Aquatic and Terrestrial Biodiversity Assessment	Brian Colloty <b>Scherman Colloty and Associates</b>
Impacts on heritage resources	Heritage Impact Assessment	Stephan Gagher <b>GH Heritage Management Consultants</b>
Visual impacts	Visual impact assessment	Elmie Weideman <b>Aurecon SA (Pty) Ltd</b>
Socio-economic impacts	Social Impact Assessment (SIA) and Livelihoods Restoration Plan (LRP)	Tebogo Sebogo <b>Aurecon SA (Pty) Ltd</b>
	Stakeholder Engagement	Amelia Visage <b>Aurecon SA (Pty) Ltd</b>
Climate Change impacts	Climate Change Assessment <i>(This will be undertaken in the ESIA Phase)</i>	Daniël Brink <b>Aurecon SA (Pty) Ltd</b>

After the DSR public comment period, no additional studies were identified to be undertaken in the EIA Phase except for the Climate Change Study.

## 5. SPECIALIST STUDIES: TERMS OF REFERENCE

Table 3: Specialist Terms of Reference

Study	Aim	Terms of Reference
Avifaunal Assessment	<u>Assessed the potential impacts of the project on the existing avifaunal habitat</u>	<p style="text-align: center;"><b>Baseline description</b></p> <ul style="list-style-type: none"> <li>• Desktop review of all relevant available information;</li> <li>• Undertake additional field work if required to verify desktop assessment or address gaps in available data;</li> <li>• Liaise and consult with the relevant authorities and communities, as required, to access additional information applicable to the investigation;</li> <li>• Identify relevant legislation and policies to be complied with;</li> <li>• Identify sensitive elements that may potentially be impacted on by the proposed development; and</li> <li>• Make recommendations for additional study required.</li> </ul> <p style="text-align: center;"><b>Impact Assessment</b></p> <ul style="list-style-type: none"> <li>• Assess the preferred alternative route and any technology alternatives provided by the project team;</li> <li>• Identify avifaunal flight paths, IBAs and SCCs;</li> <li>• Identify and evaluate predicted impacts of proposed development on the affected avifauna;</li> <li>• Assess significance of each impact and propose mitigation measures</li> <li>• Determine the cumulative impact in terms of the current and proposed activities in the area;</li> <li>• Identify additional measures to ensure that the project contributes towards sustainability goals;</li> <li>• Provide recommendations for any ongoing monitoring that may be necessary; and</li> <li>• Identify any assumptions and limitations that have informed the study or gaps in knowledge that have become apparent.</li> </ul>
Aquatic and Terrestrial Biodiversity Assessment	Determine the impacts of the proposed project on aquatic and terrestrial ecology.	<p style="text-align: center;"><b>Baseline</b></p> <ul style="list-style-type: none"> <li>• Collate all secondary data available;</li> <li>• Undertake additional field work required to verify desktop assessment or address gaps in available data;</li> <li>• Provide a focussed and relevant description of all baseline characteristics and conditions of the sites being considered.</li> <li>• Liaise and consult with the relevant authorities, as required, to access additional information applicable to the investigation;</li> </ul>



