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REPORT ON

SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A RAILWAY LINE AND ASSOCIATED INFRASTRUCTURE TO CONNECT KUSILE POWER STATION TO THE NATIONAL RAILWAY GRID, WEST OF WITBANK ALONG THE N4 HIGHWAY.

FINAL REPORT

SUBMITTED TO:

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HALFWAY WAYS

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Report No.: 02

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EXECUTIVE SUMMARY

INTRODUCTION

Eskom intends to construct a railway line and associated infrastructure, for the transportation of a sorbent from the existing railway line two kilometres north of the N4 highway to the Kusile Power Station, situated west of Witbank. The Social Impact Assessment (SIA), a component of the Environmental Impact Assessment (EIA) process, has been undertaken to determine the significance, spatial scale, temporal scale, probability and degree of certainty of the social impacts of the proposed construction of Eskom railway line. The SIA has further incorporated the following issues as raised during the scoping phase of the EIA process:

- Changes to quality of life and sense of place,
- Noise pollution,
- Influx of job seekers,
- Influx of construction workers,
- Crime and security,
- Impact on existing livestock,
- Fencing on either side of the railway line, and
- Negative financial influence of properties.

Nthalepa Management has been requested to undertake the SIA for the proposed construction of Eskom railway line. The SIA will feed into the environmental authorisation process being undertaken by Zitholele Consulting.

OBJECTIVES OF THE SOCIAL IMPACT ASSESSMENT

The Social Impact Assessment sought to achieve the following main objectives:

- Present a social analysis including a social baseline describing the socio – economic characteristics of the area;
- Identify relevant social aspects and predict the anticipated social as well as socio – economic changes and impacts associated with the proposed construction of a railway line;
- Assess positive and negative social impacts including identification of viable mitigation measures and project related benefits; and

- Indicate sensitive and / or no-go areas as well as preferred alternative from a social perspective.

The proposed project falls within the eMalahleni Local Municipality - Ward 32 and in order to provide broader socio – economic context, as part of the baseline, the municipality’s settings were also assessed.

METHODOLOGY

The methodology used in this report includes the collection of primary data as well as a review of data and information from other sources to gather secondary data (e.g. census 2001, eMalahleni Local Municipality Integrated Development Plan (IDP) and those generated through the public participation process). The methodology was based on quantitative and qualitative techniques, to capture the perceptions, preferences and concerns of the various landowners, other stakeholder groups, as well as to collect data about the current socio-economic profile in the areas surrounding the proposed railway line. Data was collected by means of observations during site visits, interviews with key stakeholders, focus group meetings and a perception assessment survey of a sample of affected landowners.

THE SOCIAL CHANGE PROCESS

The social change process broadly refers to:

- Change in the nature, the social institutions, the social behaviour or the social relations of a society, community of people, or other social structures;
- Any event or action that affects a group of individuals that have shared values or characteristics; and
- Acts of advocacy for the cause of changing society in a normative way (subjective).

A change process can be regarded as a change that takes place within the receiving environment as a result of a direct or indirect intervention. A potential impact follows as a result of a change process. However, a change process can only result in an impact once it is experienced as such by an individual or community on a physical and /or cognitive level. For this project, the assessment process undertaken aimed to identify which social change processes may occur as a result of the construction and operation of the proposed railway line. The process further sought to assist in

identifying socio-economic impacts and also proposes measures to mitigate negative impacts and enhance positive impacts. The change processes which were assessed include the following:

The *demographic change process* relates to the number of people and composition of a community and also includes an overview of the population size and the educational profile of the affected households. The construction and operation of the proposed railway line could lead to a change in the number and composition of the population within the affected local area. This could in turn lead to economic, land use and socio – cultural impacts. The demographic change processes that can be expected as a result of the proposed railway line, and which have been assessed, comprise the following:

- Influx of construction workers;
- Influx of job seekers; and
- Influx of maintenance workers.

Economic change process relates to the way in which people make a living and the economic activities within that society. The employment status within a community gives an indication of the economic stability of such a community and also serves as an indicator of such a community's general well-being. The economic change processes that were assessed are as follows:

- Direct formal employment opportunities to local individuals; and
- Indirect formal and /or informal employment opportunities to local individuals.

Institutional and empowerment change process relates to the role, efficiency and operation of local governance in the area. It also investigates the ability of people to engage in the decision making processes to such an extent that they have an impact on the way in which decisions are made that would concern them. The institutional and empowerment change processes that can be expected as a result of the proposed Eskom railway project, and which were then assessed include the following:

- Attitude formation against the project;
- Negotiation processes; and
- Disaster management plan on site.

Socio-cultural change process associated with the proposed project incorporate changes such as safety aspects and sense of place. The expected changes can that occur in relation to social health and safety aspects can be as a result of the presence of construction workers and job seekers during the construction period. The socio - cultural processes that can be expected are as follows:

- Integration with local community;
- Safety and security; and
- Noise pollution.

ASSESSMENT OF IMPACTS AND RISKS AS WELL AS POTENTIAL MITIGATION

Potential socio-economic impacts have been identified by superimposing the description of the project activities on the baseline socio-economic profile compiled during the first phase of the study. Each identified impact has been rated according to the project phase during which it is likely to occur (construction or operation), and the impact assessment methodology made provision for the assessment of impacts against the following criteria:

- Overall significance;
- Spatial scale;
- Temporal scale;
- Probability; and
- Degree of certainty.

The combined qualitative and quantitative methodology of assessment has been used to describe impacts of each of the assessment criteria mentioned above.

Qualitative descriptors

The tables below show a summary of each of the qualitative descriptors along the equivalent qualitative rating scale for each of the criteria:

Table 1: Quantitative rating and equivalent descriptors for the impact assessment criteria

Rating	Significance	Extent scale	Temporal scale
1	VERY LOW	<i>Isolated route</i> /	<u>Incidental</u>

		<i>proposed route</i>	
2	LOW	<i>Study area</i>	<u>Short – term</u>
3	MODERATE	<i>Local</i>	<u>Medium – term</u>
4	HIGH	<i>Regional / provincial</i>	<u>Long – term</u>
5	VERY HIGH	<i>Global / national</i>	<u>Permanent</u>

Table 2: Description of the significance rating scale

Rating		Description
5	VERY HIGH	Of the highest order possible within the bounds of impacts which could occur. In case of adverse impacts: there is no possible mitigation and / or remedial activity which could offset the impact. In the case of beneficial impacts, there is no real alternative to achieving the benefit.
4	HIGH	Impact is of substantial order within the bounds of impact, which could occur. In the case of adverse impacts: mitigation and / or remedial activity is feasible but difficult, expensive, time – consuming or some combination of these. In the case of beneficial impacts, other means of achieving this benefit are feasible but they are more difficult, expensive, time – consuming or some combination of these.
3	MODERATE	Impact is real but not substantial in relation to other impacts, which might take effect within the bounds of those which could occur. In the case of adverse impacts: mitigation and / or remedial activity are both feasible and fairly easily possible. In the case of beneficial impacts: other means of achieving this benefit are about equal in time, cost, effort, etc.
2	LOW	Impact is of a low order and therefore likely to have little real effort. In the case of adverse impacts: mitigation and / or remedial activity is either easily to achieved or little will be required or both. In the case of beneficial impacts: alternative means of achieving this benefit are likely to be easier, cheaper, more effective, less time consuming, or some combination of these.
1	VERY LOW	Impact is negligible within the bounds of impacts which could occur. In the case of adverse impacts: almost no mitigation and / or remedial activity is needed, and any minor steps which might be needed are easy, cheap and simple. In the case of beneficial impacts: alternative means are

		almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.
0	NO IMPACT	There is no impact at all – not even a very low impact on a party or system.

Table 3: Description of the spatial rating scale

Rating		Description
5	Global / National	The maximum extent of any impact
4	Regional / Provincial	The spatial scale is moderate within the bounds of impacts possible, and will be felt at a regional scale (District Municipality to Provincial level)
3	Local	The impact will affect an area up to 5 km from the proposed route corridor.
2	Study area	The impact will affect a route corridor not exceeding the boundary of the corridor.
1	Isolated sites / proposed sites	The impact will affect an area no bigger than the route site.

Table 4: Description of the temporal rating scale

Rating		Description
1	Incidental	The impact will; be limited to isolated incidences that are expected occur very sporadically.
2	Short – term	The social impact identified will operate for the duration of the construction phase or a period of less than 5 years whichever is the greater.
3	Medium – term	The social impact identified will operate for the duration of life of the line.
4	Long – term	The social impact identified will operate beyond the life of the operation.
5	Permanent	The social impact will be permanent.

Table 5: Description of the degree of probability of an impact accruing

Rating	Description
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1	Practically impossible
2	Unlikely
3	Could happen
4	Very likely
5	It's going to happen / has occurred

Table 6: Description of the degree of certainty rating scale

Rating	Description
Definite	More than 90% sure of a particular fact.
Probable	Between 70 and 90% sure of a particular fact, or of the likelihood of that impact occurring
Possible	Between 40 and 70 % sure of the particular fact, or of that likelihood of an impact occurring.
Unsure	Less than 40% sure of a particular fact, or the likelihood of an impact occurring.
Can't know	It is believed that an assessment is not possible even with additional research.

ASSESSMENT OF PROJECT ALTERNATIVES

The following **social criteria** were identified and used in the ranking assessment of the three project alternatives:

- Proximity to settlement areas;
- Health and safety risks to local communities and cattle, sheep, pigs, etc in the area;
- Areas within cultivated lands;
- Areas within grazing land;
- Areas within current industrial development / activity; and
- Contribution to local job opportunities.

Qualitative ranking of project alternatives

In the qualitative assessment, table 7 indicates the ranking matrix that has been used to qualify and rank project alternatives based on the anticipated social impacts from the social criteria identified above.

Table 7: Qualitative ranking of project alternatives

Rank	Description
1	Unacceptable
2	Poor
3	Average
4	Good
5	Very good

Below is the summarised ranking of the project alternatives from the social criteria listed above. This summary should be read in conjunction with the ranking of project alternative in table 7 above. A detailed assessment of alternatives is provided in Chapter 10 of this report.

Table 8 : Ranking of project alternatives

Selection criteria	Alternative 1	Alternative 2	Alternative 3
Proximity to settlements	2	2	3
Health and safety risks to local communities and livestock, etc.	3	2	3
Areas within cultivated lands	3	2	2
Areas within grazing land	2	2	2
Areas within current industrial development / activity	3	2	3
Contribution to local job	4	4	4

opportunities			
TOTAL SCORES	17	14	17
RANKING	2	3	1

Legend

Scoring alternatives:

1: Unacceptable; 2: **Poor**; 3: **Average**; 4: Good; 5: Very good

Summary of scores

The table ranking indicates: Preferred alternative: **best** -1 **average** -2 **worst** -3

From the ranking conducted as per table 28 above, it should be noted that from a social impact point of view, alternative 3 (three) is ranked no. 1, the most preferred. This is because whereas, alternatives 1 and 3 have the same scores of 17 points each, alternative 3 has scored the highest in the most important criterion, that is, proximity to settlements.

A SUMMARY OF THE RESULTS OF ASSESSMENTS OF SOCIAL IMPACTS

The tables below depict a summary of the results obtained from the assessments of social impacts.

Table 9: Possible demographic impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
DEMOGRAPHIC - CONSTRUCTION						
Negative	Influx of construction workers	MODERATE	<i>Local</i>	<u>Short term</u>	It's going to happen	Definite
	Influx of job seekers	LOW	<i>Study area</i>	<u>Incidental</u>	It's going to happen	Possible
OPERATION						
Negative	Influx of maintenance workers	VERY LOW	<i>Proposed site</i>	<u>Incidental</u>	Very likely	Possible

Table 10: Possible economic impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
ECONOMIC - CONSTRUCTION						
Positive	Direct formal employment opportunities	MODERATE	<i>Local</i>	<u>Short term</u>	It's going to happen	Definite
	Indirect formal and /or informal employment opportunities	LOW	<i>Study area</i>	<u>Incidental</u>	It's going to happen	Possible
	Compensation for servitude	MODEATE	<i>Study area</i>	<u>Permanent</u>	It's going to happen	Definite
Negative	Social pathologies arising from population influx	MODERATE	<i>Local</i>	<u>Short term</u>	Very likely	Possible
OPERATION						
Positive	Direct formal employment opportunities to local individuals	MODERATE	<i>Local</i>	<u>Medium term</u>	It's going to happen	Definite

Table 11: Possible institutional and empowerment impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
INSTITUTIONAL AND EMPOWERMENT – CONSTRUCTION						
Positive	Negotiation process	HIGH	Local	Short term	It's going to happen	Definite
	Disaster Management Plan on site	MODERATE	Study area	Incidental	Could happen	Possible
Negative	Attitude formation against project	MODERATE	Local	Short term	Very likely	Possible
OPERATION						
Positive	Disaster Management Plan	LOW	Local	Incidental	Could happen	Unsure

Table 12: Possible socio – cultural impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
SOCIO – CULTURAL – CONSTRUCTION						
Negative	Integration with local community	MODERATE	Local	Short term	Very likely	Possible
	Safety and security	HIGH	Local	Short term	Very likely	Possible
	Noise pollution	MODERATE	Local	Short term	Very likely	Possible
	Pedestrian and vehicle access	MODERATE	Local	Permanent	It's going to happen	Definite
OPERATION						
Negative	Movement of maintenance workers	VERY LOW	Local	Incidental	Could happen	Possible
	Safety and security	MODERATE	Local	Long term	Very likely	Possible
	Noise pollution	MODERATE	Local	Long term	Very likely	Possible

A SUMMARY OF THE ASSESSMENT OF IMPACTS AND IDENTIFICATION OF POTENTIAL MITIGATIONS

The study distinguished between impacts that are expected to arise during the construction phase of the project and those likely to occur during the operational phase. These impacts as outlined in the tables above provide a summary of the social impacts according to their respective phases and disaggregated according to the affected areas. The tables also provide the overall significance rating of each impact.

The mitigations or enhancement measures were also identified for negative and positive impacts, respectively. A detailed account of the impacts, mitigations and enhancements is provided in Section 11 of this report. The main mitigations that were proposed include the maximisation of local employment opportunities, working together and cooperation of all structures within the area, such as SAPS, local community policing forums, farm unions, etc against possible escalation of crime, ensuring safety and security of landowners, as well as mitigations recommended by other specialists such as traffic and noise specialists, etc.

With appropriate measures, the negative impacts can be reduced to acceptable levels while the positive impacts can be maximised to provide significant benefits to the region.

In addition, SANRAL has no objection to the proposed project. However, they are of the view that they could be affected where the proposed railway crosses the R104 and the N4 roads. If this project is implemented, SANRAL would thus like to caution that their procedures are followed. These should include but not limited to bridge reports, bridge agreements, the proposed bridges are aesthetically pleasing and provision is made for future roads.

CONCLUSION

Based on the findings of this report, it can be concluded that the socio-economic environment in general poses no fatal flaws to the construction of the proposed Eskom railway line. This should, however, be seen under the conditions that the identified mitigations in this document are executed and adhered to. This is particularly applicable where construction activities could affect the quality of life of neighboring households in terms of crime, noise, dust, safety and security.

In as far as assessment of alternatives is concerned, from a social impact perspective, **alternative three (3)** is the most preferred and recommended in relation to its proximity to the settlement area, as discussed in Section 10 below: Assessment of Alternatives.

