

Social Impact Assessment for the proposed Eskom Kudu Transmission Power Line

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May 2006
SEF REF: 6041

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Abbreviations:

CBD	Central Business District
SIA	Social Impact Assessment
EIA	Environmental Impact Assessment
CMMC	Community Management and Monitoring Committee
ECO	Environmental Control Officer
IDP	Integrated Development Plan

1. Introduction

The aim of this Social Impact Assessment (SIA) is to investigate and describe the social environment surrounding the proposed development, and the potential impacts of the proposed development on the social environment. The social environment consists of all social networks and systems that are potentially impacted on by the proposed development. This SIA is meant to assist the decision-making authorities to decide whether the development will be socially, environmentally and economically sustainable.

2. Description of the project

Eskom proposes to integrate the power from the Kudu CCGT power station into the South African grid via a 400kV Transmission power-line from the Namibian border. A number of alternative integration options and routes have been proposed to connect to the Western Grid of Eskom and supply the increasing demand in the Cape. This Transmission power-line will boost the supply to the Western Cape, which has been plagued by outages in the last number of months. Construction will last approximately 15 months. The 400kV Transmission power-line will provide power to the Western Grid for the entire operational lifespan of the Kudu CCGT power station.

3. Methodology

The International Association for Impact Assessment (2003) states that Social Impact Assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment. The Inter-organizational Committee on Principles and Guidelines for Social Impact Assessment (2003:231) defines Social Impact Assessment in terms of “efforts to assess, appraise or estimate, in advance, the social consequences that are likely to follow from proposed actions”.

Social change processes are set in motion by project activities or policies. Change

has a way of creating other changes. Social change processes can lead to several other, second-order social change processes. Depending on the characteristics of the local social setting and mitigation processes that are put in place, social change processes can lead to social impacts (Vanclay, 2002:192). Social change processes relevant to the project will be discussed before the possible social impacts will be investigated.

A social impact is something that is experienced or felt. It can be positive or negative. Two types of social impacts can be distinguished:

- **Objective** social impacts – i.e. impacts that can be quantified and verified by independent observers, such as changes in population size or composition, in employment patterns, in standard of living or in health and safety.
- **Subjective** social impacts – i.e. impacts that occur “in the heads” or emotions of people, such as negative public attitudes, psychological stress or reduced quality of life.

It is important to include subjective social impacts, as these can have far-reaching consequences in the form of opposition to, and social mobilisation against the project (Du Preez & Perold, 2005: v).

For the purpose of this SIA, the following categories were investigated:

- Health and social well-being
- Quality of the living environment
- Economic impacts and material well-being
- Cultural impacts
- Family and community impacts
- Institutional, legal, political and equity impacts
- Gender impacts

The information in this report was required via interviews with key stakeholders, published reports, including Integrated Development Plans, statistical data obtained from the Demarcation Board and Statistics South Africa and SIA literature (see References). Results from the public participation process, conducted by Tswelopele

Environmental, further informed the study.

The fact that human beings are the objects of study in the social sciences brings unique ethical problems to the fore. Every individual have a right to privacy which is the individual's right to decide when, where, to whom, and to what extent his or her attitudes, beliefs and behaviour will be revealed (Strydom, 2002:67). Every person interviewed for the purposes of this report has been ensured that although the information disclosed will be used, their names will not be disclosed. To protect those consulted and maintain confidentiality, the people interviewed for this report will not be named in the report. Records of the interviews have been kept.

Firstly, the SIA will focus on current conditions, therefore providing baseline data of the area. Each category will discuss the current state of affairs, but also investigate the possible impacts that might occur in future for each category. Recommendations will be made at the end of the report.

Relevant criteria for selecting significant social impacts included the following:

- Probability of the event occurring
- Number of people that will be affected
- Duration of the impact
- Value of benefits or costs to the impacted group
- Extent to which identified social impacts are reversible or can be mitigated
- Likelihood that an identified impact will lead to secondary or cumulative impacts
- Relevance for present and future policy decisions
- Uncertainty over possible effects
- Presence or absence of controversy over the issue.

It must be emphasised, however, that the research conducted for this report was mainly of a qualitative nature. The qualitative approach is more concerned with understanding social life and the meaning that people attach to everyday life (Fouché & Delport, 2002:79). In contrast, the quantitative approach aims to measure the social world objectively, to test hypothesis and to predict and control human behaviour (Hoyle, Harris & Judd, 2002: 394).

Quantitative research can be described as an inquiry into a social or human problem, based on a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true (Sogunro, 2001:3). Qualitative research can be described as an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting (Sogunro, 2001:3).

Traditionally there are two approaches to SIA, a technical approach or a participatory approach. A technical approach entails that a scientist remains a neutral observer of social phenomena. The role of the scientist is to identify indicators, obtain objective measures relevant to the situation and provide an expert assessment on how the system will change (Becker, Harris, Nielsen & McLaughlin, 2004:178). A participatory approach uses the knowledge and experiences of individuals most affected by the proposed changes as the basis for projecting impacts. In this case the role of the scientist is facilitator of knowledge sharing, interpretation and reporting of impacts (Becker *et al*, 2004:178). For the purpose of this study, a participatory approach was followed. The impact assessment was therefore conducted based on qualitative information and a participatory approach, which by its nature give it a subjective slant.

The following assumptions and limitations are relevant to this study:

- The 1996 and 2001 Census data was used for the purpose of this study. Although the data is not generally perceived as being entirely accurate, it does give a broad reflection of the social environment.
- The information obtained in the public participation process informed the study.
- The social environment can not be fragmented and will be discussed broadly. Given the scope of the project and uncertainty about the route detailed studies could not be done on every town in the vicinity.
- The alternative routes will be discussed in brief as the general social impacts which will be experienced by the communities affected by the line will be largely similar. If the finding is otherwise it will be pointed out.

4. Baseline description of social environment

The proposed line will impact on two provinces, namely the Western Cape and the Northern Cape. The bulk of the line will be situated in the Northern Cape. The discussion below will first discuss the provincial situation, and will be followed by a brief introduction to all the towns that may be affected by the proposed development.

4.1 Northern Cape Provincial Profile

The Northern Cape has by far the biggest landmass of all the provinces, being more than ten times the size of Gauteng (1.4% or 17,010 square km). It covers 29.7% of South Africa's land surface at 361,830 square km (Census in brief 2001). The Northern Cape is bounded by the Atlantic Ocean on the west and Namibia and Botswana to its north-west and north respectively. It is fringed by the Swartberg mountain range on its southern border with the Western Cape Province in the Namakwa district (Human resource development strategy for the Northern Cape Province, 2004: 7).

Population and socio-economic overview

According to the Human resource development strategy for the Northern Cape Province (2004: 8) the Northern Cape Province is the largest of the nine South African provinces but has the smallest population at only 822 727. The total population of the country is 44 819 778.

According to the 2001 Census there has been a decline in the population of Northern Cape Province from 1996 (840 321) to 2001 (822 727).

The province is divided into five districts. Frances Baard (303 239) is the most populated, with Kimberley as the administrative centre of the province. The other regions are Siyanda (209 889), Karoo (164 608), Kgalagadi (36 881) and Namakwa (108 111). The Northern Cape Province has the third highest per capita income of all nine provinces but income distribution is extremely skewed, with 51% of the population living in poverty. More than 96% of the provincial government's income is received from central government. The overwhelming majority of the provincial budget received is spent on education, welfare, health and administration, leaving very little over for capital and development investment (Human resource

development strategy for the Northern Cape Province, 2004: 9).

The general indication (Table 1) is that over the past two decades the proportion of Africans has slowly been increasing and that of whites has slowly been decreasing. The proportion of Indians and coloureds has remained largely constant. The proportions obtained from previous censuses are not reported in the Human resource development strategy for the Northern Cape Province because of their lack of comprehensiveness. The average annual growth rates (Table 1) are based on information derived from a single census instead of two censuses.

Table 1 - Growth rates by population group

	Percentages¹	Percentage growth per annum²
	1996	1996 – 2001
African	76,7	2,4
Coloured	8,9	1,9
Indian	2,6	1,6
White	10,9	0,9
Unspecified/other	0,9	1,5
Total	100,0	2,2

Source: Stats in brief 2002

Demographic Issues

In order to better understand the significance of the demographic issues in this province it is combined with a number of others in this section.