Study	Aim	Terms of Reference
		<ul style="list-style-type: none"> <li>• Identify relevant legislation and policies to be complied with;</li> <li>• Determine thresholds of acceptable change and relevant standards to be complied with;</li> <li>• Determine the ecosystem services;</li> <li>• Identify sensitive elements that may potentially be impacted on by the proposed development; and</li> <li>• Make recommendations for additional study required.</li> </ul> <p style="text-align: center;"><b>Assessment</b></p> <p>Flora:</p> <ul style="list-style-type: none"> <li>• Provide a description of the general floristic species diversity and community composition;</li> <li>• Evaluating the occurrence of potential Red Data taxa;</li> <li>• Demarcating physiognomic units based on floristic relevés; and</li> <li>• Provide an indication on the ecological condition (successional stage) of the predetermined physiognomic units, which will also be related to any ecosystem services / habitat function.</li> </ul> <p>Fauna:</p> <ul style="list-style-type: none"> <li>• A detailed faunal assessment including a small mammal trapping session and nocturnal surveys based on strategically placed wildlife cameras;</li> <li>• An evaluation of the occurrence of any important vertebrates and invertebrates.</li> </ul> <p>Wetlands and rivers:</p> <ul style="list-style-type: none"> <li>• As highlighted in the above sections a large proportion of the available habitat related to sensitive or important taxa, are associated with the wetland / riverine habitats. The EIA phase will thus focus on critical assessment of the wetland / riverine systems in the following way:</li> <li>• Delineation of the wetland and river boundaries using the requisite techniques based upon the latest Wetland Classification systems (Ollis et al. 2013);</li> <li>• Identification of relevant ecosystem services provided by and of the rivers or wetlands</li> <li>• Indicate suitable buffer zones as prescribed by the relevant provincial policies / conservation plans</li> <li>• Assess the status of the observed faunal and floral populations observed;</li> </ul> <p>Overall assessment will include the following:</p>

Study	Aim	Terms of Reference
		<ul style="list-style-type: none"> <li>• Assess the preferred alternative route and any technology alternatives provided by the project team;</li> <li>• Identify and evaluate predicted impacts of proposed development on the ecosystem services;</li> <li>• Allow for assessment of impacts during the construction, operation and decommissioning phases, as well as direct and indirect impacts;</li> <li>• Determine the ecosystem services that may be affected, the value of such systems and the impacts associated with loss of ecosystem benefits and how these impacts can be avoided or the ecosystem restored to provide the service;</li> <li>• Propose measures to mitigate the negative impacts and optimise the positive ones;</li> <li>• Assess significance of each impact and propose mitigation measure;</li> <li>• Determine the cumulative impact in terms of the current and proposed activities in the area;</li> <li>• Identify additional measures to ensure that the project contributes towards sustainability goals;</li> <li>• Provide recommendations for any ongoing monitoring that may be necessary; and</li> <li>• Identify any assumptions and limitations that have informed the study or gaps in knowledge that have become apparent.</li> </ul> <p>The assessment of flora will include identification of the rare, endemic and endangered species; natural habitats; and conservation status of species and habitats.</p> <p>The faunal assessment will include amphibians, reptiles, birds and mammals (including bats), and will include species distribution based on literature according the habitat / Species Gap distribution, identification of the most sensitive areas or ecosystems and characterisation of rare, endemic and endangered fauna species.</p>
<b>Heritage Impact Assessment</b>	<u>Looks at the potential impacts on the existing cultural landscape within which the Project will be undertaken</u>	<p style="text-align: center;"><b>Baseline</b></p> <ul style="list-style-type: none"> <li>• Collate all secondary data available;</li> <li>• Undertake additional field work required to verify desktop assessment or address gaps in available data;</li> <li>• Provide a focussed and relevant description of all baseline characteristics and conditions of the sites being considered.</li> <li>• Liaise and consult with the relevant authorities, as required, to access additional information applicable to the investigation;</li> <li>• Identify relevant legislation and policies to be complied with;</li> <li>• Determine thresholds of acceptable change and relevant standards to be complied with;</li> <li>• Determine the ecosystem services;</li> <li>• Identify sensitive elements that may potentially be impacted on by the proposed development; and</li> </ul>