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Appendix A Stakeholders' interview questionnaire

1 INTRODUCTION

Eskom intends to construct a railway line and associated infrastructure, for the transportation of a sorbent from the existing railway line, two kilometres north of the N4 highway, to the Kusile power station, situated west of Witbank. The Social Impact Assessment (SIA), a component of the Environmental Impact Assessment (EIA) process, has been undertaken to determine the significance, spatial scale, temporal scale, probability and degree of certainty of the social impacts of the proposed construction of Eskom railway line.

Nthalepa Management has been requested to provide this SIA for the proposed construction of Eskom's railway line. The SIA will provide impetus into the environmental authorisation process being undertaken by Zitholele Consulting.

2 OBJECTIVES OF THE STUDY

The SIA sought to achieve the following key objectives:

- Present a social analysis including a social baseline describing the socio-economic characteristics of the area;
- Identify relevant social aspects and predict the anticipated social as well as socio-economic changes and impacts associated with the proposed construction of a railway line;
- Assess positive and negative social impacts including identification of viable mitigation measures and project related benefits; and
- Indicate sensitive and / or no-go areas as well as the preferred alternative.

The proposed project falls within the eMalahleni Local Municipality - Ward 32 and in order to provide broader socio – economic context, as part of baseline, the municipality's settings were also assessed.

3 MOTIVATION FOR THE STUDY

The assessment will be used to alert the affected landowners, property – owners, key stakeholders, including local officials, of the impact and magnitude of the proposed railway line on the community's social and economic well-being. The assessment will further assist affected property – owners with the opportunity to suggest and recommend mitigations for negative

impacts and enhancement for positive impacts associated with this proposed railway line construction.

The assessment will additionally provide estimates of anticipated changes in the quality of life of the affected parties that will result from this proposed project. Equally important, the assessment will present an opportunity for diverse values to be integrated into the decision-making process.

Finally, the assessment will create an underpinning for the assessment of cumulative impacts of this proposal on the affected property –owners’ social and economic resources.

4 APPROACH AND METHODOLOGY

A range of methods were used in this SIA to capture social data that could be used in the assessment of the impacts of the proposal on the surrounding communities. The approach included the collection of primary data as well as a review of data and information from other sources to gather secondary data. The methodology was based on quantitative and qualitative techniques, to capture the perceptions, preferences and concerns of the various stakeholder groups, as well as to collect data on the current socio-economic profile in the areas surrounding the proposed project.

Two types of data were primarily collected:

- a) Baseline social data including employment, housing, services and infrastructure levels; and
- b) Stakeholders’ views of their current quality of life and their perceptions about the desirability of the proposed railway construction and the impacts it might have on them.

The components of the methodology included:

- Site visits and observation;
- Telephonic communication with affected stakeholders;
- Focus group meeting with key stakeholders;
- One -on – one –discussion with affected stakeholders;
- Completion of interview questionnaires by key stakeholders; and
- Reviewing other documentation e.g. EMalahleni Local Municipality’s Integrated Development Plan and other studies.

4.1 Site visits and observation

A number of site visits were undertaken to some of the areas where the proposed railway line is intended to be constructed. These site visits were based across the area that contained the primary stakeholders, for the purpose of observation and assessment of the three proposed alternatives.

4.2 Telephonic communication with affected stakeholders

The aim of these telephonic interviews was to gain an understanding of the affected stakeholders' views and concerns regarding the proposed railway construction, to gauge the significance of potential social impacts, and to identify appropriate measures to reduce and mitigate negative impacts and enhance positive ones. Furthermore, the interviews aimed to assess the following from affected landowners:

- The type of land being affected;
- Change in kilometres;
- How the proposed alternatives cut their land;
- What structures are affected and how;
- What percentage of land was affected; and
- Potential impact of access during the construction phase of the project.

The telephonic interviews were conducted with the following informants / landowners:

- Mr. Christoff Pretorius – Ptn 9 & 10 of Bossemanskraal 538 JR - (Interview date 16 and 17 September 2009);
- Mr. Joerne Buys – Ptn 8 of Bossemanskraal 538 JR - (Interview date: 18 September 2009);
- Mr. Pieter Jansen van Vuuren – Ptn 2 Onverwacht 532 JR - (Interview date : 21 September 2009);
- Mr. Manie Venter – Ptn 17 & 20 of Onverwacht 532 JR - (Interview date : 21 September 2009);
- Ms Sinah Kgosana – Ptn 1 & 45 of Onverwacht 532 JR - (Interview date: 22 September 2009);
- Dr Paul Meulenbeld – Ptn 5 of Onverwacht 532 JR – (Interview date:02 October 2009); and

- Mr. Thami Sondiyazo – ¹Ptn 18 & 22 of Onverwacht 532 JR (Interview date: 02 October 2009).
- Mr Edwin Kruger – SANRAL (No questionnaire completed, only (comments received on :24 October 2009)

4.3 Focus group meeting with key stakeholders

The focus group meeting was held on 16th September 2009 at the Intervention Centre at Phola Location near EMalahleni. **The meeting was geared towards gaining insight into community perspectives on potential socio-economic impacts of the proposed project.** The focus group meeting was attended by 19 stakeholders comprising of:

- Ward Cllr S.E. Shongwe – Ward 32;
- Member of Mayoral Council Ward Cllr L.O. Mudau – Ward 30
- Ward Cllr Thandi Mokoena – Ward 31;
- Ward Cllr Dan Luvuno – Ward 28;
- Community Development Workers for Ward 30; and
- Ward committee members of various wards as well as Community Pension Committee members.

Stakeholders also took part in the perception assessment survey by completing the survey questionnaires.

4.4 One-on-one discussion with affected stakeholders

The aim of the discussion was to gain an understanding of stakeholders' views and concerns regarding the proposed construction of the railway line, to determine the significance of potential social impacts, and to identify appropriate measures to reduce and mitigate negative impacts and enhance positive ones. The one – on – one interviews were also aided by the affected stakeholder questionnaire.

Interviews were conducted with the following informants:

¹ In terms of WinDeed deeds search, both portions 18 and 22 of Onverwacht 532 JR belong to the Republic of South Africa but Zitholele outlines Mr Sondiyazi as the owner of portions 18 and 22 on their list of directly affected landowners.

- Dr Danie Visser-MD Topigs SA- Ptn 9 & 10 of Bossemanskraal 538 JR (Interview date: 23 September 2009); and
- Mr. Christoff Pretorius - -Ptn 9 & 10 of Bossemanskraal 538 JR - (Interview date: 23 September 2009).

4.5 Interview questionnaire by key stakeholders

A key stakeholder questionnaire was prepared and completed by identified stakeholders on 16th September 2009. The questionnaire aimed to achieve the following:

- Obtain first-hand information on views of key stakeholders regarding the proposed construction of Eskom's railway line;
- Determine their preferences with regard to measures to mitigate negative impacts associated with the project;
- Ascertain their knowledge and concerns regarding the proposed railway line construction; and
- Receive any other comment that may assist the study.

4.6 Data collection

The key stakeholders' perception survey was conducted on 16th and 23rd September 2009. The survey included property – owners and other key stakeholders and was undertaken by means of semi-structured interviews guided by questionnaires containing a range of multiple-choice and open-ended questions. Responses were recorded on the questionnaires and captured in an electronic database for statistical analysis. During the interviews, photographs of stakeholders were taken.

This data collection exercise was intended to supplement information that was already obtained from secondary sources (such as census results) and other sources (e.g. interviews). A copy of the key stakeholder questionnaire is included in this report as *Appendix A*.

4.6.1 Data analysis

Data collected during the survey was subjected to analysis to compile descriptive statistics. The results of the analysis are summarized in the sections below.

4.7 Review of other documents

Other documents that were reviewed to obtain baseline information on the study area and to assess potential socio-economic impacts included:

- Census 2001 population statistics (obtained from the website of the Municipal Demarcation Board): www.demarcation.org.za
- Statistics South Africa. (2007). *Community Survey 2007: Municipal Data on Household Services*. Retrieved August 17, 2009, from <http://www.statssa.gov.za/Publications/Report-03-01-21/Report-03-01-212007.pdf>;
- EMalahleni Local Municipality Draft Integrated Development Plan: 2008/2009; and
- Project Background Information Document for the public as prepared by the public participation team from Zitholele Consulting as well as comments sheet received from the affected stakeholders.

4.8 Projection of impacts

After acquiring a preliminary understanding of the proposed project and baseline socio-economic conditions, the potential impacts of the project were identified by means of professional judgment and prior experience from similar projects. In each case, a distinction was drawn between impacts likely to occur during the *construction* phase of the project, and those that are most likely to occur during the *operational* phase. Projected impacts were also characterised as being either *positive* or *negative*.

4.9 Rating of impacts

Potential socio-economic impacts have been identified by superimposing the description of the project activities on the baseline socio-economic profile compiled during the first phase of the study. Each identified impact has been rated according to the project phase during which it is likely to occur (construction or operation), and the impact assessment methodology made provision for the assessment of impacts against the following criteria:

- Overall significance;
- Spatial scale;

- Temporal scale;
- Probability; and
- Degree of certainty.

The combined qualitative and quantitative methodology of assessment has been used to describe impacts of each of the assessment identified criteria.

Table 13: Criteria used to assess socio - economic impacts.

Significance	Rating of impact
Very High	5
High	4
Moderate	3
Low	2
Very low	1
No impact	0

Spatial Scale	Rating of impact
Global / National	5
Regional / Provincial	4
Local	3
Study area	2
Isolated sites / proposed site	1

Duration Scale	Rating of impact
Incidental	1
Short term	2
Medium term	3
Long term	4
Permanent	5

Degree of probability	Rating of impact
Practically impossible	1
Unlikely	2
Could happen	3
Very likely	4
It's going to happen / has occurred	5

Degree of certainty	Rating of impact
Definite	5
Probable	4
Possible	3
Unsure	2
Can't know	1

}

Consequence

}

Likelihood

To allow for impacts to be described in a quantitative manner in addition to the qualitative description provided, a rating scale of between 1 and 5 was used for each of the assessment criteria. Therefore, the total value of the impact risk has been capitulated to express the sum of significance, spatial and temporal scales, multiplied by the probability.

The impact risk is classified according to 5 classes as illustrated in the table below:

Table 14: Impact Risk Classes.

Rating	Impact Class	Description
0.1 – 1.0	1	Very low
1.1 – 2.0	2	Low
2.1 – 3.0	3	Moderate
3.1 – 4.0	4	High
4.1 – 5.0	5	Very high

4.10 Identifying mitigation and enhancement measures

This component of the study involved the development of recommendations regarding mitigation (in the case of negative impacts) or enhancement (in the case of positive impacts) measures. These measures are aimed at reducing adverse social impacts, either by modifying the planned construction, or else by implementing measures to buffer or compensate for impacts, or to enhance the effect of beneficial social impacts by implementing measures to supplement or streamline the impact.

4.11 Assumptions and limitations

The study is subject to the following limitations:

- In many respects, the proposed construction is still in the early stages of design. Hence, figures quoted in the estimates of certain impacts (e.g. numbers of employment opportunities

that will be created) may be subject to change. In such cases, conservative estimates were employed.

- Social profile of the study area is based partly on data collected during the 2001 Census. In some instances, the social characteristics of an area might have changed significantly in the intervening years. The figures presented in the social profile should therefore be regarded as indicative rather than a completely accurate reflection of current conditions.
- The perception survey reported on was based on relatively limited informants as a result of strict time constraints. Thus, extrapolations from this survey in relation to all affected stakeholders may yield diverse results.

5 ASSESSMENT OF THE STUDY AREA

The study area is located in the Mpumalanga Province, west of eMalahleni (Witbank). The project as proposed falls within the boundaries of Ward 32 of the eMalahleni Local Municipality which represents one of the six Local Municipalities in the Nkangala District Municipality. It forms part of the western regions of Mpumalanga Province and borders onto the Gauteng Province. Furthermore, as per ²eMalahleni 2008/09 draft IDP, the southern parts of the eMalahleni Municipality form part of the precinct referred to as the Energy Mecca of South Africa, due to its rich deposits of coal reserves and power stations such as Kendal, Matla, Duvha Ga-Nala, and the new Kusile. The southward road and rail network connect the eMalahleni area to the Richards Bay and Maputo harbours, offering export opportunities for the coal reserves. The geographical context of the study area and the three proposed alternatives are illustrated in Chart 11 of this report.

6 SOCIO-ECONOMIC PROFILE OF THE REGION

The proposed construction of the Eskom railway line is located within the area of jurisdiction of the eMalahleni Local Municipality. The aim of this section is to contextualize the study by developing a socio-demographic profile that captures the relevant characteristics of the municipality as well as those of Municipal Ward 32 - within which the project will be located. It also presents the results of the perception study that was undertaken as part of the assessment.

² eMalahleni Integrated Development Plan Draft 2008 /2009

6.1 Regional profile

This section focuses on the socio-demographic characteristics of the eMalahleni Local Municipality as a whole, while the subsequent section focuses specifically on Ward 32.

6.1.1 Population and Demographics

In this section the population of the study area is discussed with specific reference to the population characteristics, household size, languages spoken, and the types of housing.

Table 15: Total population

	PERSONS	
	2001	2007
Gauteng Province	9 178 900	10 451 700
Mpumalanga Province	3 122 988	3 522 334
eMalahleni Local Municipality	276 412	435 217

Total population

At the time when ³Census 2001 was conducted, there were 276 412 people represented by 74 919 households residing in the eMalahleni Municipal area (Table 15). Compared to the 1996 Census which reflected 236 665 people in area, population growth of 3.15% growth per annum (39 747 persons) occurred during this period. As per ⁴Community Survey 2007, the latest (2007) population estimate for eMalahleni is about 435 217 people.

Table 16: Population concentration

Centres	Population	Percentage of total population
eMalahleni City	199 442	69%
Ogies and Phola	25 715	9%
Ga-Nala and Thubelihle	18 880	6%
Van Dyksdrift	2 180	2%
Non-urban	52 588	11%
TOTAL	298 805	100%

³ Census 2001

⁴ Statistics South Africa. (2007). *Community Survey 2007: Municipal Data on Household Services*. Retrieved September 18, 2009, from <http://www.statssa.gov.za/Publications/Report-03-01-21/Report-03-01-212007.pdf>

Population concentration

As per Table 16, the bulk of the population in eMalahleni is urbanized with only 11% of the population residing in the non-urban areas. The eMalahleni City is dominant in terms of its population, with only 21% of the urban population residing outside the town. In terms of the urban areas, the highest population density is experienced in Lynnville (202 households/hectare), followed by Phola (160 households/hectare) and then Kwa-Guqa (157 households/hectare).

Household Size

The eMalahleni Local Municipality consists of just over 74 919 households with an average household size of 3.2 persons per household that is similar to the Provincial household size (refer to Table 17).