Youth, educational qualifications and employment

The 2001 demographic profile of the potential labour force in the Northern Cape reveals a young population. Almost two-thirds of the population is younger than 30 years old. A third of the total population is younger than 15 years old and almost half the potential labour force younger than 30. Furthermore, more young people enter the labour market at an earlier age than in any other province. These data need to be understood in conjunction with those relating to the levels of educational qualifications and the levels of employment in the province presented below. Together they highlight the importance of providing relevant and market-related training to improve the employability of young graduates. The Northern Cape faces real challenges with regard to education and skills development. The figure below shows the highest levels of education reached by the Northern Cape population aged 20 years or older in 2001. The table indicates that 18,2% of Northern Cape population were categorized as functionally illiterate - a figure considerably higher than the national average of 17,9%. Without any further educational opportunities, those falling within this group are doomed to enter the labour market as unskilled

labourers with limited opportunities to find jobs (Human resource development strategy for the Northern Cape Province, 2004: 12).

Data from the 2001 census indicated that of the economically active population in the Northern Cape 55.5% was employed while 26.1% could not find employment. This unemployment figure is lower than the national figure of 29.5%. Significant for this province, however, is that almost half of the potential work force is younger than 30 years old. At the same time, unemployment is highest among the youth with unemployment rates of 54% and 47% in the 15-19 and 20–24 year-old age groups.

The employment distribution figures for this province are skewed in favour of the Frances Baard and Siyanda districts. Together these two districts provide almost two-thirds of the formal employment in the Northern Cape while the Kgalagadi and the Pixley Ka Seme provide 21% of the formal employment in the province. The Namakwa region provides jobs to a further 15.4% of workers in the province. It is also important to note district unemployment figures. In spite of the promise of job opportunities in the Frances Baard the 2001 Census data indicates that it is this region that has the highest unemployment figures.

Economic issues

Agriculture, mining, services and trade have been key economic activities in this province. Data collected suggests that they will continue to play important roles although the traditional foci in some of these areas may shift. It is also important to note that new development strategies and initiatives aimed at economic growth and job creation have been set in motion in the province. It is anticipated that these will boost the traditional economic activities and also provide new economic activities. In doing so, they will provide opportunities for transformation and growth in the technical colleges (Human resource development strategy for the Northern Cape Province, 2004: 16).

Agriculture

Agriculture is the main provider of formal employment in two regions of the Northern Cape – around Siyanda and Pixley Ka Seme districts, with additional small scale mining in Pixley Ka Seme district. It is anticipated that the recent increased quotas in the fishing industry in the Namakwa coast will draw new investments (Human resource development strategy for the Northern Cape Province, 2004: 17).

Mining

Mining is currently the main provider of formal employment in two districts of the

Northern Cape. In both the Frances Baard and Namakwa 29.7% of formal employment is provided by this sector. The discovery of off-shore gas fields on the west coast in the region of Port Nolloth, Kleinsee and Alexander Bay is also likely to create more employment (Human resource development strategy for the Northern Cape Province, 2004: 17).

Services

Community and social services form an important provider of formal employment in each of the district in the Northern Cape.

It is likely that many of the new up and coming initiatives and projects will lead to the development of towns and that this, in turn, will lead to an increase in the need for community and social services (Human resource development strategy for the northern cape province, 2004: 18).

Trade and finance

Trade is the third largest provider of formal employment after agriculture and services.

Tourism and hospitality

As with the construction industry, the tourism and hospitality industries have been identified as potential economic growth sectors in the Northern Cape. Plans for the establishment of a number of game and transfrontier parks have been passed. Opportunities for tourism in the Richtersveld and along the Orange River have been recognised (Human resource development strategy for the Northern Cape Province, 2004: 18).

Manufacturing

Although this sector is largely under-developed in the Northern Cape, there are areas for potential growth. Examples of these include secondary industries associated with both agriculture and mining such as the manufacturing of wine bottles in the Vaal Harts region and jewellery design and manufacturing.

The Northern Cape economy is predominantly resource based. According to 2002 figures, the dominant sectors in the provincial economy were mining (24%), Government Services (22%), Trade (14%), and Transport (11%). Although agriculture contributes only 9% of the Gross Geographic Product (GDP), it provides 33% of all employment in the province. Thus, agriculture is the third largest sector of

employment in the province, after mining and Government services. On the basis of output and employment, mining and agriculture are dominant sectors, a feature different from the rest of South Africa. Mining and Government services account for over 50% of the output and employment in the province. Consequently, the provincial economy is not sufficiently diversified and is therefore vulnerable to external shocks such as changes in commodity prices and weather. Given this rather bleak socio-economic scenario, a number of policy interventions are urgently needed. The Northern Cape Government has proactively been engaged in doing just that since 1994. Among the key policy interventions of Northern Cape Government is the Human Resource Development Strategy (Human resource development strategy for the Northern Cape Province, 2004: 19).

4.2 Namakwa District Municipality

Namaqualand - a history

Franco Frescurais sometimes referred to as Little Namaqualand, so as to distinguish it from Great Namaqualand (or Nama-land) in Namibia. 'Namaqua' is the plural form of Nama the name of the large Hottentot tribe who lived here when the first Whites came to South Africa. It was formerly a part of Clanwilliam but Namaqualand was created a separate district in 1856 the first farms allotted in 1850.

Topographically the region consists of three zones: the coastal Sandveld, stretching up to 50 km inland and rising to about 300 metres; the broken mountainous 'Hardeveld', some 60 km wide and lying at about 900 metres; and an inland zone, Little Bushmanland.

The rainfall is mostly below 250 mm and even as low as 50 mm a year. Along the coast 77 % of the rain falls during the six winter months, whilst at Pella, farthest from the sea, only 37% falls during winter. There is little surface run-off, and lack of water for human and stock consumption is a major problem. Storage dams are of little use and most supplies are obtained from springs and boreholes. As can be expected from the meagre rainfall, the vegetation is sparse and stunted. But it does contain an immense variety of succulents and flowering plants, including the famed Namaqua daisies and other species which make a short but spectacular appearance early in spring after good winter rains have fallen. In profusion and luxuriance of colouring these are probably unsurpassed anywhere in the world. It is believed that the first giraffe seen by whites in South Africa were a pair observed by Pieter van Meerhoff in 1661 at Meerhoffskasteel, about 10 km west of Nuwerus. For many years access to Namibia across the Orange River was by means of pontoons at Goodhouse and Vioolsdrif, but a modern high-level double-lane bridge, the D. F. Malan Bridge, has

been built at Vioolsdrif. Namaqualand is the home of a large number of coloured people, many of whom were accommodated in five reserves: Concordia, Komaggas, Leliefontein, Richtersveld and Steinkopf

In spite of its aridity the region is well suited to sheep, especially non-woolled types, such as the Karakul, and goats. This is due to the wealth of succulent plants, many of which are very nutritious and are able to survive for long periods without rain. The stocking rate is low and farms are extensive, so that nine-tenths of the district consists of farms, which far exceed 3000 ha in size. In the early days Namaqualand was the home of the nomadic Trek Boer, who moved from place to place wherever good grazing was to be found. Farming has now become more stabilised, with the district carrying nearly half a million sheep

Agriculture is successful only where irrigation is available; but as there is practically no local surface run-off, the only source of water is the Orange River. The topography is unfavourable and there is only one fairly large irrigation scheme, that at Vioolsdrif, while a number of pumping installations are privately owned. Lucerne, wheat, citrus and other fruits grow very well and in a few places, such as Pella and Henkries, dates are successfully cultivated. Where there is enough winter rainfall wheat is grown, and up to 66 000 bags are harvested in good years. Along the coast, at Hondeklip Bay and Port Nolloth, rock-lobster fishing is important

When the settlement was founded at the Cape the officials there soon learnt of the existence of copper, somewhere to the north, from Namas who brought objects made of that metal. On an expedition in search of the metal in 1685, Simon van der Stel discovered the 'Copper Mountain' at Springbok, but transport and other difficulties prevented exploitation. About 1852 Sir James Alexander made an unsuccessful attempt to work the deposits at Kodas and Numees, close to the Orange River. Tremendous speculative activity followed when the mines at Springbok were opened. This lasted only about ten years when richer deposits at Okiep, about 8 km, and at Nababeep, about 20 km north of Springbok, were developed. Transport presented great difficulties and in 1876 the copper-mining interests built a 2-ft-gauge railway from Okiep to Port Nolloth, a distance of 175 km. Traction was initially by mules. This line was lifted in 1944. In 1925 the railway from Cape Town was extended to Bitterfontein, 180 km south of Springbok, and most transport is now done by motor trucks to the rail-head. Important villages on the main road between Bitterfontein and Springbok are Garies and Kamieskroon. On the property of the O'kiep Copper Company there are the remains of excavations made by Simon van der Stel's expedition. These, with some prehistoric rock engravings, have been fenced in and proclaimed a historical monument

In 1926 alluvial diamonds were discovered along the coast from the mouth of the

Orange River southwards. The focal point of this industry is at the State workings at Alexander Bay in the Richtersveld, the most arid part of the district, where the rainfall is only 50 mm a year. So rich are the deposits that in 1928 gems to the value of nearly 2 million were recovered. Other workings are at Kleinsee (at the mouth of the Buffalo River) and at Wolf berg. In addition to copper and diamonds, a number of valuable minerals such as sillimanite, beryl, spodumene, feldspar, mica and tungsten are mined in the district (www.sahistory.org.za).