Study	Aim	Terms of Reference
		<ul style="list-style-type: none"> <li>• Make recommendations for additional study required.</li> </ul> <p style="text-align: center;"><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• Assess the preferred alternative route and any technology alternatives provided by the project team;</li> <li>• Identify and evaluate predicted impacts of proposed development on the heritage resources</li> <li>• Assess significance of each impact and proposed mitigation measures.</li> <li>• Determine the cumulative impact in terms of the current and proposed activities in the area;</li> <li>• Identify additional measures to ensure that the project contributes towards sustainability goals;</li> <li>• Detail the processes to be followed to obtain required permits and to relocate graves;</li> <li>• Provide recommendations for any ongoing monitoring that may be necessary; and</li> <li>• Identify any assumptions and limitations that have informed the study or gaps in knowledge that have become apparent.</li> </ul>
<p><b>Visual impact assessment</b></p>	<p>Assess the visual impact associated with the proposed development</p>	<p style="text-align: center;"><b>Baseline</b></p> <ul style="list-style-type: none"> <li>• Collate all secondary data available;</li> <li>• Undertake additional field work required to verify desktop assessment or address gaps in available data;</li> <li>• Provide a focussed and relevant description of all baseline characteristics and conditions of the sites being considered.</li> <li>• Liaise and consult with the relevant authorities, as required, to access additional information applicable to the investigation;</li> <li>• Identify relevant legislation and policies to be complied with;</li> <li>• Determine thresholds of acceptable change and relevant standards to be complied with;</li> <li>• Determine the ecosystem services;</li> <li>• Identify sensitive elements that may potentially be impacted on by the proposed development; and</li> <li>• Make recommendations for additional study required.</li> </ul> <p style="text-align: center;"><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• Assess the preferred alternative route and any technology alternatives provided by the project team;</li> <li>• Identify and evaluate predicted impacts of proposed development on the visual environment and/or natural landscapes;</li> <li>• Assess significance of each impact before and propose mitigation measures;</li> <li>• Determine the cumulative impact in terms of the current and proposed activities in the area;</li> <li>• Identify additional measures to ensure that the project contributes towards sustainability goals;</li> </ul>

Study	Aim	Terms of Reference
		<ul style="list-style-type: none"> <li>• Provide recommendations for any ongoing monitoring that may be necessary; and</li> <li>• Identify any assumptions and limitations that have informed the study or gaps in knowledge that have become apparent.</li> </ul>
<b>Social Impact Assessment</b>	Assess the socio-economic impacts associated with the proposed development	<p style="text-align: center;"><b>Baseline</b></p> <ul style="list-style-type: none"> <li>• Collate all secondary data available;</li> <li>• Undertake additional field work required to verify desktop assessment or address gaps in available data;</li> <li>• Provide a focussed and relevant description of all baseline characteristics and conditions of the sites being considered.</li> <li>• Liaise and consult with the relevant authorities, as required, to access additional information applicable to the investigation;</li> <li>• Identify relevant legislation and policies to be complied with;</li> <li>• Determine thresholds of acceptable change and relevant standards to be complied with;</li> <li>• Determine the ecosystem services;</li> <li>• Identify sensitive elements that may potentially be impacted on by the proposed development; and</li> <li>• Make recommendations for additional study required.</li> </ul> <p style="text-align: center;"><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• Assess the preferred alternative route and any technology alternatives provided by the project team;</li> <li>• Identify and evaluate predicted impacts of proposed development on the social environment, including but not limited to the following:               <ol style="list-style-type: none"> <li>(1) Develop a detailed overview and understanding of the demographic profile of the community;</li> <li>(2) Assess regional and local economies, with an emphasis on the way in which households in the project area sustain themselves;</li> <li>(3) Identify and assess the needs of vulnerable groups (i.e women), indigenous people and ethnic minorities;</li> <li>(4) Identify and assess the factors that contribute to the overall quality of life;</li> <li>(5) Employment opportunities for affected communities</li> <li>(6) How gender issues will be addressed or monitored;</li> </ol> </li> <li>• Assess significance of each impact and propose mitigation measures;</li> <li>• Determine the cumulative impact in terms of the current and proposed activities in the area;</li> <li>• Identify additional measures to ensure that the project contributes towards sustainability goals;</li> </ul>



Study	Aim	Terms of Reference
		<ul style="list-style-type: none"><li>• <u>Compile a Livelihoods Restoration Plan (LRP) (incorporating Accountability, Grievance and Redress Mechanisms)</u></li><li>• Provide recommendations for any ongoing monitoring that may be necessary; and</li><li>• Identify any assumptions and limitations that have informed the study or gaps in knowledge that have become apparent.</li></ul>
<b>Climate Change Assessment</b>	To determine the potential impact of climate change on the project and how the project may contribute to climate change	The terms of Reference will be included in the FSR.