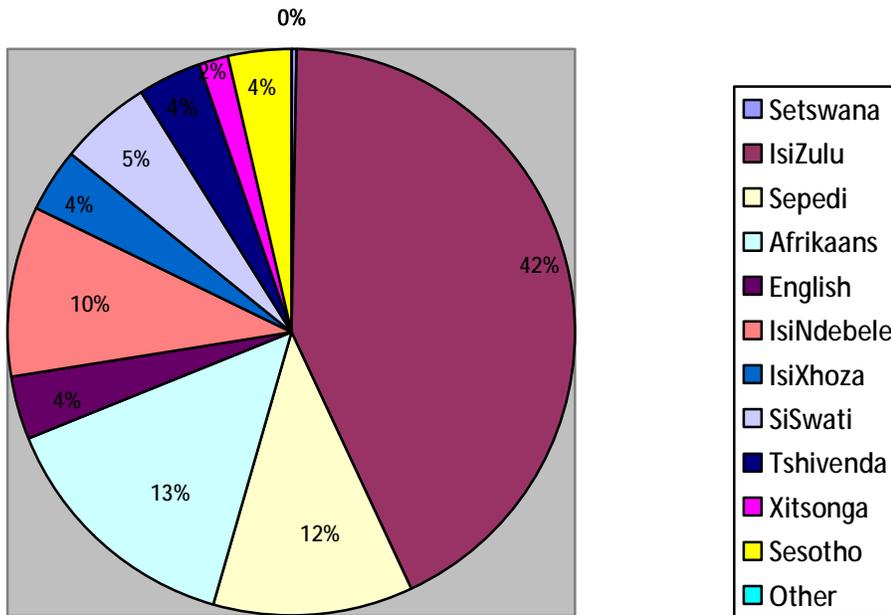
Table 17: Average household size in the municipality

Municipal Areas	Household Size
Gauteng Province	3.3
eMalahleni Local Municipality	3.2

Language distribution

The language distribution in the study area strongly confirms the racial profile. This is indicated in Chart 1 which gives an overview of the spoken languages in the area with the most common spoken language in households in the study area is IsiZulu (42%) and Afrikaans (13%). This is followed by IsiNdebele (10%), Sepedi (12%) and SiSwati (5%) are less common spoken languages in the Municipality.

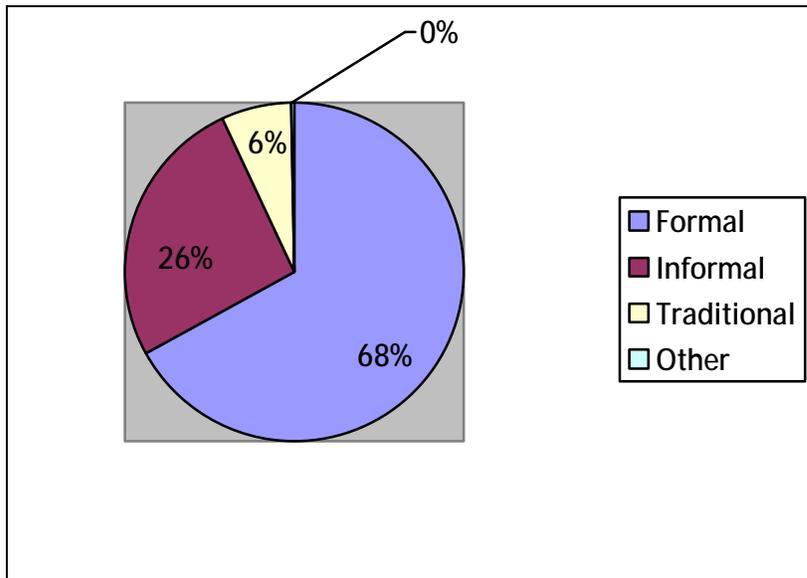
Chart 1: Language distribution in the Municipality.



Housing

The number of households with access to formal housing as per Chart 2 is represented by 68% while 26% have informal housing. This could be evidence of the need to improve the levels of service delivery in the Municipality.

Chart 2: Households in the Municipality.



As per draft 2008 /2009 IDP, one of the most prominent challenges facing the eMalahleni Municipality is the housing backlog in the area as per Table 18 below. The eMalahleni Municipality has the highest number of informal settlements in the Nkangala District, with an estimated housing backlog of about 40 000 units. The largest housing backlogs occur in the western and north-western parts of eMalahleni town.

Table 18: Housing backlog in the municipality

Housing Type	Number of families
Informal settlements	24084
Backyard dwellings	9180
Multiple family accommodation	4500
Hostel conversions	700
Families on farms	874
Total	39338

6.1.2 Economic Activities

The EMalahleni economy is dominated by electricity as the main contributor to the growth of the area. It is believed that the electricity sector dominates the local economy and that the mining activities also contribute significantly. The manufacturing and community services sectors are respectively the third and fourth most important sectors in the local economy.

During 1996-1999 only the finance sector and the electricity sector recorded significant growth rates.⁵ However, 1999-2002 was a period of expansion in the local economy with the aggregate economy expanding by 2.7%. The key sectors that drove this expansion were:

- Mining;
- Manufacturing;
- Transport; and
- Finance.

6.1.3 Education and Employment

In this section the study area is discussed with specific reference to the levels of education of over 15-year olds, the employment rates as well as the levels of income as per 2001 census data.

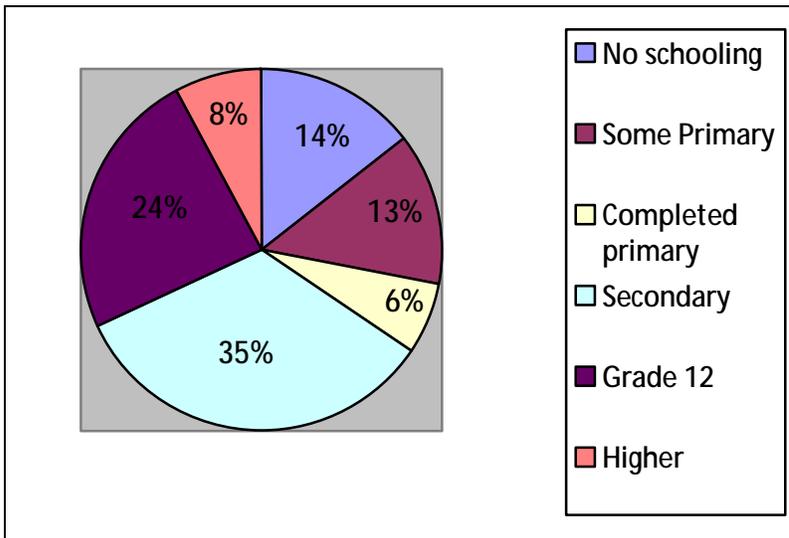
Education

Chart 4 indicates the highest education levels attained by over-20 year olds within the municipality⁶. As this chart shows, education levels in the municipality are relatively high, with 35% of over – 20 years olds having gone through Secondary schools. However, 14% of the population has no schooling at all.

⁵ EMalahleni IDP 2008 -2009 draft

⁶ Census 2001.

Chart 3: Levels of education in the Municipality



Employment

Approximately 45% of population is economically active, which is considerably higher than the Nkangala District (34%). As per Chart 4 below, the highest number of unemployed people resides in Hlalanikahle (27%), followed by Lynnville (26%), Phola (24%) and Kwa-Guqa (23%).

Chart 4: Employment status in the Municipality.

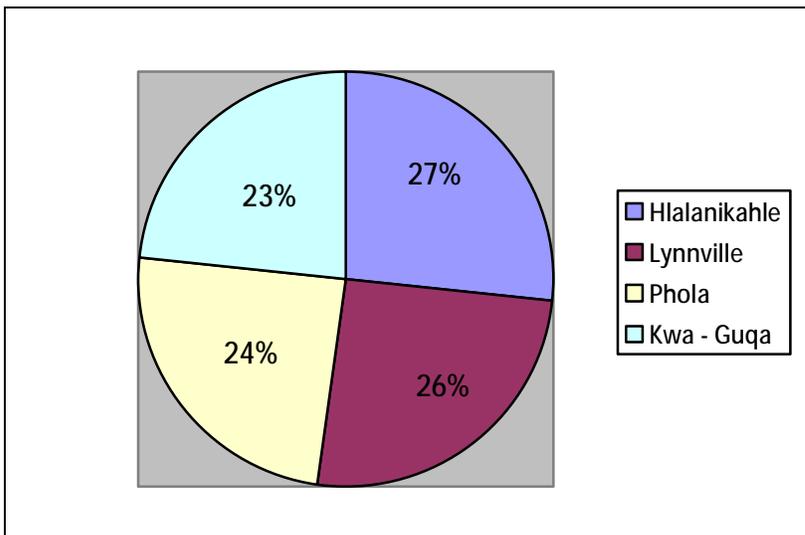
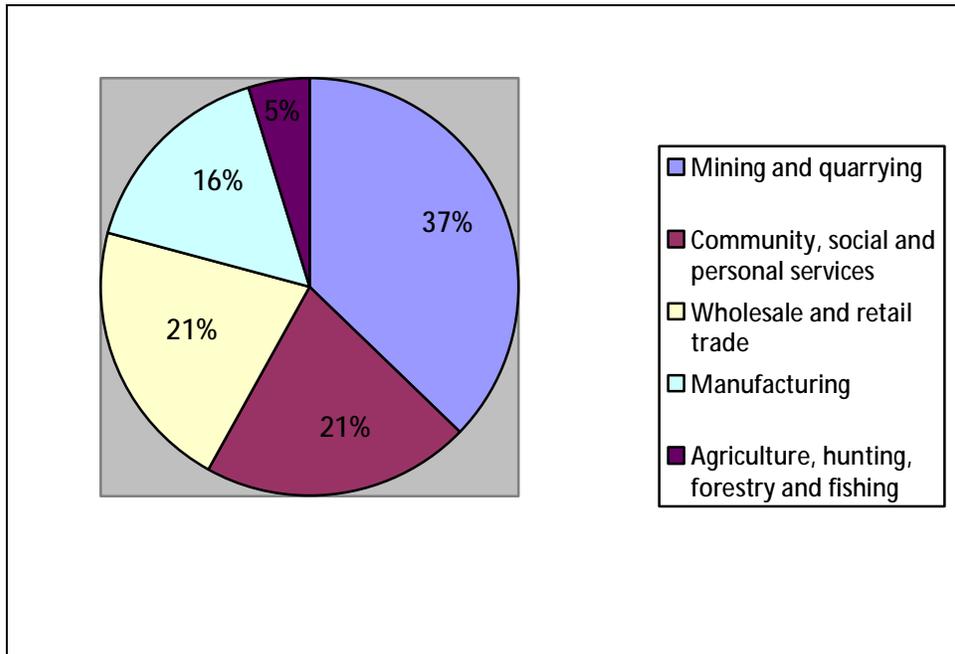


Chart 5 below indicates the employment population according to the major types of industry in the area. As per the chart, mining and quarrying represents the biggest percentage.

Chart 5: Employment according to type of industry in the Municipality

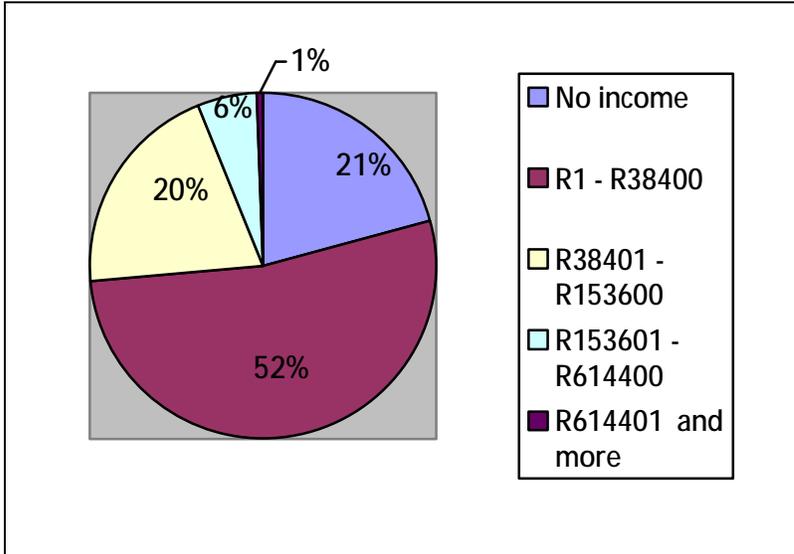


6.1.4 Income

Chart 6 indicates the distribution of annual household income levels⁷. The annual income levels within the municipality vary significantly. Almost 52% of those employed earn between R1 and R38, 400 per annum. This amounts to less than R3, 200 per month before and this relatively low and attests to the income disparities in the municipality.

⁷ Census 2001.

Chart 6: Household income in the Municipality



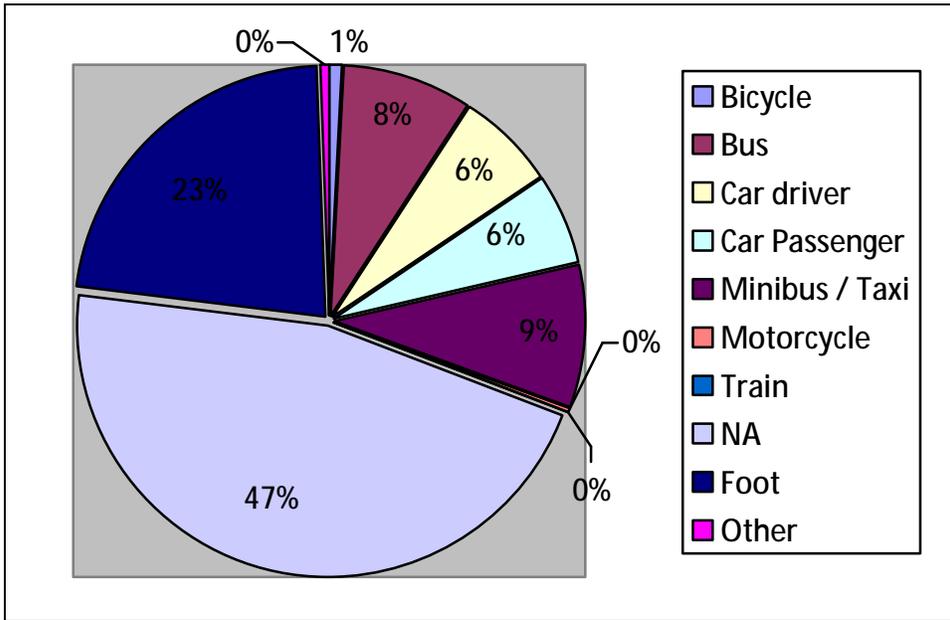
6.1.5 Infrastructure and Services

In this section an overview of the level of access to services and the use of transportation infrastructure are discussed in several subheadings below.

Modes of Travel

Chart 7 depicts the modes of transport that people in the municipality utilize to get to work or to school. As this figure shows, 47% of the people use cars and 23% walk. This is followed by 9% which makes use of minibus taxis.

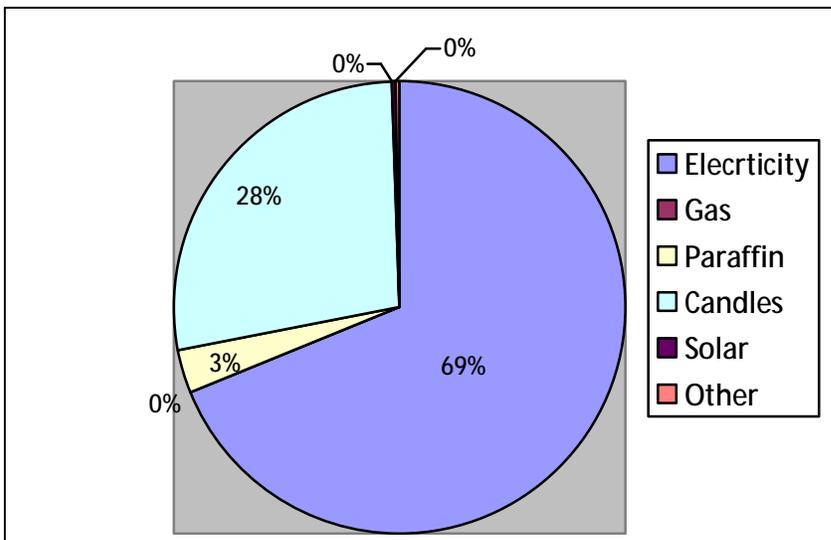
Chart 7: Mode of travel for work or school in the Municipality.