Namakwa District municipality - current situation

The Namakwa District Municipality is situated in the north-western corner of South Africa and borders the Atlantic Ocean to the west and Namibia to the north. Namakwa District Municipality is the largest District Municipality in South Africa with an area of 126747 km² and stretching over a distance of about 1000 km from Alexander bay in the northwest to Fraserburg in the southeast. According to the 2001 census data the population in the district declined from 109 344 in 1996 to 108 111 in 2001. This is however a trend in the whole Northern Cape. A disturbing fact however is that there is a huge loss of females and males in the age groups 15-35 years, who are the economic active portion of the population. A continuation of this tendency would result in serious social and economic problems. The census data indicates that in general, living conditions improved during the period from 1996 to 2001, e.g. a rise in the level of education as well as the improvement of infrastructure. Despite the above, unemployment in all the municipalities rose in this period (Namakwa District Municipality IDP 2005, third revision).

The Namakwa District Municipality is a newly demarcated district that is mainly comprised out of the previously known Namakwaland and Hantam District council. The Namakwaland District council is comprised out of Springbok, as the headquarters, and the Hantam District council in Calvinia.

The District municipality (DCO6) are comprised out of:

- Richtersveld municipality (NC061)
- Nama Khoi municipality (NC062)
- Khai Ma municipality (NC067)
- Kamiesberg municipality (NC064)
- Hantam municipality (NC065)
- Karoo Hoogland municipality (NC066)
- DMA-area (NCDMA06)

Two national roads run across the district, the N7 that connects the Western-Cape with Namibia and the N14 that connects Springbok with Upington further eastwards.

There are no railway lines to be found in the northern areas of the district and can only be accessed in a part of Bitterfontein in the south and Kakamas in the east. The southern part of the area is serviced by railway lines up to Calvinia and Sakrivier. The area can however be accessed by air and there are three airfields in the area that can be found in Alexanderbay, Springbok en Calvinia respectively. The airport in Alexanderbay had international status till recently.

The Namakwa District municipality has a population of about 110 000. If you consider the surface area of 126 747 km², it would mean an average of less than 1 person / km². The population is however greatly urbanised, the Nama Khoi Municipality with a population of about 45 000 is the biggest, followed by Hantam with 19 000, Karoo Highland and Richtersveld with 12 000 each, Kamiesberg with 11 000, Khai-Ma with 9 000 and the DMA-area with about 1 500.

The most commonly spoken language in the district is Afrikaans while English and Xhosa are also used. The majority of the population is not supplied with sufficient services.

4.3 Richtersveld Municipality

The following information was obtained from the Richtersveld Local Municipality Integrated Development Plan 2003. The Richtersveld Local Municipality is located in the northwest corner of the Namakwa District Municipality and the northern border of the Municipality is the Orange River that also forms the border between South Africa and Namibia. Inland to the south and east it is bounded by Nama-Khoi Local Municipality and to the west lies the Atlantic Ocean and the cold-nutrient rich Benguela Current. The local municipal area covers 9670 km². Mining is the dominant industry in the area and mining houses control the majority of the coastal land as well as the fertile land adjacent to the Orange River.

Port Nolloth is the main town and is located at the south-western edge of the Municipality. There are a number of smaller rural and mining towns widely dispersed throughout the Municipal area. A large portion of land consists of communal land that is subject to the Land Transformation Act. The population for the entire Municipal Area is roughly 17 000 people (Richtersveld Local Municipality Integrated Development Plan, 2003).

Tourism

The Richtersveld Area is blessed with magnificent scenery and high biodiversity. It is therefore an ideal area for tourism. The areas with the greatest potential for tourism

are the spectacular mountains in the north east, the Orange River Mouth, the lower Orange River and a number of coastal areas namely: McDougalls Bay, Holgat and Boegoeberg.

Fishing and mariculture

The unpolluted nutrient rich Benguela current provides an ideal environment for fishing and mariculture opportunities. Access to the coastal area is highly limited by Alexkor Ltd. However, within the mining area there are a number of old mining areas that could provide ideal sites for mariculture operations. The area currently controlled by Alexkor Ltd must be well planned before sections of the mining area are decommissioned.

Minerals

The Richtersveld area is very rich in minerals, particularly diamonds. Diamond mining takes place both offshore and along the coastline and the banks of the Orange River. In the interior there are good opportunities to mine quartzite and there are other smaller mineral deposits that could provide opportunities to small miners. Two companies, Alexkor Ltd and Trans Hex, currently dominate the mining industry.

Agriculture

The lower Orange River valley and the area near Rooiwal have huge potential for irrigation agriculture. However, most of the land that in the lower Orange valley, is controlled by Alexkor Ltd or by Trans Hex. The land near Rooiwal is privately owned. The greater Richtersveld communal land is used for small-stock farming, however the land is marginal and requires properly implemented grazing plans to sustain the industry and needs to diversify.

According to the 2001 census data the population for Richtersveld Municipality is evenly spread out over the age groups of 0-39 but takes a slight drop in persons from the ages of 40 up to 74. There are drastically fewer persons living within the boundaries of Richtersveld Municipality that falls under the age category 75 and older. The majority of the population has some degree of Secondary Education (2246) with only 268 obtaining a Higher education and 1439 persons not attending any Education institution.

The majority of the population has a household income of between R19 201 - R 38 400, only 18 households earn more than R614401-R1228800 per annum and 471 households earn no income at all. An alarming number of 6242 persons don't earn any form of personal income and most people earn between R401 - R800 per month. The majority of 1155 people are employed by the Mining and Quarrying industry with

593 people being employed in the second largest sector of Community Services. In terms of employment the data indicates that 2832 people are employed, 1558 people are unemployed and 2468 people are not economically active.

The Richtersveld Municipality's population is comprised out of 7769 Coloured, 1223 White, 1116 Black African and 15 Indian or Asian persons and an overwhelming majority of the population speaks Afrikaans, but other languages that are also predominantly spoken includes English, IsiNdebele, IsiXhosa and Sesotho. The majority of households is provided with basic services such as refuse removal once a week and flush toilet sewers and water supply inside their house or yard (<http://www.demarcation.org.za>).

4.3.1 Alexander bay

Alexander bay is situated on the northwest corner of South Africa in the Northern Cape (www.travelpost.com). The city is about 10 km south of Oranjemund which lies just north to the Orange River in Namibia.

The area surrounding Alexander bay contains the riches deposits of alluvial diamonds in the world. It was however copper that gave rise to the town's existence, when Mr. James Alexander, the father of the copper industry in Namaqualand started transporting copper to the town to load them onto the ships in the bay. This system was in place until the narrow railway line from Okiep to Port Nolloth was taken in use in 1876.

Alexander bay fell into disuse until the diamonds were found in 1926 (www.wikipedia.org). According to a tourism website Dr. Hans Merensky (1871 – 1952) the "wizard" geologist of South-Africa was the first person to discover diamonds together with oyster shells on an ancient marine terrace nearby. The discovery changed the course of history in this isolated frontier town, as fortune hunters flocked to the region. The alluvial diamond diggings were soon declared a state mine, a concern which still exists today, as a state owned company called Alexkor Limited (www.diamondcoast.co.za). Alexander bay was known for being completely self sustaining in terms of providing fruits and vegetables and freshwater that was obtained from evaporating seawater (www.wikipedia.org).

The destiny of most inhabitants of the region is somehow linked to the mine and its subsidiary activities. Over the years Alexkor Ltd. has diversified into agro-industry, mariculture and tourism. They run mine tours and allow controlled access to the coast, and play a major role in the development of the ecotourism industry for the region (www.diamondcoast.co.za).

The Tourism Information Centre for the region is also based in Alexander Bay. Walking and cycling trails link points of interest in and around the town, as Alexander Bay forms a focal point of the "Living Museum" concept, being implemented in the area (www.diamondcoast.co.za). The Living Museum gives you a profound insight into the rich natural and cultural history of the area (<http://www.south-north.co.za>).

In an article in "WEG" the author wrote down his experiences after a visit to the Northern Cape region. He said that the closer you get to Alexander bay, the more diamond stories you hear, the way in which diamonds are hidden in pieces of "biltong" or the wheel caps of cars or the hollowed out soles of shoes. According to a tourism website (<http://www.south-north.co.za>) you need a permit to enter the Sperrgebiet. Movement in the Sperrgebiet area is very restricted and entrance permits need to be approved well in advance for all visitors. Security clearances are done at the Security Department offices in Oranjemund and the Springbok Police Station. There are shops, a guesthouse and a video den and a pub. One guy introduced himself as Spook Goosen, whom has been living here for years. He said that it's not easy to be a fisherman in these areas, if you return from the sea, the security people from the mine first has to "x-ray" his fishes to make certain that he didn't smuggle any diamonds inside of them (www.weg.co.za).