In addition to the above-mentioned tasks, the specialists will also be required to be have inputs in the public participation, namely:

- Provide input into the public presentation at the Scoping and ESIA phases as detailed by Aurecon, based on the issues raised; and
- Assist EAP with appropriate responses to issues raised by stakeholders in the public participation process, as required.

## 6. METHODOLOGY FOR IMPACT ASSESSMENT

The assessment of the significance of impacts for a proposed development is by its nature, a matter of judgement. To deal with the uncertainty associated with judgement and ensure repeatable results, Aurecon rates impacts using a standardised and internationally recognised methodology adhering to ISO 14001 and World Bank/IFC requirements.

### 6.1. Consequence Criteria

For each predicted impact, criteria are applied to establish the significance of the impact based on likelihood and consequence, both without mitigation being applied and with the most effective mitigation measure(s) in place.

The criteria that contribute to the consequence of the impact are **intensity** (the degree to which pre-development conditions are changed), which also includes the **type of impact** (being either a positive or negative impact); the **duration** (length of time that the impact will continue); and the **extent** (spatial scale) of the impact. The sensitivity of the receiving environment and/or sensitive receptors is incorporated into the consideration of consequence by appropriately adjusting the thresholds or scales of the intensity, duration and extent criteria, based on expert knowledge. For each impact, the specialist applies professional judgement to ascribe a numerical rating for each criterion according to the examples provided in **Table 4**, **Table 5** and **Table 6** below.

**Table 4: Definition of Intensity ratings**

Rating	Criteria	
	Negative impacts (-)	Positive impacts (+)
<b>Very high</b> (-/+ 4)	Very high degree of damage to natural or social systems or resources. These processes or resources may restore to their pre-project condition over very long periods of time (more than a typical human life time).	Great improvement to ecosystem or social processes and services or resources.
<b>High</b> (-/+ 3)	High degree damage to natural or social system components, species or resources.	Intense positive benefits for natural or social systems or resources.
<b>Moderate</b> (-/+ 2)	Moderate damage to natural or social system components, species or resources.	Average, on-going positive benefits for natural or social systems or resources.
<b>Low</b> (-/+ 1)	Minor damage to natural or social system components, species or resources. Likely to recover over time. Ecosystems and valuable social processes not affected.	Low positive impacts on natural or social systems or resources.
<b>Negligible</b> (0)	Negligible damage to individual components of natural or social systems or resources, such that it is hardly noticeable.	Limited low-level benefits to natural or social systems or resources.

**Table 5: Definition of Duration ratings**

Rating	Criteria
2	<b>Long-term:</b> The impact will continue for 6-15 years.
1	<b>Medium-term:</b> The impact will continue for 2-5 years.
0	<b>Short-term:</b> The impact will continue for between 1 month and 2 years.

**Table 6: Definition of Extent ratings**

Rating	Criteria
2	<b>Regional:</b> The impact will affect the entire region
1	<b>Local:</b> The impact will extend across the site and to nearby properties.
0	<b>Site specific:</b> The impact will be limited to the site or immediate area.

The consequence is then established using the formula:

$$\text{Consequence} = \text{type} \times (\text{intensity} + \text{duration} + \text{extent})$$

Depending on the numerical result, the impact's consequence would be defined as either extremely, highly, moderately or slightly detrimental; or neutral; or slightly, moderately, highly or extremely beneficial. These categories are provided in **Table 7** below:

**Table 7: Application of Consequence ratings**

Rating	Significance rating
-8	Extremely detrimental
-7 to -6	Highly detrimental
-5 to -4	Moderately detrimental
-3 to -2	Slightly detrimental
-1 to 1	Negligible
2 to 3	Slightly beneficial
4 to 5	Moderately beneficial
6 to 7	Highly beneficial
8	Extremely beneficial

## 6.2. Significance criteria

To determine the significance of an impact, the **probability** (or likelihood) of that impact occurring is also taken into account. In assigning probability the specialist takes into account the likelihood of occurrence but also takes cognisance of uncertainty and detectability of the impact. The most suitable numerical rating for probability is selected from **Table 8** below:

**Table 8: Definition of Probability ratings**

Rating	Criteria
4	<b>Certain/ Definite:</b> There are sound scientific reasons to expect that the impact will definitely occur.
3	<b>Very likely:</b> It is most likely that the impact will occur.