Energy Sources

Almost 69% of households in the municipality have access to electricity. However, 28% of households still use candles and this could only attest to the level of electrification the municipality must still undertake.

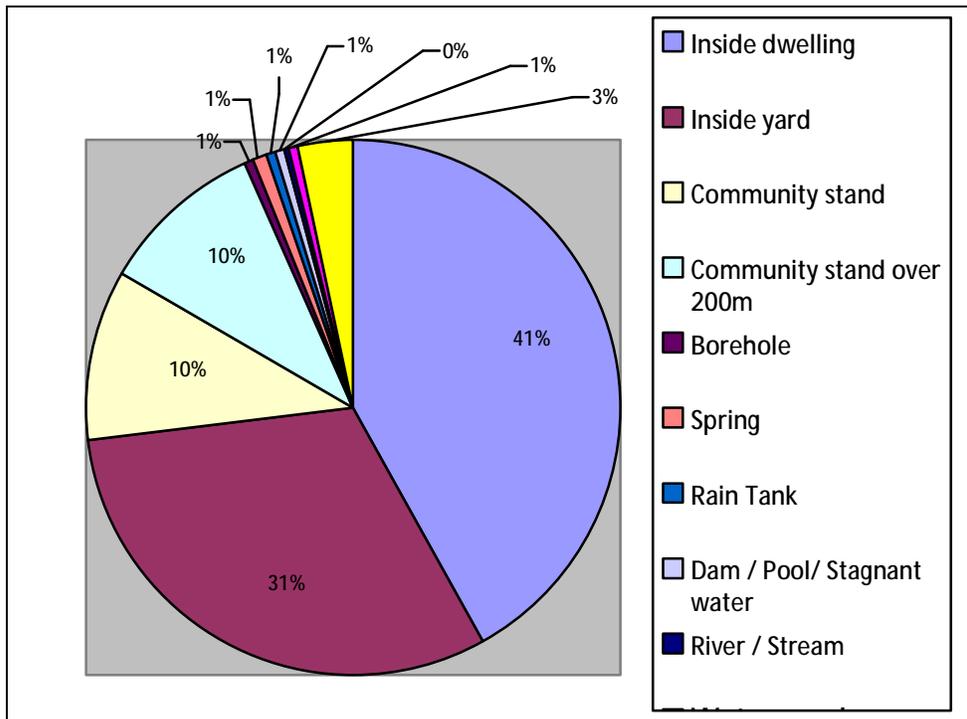
Chart 8: Energy source in the Municipality.



Water

Chart 9 depicts the water supply used by households within the study area⁸. These statistics indicate that 41% of households have water inside their dwellings and 31% have water inside their yards. This indicates the level of provision of water which the municipality was able to attain.

Chart 9: Water access in the Municipality.

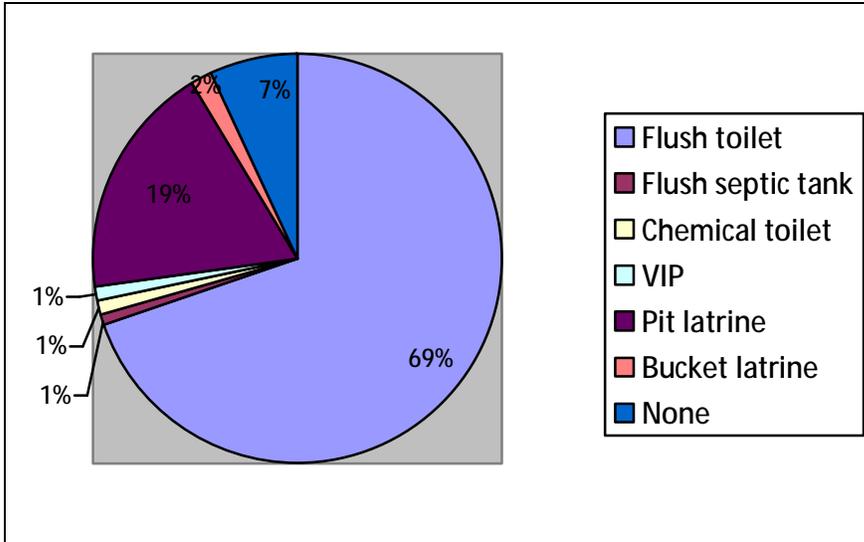


Sanitation Services

Chart 10 depicts the types of sanitation services utilized by households in the Municipality. The greatest majority (69%) of the population use flush toilets and about 19%, which represent the second largest, use pit latrine. This reflects the characteristics of the municipality - an element of rural and urban. The worrying factor is the 2% that still use bucket latrine and the 7% that does not have any sanitation service.

⁸ Community Survey 2007

Chart 10: Sanitation services in the Municipality



6.2 Profile of Ward 32 – EMalahleni Local Municipality

The social profile presented below focuses on the EMalahleni Ward 32- the ward within which the proposed Eskom railway line will be located. This analysis is based on information sourced from 2001 survey and may have changed considerably to date.

6.2.1 Population grouped

Table 19: Population grouped in the ward.

Description	2001
Black African	9585
Coloured	87
Indian or Asian	56
White	1189

The table above represents the total population grouped in ward 32. Black African represents approximately 88% of the entire population grouped in the ward.

6.2.2 Household gender

Table 20: Household gender in the ward.

Description	2001
Male	3127
Female	622

6.2.3 Household size

In terms of the 2001 survey, men constitute 83% of the household gender in the ward. This can be attributed to the migrant labour patterns in South Africa.

Table 21: Household size in the ward.

Description	2001
One	1677
Two	629
Three	381
Four	334
Five	244
Six	167
Seven	99
Eight	91
Nine	46
Ten and over	84

6.2.4 Work status

From the 2001 survey, approximately 45% of household sizes in the ward have at least one member. This means 45% of the households in the ward may be able to better provide for their households due to the manageable number of household members. This also constitutes the biggest percentage in terms of household size in the ward.

Table 22: Work status in the ward

Description	2001
Paid employee	3717
Paid family worker	25
Self-employed	99
Employer	13
Unpaid worker	11
Not applicable	4038

6.2.5 Employment status

Table 23: Employment status in the ward

Description	2001
Employed	3863
Unemployed	1442
Not economically Active	2596

Approximately 73% of the economically active people are employed and 22% are not employed. This is however, not reflective of the Province in general which accounts to over 34% of economically active persons being employed.

6.2.6 Occupation

Table 24: Occupation in the ward

Description	2001
Senior Officials	76
Professionals	128
Tech/Assoc Prof	143

Clerks	189
Service workers	226
Skilled agric work	150
Other	1124
Elementary occup	831
Occupations NEC	148
Plant Operators	850

From the 2001 survey, just over 22% are engaged as plant operators. Approximately 30% of the employed do other work that is not listed. This represents the biggest percentage of those with occupation in the ward.

6.2.7 Educational Institutions

Table 25: Educational Institutions in the ward

Description	2001
None	1371
Pre - school	105
School	2123
College	72
Technikon	16
University	5
Adult education	4
Other	6

From the 2001 survey, schools represent 66% of educational institutions in the ward and those could signal high levels of education in the ward, provided that those in schools are able to complete their schooling and do not drop-out.

6.2.8 Education ungrouped

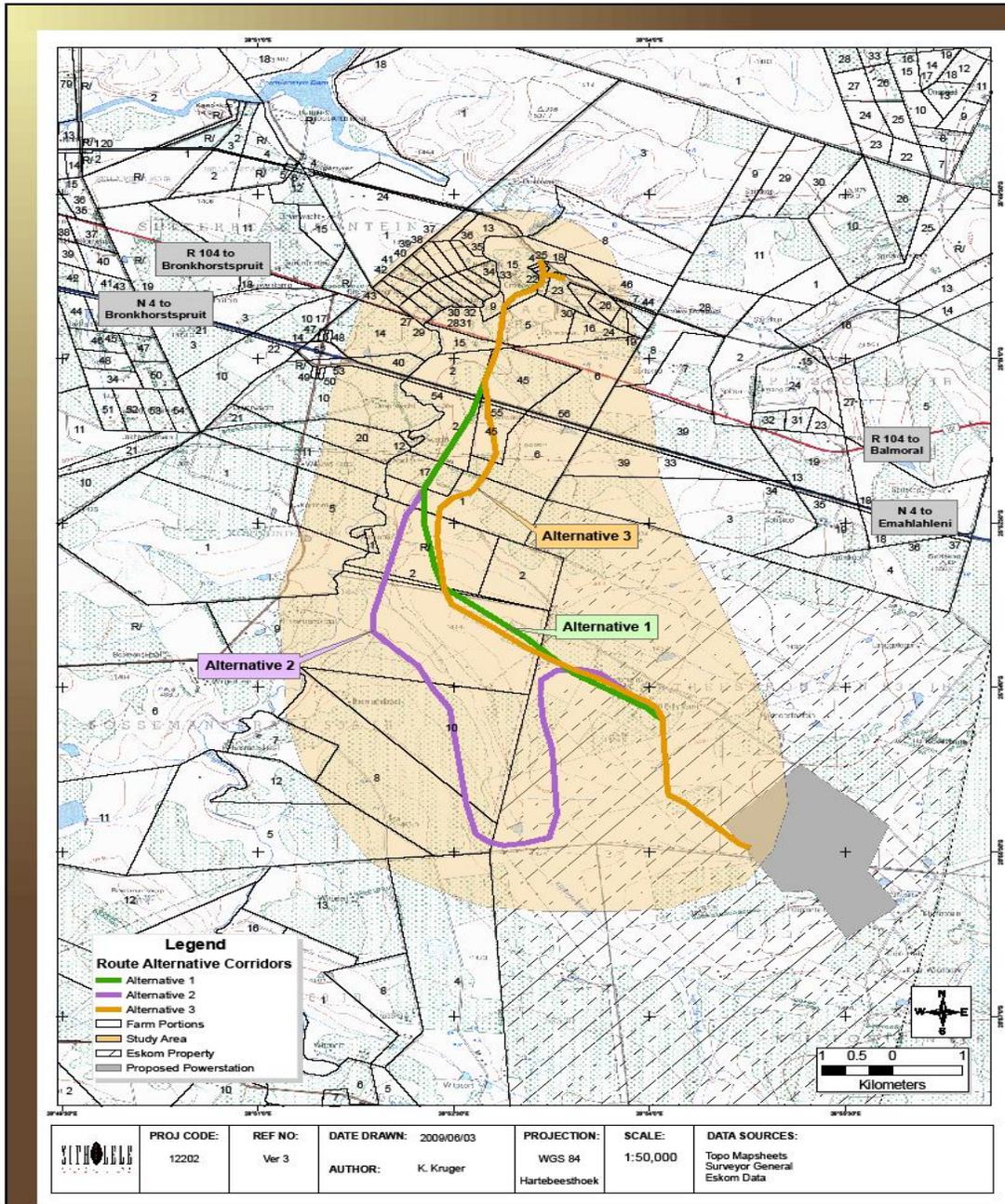
Table 26: Education ungrouped in the ward

Description	2001
No schooling	1848
Grade 1/Sub A	380
Grade 2/Sub B	308
Grade 3/Std 1	405
Grade 4/Std 2	489
Grade 5/Std 3	500
Grade 6/Std 4	598
Grade 7/Std 5	821
Grade 8/Std 6	718
Grade 9/Std 7	591
Grade10/Std 8/NTCI	858
Grade11/Std9/NTCII	579
Grade12/St10/NTC3	1310
Cert.noGrade12	27
Dip.noGrade12	8
Cert.withGrade12	138
Dip.with Grade12	140
Bachelor's degree	29
B Degree, dip	34
Honour's degree	4
Higher degree	4
Not applicable	1129

From the education ungrouped analysis undertaken, about 46% has acquired Grade 12 / Std 10 and / or NTC 3. This attests to the availability of schools in the ward and the enthusiasm of students / apprentices to complete their high school education.

7 DIRECTLY AFFECTED LANDOWNERS

Chart 11: Study area and the proposed railway line alternatives.



The table below represents the directly affected landowners.

Table 27: Directly affected landowners

No	Farm Name	Portion No.	Owner	Municipality
1	JR 537	0	Eskom	Delmas Municipality
2	JR 537	1	Eskom	Delmas Municipality
3	JR 537	2	Eskom	Delmas Municipality
4	Bossemanskraal 538 JR	2	Mr Ernst Johann Kotze	Kungwini Local Municipality
5	Bossemanskraal 538 JR	8	Mr Buys Joerne	Kungwini Local Municipality
6	Bossemanskraal 538 JR	9	Topigs SA (Dr Danie Visser)	Kungwini Local Municipality
7	Bossemanskraal 538 JR	10	Topigs SA (Dr Danie Visser)	Kungwini Local Municipality
8	Kortfontein 530 JR	0	Mr Ernst Johann Kotze	Kungwini Local Municipality
9	Onverwacht 532 JR	1	R M Kgosana Family Trust (Mr Moses Kgosana)	Kungwini Local Municipality
10	Onverwacht 532 JR	2	Circle Way Trading 20 (Pty) Ltd [Mr Herman van Vuuren]	Kungwini Local Municipality
11	Onverwacht 532 JR	4	Mr Coertze Johannes Petrus Louis	Kungwini Local Municipality
12	Onverwacht 532 JR	5	Dr Paul Meulenbeld	Kungwini Local Municipality
13	Onverwacht 532 JR	6	R M Kgosana Family Trust (Mr Moses Kgosana)	Kungwini Local Municipality
14	Onverwacht 532 JR	9	Mr Hendrikus Gerardus Rutten	Kungwini Local Municipality
15	Onverwacht 532 JR	15	Mr Hermann Family Trust (Mr Buks Herman)	Kungwini Local Municipality
16	Onverwacht 532 JR	17	Mr Venter Hendrik Frederik Christoffel	Kungwini Local Municipality
17	Onverwacht 532 JR	18	Republic of South Africa	Kungwini Local Municipality
18	Onverwacht 532 JR	22	Republic of South Africa	Kungwini Local Municipality
19	Onverwacht 532 JR	25	Mr Coertze Johannes Petrus Louis	Kungwini Local Municipality
20	Onverwacht 532 JR	45	R M Kgosana Family Trust (Mr Moses Kgosana)	Kungwini Local Municipality

21	Onverwacht 532 JR	54	South African National Roads Agency Ltd	Kungwini Local Municipality
22	Onverwacht 532 JR	55	South African National Roads Agency Ltd	Kungwini Local Municipality

There are twenty two portions of land on different farms that are directly affected by various alternatives of the proposed railway project. Some landowners own more than one portion and this brings to a total of thirteen directly affected landowners. The affected landowners were identified through site visits, WinDeed deeds search, satellite photographs, a list compiled through the public participation process and the map information from Chief Surveyor General. It should be noted that once the Environmental Impact Assessment process has been completed and alternatives assessed, with the best alternative identified, fewer landowners may be affected.