According to the Crime Information Analysis Centre of the South African Police Service the Alexander Bay police station reported the following crime statistics for April to March 2001/2002 to 2004/2005. The data indicates that "Assault with the intent to inflict grievous bodily harm" is one of the most common incidences of crime, but has been on the decline since 2001/2002, dropping from 53 reported incidences to 46 in 2004/2005. "Common assault" also has a high incidence rate but has declined from 115 in 2001/2002 to only 51 in 2004/2005. Unfortunately "Drug related crime" has been on the increase, rising from 34 in 2001/2002 to 45 in 2004/2005.

4.3.2 Port Nolloth

Formally known as "Aukwatowa" (in Nama, the local dialect, this means "Where the water took the old man away") Port Nolloth has a strange desert atmosphere as it is on an arid and barren coastal plain, yet it still holds some fascination to the visitor (www.go2africa.com). The Khoi Khoi people, the white boere and the "Basters" (a group of mixed descent who were absorbed by both groups) were the only known people in the area, surviving on a precarious farming existence when Port Nolloth was established in the 1850's to facilitate the export of copper, which was brought to the coast along a 96-mile long narrow gauge railway from the mines near O'Kiep. It continued to serve this purpose until well into the 20th century, but was never called on to handle any significant volume of cargo.

Because of the harbour's narrow, shallow entrance the improvement of the road systems a railway eventually replaced it as a more practical alternative (www.southafrica-travel.net). Today the trains no longer run and the tracks are falling into disrepair, but Port Nolloth has turned to new industries. It remains a bustling seaside town with the distinct seafaring, frontier atmosphere so typical of places on the Namaqualand coast (www.diamondcoast.co.za).

In more recent years Port Nolloth has emerged as a centre of small-scale diamond recovery mining, while the town is the only holiday resort along the Diamond Coast. Visitors can stroll down the pier at sunrise to watch diamond dredging boats and fishing trawlers pulling out of harbour, or if they are fortunate, the regular Unicorn Lines coastal tanker Oranjemund making her measured way into the harbour, a ship jocularly referred to by her owners as "Portnollothmax" in respect to her diminutive size (www.ports.co.za).

As with nearby Alexanderbay, the discovery of diamonds here in the 1920's proved a huge infusion to the local economy. This is the only coast in the world, where gem quality diamonds can be manually dredged from the sea bed by divers. These men, and the fortunes they made or lost, make for a significant part of the recent history of this town. As much of the coast here is forbidden mining territory, Port Nolloth remains one of the few places where people can walk on the beach and swim in the icy (16 degrees max) water of the Benguela Current that sweeps up the coast (www.go2africa.com and www.diamondcoast.co.za).

In 1921, the first black people started living in Port Nolloth in Paraffien-Street on the border of the coloured settlement. Later, they were moved to the Tent Dorp and the Bloukamp, before they settled in Sizamile (which means: "we have tried"). It was built in 1993 and is home to about 1200 people. Topographically, the town belongs to the dry and vast Sandveld, and is often shrouded in sea fog locally known as the malmokkie (www.south-north.co.za).

According to the Crime Information Analysis Centre for the South African Police Service assault and burglary at residential premises seems to be the biggest problems in terms of crime with 93 and 90 reported cases respectively in 2004/2005. Drug related crimes have been on the increase since 2001/2002, rising from 31 to 48 reported incidences.

4.3.4 Richtersveld

The following information was obtained from, D. John, "Richtersveld: Museum of Man and Nature".

There are traces of many minerals in the geological treasure chest of the Richtersveld, but only high-grade lime-stone is present in large quantities. In the 1850s the metal was carried on mules or ox-wagons and floated down the Orange to Alexander Bay, where alluvial diamonds are still being mined.

The Richtersveld is harshest in the hot and rocky lowlands near the Orange River which only receives 20 mm of rain annually. The sparse vegetation is concentrated along the river and in cliff-lined tributaries, dry except during flash floods.

The Richtersveld is a museum of cultures too. Archaeologists have discovered early stone-age tools dating back about 200 000 years. Namas have been living in the region for the last 2 000 years. They probably traded with Bushmen, exchanging pottery for skins.

The herdsman's Khoi-khoi cousins were encountered by Jan van Riebeeck in 1652. Explorer Gordon reached the Orange in 1779, and early missionaries crossed the river at Sendelingsdrift, where the National Parks Board has established its headquarters. In the early 1900s a group of Namas fled southwards from Namibia after revolting against German rule.

The Namas speak idiomatic Afrikaans with their own colourful phrases, as well as a classical Khoi-khoi (Hottentot) language, interlarded with clicks. 'Dis my taal, dis ook my trots', said an old Nama woman. Most Namas belong to the Dutch Reformed Church, where they play the guitar in preference to the organ.

In 1991, after 18 years of negotiations, the Namas authorised the creation of the national park. In terms of the agreement, herdsman can continue to graze their goats but will help to protect endangered flora. Mining is also permitted.

At the signing ceremony, it was pointed out that tourism is the goose that lays the golden egg. The Parks Board can be a bridge builder between countries and people. Locals are preferred for jobs, and part of the profits will be spent on essentials like boreholes.

Most of the inhabitants live outside the park in the flatter southern two thirds of the Richtersveld. Kuboes and Lekkersing are predominantly Nama towns, but Eksteenfontein is preferred by Basters, whose women traditionally wear Boer kappies. These towns are small and unpretentious with a church, a shop, no garage, and iron-roofed cement brick dwellings. Herdsman use the few mobile matjieshuise. Some villagers work in the mines or in towns like Port Nolloth and Steinkopf, on the fringes of the Richtersveld. All the children apparently attend school.

4.3.5 Lekkersing

The small town of Lekkersing lies nestled in the hills of the Richtersveld, sixty kilometres east of Port Nolloth in the north-western heart of the Richtersveld. Lekkersing is a village which was named for a small natural fountain that must have been music to the ears of thirsty adventurers. The village of 'Fine Singing' retain some of its age-old Nama heritage (www.lionsands.krugerpark.co.za). According to Laidler, the village got its name from the Namas who said that many years ago the Bushmen made beer and danced nicely here (1927: 149). There is also a quartzite mine where flagstones and tombstones are cut, in the area. Skurwehoog caves are also 30km from Lekkersing on the road to Kuboes. (www.diamondcoast.co.za)

4.4 Nama Khoi Municipality

The Nama Khoi Municipal area lies in the North West corner of South Africa. The main town is Springbok and lies about 390 kilometres west of Upington. The Atlantic Ocean borders the area on the west while the Orange River (and Namibia) forms the Northern border. The Nama Khoi Municipality (NC062) came into being after the Municipal elections on 5 December 2000. The new entity makes part of the previous interim municipalities of Springbok, Steinkopf, Okiep, Concordia and Komaggas as well as Buffelsrivier, Nababeep, Bulletrap, Vioolsdrif, Goodhouse and Carolusberg. The Nama Khoi Municipality is the largest Municipality in the Namaqua District municipality.

Infrastructure is in general under the normal standard but the natural resources of the Nama Khoi Municipal area supports the three important economic sectors of Agriculture, Tourism and Mining. The area is already well known for its Tourism potential and several minerals and metals are mined in the area. The copper and alluvial diamonds of the area is well known and the mines have been in existence for many years. The De Beers mine at Kleinzee is an example of this. The Okiep Copper Co. has been providing job opportunities for a large amount of people in the previous years but in recent times the mine has only been able to provide jobs for about 500 employees. The agriculture sector is characterized by cattle and game-farming as well as irrigation among the banks of the Orange River.

According to the 2001 census data there are 21311 Females and 20690 Males in Nama Khoi Municipality. The majority of the population has some degree of Secondary Education (11068) with a large amount 1763 obtaining a Higher education and 1246 persons not attending any Education institution. The majority of the population has a household income of between R19 201 - R 38 400. Sixty nine households earn more than R614401-R1228800 per annum and 1531 household

earn no income at all. An alarming number of 25975 persons don't earn any form of personal income and most people earn between R401 - R800 per month. The majority of 3314 people are employed by the Mining and Quarrying industry with 2555 people being employed in the second largest sector of Community Services. In terms of employment the data indicates that 11534 people are employed, 5754 people are unemployed and 12253 people are not economically active.

The Nama Khoi Municipality's population is comprised out of 39362 Coloured, 4060 White, 1271 Black African and 55 Indian or Asian persons and an overwhelming majority of the population speaks Afrikaans, but other languages that are also predominantly spoken includes English, IsiNdebele, IsiXhosa and Sesotho. The majority of households are provided with basic services such as refuse removal once a week and flush toilet sewers and water supply inside their house or yard, however most have to collect water at a regional local school (<http://www.demarcation.org.za>).