2	<b>Fairly likely:</b> This impact has occurred numerous times here or elsewhere in a similar environment and with a similar type of development and could very conceivably occur.
1	<b>Unlikely:</b> This impact has not happened yet but could happen.
0	<b>Very unlikely:</b> The impact is expected never to happen or has a very low chance of occurring.

The significance is then established using the following equation:

$$\text{Significance} = \text{consequence} \times \text{probability}$$

Depending on the numerical result of this calculation, the impact would fall into a significance category of negligible, minor, moderate or major, and the type would be either positive or negative. Examples of these categories are provided in **Table 9**:

**Table 9: Application of significance ratings**

Rating	Significance rating
-4	Very high - negative
-3	High - negative
-2	Moderate - negative
-1	Low - negative
0	Very low
1	Low - positive
2	Moderate - positive
3	High - positive
4	Very high - positive

### 6.3. Confidence rating

Once the significance of an impact occurring without mitigation has been established, the same impacts will be assigned ratings after the proposed mitigation has been implemented.

Although these measures may not totally eliminate subjectivity, they provide an explicit context within which to review the assessment of impacts. The specialists appointed to contribute to this impact assessment have empirical knowledge of their respective fields and are thus able to comment on the confidence they have in their findings based on the availability of data and the certainty of their findings. As with all studies it is not possible to be 100% certain of all facts, and for this reason a standard “degree of certainty” scale (**Table 10**). The level of detail for specialist studies is determined according to the degree of certainty required for decision-making. The impacts are discussed in terms of affected parties or environmental components.

**Table 10: Definition of Confidence ratings**

Rating	Criteria
<b>Low</b>	Judgement is based on intuition and there some major assumptions used in assessing the impact may prove to be untrue.
<b>Medium</b>	Determination is based on common sense and general knowledge. The assumptions made, whilst having a degree of uncertainty, are fairly robust.

High	Substantive supportive data or evidence exists to verify the assessment.
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## 6.4. Mitigation of Potential and Residual Impacts

The significance of the impacts identified during the scoping phase will be assessed during the impact assessment phase. The specialists will recommend measures to mitigate the impacts.

The implementation of the mitigation measures is ensured through the ESMP. The ESMP will be used to enforce the mitigation measures and ensure that the impacts of all phases of the proposed project are properly managed and addressed. The ESMP will meet all the requirements of the South African NEMA and Botswana EIAA.

The table below (**Table 11**) is a summary of the identified impacts (for construction and operation phase) and the preliminary significance thereof.

**Table 11: Summary of the impacts identified and significance**

Biophysical and Social Environmental Aspects	Identified Impacts	Significance Pre-mitigation	Proposed Mitigation Measures
Surface water	Sedimentation and erosion of surface water bodies resulting from the construction activities	<b>[NEGATIVE]</b> Significance still to be assessed in the ESIA phase	Erosion control measures must be put in place to minimised sedimentation.
	Impact on Critical Biodiversity Areas or impacts on present / future protected areas		Drainage or discharge of waste water or hydrocarbons must be prevented at all times.
	Changes to water quality		Any contaminated storm water and other run-off from the site shall be contained and cleaned. Any spill which may contaminate water must be treated according to the approved spill management method statement the Contractor compiled.
	Changes to the hydrological regime		No construction or abstraction water from the natural water resources may take place without the authorisation from the relevant competent authority.
	Loss of wetland and aquatic habitat		Watercourses must be rehabilitated in accordance with the ESMP, WULA and rehabilitation specifications.
	Increase in habitat fragmentation		
	Loss of species of special concern		
	Loss of habitat and ecosystem function / ecosystem services		
Floral Biodiversity	Altered floral habitat and diversity	<b>[NEGATIVE]</b> Significance still to be assessed in the ESIA phase	Vegetation clearing shall be done in accordance with Eskom standards for bush clearance and maintenance within overhead transmission line servitudes.
	Introduction of alien invasive plants		
	Altered habitat availability		