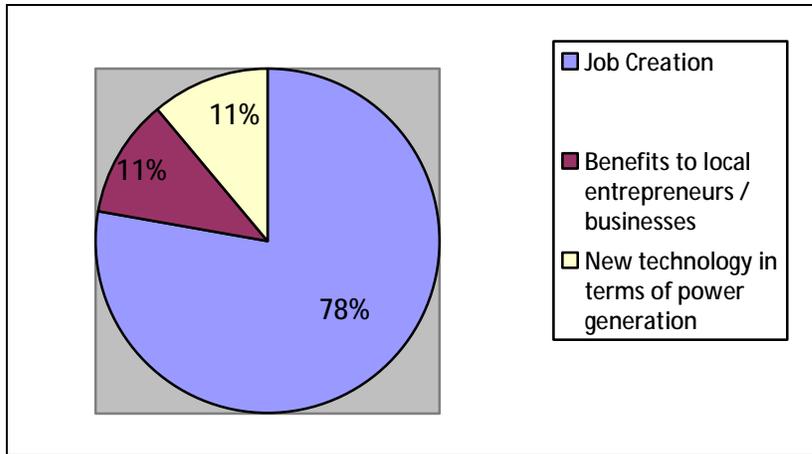
7.1 IMPACT ASSESSMENT : DIRECTLY AFFECTED LANDOWNERS

The section below provides the findings of the impact assessment process as per inputs from the directly affected landowners. Out of the thirteen directly affected landowners, seven took part in this assessment and this was done through telephonic conversations, on-one-interviews as well as completion of the interview questionnaires for the directly affected landowners.

From the assessment, all directly affected landowners contacted knew about the proposed railway line before this survey and the two who completed the questionnaires indicated that they became aware of the project when the land surveyor from Eskom started to survey their land.

Potential opportunities and benefits as per directly affected landowners.

Chart 12: Potential opportunities and benefits.

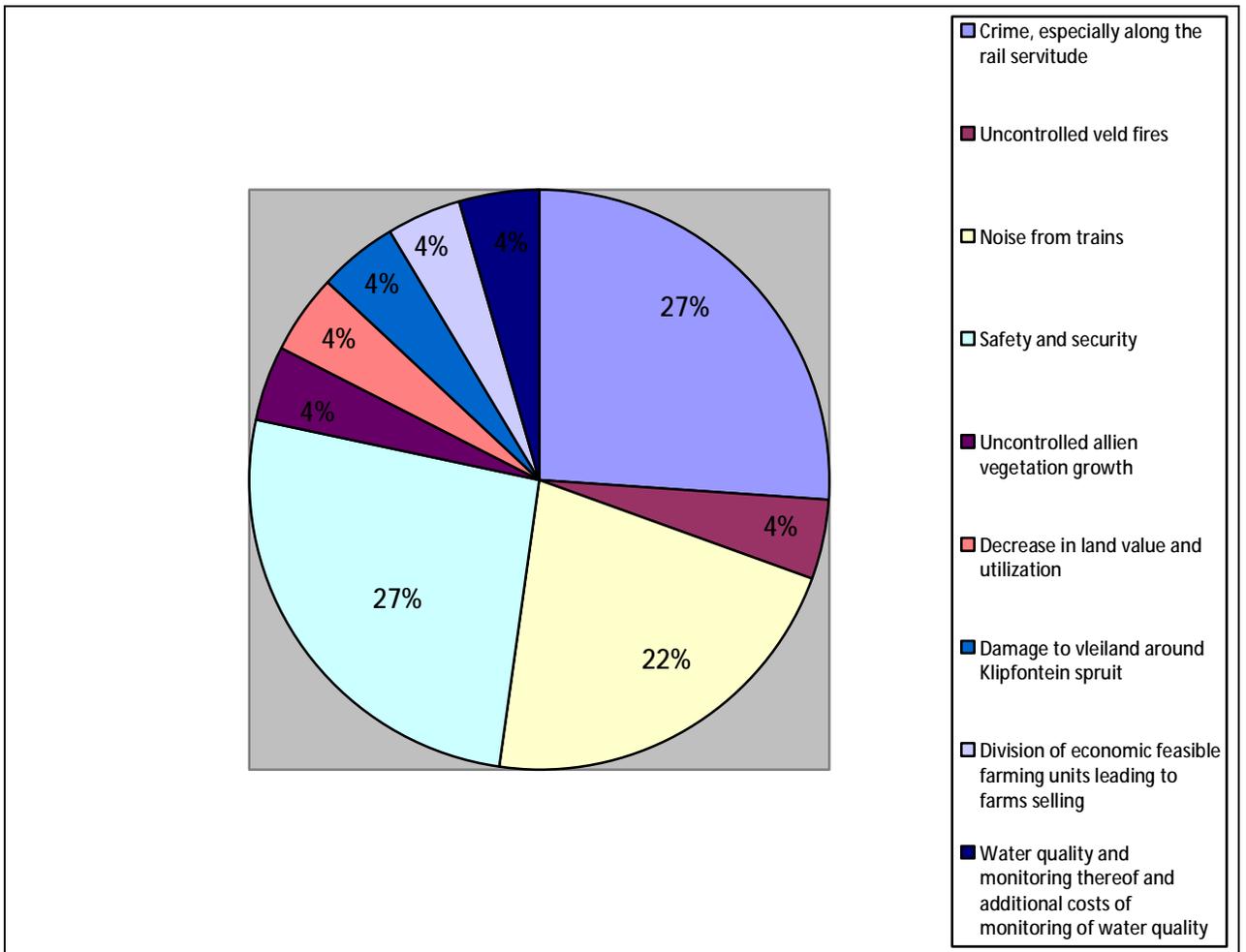


As per chart 12 above, 78% of the directly affected landowners who took part in the survey indicated that job creation was the main benefit that will be realised when the proposed project is implemented. The other 11% saw local entrepreneurs benefitting from the project and the last 11% pointed out that new technology, in terms of power generation will for the first time be implemented and utilised in South Africa.

Potential negatives and constraints as per directly affected landowners.

From chart 13 below, 27% of the respondents who took part in the assessment are of the view that crime especially along the rail servitude as well as safety and security were the main potential negatives associated with this proposed project. A further 22% of the respondents indicated that noise from the trains was a limitation of the proposed assignment. This is followed by 4% pointing out to uncontrolled veld fires, 4% signifying uncontrolled alien vegetation growth, 4% pointing towards decrease in land value and utilization, 4% indicating damage to vleiland around Klipfontein spruit, 4% sitting that division of economic realistic farming units that may lead to farmers opting to sell their farms and the last 4% pointing toward potential water quality problems.

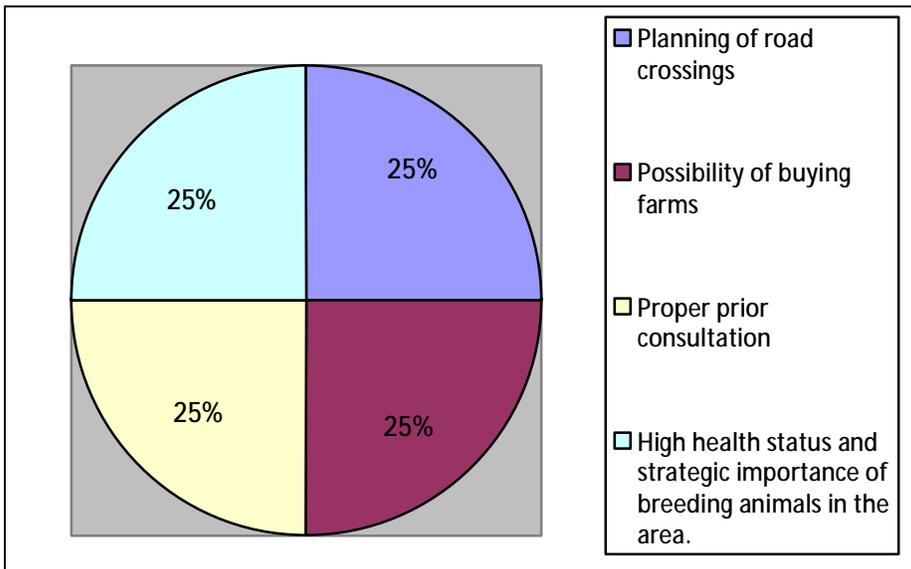
Chart 13: Potential negatives and constraints.



Concerns and interests raised by directly affected landowners

Chart 14 below highlights the concerns and interests as indicated by directly affected landowners who took part in the assessment. During the time of compiling this report, only two directly affected landowners had returned the completed questionnaires. The issue of planning of road crossings in order to minimise access problems was raised. The other respondents indicated that it would be better that Eskom buys the entire farm and apply for re-consolidation of farms after the railway completion. The issue of health impacts to breeding animals was also raised by one respondent. One respondent further indicated that open and proper consultation was essential for harmonious dealing with affected landowners.

Chart 14: Concerns and interests raised by directly affected landowners.



Possible enhancement and mitigation as per directly affected landowners.

Chart 15: Possible enhancement and mitigation.

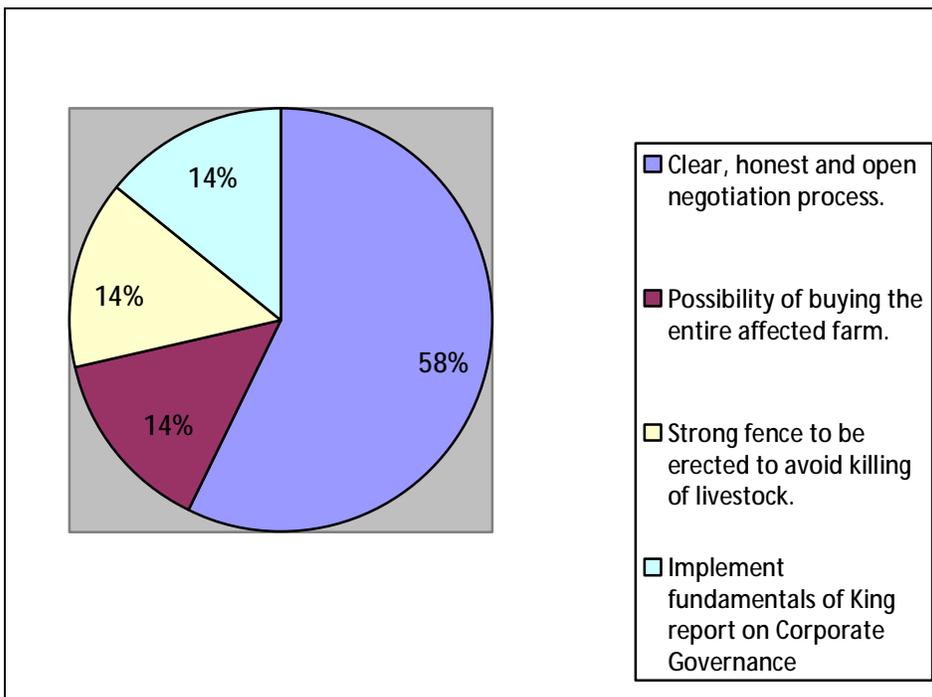


Chart 15 indicates that 58% of directly affected landowners who took part in the assessment indicated that clear, honest and open negotiation process will be significant and will greatly benefit the proposed project. This is followed by 14% pointing out to the erection of a strong fence to avoid killing of livestock and a further 14% indicating that it would be important that the fundamentals of the King report on Corporate Governance are implemented.

8 LAND USE IN THE STUDY AREA

This section discusses land-use in the study area: entrepreneurs

The current land-use is largely vacant with portions being grazed and other larger portions being cultivated. Structures are located on the properties in various locations and these include houses of both landowners and farm workers. Furthermore, some land use is units for housing of pigs utilized by Topigs South Africa.

8.1 Cultivated land

The area can be described as a farming area consisting of large portions of farms with cultivated lands and land for grazing. Some of the cultivated lands are shown below:

Chart 16: Cultivated land 1.



Legend

Black arrow –possible cultivated land

Red line – alternative 3

Chart 17: Cultivated land 2.



<u>Legend</u>			
Black arrows –possible cultivated land	Red line – alternative 2	Green line- alternative 1	Yellow- alternative 3

8.2 Settlements

The area also consists of settlements belonging to farm owners, their workers and some small industries.

Chart 18: Settlement 1



Legend

Black arrow- possible settlement and small industries structures used by farm owners Red line – alternative 2 Green line- alternative 1 Yellow line - alternative 3

Chart 19: Settlements 2.

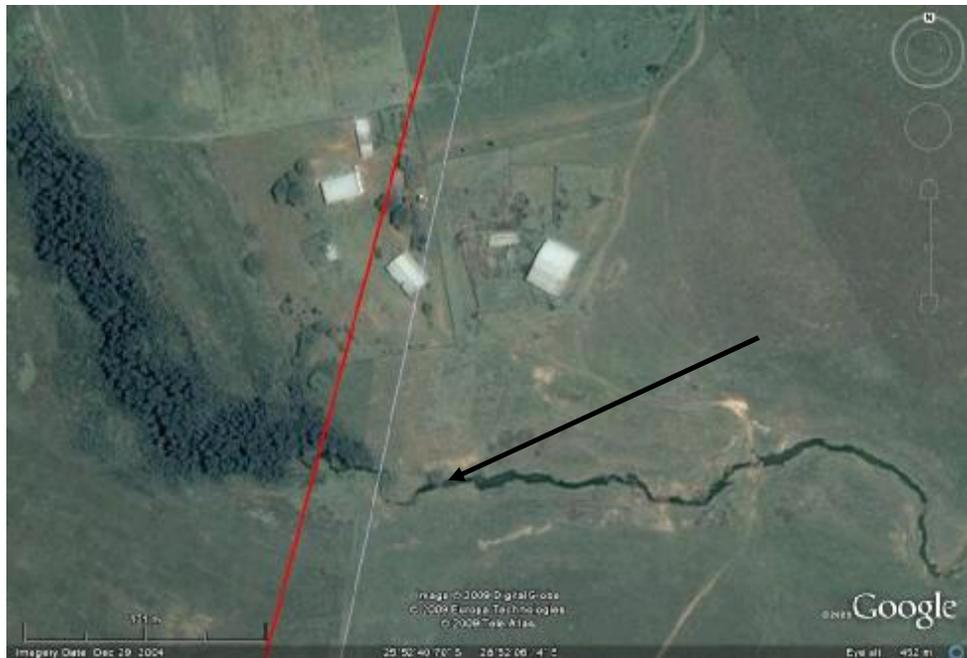


Legend

Black arrow –possible cultivated land

Red line – possible structures for farm owners and farm workers

Chart 20: Settlement 3.

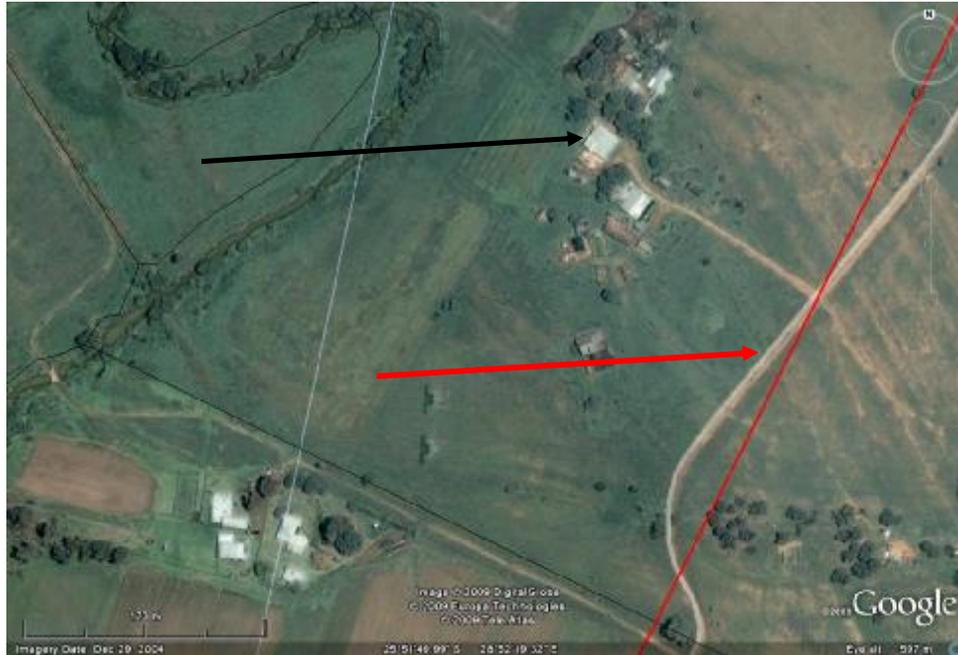


Legend

Black arrow- possible stream crossing

Red line – alternative 2

Chart 21: Settlements 4.