4.4.1 Kleinzee

Diamond mining started in 1927 on the farm Kleyne Zee after Jack Carstens discovered diamonds on the farm the previous year. Kleinzee has since evolved into a modern town serving one of the world's foremost alluvial diamond mines, that of De Beers Namaqualand Mines (www.namakwa-dm.co.za).

Today Kleinzee is the administrative centre of the mining area, which has recently been christened the Diamond Coast - Forever Namaqualand. This De Beers initiative is aimed at stimulating tourism and attracting visitors to the region. The company started mining here in 1928 and produces roughly a million carats a year - ample justification for the choice of name. Apparently any time of year is good for a visit, with - oddly enough - the hottest days experienced mostly during winter when the mercury can occasionally climb well into the 30s. The south-easterly blows in summer, with the rule of thumb being that if it doesn't start before 10am a windless day lies ahead. With the days ending later here, it still leaves a lot of time to plan a full day of wind-free fun or relaxation.

Average annual rainfall is minimal, at between 100-120mm with further moisture provided by the mists that can cloak the area for days. Judging by the name of a small settlement not far from Kleinzee - Grootmis (Great Mist) - this happens often. Kleinzee itself is a small town of 2 500 inhabitants whose entire shopping needs are catered for by a Spar (Saturday Star, 12 Nov 2005). Kleinsee is an area with extremely low crime levels with only 41 crimes reported in the year of 2004/2005.

4.4.2 Okiep

South Africa's mining revolution had its origins in the arid parts of the Cape where at Okiep in 1855, copper-mining operations got underway. The Okiep Copper District, located in the Namaqualand region of the Northern Cape Province, is the oldest formally-proclaimed mining district in southern Africa. With the exception of a brief period between 1931 and 1939, the district has been in continuous copper production since 1852. The history of exploitation of the copper deposits, however, predates the arrival of the first Dutch settlers on the subcontinent in 1652. With a current annual production of -20 000 tons of copper, the Okiep District is the second-largest copper producer (after Phalaborwa) in southern Africa. Total production from the more than 30 mines which have been operative exceeds 95100 million tons of copper ore, with average grades ranging from 1.75 - 14% (Gibson and Robb, 1996). Today Okiep is a small ex mining town with a population of some 6,500 and is situated within the semi-desert region of Namaqualand. Its colourful houses are scattered across a vast, sandy plain interspersed with rocky outcrops, hence its name, which means big brack (long area of dried salty land) (Laidler, 1927). Guided tours and trails lead you to the old Cornish mine workings, remains of the railway earth works, the 12 block houses surrounding Okiep, the mine museum in Nababeep, the Orbicule hill (which is only found in Namaqualand and Scandinavia), the Goegap Nature Reserve, Simon van der Stel's mine shaft, Schaap River Canyon and many other places of historical interest (www.south-north.co.za).

4.4.3 Springbok

This town is situated on the west coast of the Northern Cape Province. It is midway between Cape Town in the south and Windhoek, capital of Namibia in the northwest on the Atlantic coast. It is well known as one of the places in the interior of South Africa which was fabled to harbour untold riches. Pre-eminent employees of the Dutch East India Company of Holland, among them, Simon van der Stel, who was then the Governor of the Cape, reportedly undertook a trip to the area in 1685 in search of riches and the mythical kingdom of Monomotapa. Springbok is also in the heartland of the perennial spring flower territory. Springbok is the centre of the mining heartland of Namaqualand. These succulent-strewn drylands were the site of hostilities in the Anglo-Boer war (1899-1902) and the rocky remnants of an English fort can be seen on a hillock in the centre of town. It owes its crumbling condition as much to a man as to nature. General Jan Smuts, later to become the President of the Union of South Africa, attacked the English garrison here and finished it off by blowing up the fort with dynamite. Despite such vigorous antagonism between the English and the Boers, the churches of Springbok tell a different tale. Every small town in the country has a distinctive spire atop its skyline. Springbok is no exception.

However, the inevitable Dutch Reformed Church is to be found in the unexpected location of Synagogue Street. Indeed, the church was used as a synagogue for many years and is now the site of the Namaqualand Museum. The English however, got there first. The Anglican Church, next to the post office, is the second oldest church in Namaqualand, dating from 1861. Fifteen kilometres south-east of Springbok is the 15 000 hectare Hester Malan Wildflower Garden. Named after the wife of one of the apartheid era bureaucrats of the Cape, the reserve was extended in 1990 and also got a new name. Goegap is Nama for waterhole, an evocative name when summer temperatures can reach anywhere between 30 and 48C. In this semi-desert, it is the uncertain winter rainfall that determines the flowers.

According to the SAPD Crime Information Analysis Centre “Assault with the intent to inflict grievous bodily harm” is the most common crime, with 141 reported incidences, Drug related crime has been on the increase and 108 crimes were reported in 2004/2005.

4.4.4 Koingnaas

The legacy of the first discovery of diamonds in 1927 continues at Koingnaas, the southern operation of the mine that started in the early seventies. The strandveld, courtesy of being within the restricted diamond area, is in pristine condition. The treasures of this area have only recently been opened up for limited tourism and arrangements must be made at least five days in advance. (www.namakwalandm.co.za)

4.5 Kamiesberg Local Municipality

The following towns and villages all fall under the Kamiesberg Local Municipality, Kamassies, Kamieskroon, Karkams, Kheis, Klipfontein, Koingnaas, Leliefontein, Namakwaland NU, Nourivie, Paulshoek, Rooifontein, Norap, Soebatsfontein, Spoegrivier and Tweerivier.

According to the 2001 census data there are 1121 Females and 2104 Males in Kamiesberg Local Municipality. The majority of the population has some degree of Secondary Education 2503 with a small amount 238 obtaining a Higher education and 561 persons not receiving any schooling. The majority of the population has a household income of between R9 601 - R 19 200. 84 households earn more than R1228801-R2457600 per annum and 449 household earn no income at all. An alarming number of 6247 persons don't earn any form of personal income and most people earn between R401 - R800 per month. The majority of people (613) are employed by the Mining and Quarrying industry with 602 people being employed in

the second largest sector of Community Services. In terms of employment the data indicates that 2356 people are employed, 1107 people are unemployed and 3210 people are not economically active.

The Kamiesberg Local Municipality's population is comprised out of 9345 Coloured, 1219 White, 177 Black African and 11 Indian or Asian persons and an overwhelming majority of the population speaks Afrikaans, but other languages that are also predominantly spoken includes English, IsiNdebele, IsiXhosa and Sesotho. The majority of households is provided with basic services such as refuse removal once a week and flush toilet sewers and water supply inside their house or yard, however a large number have to collect water at a regional or local school or a borehole (<http://www.demarcation.org.za>).

4.5.1 Soebatsfontein

According to tradition Soebatsfontein got its name after several Bushmen captured two Hottentots and proceeded to torture them. The prisoners pleaded for their lives but the Bushmen were obdurate and broke their limbs and filleted them in the fashion peculiar to them.

Today Soebatsfontein is the only village in Kamiesberg municipality which relies uniquely on the new commons as they did not possess land for farming until 2000. Soebatsfontein is further characterized by high wealth disparities due to one good educated, larger family that immigrated in the 1970's to work in the mines nearby, whereas the other part of the village muddled through somehow from the beginning of the 1920s until now. Past experiences could be circumscribed as 'factional politics', distinguishing between 'us' and 'them', typical for some villages in the Namaqualand. Soebatsfontein has the highest employment rate but is the least developed village in the Kamiesberg according to the public infrastructure. Soebatsfontein have not obtained electricity pipelines and brick houses for the older people yet (Vollan, 2005).

4.5.2 Hondeklipbaai

Hondeklipbaai gets its name from the huge boulder that squats outside the police station. It really does look like a sitting dog. Some locals insist that it resembles a bulldog but at certain angles there's no doubt that it is in fact an overweight Pekinese. The hondeklip was painted red by the town's first residents as a beacon for incoming ships. It looked slightly less doglike since a conman lopped off its ear in the 19th century thinking that the rock contained copper. It lost its nose to lightning some years ago. Hondeklipbaai is home to an unusual shipwreck: a busy mine-sweeper during World War Two, the 40-foot *Aristea* now lies rusting high above the

surf-line, expelled from the Big Blue by a vicious West Coast storm on her maiden voyage as a fishing trawler. Apparently the skipper was too drunk to steer properly and is now the toast of fisherfolk far and wide, who enjoy a stiff double Aristeia on the rocks when they go up to the bar (www.suntimes.co.za). According to the SAPD Crime Information Analysis Centre Hondeklipbaai reported less than 50 crimes of any category in 2004/2005.