			<p>Protected or endangered species of plants shall not be removed unless they are interfering with a structure. Where such species have to be removed due to interference with a structure, the necessary permission and permits shall be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF).</p> <p>Plants outside of the construction area are not to be disturbed, destroyed or removed.</p> <p>The use of herbicides shall only be allowed after a proper investigation into the necessity, the type to be used, the long-term effects and the effectiveness of the agent.</p>
<b>Faunal Biodiversity including Avifauna</b>	Impacts and/or loss of faunal habitat and ecosystem function	<b>[NEGATIVE]</b>  Significance still to be assessed in the ESIA phase	Excavations must be fenced off to prevent some animals falling in.
	Impacts on faunal diversity		The contractor may under no circumstances make use of pesticide or poison to control unwanted animals.
	Displacement of Red List species due to disturbance and habitat transformation associated with the construction of the powerline		Workers should be educated so as not to kill any fauna found onsite.
	Collisions of Red List species with the earthwire of the proposed powerline		<p>The footprint of disturbance should be kept to a minimum.</p> <p>No hunting or trapping is permitted along the alignment.</p> <p>The breeding sites of raptors and other wild bird species shall be taken into consideration during the planning of the construction programme.</p> <p>Should any new sites or nests be found during the construction process, that was not known or have been noted before, each site shall be assessed for merit and the necessary precautions be taken to ensure the least disturbance.</p> <p>Bird guards and diverters shall be installed.</p>
<b>Visual</b>	Impacts on sense of place	Low <b>[NEGATIVE]</b>	Site specific mitigation measures will be provided after the site inspection.

	Impacts on landscape quality	Low <b>[NEGATIVE]</b>	
	Impacts on landscape character	Low <b>[NEGATIVE]</b>	
	VAC Slope and vegetation	Very Low <b>[NEGATIVE]</b>	
	VAC Patter/Diversity	No long term potential impacts are considered	
<b>Socio-Economic</b>	Temporary loss of land and assets Laos labour competition. People may opt to abandon crop production during construction for temporary jobs.	Moderate <b>[NEGATIVE]</b>	The Relocation Action Plan (RAP) study will be done in parallel to the ESIA to mitigate the socio-economic impacts.
	Population influx and safety of the farmers and livestock	Moderate <b>[NEGATIVE]</b>	
	Disruption of access routes and daily movement patterns	Moderate <b>[NEGATIVE]</b>	
	Impacts on sense of place	Moderate <b>[NEGATIVE]</b>	
	Dust generation	Moderate <b>[NEGATIVE]</b>	
	Noise and Vibration during construction	Moderate <b>[NEGATIVE]</b>	
	Socio-cultural differences and conflicts	Moderate <b>[NEGATIVE]</b>	
	Various social pathologies	Moderate <b>[NEGATIVE]</b>	
	Crime	Moderate <b>[NEGATIVE]</b>	
	Informal settlements	Moderate <b>[NEGATIVE]</b>	
Economic displacement	Moderate <b>[NEGATIVE]</b>		

	Clearing of a large piece of land may affect the rangeland for livestock grazing	Moderate <b>[NEGATIVE]</b>	
	Waste disposal. If waste is not managed properly it may be a health hazard to both farmers and livestock	Moderate <b>[NEGATIVE]</b>	
	Transmission lines can negatively affect field operations e.g. aerial spraying, spray irrigation and future land development.	Moderate <b>[NEGATIVE]</b>	
	Local employment and job opportunities	Moderate <b>[POSITIVE]</b>	
	Local economy opportunities and economic empowerment	Moderate <b>[POSITIVE]</b>	
	Local economic growth	Moderate <b>[POSITIVE]</b>	
	Marketing of Agricultural produce – during construction the presence of contractors in the area may create a market for Agricultural produce.	Moderate <b>[POSITIVE]</b>	
	Creation of access road to farmland	Moderate <b>[POSITIVE]</b>	
<b>Heritage Features</b>	Potential impacts on Historic, or heritage and Paleontological features, including graves or burials	<b>[NEGATIVE]</b> Significance still to be assessed in the ESIA phase	The position of known sites must be shown on the final profiles. Such areas shall be marked as no go areas.  All archaeological and heritage requirements contained in this EMP must be included as part of the environmental induction on site.  Artefacts may not be removed or destroyed under any circumstances.  No heritage features on site must be destroyed with the permit from the relevant competent authorities.