Legend

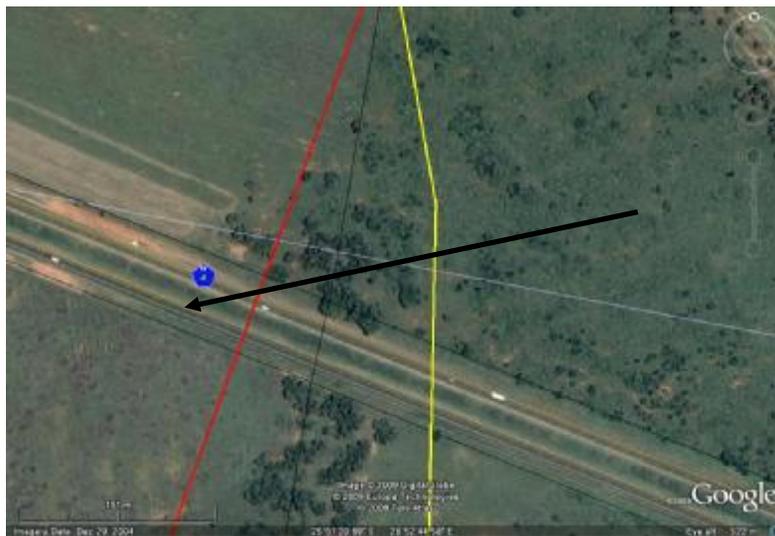
Black arrow –possible structures used by farm owners

Red arrow – possible internal road

Red line – alternative 2

8.3 Roads

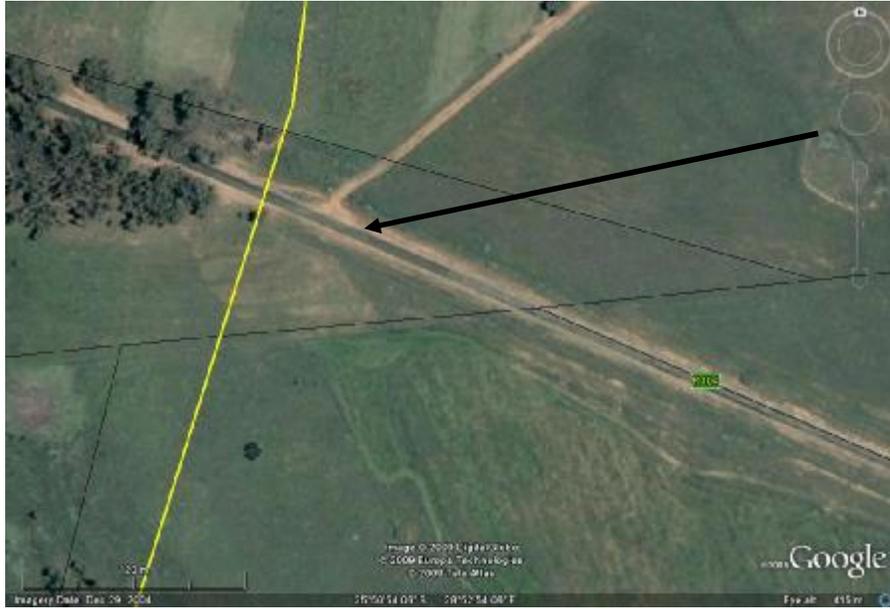
Chart 22: N4 road crossing.



Legend

Black arrow – the proposed railway line will crossing a national road (N4) Red line – alternative 2 Yellow line - alternative 3

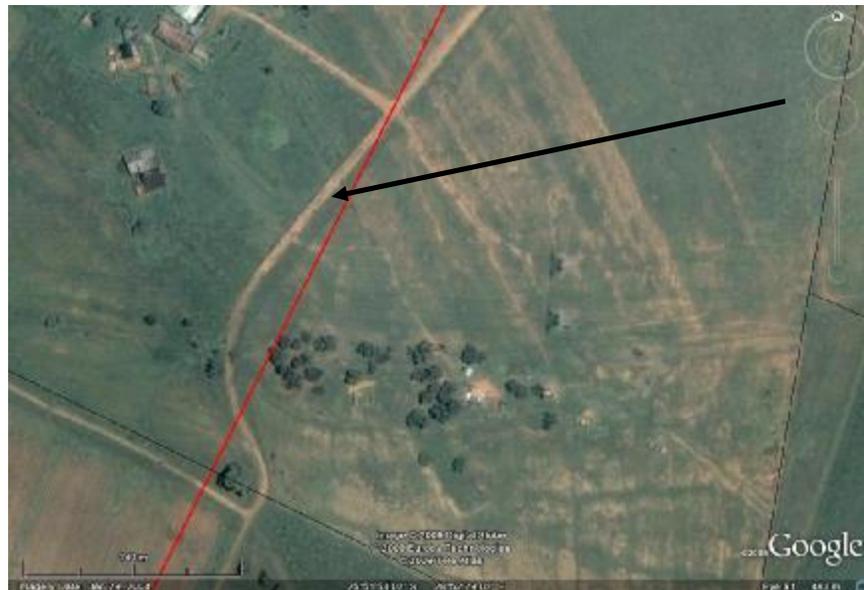
Chart 23: R104 road crossing.



Legend

Black arrow-possible provincial road crossing (R104) Yellow line - alternative 3

Chart 24: Internal road crossing 1.



Legend

Black arrow- possible internal road crossing Red line – alternative 2

Chart 25: Internal road crossing 2.



Legend

Black arrow- possible provincial road crossing

Red line – alternative 2

Green line – alternative 1

Yellow line – alternative 3

9 PERCEPTION ASSESSMENT

This section presents the findings from the perception assessment as undertaken to determine how stakeholders perceive the proposed construction of the Eskom railway line.

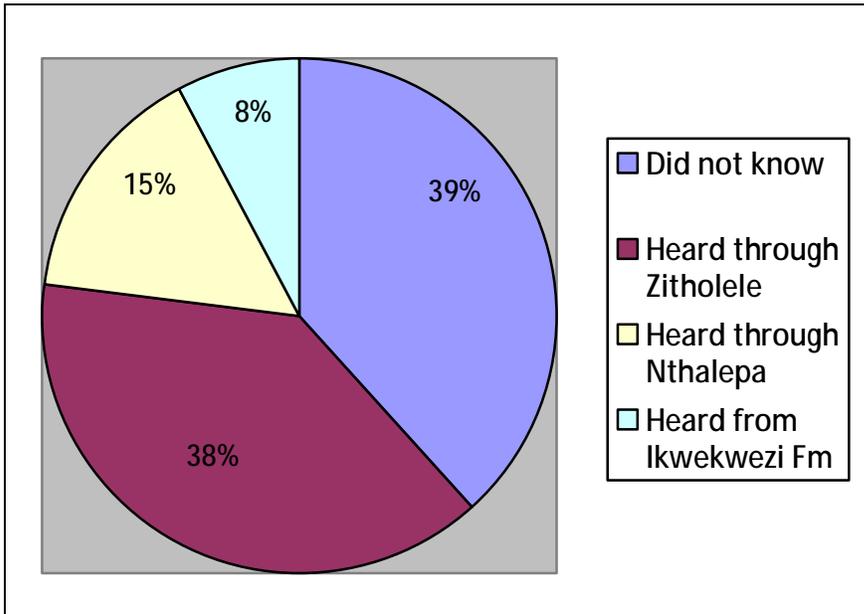
9.1 Findings of the perception assessment survey

As indicated earlier, a perception survey was conducted with a sample of affected stakeholders as well as other identified key stakeholders relevant to this project. The findings thereof are listed below:

9.1.1 Awareness of the community about the proposed railway line

From the total respondents, as per chart 26 below, 39% indicated that they did not know about the proposed construction of the Eskom railway line before the survey. A further 38% heard through Zitholele Public participation process while another 15% heard it for the first time through Nthalepa. About 8% indicated that they heard from Ikwekwezi Fm.

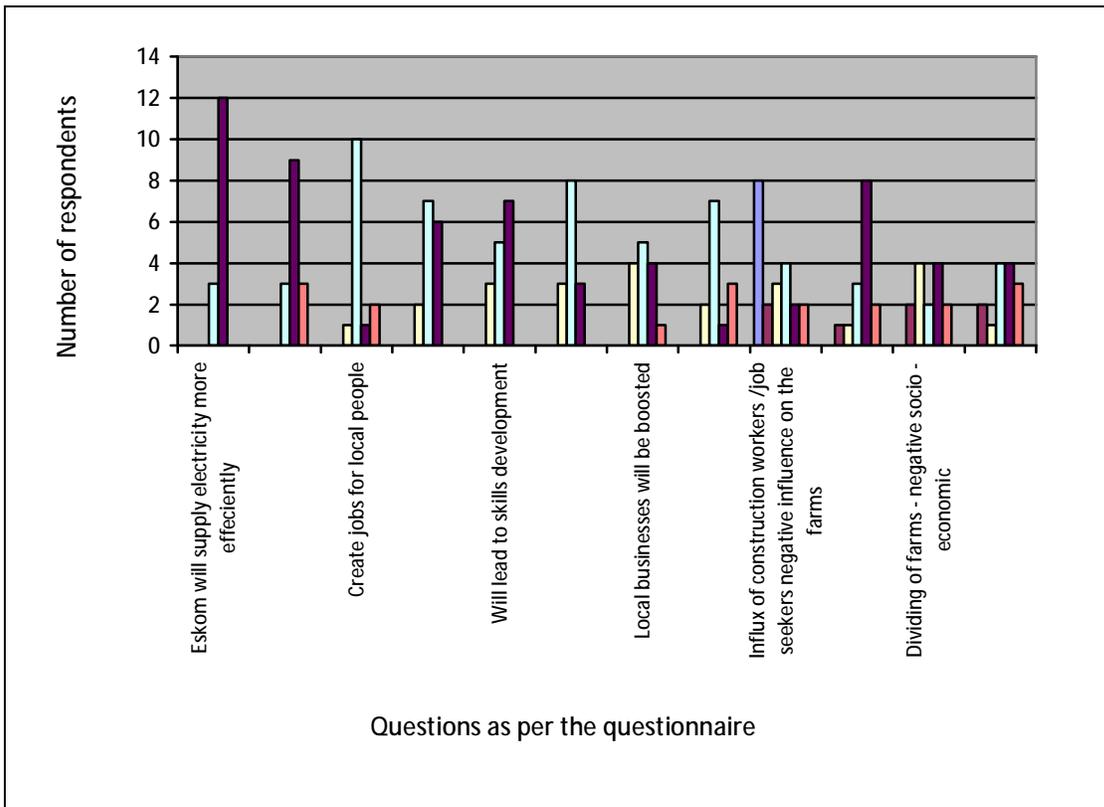
Chart 26: Level of awareness of key stakeholders about the proposed railway line construction.



9.1.2 Respondents views about the proposed construction of Eskom’s railway line

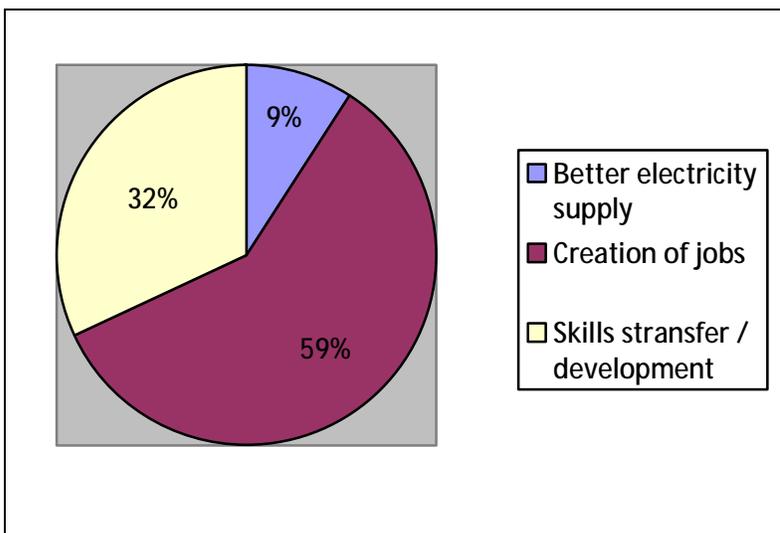
From chart 27 below, 12 respondents (approximately 80%) from those who took part in the assessment strongly agree that the proposed railway line will assist Eskom to supply electricity more efficiently and 10 respondents indicated that the project will lead to job creation for the local unemployed people. Further 8 respondents think that the proposed railway line will curb the shortage of power supply in the country.

Chart 27: Respondents' view about the proposed railway line construction.



9.1.3 Potential opportunities and benefits

Chart 28: Potential opportunities and benefits.



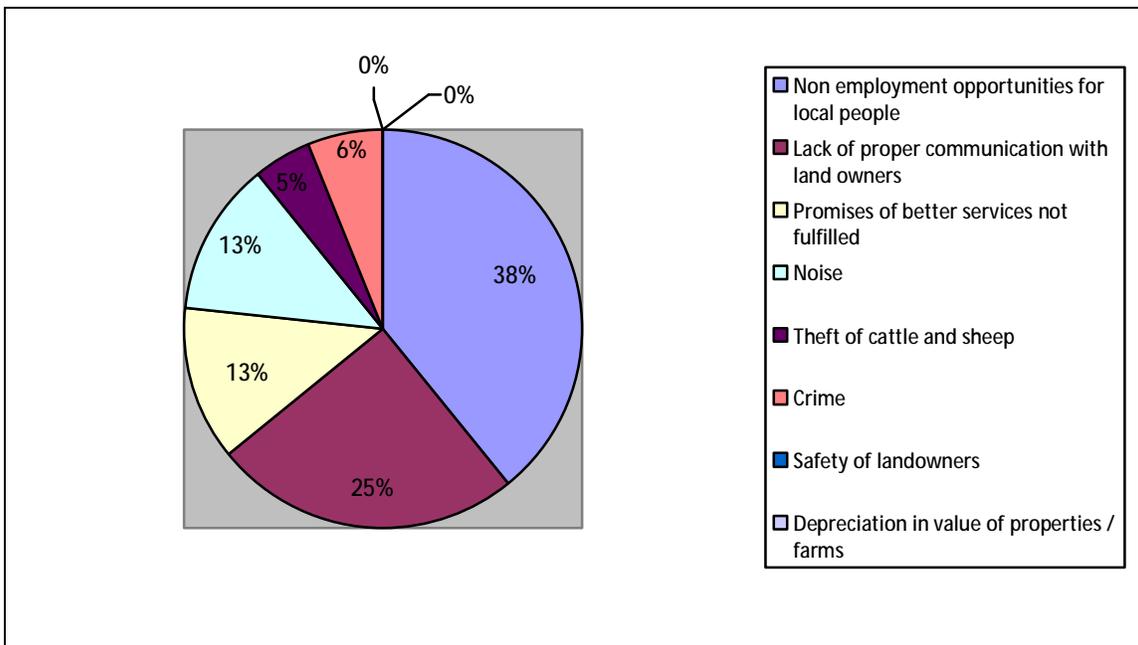
From chart 28 above, 59% of all respondents indicated that job creation will represent the biggest social impact and benefit for the local communities. Further 32% of respondents saw skills development as being critical for their benefit from the proposed project and 9% thought that the project will lead to better supply of electricity.