4.5.3 Groenriviermond

Groenriviermond is on the way to the "Spergebied" and this small settlement is unique in its lonely setting in the midst of the "Sperrgebiet" and is quite isolated (www.go2southafrica.com). Since 1967 illegal holiday shacks have been erected on the land situated on the southern bank of the Groenriviermond and between the high water mark of the Atlantic Ocean and the western boundaries of the farms Klip Kail 547 and Eiland Punt Noord 549 which constitutes unsurveyed, unregistered and unallocated stand land. The land has not been alienated, leased or burdened with a servitude in favour of any person. The government has, since the early 1980's, engaged in discussions with the hut owners to have the huts removed, but without success. With commencement of the investigation it was established that 78 "illegal" structures had been erected. Forty eight of the owners of these structures have been positively identified. The investigations of the heath special investigating unit investigated the lawfulness of the occupation of and the erection of structures on State land near Garies in the Northern Cape Province. The Unit instituted civil action before the Special Tribunal in this matter and obtained eviction orders for the approximately 50 families who have erected structures on the State land. The land in question (Groenriviermond) has been earmarked for tourist development, which can now go ahead. The value of the property concerned is approximately R4 million (www.agsa.co.za). The unit became involved in the investigation of this matter in April 1997. The hut owners were requested to demolish these structures, but they have lodged an appeal and this matter is not finalised.

4.5.4 Garies

In 1845, Garies sprang up on land given to the Dutch Reformed Church by the owner of the farm Goedeverwagting. Originally named after the farm, its present name, a Khoisan word meaning "coach-grass", was given it by former Cape premier John X Merriman (www.south-africa-tours.com). According to the SAPD Crime Information Analysis Centre Assault with the intent to inflict grievous bodily harm is the most common crime in Garies and has been increasing over the years from 57 reported incidences to 71. Drug related crimes has also increased from 20 to 45.

4.5.5 Namaqua National Park

The Namaqua National Park was proclaimed in 1999. It is a developing park, devoted to conserving the globally significant Succulent Karoo biome and is renowned for its spectacular spring flower displays.

The park is situated in Hardeveld - otherwise known as the Namaqualand Klipkoppe. These 'Klipkoppe' or rocky outcrops are made up of a fragmented chain of mountains measuring approximately 50kms in width. The chain separates the low-lying Sandveld to the west and the Bushmanland plateau to the east. Significant to the topography of the area are the characteristic large flat or round granite outcrops surrounded by sandy alluvial valleys (www.namaquanp.com).

During early August and September, seemingly overnight, the dusty valleys of Namaqualand are transformed into a wonderland, carpeted with wildflowers. With its winter rainfall, Namaqualand is home to the richest bulb flora of any arid region in the world and more than 1 000 of its estimated 3 500 plant species are found nowhere else on earth. Namaqua National Park is situated in the world's only arid biodiversity hotspot, and is home to the world's smallest tortoise, the Namaqua Speckled Padloper. It conserves the world's richest succulent flora and it is world renowned for its spectacular spring flower displays (www.sanparks.org)

4.6 West Coast District Municipality

The following information was retrieved from "A profile of the Western Cape Province: Demographics, poverty, inequality and unemployment" from the website www.elsenburg.com.

According to the National Census of 2001 the Western Cape Province is home to about 10.1% of South Africa's population. Measured by its total current income, the Western Cape is the second richest province in South Africa after Gauteng. In per capita income terms the province also ranks second after Gauteng. Despite these relative fortunes, the province is still marred by high poverty rates, inequalities in the distribution of income between various population subgroups, and unemployment, although not to the same degree as other regions in South Africa. Poverty and unemployment in South Africa are often rural phenomena, and given that many of the rural inhabitants are linked to agricultural activities, the various Departments of Agriculture in South Africa have an important role to play in addressing the needs in rural areas (www.elsenburg.com).

The Western Cape is divided into five district municipalities. These district municipalities were recently demarcated as directed by the Local Government

Municipal Structures Act (1998). The City of Cape Town is classified as a metropolitan municipality, the only in the Western Cape with this status. The five other district municipalities are the West Coast, Boland, Central Karoo, Eden and Overberg. Cape Town is home to 62.2% of the population. The Boland district is the second largest, with 14.2% of the population, followed by Eden and the West Coast with 9.8% and 8.5% respectively. The Overberg and Central Karoo are home to 3.8% and 1.5% of the population respectively. Coloured people make up more than 50% of the population in every district, and 58.9% overall. The majority of all racial groups live in Cape Town (68.9% of Africans, 56.1% of Coloureds, 88.8% of Asian and 72.8% of Whites).

Urban areas are divided into metropolitan areas and secondary cities or small towns. The vast majority of the population (89.6%) live in urban areas. This figure is relatively high compared to the national average 63-37 urban-rural split (www.elsenburg.com).

Poverty, inequality and unemployment

In 2003 the Western Cape contributed approximately 14.5% to the National GDP, although only 10.1% of the South African population lives in this province. This implies that the per capita GDP in the Western Cape is higher than the national average. Despite the province's relative fortunes, high levels of poverty and inequality persist as they do in the rest of the country.

The average household in the Western Cape earned R75,361 in 2000. Agricultural households in general earn less than their non-agricultural counterparts. The average agricultural household reported an income of R35,851 compared to R80,392 for non-agricultural households. African agricultural households are worst off, earning on average only R14,773 per annum compared to R28,108 earned by Coloured households. White agricultural households earned substantially more (R146,935) (www.elsenburg.com).

Employment levels and unemployment

There are approximately 1.55 million workers in the Western Cape. Although the overall racial distribution of the workforce is similar to the racial composition of the province, this is certainly not true for each skill group. African and Coloured workers are typically found in the lower-skilled occupation groups, while White workers are more concentrated around the higher-skilled occupations. Since there are very few Asian workers in the Western Cape no conclusions can be drawn about their skills distribution. Clearly much still needs to be done in the Western Cape to bring the racial composition of the workforce more in line with the provincial-level population composition at all skills levels (www.elsenburg.com).

The Western Cape has a population of about 3.99 million people of which approximately 1.46 million people are employed. Under the strict definition about 4.84 (4.39) million people are not economically active, which implies that 538,427 (994,830) people are unemployed. This translates to an unemployment rate of 27.3% (40.9%), which is significantly higher than the national rate of 26.4% (36.3%) for 2000 (www.elsenburg.com).

Unemployment rates are very low among White and Asian people, and rises rapidly for Coloured and African people. A comparison of the municipal areas shows that the Central Karoo area not only has a high unemployment rate but also has a large differential between the official and expanded unemployment rates. This is indicative of the long-term unemployment problem in this area where people have given up searching for jobs. Also interesting is Cape Town's ranking as the municipality with the fourth highest unemployment rate in the Western Cape, despite having the lowest poverty rate. This implies that unemployed people have better access to other income sources such as other employed family members or state support grants. Unemployment is also significantly higher in urban areas – an interesting result when compared to South Africa as a whole, where rural unemployment (40.6%) outweighs urban unemployment (33.7%). This may be a result of a steady influx of people, often from other provinces, seeking employment in the Western Cape's cities and towns (www.elsenburg.com).

Finally, unemployment is also lower among agricultural households than non-agricultural households. A comparison of unemployment rates by race (Asian/Coloured/African and White) and agricultural/non-agricultural households shows that unemployment levels in agriculture are driven mainly by unemployment among Coloured/African workers. Nevertheless, the unemployment rate for Coloured/African agricultural workers is lower than the unemployment rate for Asian/Coloured/African non-agricultural workers. Poverty is also shown to be highest among Coloured/African agricultural households, yet unemployment is lower. One possible explanation for this is inaccurate accounting by agricultural households of the value of goods and services (such as food, clothing and housing) received in kind from employers, which leads to an overestimation of poverty rates. However, this does not take away the fact that agricultural wages are often very low compared to non-agricultural wages. This may explain higher employment levels among agricultural households, but often these people can be classified as the 'working poor' (www.elsenburg.com).

4.7 Matzikama Local Municipality

According to the 2001 census data there are 4341 Females and 10123 Males in Matzikama Local Municipality. The majority of the population (10329) has some

degree of Secondary Education with a large amount (1887) obtaining a higher education and 3319 persons not receiving any education. The majority of the population has a household income of between R9 601 - R 19 200. hundred and thirty one households earn more than R1228801-R2457600 per annum and 821 households earn no income at all. An alarming number of 25023 persons don't earn any form of personal income and most people earn between R401 - R800 per month. The majority of people (8193) are employed by the Agricultural sector with 3307 people being employed in the second largest sector of Community Services. In terms of employment the data indicates that 18731 people are employed, 3508 people are unemployed and 10695 people are not economically active.