## 7. INTERACTION WITH DEA IN SOUTH AFRICA AND BOTSWANA

Error! Reference source not found. is an indication of the stage at which the CA (DEA) will be consulted.

The above consultation opportunities with the DEA are based on the requirements of the EIA Regulations. However, additional consultation with the DEA may be required, depending on the outcome of the SE and specialist assessments and/or findings.

## 8. STAKEHOLDER ENGAGEMENT ACTIVITIES

The public will be given 3 opportunities to participate during the ESIA process, which include the following (Figure 1):

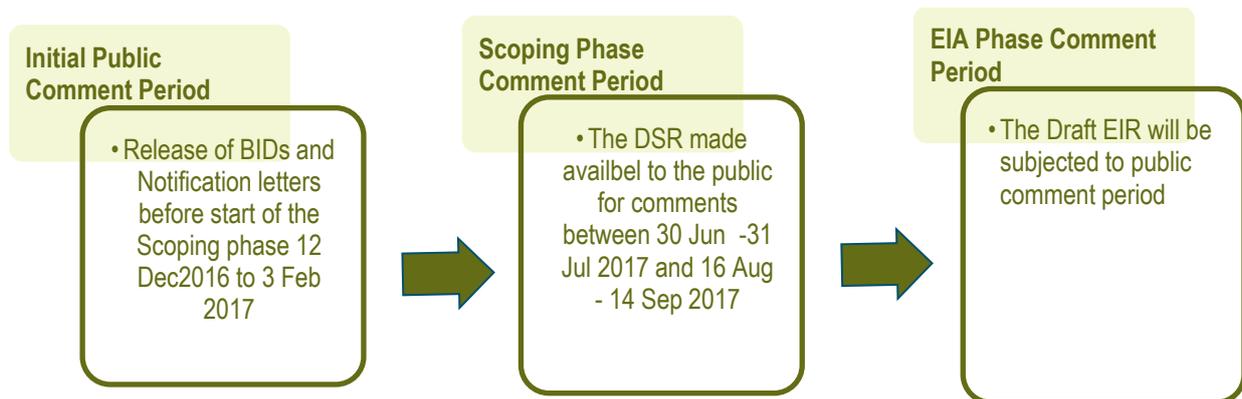


Figure 1: Engagement opportunities during the ESIA process

Throughout the ESIA process, I&APs have the opportunity to contact the EAP to discuss the project and raise any issues or concerns they might have. Focus group meetings will also be held with specific stakeholders to discuss issues that could be potential red flags for the proposed development. A detailed stakeholder Engagement Plan is attached as ANNEXURE E.

## 9. TASKS TO BE UNDERTAKEN DURING THE ESIA PROCESS

The activities that will take place during the EIA phase include but not limited to the following:

- **Specialist Studies**

Specialists will undertake their assessment of significance of impacts and make recommendations for mitigation measures to manage impacts.

Should additional specialist studies be required as a result of comments and information received during the comment period, the relevant specialists will be appointed to undertake these studies.

- **Draft EIR**

The Draft EIR will be compiled, together with the ESMP once the Scoping Report has been accepted by the DEA in both countries. The Draft EIR will incorporate comments and/or necessary changes recommended by the CA. The Draft EIR will also incorporate the findings from any additional specialist assessments undertaken.

- **Stakeholder Engagement**

The Draft EIR will be subjected to 30-day comment period. Advertisements and notifications will be sent out to inform the public of the availability of the report for comments.

All comments received during public comment period on the Draft EIR will be compiled into an updated CRR.

- **Final EIR**

Compilation of Final EIR and ESMP for submission, taking into account all the comments received during the review of the Draft EIR.