9.1.4 Potential negatives and constraints

From chart 29 below, 38% of respondents indicated that non-employment of local unemployed people could present one big constraint for the success of the project. About 25% of respondents indicated that promises for better service delivery have been made in the past and were not fulfilled and this has created doubts in the minds of community members, especially where better infrastructure and provision of basic services were promised. Noise pollution was a concern of about 13% of respondents.

In addition, respondents indicated they would have social problems should it happen that one or two farmers sell their farms as a result of the proposed railway line construction, as this will result in farm workers becoming unemployed and homeless. This could lead to an increase in the creation of informal settlements.

Chart 29: Potential negatives and constraints.



10 ASSESSMENT OF ALTERNATIVES

The social criteria listed below were identified and used in the ranking assessment of the three project alternatives:

- Proximity to settlement areas;
- Health and safety risks to local communities and cattle and sheep in the area;
- Areas within cultivated lands;
- Areas within grazing land;
- Areas within current industrial development / activity; and
- Contribution to local job opportunities.

10.1 Qualitative ranking of project alternatives

In the qualitative assessment, the ranking matrix illustrated below (table 28) has been used to qualify and rank project alternatives based on the anticipated social impacts from the social criteria identified above.

10.1.1 Proximity to settlements

Alternative 2 runs within a close range to a number of settlements and could have more negative social impact and as such is ranked very low. During our one- on one interviews with Dr Dannie Visser (Managing Director of Topigs) indicated that alternative two runs about 200m from their business and this could present fundamental negative impacts to their businesses if alternative 2 was to be considered. Thus, alternatives 1 and 3 are considered better in this regard and are ranked average.

10.1.2 Health and safety risks

Due to its close proximity to settlements, alternative 2 is ranked poor while alternatives 1 and 3 are ranked average with regards to health and safety.

10.1.3 Areas with cultivated lands

All alternatives run at one stage or another within areas of cultivated land and are therefore all ranked average with exception of alternative 1 which seems to run less in areas with cultivated lands.

10.1.4 Contribution to local job opportunities

All alternatives will create jobs during construction and operation phases and are thus ranked good.

10.2 NO-GO Alternative/s

This represent/s alternative/s that should not be considered because of their characteristics as per the social criteria discussed below. As per the social criteria utilized, *Alternative two* is considered to be the no-go alternative. This conclusion is based on the following reasons:

- The alternative appears to be the longest and as such would therefore be expected to have higher cost implications;
- The alternative appears to run closer to settlements than the other two alternatives and this could have greater negative social impacts in the area such as increased crime, safety and security of livestock, landowners as well as existing industries. For example, during our one-on-one interviews with Topigs SA representative, we were informed that this alternative would run approximately 200 m from their piggery units and would have dire consequences to their industry in terms of noise, health and safety of the pigs;
- It is further believed that due its proximity to settlements, this alternative could ultimately contribute to negative health impact in terms of the decline in water quality on which the business, people and livestock in the area depend upon (issue raised during the public participation process).

Ranking of project alternatives is shown in table below:

Table 28 : Ranking of project alternatives

Selection criteria	Alternative 1	Alternative 2	Alternative 3
Proximity to settlements	2	2	3
Health and safety risks to local communities and livestock, etc.	3	2	3
Areas within cultivated lands	3	2	2
Areas within grazing land	2	2	2
Areas within current industrial development / activity	3	2	3
Contribution to local job opportunities	4	4	4
TOTAL SCORES	17	14	17
RANKING	2	3	1

<u>Legend</u>				
<u>Scoring alternatives:</u>				
1: Unacceptable;	2: Poor;	3: Average;	4: Good;	5: Very good
<u>Summary of scores</u>				
The table ranking indicates: Preferred alternative: best -1 average -2 worst -3				

10.3 Findings on alternatives

In conclusion, from a social impact point of view, alternative 3 (three) is ranked no. 1 the best and most preferred one. This is because whereas, alternatives 1 and 3 have the same scores of 17 points each, alternative 3 has scored the highest in the most important criterion, that is, **proximity to settlements**. This sentiment was echoed by a number of directly affected landowners during the public participation process. Landowners who

commented on this included: Mr Thami Sondiyazi (portions 18 and 22 of farm Onverwacht 532 JR, Dr Danie Visser of portions 9 and 10 of farm Bossemanskraal 538 JR, Mr Joerne Buys of portion 8 of farm Onverwacht 532 JR.)

11 SOCIAL CHANGE PROCESS, ASSESSMENTS OF IMPACTS (NEGATIVE AND POSITIVE) AS WELL AS IDENTIFICATION OF POTENTIAL MITIGATION

The following section discusses the various change processes and related expected impacts that could be expected as a result of the proposed railway line construction. The change processes which were assessed include the following:

- **Demographic processes:** changes in the number and composition of the community.
- **Economic processes:** changes in a way in which people make a living and the economic activities in the community.
- **Institutional and empowerment processes:** changes in the role, efficiency and operation of local structures and the community's ability to get involved and influence decision making process.
- **Socio-cultural processes:** changes in a way in which human behave, interact or relate to each other and their environment and the belief and the value systems which guide these interactions.

A change process can be regarded as a change that takes place within the receiving environment as a result of a direct or indirect intervention. A potential impact follows as a result of a change process. However; a change process can only result in an impact once it is experienced as such by an individual or community on a physical and / or cognitive level. This section will further discuss the following:

- The change process without the project;
- The expected change process with the project;
- Circumstances that will lead to the change processes;
- Assess the potential impacts as a result of the project before mitigation;
- Determine significance of the impact before mitigation;
- Proposed mitigation and enhancement measures; and
- Discuss both cumulative and residual impacts if any.

The study distinguished between impacts that are expected to arise during the construction phase of the project and those likely to occur during the operational phase. The tables below provide a

summary of the impacts according to their respective phases, disaggregated according to the affected areas. The tables also provide the overall significance rating of each impact.

Mitigation or enhancement measures were also identified for negative and positive impacts, respectively. The main mitigations that were proposed included the maximisation of local employment opportunities, possible escalation of crime, safety and security of landowners, etc. as well mitigations recommended by other specialists such as traffic and noise specialists, etc.

With appropriate measures, the negative impacts can be reduced to acceptable levels while the positive impacts can be maximised to provide significant benefits to the region.

The assessment and valuation of the negative and positive impacts and risks, as well as potential mitigation where possible, is summarized below.

11.1 DEMOGRAPHIC IMPACTS

The demographic impacts relate to the number of people and composition of a community and also include an overview of the population size and the educational profile of the affected households. The construction and operation of the proposed railway line could lead to a change in the number and composition of the population within the affected local area. This could in turn lead to economic, land use and socio – cultural impacts. The demographic change processes that can be expected as a result of the proposed railway line, and which have been assessed, comprise the following:

- Influx of construction workers;
- Influx of job seekers; and
- Influx of maintenance workers.

Table 29: Possible demographic impacts.

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
DEMOGRAPHIC - CONSTRUCTION						
Negative	Influx of construction workers	MODERATE	<i>Local</i>	<u>Short term</u>	It's going to happen	Definite
	Influx of job seekers	LOW	<i>Study area</i>	<u>Incidental</u>	It's going to happen	Possible
OPERATION						

Negative	Influx of maintenance workers	VERY LOW	Proposed site	Incidental	Very likely	Possible
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11.1.1 Influx of construction workers

Influx of construction workers is anticipated to lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being. If construction workers are from a different cultural background than locals, conflicts can be expected where cultural backgrounds are not respected. This may lead to the local community developing negative attitude towards construction workers, with the possible resultant negative impact on social being. On the other hand, if the community is accepting new people, the presence of construction workers could lead to a temporary boost in the local economy if construction workers utilize local services. If available local service will not be sufficient for both locals and construction members, this could create other social problems.

Mitigation associated with impacts to influx of construction workers.

The following mitigations are proposed:

- Raise awareness amongst construction workers about local traditions and practices;
- Inform local businesses about the expected influx of construction workers so that they could plan for extra demand; and
- Ensure that the local community communicates their expectations of construction workers' behaviour with the construction sub-contractor, and formalize a written agreement between the community and the sub-contractor.

11.1.2 Influx of job seekers

Job seekers will always be expected at the area of the construction village or at the construction site/ corridor. Although it is not expected that a large number of job seekers would be employed this way, job seekers mostly reside in the vicinity of the camp for a few days in the hope of securing jobs on site. Once these job seekers are not offered any employment, they may look for materials that they can steal in order to sell. This may lead to increase in theft in the area.

Mitigation associated with impacts to influx of job seekers.

The following mitigations are proposed:

- Ensure that employment procedures / policy is communicated to local stakeholders, especially local fire control committee / initiative, local farmers / land owners as well as the ward 32 local councillor;
- Have clear rules and regulations for access to the construction site to control loitering;
- Consult with local South African Police Services (SAPS) to establish standard operating procedures for the control and removal of loiterers at the construction site; and
- Construction workers should be clearly identifiable by wearing proper construction uniforms displaying the logo of the construction company. Construction workers must also be provided with identification tags.

Cumulative Impacts associated with demographic impacts.

Influx of construction workers to other projects taking place in the area, i.e. the Kusile power station and its associated activities could result. This influx could lead to significant increase on the demand of local services and/or resources.

Residual Impacts associated with demographic impacts

It is expected that construction workers who do not leave the area once the construction phase has been completed will continue to impact on the number and composition of the local community, thereby possibly affecting social well-being. Long term demographic changes are possible, for example when unplanned pregnancies occur as a result of relationships between construction workers and community members. Spread of HIV / AIDS and other sexually transmitted infections leaving behind a vulnerable community in terms of illnesses and lack of access to medical care.

11.2 ECONOMIC IMPACTS

These are impacts related to the way in which people make a living and engage in the economic activities within that society. The employment status within a community gives an indication of the economic stability of such a community and also serves as an indicator of community's general well-being. The economic change processes that were assessed are as follows:

- Direct formal employment opportunities to local individuals; and
- Indirect formal and /or informal employment opportunities to local individuals.

Table 30: Possible economic impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
ECONOMIC - CONSTRUCTION						
Positive	Direct formal employment opportunities	MODERATE	<i>Local</i>	<u>Short term</u>	It's going to happen	Definite
	Indirect formal and /or informal employment opportunities	LOW	<i>Study area</i>	<u>Incidental</u>	It's going to happen	Possible
	Compensation for servitude	MODEATE	<i>Study area</i>	<u>Permanent</u>	It's going to happen	Definite
Negative	Social pathologies arising from population influx	MODERATE	<i>Local</i>	<u>Short term</u>	Very likely	Possible
OPERATION						
Positive	Direct formal employment opportunities to local individuals	MODERATE	<i>Local</i>	<u>Medium term</u>	It's going to happen	Definite

11.2.1 Direct formal employment opportunities

Eskom intends to employ approximately 250 labourers during the construction phase of the Kusile railway line project, thus contributing to an economic impact in the area. Although job opportunities are viewed as positive impacts, the fact that job opportunities are only temporary in

nature limits the extent of such positive impacts in view of the fact that the economic relief and the associated impacts would only be temporary in nature. This impact also depends on the timeframe of the construction phase of this project.

Enhancement associated with impacts to direct formal employment opportunities.

The following enhancement has been proposed:

- Unskilled job opportunities should be afforded to the people from local neighbouring areas. Even if Eskom uses a recruiting agency, the local ward councillor should play a pivotal role during recruitment of labourers;
- Equal opportunities for employment should be created to ensure that the local female and youth population also have access to these opportunities;
- Individuals with the potential to develop their skills should be afforded training opportunities.
- Mechanisms should be developed to provide alternative solutions for creating job security upon completion of the project;
- Payment should comply with all applicable Labour legislation in terms of minimum wages and conditions of employment.
- Where local labourers are employed on a more permanent basis, these labourers should be registered with the Unemployment Insurance Fund (UIF), Pay as You Earn (PAYE) or any other official bodies as required by law. This would enable the workers to claim UIF as a means of continuous financial support when the workers' positions on the construction itself have become redundant or once the construction phase comes to an end.

11.2.2 Indirect informal job opportunities

Indirect informal job opportunities largely relate to services that are not directly linked with the construction activities, e.g. food stalls, etc. either at the construction village or the construction site. These services are usually expected to be limited.

Enhancement associated with impacts to indirect informal job opportunities.

Through consultation with relevant key stakeholders, identify the segment that might benefit from informal indirect opportunities, and encourage construction workers to use local services. However, this service should be properly monitored in order to expose people who would be using such services for ulterior motives.

11.2.3 Social pathologies arising from population influx:

It is possible that *conflict* might arise between the newcomers and local residents. One possible reason for such conflict would be the perception among locals that the outsiders are taking up jobs that could have been given to unemployed members of the local community. As a result, an influx of unemployed job seekers could add to the potential for conflict.

An influx of construction workers and job seekers might be accompanied by an increase in *crime*. Even if particular instances of crime are not as a result of the newcomers, they may still be attributed to them by local communities. Another possibility is that a population influx will contribute to *alcoholism, drug abuse, prostitution* and the spread of *sexually transmitted diseases* in the local population.

Cumulative impacts associated with the economic impacts.

The local economy will be boosted on a temporary basis, and the local communities may experience financial relief to some extent - during construction period, including women related to the employees.

Residual impacts: associated with the economic impact.

Training of local individuals will provide them with the necessary skills to find employment on other construction projects. Also unemployed individuals are motivated and empowered to find and maintain employment. Income received by local individuals will have a positive impact on their families as money will now be available to increase their livelihood, even if it will be for a short period.

11.3 INSTITUTIONAL AND EMPOWERMENT IMPACTS

These are impacts related to the role, efficiency and operation of local governance in the area. They also investigate the ability of people to engage in decision making processes to such an extent that they have an impact on the way in which decisions made would concern them. The institutional and empowerment change processes that can be expected as a result of the proposed Eskom project, and which were then assessed include the following:

- Attitude formation against the project;
- Negotiation processes; and
- Disaster management plan on site.

Table 31: Possible institutional and empowerment impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
INSTITUTIONAL AND EMPOWERMENT - CONSTRUCTION						
Positive	Negotiation process	HIGH	<i>Local</i>	<u>Short term</u>	It's going to happen	Definite
	Disaster Management Plan on site	MODERATE	<i>Study area</i>	<u>Incidental</u>	Could happen	Possible
Negative	Attitude formation against project	MODERATE	<i>Local</i>	<u>Short term</u>	Very likely	Possible
OPERATION						
Positive	Disaster Management Plan	LOW	<i>Local</i>	<u>Incidental</u>	Could happen	Unsure

11.3.1 Proper negotiation process

A proper negotiation process is very critical for the success of any planned project including this one. The negotiation process should take place during and beyond this Environmental Impact Assessment process. This process should be fair, inclusive and conducted in a transparent manner. **A breakdown in the negotiation process could delay the project and result in a negative economic impact on both affected stakeholders as well as Eskom.**

11.3.2 Development and implementation of a Disaster Management Plan

It is also critical that construction contractors/managers develop and implement a disaster management plan for the construction site that would be in compliance with the Occupational Health and Safety Act (Act 85 of 1993). This should be done in anticipation and preparation for any eventuality.