The Matzikama Local Municipality's population is comprised out of 38217 Coloured, 9124 White, 2800 Black African and 65 Indian or Asian persons and an overwhelming majority of the population speaks Afrikaans, but other languages that are also predominantly spoken includes English, IsiNdebele, IsiXhosa and Sesotho. The majority of households is provided with basic services such as refuse removal once a week and flush toilet sewers and water supply inside their house or yard, however most have to collect water at a regional or local school (<http://www.demarcation.org.za>).

4.7.1 Bitterfontein

In the heart of the Hardeveld lies Bitterfontein. Bitterfontein is one of just a few towns in a long stretch of dry land. The town took its name after the very saline fountain, the "Bitterfontein" which still exists. Bitterfontein is well-known for its delicious mutton and sheep farming is the main agriculture activity of the area. Also mined here is the rare "Bitterfontein Green", a green granite found nowhere else in the world. It is the business town of the area, and not far from Bitterfontein is the tiny village of Nuwerus. Where Bitterfontein has the hotel of the area, Nuwerus has the church. The Bitterfontein railway station is at the end of the line from Cape Town (www.araly.com). You can visit the "Boerewinkel" General Dealer for assorted sweets in a papercone or for fresh butter (www.capewestcoast.org).

4.7.2 Vredendal

The town Vredendal was named after a peace settlement between two fighting parties in the 17th century. Vredendal is actually part of the old Vreedensdal farm, dating back to 1748 when it was acquired by Pieter van Zyl. The Van Zyl House was build in 1776 and served as the first Church, school, shop and police station. This house was the starting point of the farming community and the town Vredendal as it is known today. The Van Zyl house was restored and is now a National Monument.

In 1944 the settlement received Manage Board status and a Roman Catholic Church was opened in 1958. This church not only represented a place of worship, but also served as landmark for the community. An interesting architectural theme resulted here because of superstition. Windows, stairs, arches etc. is in the numbers of three and seven. The town is situated on the banks of the Olifants River. The irrigation scheme of the Olifants River permits extensive agriculture and viticulture (www.namakwa.com). The town is advanced and modern, with a fully developed infrastructure that includes a modern airfield, shopping centres, easy access to highways and therefore serves as base from where trips to Namaqualand, West Coast and the Cederberg mountains can be undertaken.

The community relies on its established farming community where especially wine-growing, vegetable-growing and more recent tunnel-growing are practiced. In summer time, the average day temperature amounts to 31 degrees Celsius whilst 19 degrees reflects the average winter temperature. Visitors to the town can also take visit a variety of restaurants, sights worth seeing and especially a diversity of wildlife and the unique wealth of flowers (www.places.co.za). According to the SAPD Crime Information Analysis Centre Vredendal has high crime rates, with 1511 crimes being reported in 2004/2005.

5. Social change processes

The purpose of this chapter is to describe predicted social change processes that the erection of the proposed power line will set in motion. These processes have been divided into four categories:

- Social change processes originating prior to the construction of the power line. Many of these processes pertain to the concerns and objections raised by key stakeholders regarding the proposed development.
- Social change processes expected to set in during the construction phase.
- Predicted social change processes during the operational phase.
- Social change processes expected during the decommissioning phase, if that should occur.

The tables below indicate what processes are predicted to be set in motion, in which phase of the project. Only the relevant processes will be discussed after each table. It is important to remember that social change can be extremely subtle. These social change processes might lead to the social impacts as described in paragraph 6.

5.1 Demographic processes

Theme	Process	Phase at which process is relevant			
		Prior to Construction	Construction	Operation	Decommission
Demographic processes	In-migration	√	√		
	Out-migration				
	Presence of newcomers				
	Presence of temporary workers		√		
	Presence of seasonal residents				
	Presence of weekenders				
	Presence of tourists/day-trippers				

	Resettlement				
	Displacement/ dispossession		√		
	Rural to urban migration				
	Urban to rural migration				

Demographic processes are those relating to the movement and composition of people in the region affected by the project. It is predicted that the following demographic processes will take place:

- In-migration

People from other areas will move to the area in search of new opportunities. This process will be especially visible in small communities.

- Presence of temporary workers

There will be a short term influx of construction workers during the construction phase of the project. Another important factor to consider is that in South Africa, with its high levels of unemployment, any new development or rumour of a new development, will lead to an influx of people to the area. It is therefore most likely that the area will experience an influx of people looking for jobs and new opportunities.

- Displacement/dispossession

People depend on the land to make a living. The construction of a power line across their land might cause problems pertaining to access roads and division of land.

5.2 Economic processes

Theme	Process	Phase at which process is relevant			
		Prior to Construction	Construction	Operation	Decommission
Economic processes	Waged labour		√		
	Conversion & diversification of economic activities				
	Impoverishment				
	Inflation				
	Currency exchange devaluation				

	Concentration of economic activity				
	Economic globalisation				

Economic processes affect economic activity in the region, including the way in which people make a living as well as macroeconomic factors that affect society as a whole.

- Waged labour

A very limited number temporary jobs will be created locally during the construction phase. The exact number depends on local circumstances. These jobs will only be casual jobs for a day or two over a period of approximately fifteen months, the time estimated for construction. All maintenance will be done by ESKOM Technical Service Centre employees, as it is specialized and requires a high level of skill.

5.3 Geographic processes

Theme	Process	Phase at which process is relevant			
		Prior to Construction	Construction	Operation	Decommission
Geographic processes	Conversion and diversification of land use		√		
	Urban sprawl				
	Urbanisation				
	Gentrification				
	Enhanced transportation & rural accessibility		√	√	
	Physical splintering		√	√	

Geographic processes are those that affect the land-use patterns of a society.

- Conversion and diversification of land use

The way in which the land is utilised might change slightly. It is currently agricultural land utilised for grazing. These activities can continue under a power line, but some changes might occur.

- Enhanced transportation & rural accessibility

Depending on which route is chosen, new access roads will be built and communities that were previously difficult to access will be more accessible

- Physical splintering

The transmission corridor might cause a physical divide on some of the farms that it will traverse. This process must be considered cumulatively, taking in account other existing infrastructure.

5.4 Institutional and legal processes

Theme	Process	Phase at which process is relevant		
		Prior to Construction	Construction	Operation Decommission
Institutional and legal processes	Institutional globalisation and centralisation			
	Decentralisation			
	Privatisation			

Institutional and legal processes are those processes that affect the efficiency and effectiveness of various organisations that are responsible for the supply of the goods and services on which people depends. These organisations include government agencies, non-government organisations and the commercial sector. It is not anticipated that any of these processes will be greatly affected by the project, although the fact that the transmission line will cross an area where people do not have access to electricity must be considered.

5.5 Emancipatory and empowerment processes

Theme	Process	Phase at which process is relevant		
		Prior to Construction	Construction	Operation Decommission
Emancipatory and empowerment processes	Democratisation			
	Marginalisation and exclusion			√
	Capacity building		√	

Emancipatory and empowerment processes are those that lead to an increase in the ability of local people to contribute to the decision-making that affects their lives.

- Marginalisation and exclusion

This refers to the processes by which various groups in society are denied access to services. The fact that the electricity supplier impact on people's property, but the affected community does not have access to the service might cause social unease. The supplier expects people to make a sacrifice for the good of the greater community and country, but there is little direct benefit for the community as such.

- Capacity building

Capacity building refers to increasing knowledge, networking capacity and increasing skill base among local people. It is predicted that the project could add to capacity building in the community in a minimal way by providing opportunities to learn a new skill.

5.6 Sociocultural processes

Theme	Process	Phase at which process is relevant			
		Prior to Construction	Construction	Operation	Decommission
Sociocultural processes	Social globalisation				
	Segregation				
	Social disintegration				
	Deviant social behaviour		√		

Sociocultural processes are those that affect the culture of a society, that is, all aspects of the way that people live together.

- Deviant social behaviour

There is a risk that the presence of the construction workers can lead to deviant social behaviour. A huge portion of the community is very poor and there is a high unemployment rate. An influx of people with disposable money might lead to an increase in prostitution, which can impact on the HIV rate in the area. There can be a number of spin-offs like alcohol abuse, illegitimate children and disintegration of families.

6. Social Impact Assessment Categories

The purpose of this chapter is to describe predicted social impacts that the erection of the proposed power line will set off. It is important to bear in mind that social impacts can be positive or negative. This is a complex issue, as what is regarded as

positive or negative in terms of community values may change over time. Whether an impact is short term or long term, is also a complex issue, as time scales are to a considerable extent culturally and socially defined. The predicted impacts have been divided into four categories:

- Social impacts originating prior to the erection of the power line. Many of these processes pertain to the concerns and objections raised by key stakeholders regarding the proposed development.
- Social impacts expected to set in during the construction phase.
- Predicted social impacts during the operational phase.
- Social impacts expected during the decommissioning phase, if that should occur.