11.3.3 Attitude formation towards the project

Attitude formation relates to a number of aspects including, consultation and negotiation process, commitment to promises and agreements as well as consideration for those adversely affected

Mitigation associated with impacts to attitude formation towards the project.

The following mitigations have been proposed:

- Factual and transparent information should be supplied to the community from the beginning of the project;
- Employment opportunities should also be offered to the local community; and
- Eskom or its appointed contractors should deliver to their undertakings with the community in terms of employment creation.

Cumulative Impacts associated with institutional and empowerment impacts.

Attitudes towards construction activities could be influenced by other construction activities such as the Kusile power station and its associated activities.

Residual Impacts associated with institutional and empowerment impacts.

If a community becomes opposed to the construction activity, this might have negative impacts on other and future construction activities in the area / region.

11.4 SOCIO – CULTURAL IMPACTS

These impacts are associated with the proposed project incorporated changes such as safety aspects and sense of place. The expected changes that can occur in relation to social health and safety aspects could be as a result of the presence of construction workers and job seekers during the construction period. The socio-cultural processes that can be expected are as follows:

- Integration with local community;
- Safety and security; and
- Noise pollution.

Table 32: Possible socio – cultural impacts

Type of impact	Description of impact	Significance	Spatial scale	Temporal scale	Degree of probability	Degree of certainty
SOCIO – CULTURAL - CONSTRUCTION						
Negative	Integration with local community	MODERATE	<i>Local</i>	<u>Short term</u>	Very likely	Possible
	Safety and security	HIGH	<i>Local</i>	<u>Short term</u>	Very likely	Possible
	Noise pollution	MODERATE	<i>Local</i>	<u>Short term</u>	Very likely	Possible
	Pedestrian and vehicle access	MODERATE	<i>Local</i>	<u>Permanent</u>	It's going to happen	Definite
OPERATION						
Negative	Movement of maintenance workers	VERY LOW	<i>Local</i>	<u>Incidental</u>	Could happen	Possible
	Safety and security	MODERATE	<i>Local</i>	<u>Long term</u>	Very likely	Possible
	Noise pollution	MODERATE	<i>Local</i>	<u>Long term</u>	Very likely	Possible

11.4.1 Integration with local community

Construction workers tend to ignore their cultural or societal rules that guide their behaviour once they are away from their respective homes. They also tend to engage in negative behaviour such as risky sexual and other destructive behaviours. This may lead to infections such as HIV/AIDS which these migrant labourers are likely to take back home to their partners/wives.

Mitigation associated with integration with local community.

The following mitigations have been proposed:

- Launch aggressive culturally appropriate STI and HIV/AIDS awareness campaigns;
- Distribute condoms by placing them at centrally located points;
- Control access to the construction site to prevent sex workers;
- Employ local women to decrease their financial vulnerability.

Cumulative impacts associated with socio – cultural impact.

The impacts could be permanent duration due to the nature of HIV/AIDS and other STIs that are incurable. The spatial scale is local but infected persons from the community as well as construction team who are mobile and could infect more people in other parts of the country. In terms of noise pollution, other construction activities taking place in the area could add to the noise levels.

Residual impacts associated with socio-cultural impact.

A reduction in human resources as a result of death from HIV and AIDS related illnesses could in turn lead to reduced life expectancy, increase in health care expenditure; and an increase in health care cost. In as far as safety and security is concerned, loiters could continue to engage in criminal activities even after the completion of the project.

12 THE FINDINGS OF THE STUDY AND ASSOCIATED IMPLICATIONS

This section provides a **summary of the findings of the study and implications** thereof.

12.1 Influx of construction workers

Based on the information provided by Eskom, approximately 250 people will be employed during the construction phase of the proposed project. The majority of these jobs will be low-skilled jobs and it is anticipated that most of the labour will be sourced locally. However, if construction workers are from a different cultural background than locals, conflicts can be expected where cultural backgrounds are not respected. This may lead to locals developing negative attitudes towards construction workers, with possible resultant negative impact on social livelihood. On the other hand, if the community is accepting of new people, the presence of construction workers could lead to a temporary boost in the local economy if construction workers utilize local services. If available local service is not sufficient for both locals and construction members, this could create other social problems.

There appears to be limited resources in the immediate area in terms of services such as shops, service posts, etc. As a result of volumes of construction workers in the area, especially those working on the Kusile power station, this may lead to the increase or establishment of informal trade markets.

The impact of the influx of construction workers will be applicable to areas surrounding the construction villages where workers spend evenings and weekends. It is however, expected that a large segment of the unskilled construction team would be sourced from the local area, thereby reducing the number of construction workers who would flood the construction area.

It is further anticipated that construction workers who do not leave the area once the construction phase is completed, they will continue to impact on the number and composition of the local community, thereby possibly negatively affecting the social livelihood. Long term demographic changes could be realized, for example when unplanned pregnancies occur as a result of relationships between construction workers and community members. Spread of HIV / AIDS and other sexually transmitted infections leaving behind a vulnerable community in terms of illnesses and lack of access to medical care.

12.2 Quality of life and sense of place

The establishment of a major development such as the proposed railway line together with the ancillary developments that will occur in association with it, will inevitably affect the quality of life and sense of place in the primary affected environment. This will occur to a greater or lesser extent in the different areas depending on factors such as proximity to the proposed railway line, proximity to settlements and roads, exposure to noise as well as access to employment and economic opportunities.

Despite the varying socio-economic characteristics across the settlements in the primary affected environment, the current quality of life and sense of place characteristics that they value tend to have the following aspects in common:

- Beautiful environment (including an appreciation of fauna and flora);
- Relative peace and quiet; and
- A sense of relative safety.

These characteristics will be somehow altered if the proposed project is implemented. There are however a number of positive socio-economic impacts that could be generated by the proposed project including job opportunities and opportunities for economic empowerment and growth. It is important that the people in the areas that will be exposed to the greatest risk of negative impacts leading to a decrease in quality of life and changes to sense of place, be given the opportunity to benefit from the positive impacts created by the project development.

12.3 Influx of job seekers

In overall, the influx of the job seekers and construction workers may bring about a significant change in the size and composition of the current community and also increase demand on local services.

Job seekers who do not leave the area will continue to impact on the number and composition of the local community, thereby affecting the social well-being. In addition, a long term demographic change is possible, for example when unplanned pregnancies occur as a result of relationships between construction workers and community members. Spread of HIV / AIDS and

other sexually transmitted infections leaving behind a vulnerable community in terms of illnesses and lack of access to medical care.

12.4 Jobs and economic opportunities

The key findings associated with the issue and impacts of jobs and economic opportunities are as follows:

- Current employees of local landowners who may see the proposed project as an opportunity and thus abandon their current employers for this project thus risking losing accommodation and other benefits that they were enjoying under the current employer;
- The creation of up to 250 jobs will have a significant positive impact on the local socio-economic environment;
- An influx of job seekers will have long-term social consequences associated with the possibility that only one in six will find work; and
- The wider economic benefit will help to build and improve a certain class of workers and increase household incomes in the area.

12.5 Crime and security

Increased risk of economic violence has been associated with economic developments in the past. However, the sources and responses to this increased risk cannot be isolated from criminal acts in general. Crime levels in the primary affected environment may already pose some risks to the residents. The implications are that there is already a need to manage the risks associated with crime, such as collaboration between the South African Police Service and citizens for pro-active community policing and neighbourhood watches. These strategies would need to be implemented and adhered to by affected stakeholders.

12.6 Motor / equipment and pedestrian accesses

With regard to the issue and impacts of motor / equipment and pedestrian access the matters of increased travelling time, inconvenience to farmers in the area were also identified as key social factors. The implications of these findings are that the mitigatory measures identified in the the relevant specialist report will adequately address these factors.

12.7 Summary of combined predicted social impacts

Based on the discussion presented in the previous section, it can be concluded that many of the significant socio-economic impacts of the proposed project will occur during the *construction phase*. *Positive* impacts during this phase will include temporary creation of *employment opportunities* (approximately 250 construction workers), as well as concomitant economic benefits and possible indirect formal / informal job creation, such as more generation and supply of electricity.

Negative impacts include the potential influx of job seekers who may not be employed and end up engaging in criminal activities such as theft, etc, possible social pathologies arising from the influx of construction workers and job seekers, as well as increased traffic, damage to roads and impacts related to physical intrusion (dust, noise, emissions and vibration). Furthermore, the issue of access as well as value of farms after project implementation has also been raised as key negative social impacts. In cases where the affected landowners may opt to sell the farms, the ward councilors anticipate a problem of farm workers, who may become unemployed, and in turn be a liability to them in terms of housing and other related services.

As far as the *operational* phase of the proposed project is concerned, the most significant *positive* impacts include low level of employment.

12.8 Assessment of alternatives

In as far as assessment of alternatives is concerned, from a social impact perspective, **alternative three** is the most preferred and recommended in relation to its proximity to the settlement area, as discussed in Section 10 above (Assessment of Alternatives).

13 RECOMMENDATIONS

The following recommendations are put forward to be considered:

- That the socio-economic profile of the region be noted
- That the mitigation and enhancement measures included in this report be implemented to decrease the effect of negative impacts on communities and maximize the effect of positive impacts on affected land owners and other community members.

The main mitigations that were proposed included the maximisation of local employment opportunities, engaging the local farmers, landowners, affected ward councillors and other key community members in decision making processes, following mitigation recommended by other specialists and maximising opportunities for income creation for local people.

- That labour should be sourced locally as far as possible during construction and operation of the project. This will minimise the risk of conflict among local residents and newcomers, and better relationships for workers housed in temporary housing for construction workers.
- That the possibility of crime escalating in the study be noted as an issue of concern to the local landowners based on the magnitude and type of the proposed project. However, the Ward 32 Councillor and other key stakeholders should be made aware of the impact that the influx of new people could have on the area. They should also be made aware of the social impacts associated with the proposed railway construction. Furthermore, “new” people in the area must be urged to refrain from abusing resources and infrastructure of the existing adjacent communities.
- That with appropriate measures, the negative impacts can be reduced to acceptable levels while the positive impacts can be enhanced to provide significant benefits to the area.

Based on the findings of this report, it can be concluded that the socio-economic environment in general in the area within which the proposed railway line construction is planned, poses no fatal flaws to the development of the proposed project. This is based on the condition that recommended mitigating factors that were identified and discussed in this document, are implemented.

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LT/Review /TM 2009/10/24- Final SIA Report.

APPENDIX A

STAKEHOLDER'S INTERVIEW QUESTIONNAIRE

NTHALEPA MANAGEMENT

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Silverton Ext 5
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INTERVIEW QUESTIONNAIRE: AFFECTED STAKEHOLDERS

SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A RAILWAY LINE AND ASSOCIATED INFRASTRUCTURE TO CONNECT KUSILE POWER STATION TO THE NATIONAL RAILWAY GRID, WEST OF WITBANK ALONG N4 HIGHWAY.

As part of the Kusile Power Station, Eskom intends to construct a railway line and associated infrastructure, for the transportation of lime or limestone from the existing railway line two kilometres north of the N4 highway to the power station, situated west of Witbank. The anticipated supplementary infrastructure includes:

- Electricity supply for both the construction and operational phases;
- Sub-station(s);
- Maintenance/Access road;
- Shunting yard; and
- Communication mast.

As an affected stakeholder, this is the opportunity for you to provide your inputs on how the proposed construction of Kusile railway line and associated infrastructure may impact on you and your daily lives. Please answer the questions below:

(PLEASE NOTE THAT ALL INFORMATION WILL BE TREATED CONFIDENTIALLY AND WILL NOT BE DIVULGED TO ANY THIRD PARTY)

SECTION A: GENERAL INFORMATION

Municipality: eMalahleni Local Municipality

Ward name and number:

1. Did you know about the proposed construction of Kusile railway line and associated infrastructure project before this survey?

YES 1

NO 2

2. What do you know about it?

.....
.....

3. How did you hear about it?

.....
.....

SECTION B: YOUR VEIWS ABOUT THE PROPOSED CONSTRUCTION OF A RAILWAY LINE AND ASSOCIATED INFRASTRUCTURE

1. This section consists of 12 statements relating to your views concerning the proposed construction of Kusile railway line and associated infrastructure. Read each statement **carefully** and decide to what extent you **agree** or **disagree** with each statement. Mark you answer on the scale as shown below.

Statement	Disagree strongly	Disagree	Neutral	Agree	Agree strongly	Don't know
The proposed construction of Kusile railway line project will be Eskom's second most advanced coal powered plant and will assist Eskom to supply electricity more efficiently.	1	2	3	4	5	6
The proposed construction of Kusile railway line project will curb the shortage of power supply in the country.	1	2	3	4	5	6
The proposed construction of Kusile railway line project will create jobs for local people during construction and operational phases.	1	2	3	4	5	6
The proposed construction Kusile railway line project will result in economic growth in the region as accommodation and catering will be required for construction workers during construction phase.	1	2	3	4	5	6
The proposed construction of Kusile railway line project will develop various skills within the community such as pipe fitting, welding, boiler making, technicians, riggers and many more.	1	2	3	4	5	6
The proposed construction of Kusile railway line project will see many residents from neighbouring towns such as Witbank, Delmas and Ogies being able to provide for their families after employment at Kusile.	1	2	3	4	5	6
Local businesses, from the hospitality industry and catering to construction and material supplies, will benefit from the proposed Kusile railway line project.	1	2	3	4	5	6
This project will have a negative financial influence on the adjacent properties / farms.	1	2	3	4	5	6
The influx of construction people, job seekers and equipment will have a negative influence on the neighbouring farms.	1	2	3	4	5	6
The proposed construction of Kusile railway line is a better mode of transport for Eskom's activities, as it can limit/reduce traffic congestion that would emanate from road transport	1	2	3	4	5	6
The dividing of farms as a result of the construction of Kusile railway line will lead to negative socio – economic impacts.	1	2	3	4	5	6
The dividing of farms as a result of the construction of Kusile railway line will be of great benefit to the farming community in one way or another.	1	2	3	4	5	6

SECTION C: POTENTIAL OPPORTUNITIES AND BENEFITS

1. What **positive impacts** or benefits (social, economic, environmental and political) are likely to result for the **people in the areas** within which the proposed construction of Kusile railway line and associated infrastructure is planned?

.....
.....
.....
.....

SECTION D: POTENTIAL NEGATIVES AND CONSTRAINTS

1. What **negative impacts** or constraints (social, economic, environmental and political) are likely to result for the **people in the areas** within which the proposed construction of Kusile railway line and associated infrastructure is planned?

.....
.....
.....

SECTION E: YOUR CONCERNS AND INTERESTS

1. What are the specific concerns and interests that **YOU** would like to have taken into account regarding the decision to construct Kusile railway line and associated infrastructure?

.....
.....
.....

2. Is there any additional information that you believe will help the social impact assessment for the proposed construction of Kusile railway line and associated infrastructure?

.....
.....
.....

SECTION F: CONTACT DETAILS

Name and Surname:.....

Residential Address:.....

Tel: Cell:.....

E-mail:.....

Fax:.....

Thank you for your participation