Under the following categories (6.1 to 6.7), baseline information on the current state of affairs will be provided. Impacts will be identified in each category and mitigation measures suggested. Social impacts do not occur in a vacuum. Many social impacts are dependent on one another or on physical or environmental impacts. Mitigation of social impacts can therefore not be made in a vacuum. Where the social impact is a direct consequence of the development and the developer can mitigate it, it would be recommended in that way. Sometimes the social impact result because of a cumulative effect and can only be mitigated by formal societal structures like the government. This would be indicated as such.

It is recommended that a Community Management and Monitoring Committee (CMMC) be established. This committee would serve as a communication channel between the communities and ESKOM. Members of the committee should include representatives from environmental groups, civil society, ward councillors, government departments, construction teams and ESKOM. Given the linear nature of the project and the vast area covered it must be ensured that community members have the capacity to participate in such a forum. Such a committee will play an important role in executing the proposed mitigation measures. It is anticipated that most social impacts pertaining to the power line will be experienced in the pre-construction and construction phases, with minimal impacts in the operational and decommissioning phases.

6.1. Health and Social Well-being

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Health and social well being	Death				
	Nutrition				
	Actual health and fertility				
	Perceived health				
	Mental health				
	Aspirations for future		√		
	Autonomy				
	Stigmatization				
	Feelings in relation to the project	√			

Health aspects are included from a social perspective and will be expressed in non-medical terminology. The following social impacts are foreseen:

- Aspirations for the future

The entire area has great tourism potential. Planning to unleash this tourism potential has been included in regional and local governmental planning. Marketing of the area relies heavily on the sense of place - the isolation, wild and unspoilt nature of the area, wild flowers and stars are all attractions which will be spoilt by infrastructure like a power line.

Impact variable	Aspirations for the future
Nature of impact	Change in the sense of place as a result of the visual impact of the

	line.
Extent	Local
Intensity	High
Duration	Long term
Probability	High
Sensitivity of receptor	High
Significance without mitigation	High, negative.
Mitigation measure	A Visual Impact Study has been conducted, and its recommendations must be implemented to minimise the impact on the sense of place. Areas with great tourism potential like national parks must be avoided.
Mitigation potential	Moderate

- Feelings in relation to the project

Feelings in relation to the project might result in the formation of interest groups. Projects often generate uncertainty or fear and sometimes the impacts perceived in anticipation of the planned intervention can be greater than the impacts ultimately resulting from the intervention. These impacts include uncertainty, annoyance (a feeling/experience such as that due to disruption of life, but which is not necessarily directed at the intervention itself), dissatisfaction due to a failure of the project due to deliver promised benefits, and an experience of moral outrage (such as when a project leads to violation of deeply held moral or religious beliefs). A number of stakeholders voiced their concerns regarding the proposed project. These concerns varied, and will be discussed under relevant sections of the report. A number of concerns have been voiced about the fact that strangers will have to gain access to the farms, the impact on safety from this perspective and the impact of carelessness like an open gate on farming itself. Farmers also expressed dissatisfaction about the impact of a power line crossing their properties and not having access to electricity themselves. This was echoed by community members who have inadequate or weak electricity supply. All community members are not negative about the proposed project. Only the negative impact will be discussed.

Impact variable	Feelings in relation to project
Nature of impact	Public dissatisfaction regarding proposed siting of the power line
Extent	Local
Intensity	Moderate
Duration	Medium term
Probability	Moderate
Sensitivity of receptor	Medium
Significance without mitigation	Moderate, negative.
Mitigation measure	Public should be made aware of their rights and the channels they can utilise to object to the process.
Mitigation potential	Moderate

Impact variable	Feelings in relation to project
Nature of impact	Farms and community do not have access to electricity, but transmission lines cross their properties
Extent	Local
Intensity	High
Duration	Medium term
Probability	High
Sensitivity of receptor	High
Significance without mitigation	High, negative.
Mitigation measure	ESKOM to inform community about alternatives e.g. self-build schemes. EMMC to approach local municipality to engage in discussions with ESKOM Distribution about possible solutions.
Mitigation potential	Moderate

6.2 Quality of the living environment

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Quality of the living environment	Physical quality		√	√	
	Leisure and recreation opportunities				
	Aesthetic quality		√	√	
	Availability of housing Quality of housing				
	Adequacy of physical infrastructure		√	√	
	Adequacy and access to social infrastructure				
	Personal safety & hazard exposure		√	√	
	Crime & violence		√	√	

The impacts in this section refer to how fit the neighbourhood is to inhabit from a social point of view. Some of the impacts relate directly to the biophysical environment. This concept has both a perceived and actual dimension.

- Quality of the physical environment

Social impacts experienced in the physical environment relates to exposure to dust, noise, risk, odour, vibration, artificial light etc. During the construction phase, there will be a decrease in the quality of the physical environment. Noise levels and traffic will increase as result of the construction activities. Concerns were expressed about the way in which contractors conduct themselves when on site. This relate directly to the physical environment. In an arid area such as the Northern Cape, environmental scars take a long time to heal. If a contractor drive off-road, he might destroy a shrub that takes twenty years to mature and the evidence of his tracks can take years o

disappear.

Impact variable	Quality of the physical environment
Nature of impact	Noise levels as result of construction. Increase in traffic – noise and volume
Extent	Local
Intensity	Moderate
Duration	Short term
Probability	High
Sensitivity of receptor	Moderate
Significance without mitigation	Moderate, negative.
Mitigation measure	<ul style="list-style-type: none"> • Establish a CMMC to address traffic and construction concerns with ESKOM. • Construction traffic off peak times (also related to harvest times and times of transporting livestock)
Mitigation potential	High

Impact variable	Quality of the physical environment
Nature of impact	Contractors driving off-road in ecologically sensitive areas
Extent	Local
Intensity	Moderate
Duration	Short term
Probability	High
Sensitivity of receptor	High
Significance without mitigation	Moderate, negative.
Mitigation measure	An Environmental Control Officer must be appointed to ensure contractors conduct themselves in an appropriate way. A fining system, under the custody of the EMMC, must be put in place where those who do not interact with the environment in a respectful way

	must pay a fine to enable rehabilitation of the afflicted environment.
Mitigation potential	Moderate

- Aesthetic quality

Community members are concerned about the aesthetic impact of the development on the area. A Visual Impact Assessment has been conducted and will make recommendations in this regard.

Impact variable	Aesthetic quality
Nature of impact	Public concern regarding proposed aesthetic impacts of the power lines.
Extent	Local
Intensity	High
Duration	Long term
Probability	High
Sensitivity of receptor	High
Significance without mitigation	High, negative.
Mitigation measure	<ul style="list-style-type: none"> • Colour schemes must complement the local environment. • Minimising disturbance to fields and provision of ongoing protection. • Revegetation/rehabilitation of disturbed sites • Avoid tourism areas
Mitigation potential	Moderate

- Adequacy of physical infrastructure

There is a concern amongst community members that the road infrastructure is not adequate if any other route than the one that follows the existing road would be chosen. The importance of keeping gates closed, especially in livestock farming areas must be reiterated.

Impact variable	Adequacy of physical infrastructure
Nature of impact	New access and service roads will have to be constructed over agricultural land, if the route adjacent to the existing road is not chosen.
Extent	Local
Intensity	High
Duration	Long term
Probability	Moderate
Sensitivity of receptor	High (The community has already expressed concerns about this matter and social interest groups can form).
Significance without mitigation	High, negative.
Mitigation measure	<ul style="list-style-type: none"> • CMMC to become involved in liaisons with ESKOM about the planning and timeframes of proposed infrastructure. • Route adjacent to existing road to be given favourable consideration.
Mitigation potential	High

- Personal safety and risk exposure

A number of concerns have been voiced about personal safety and risk exposure. Amongst these are the concern that undesirable people will be attracted to the area, strangers on farms servicing the power lines and fires as a result of possible theft of conductors of transmission lines. The communities are close-knit and because it is such a small community one of the factors making it safe was the fact that everybody knows each other.

Impact variable	Personal safety and hazard exposure
Nature of impact	<p>Undesirable people moving into the area – increase in begging and theft.</p> <p>Fires as result of short circuits pose threat to lives of live stock and humans.</p>

Extent	Local
Intensity	Moderate
Duration	Long term
Probability	Moderate
Sensitivity of receptor	Moderate (The community has expressed concerns about this matter and social interest groups can form).
Significance without mitigation	Moderate, negative.
Mitigation measure	<ul style="list-style-type: none"> • CMMC must work with ESKOM to negotiate access to farms for service purposes. • Technical investigations about actual risk of fires – results should be made available to farmers.
Mitigation potential	Moderate

- Crime and violence

The idea of construction teams working on their farms and technical teams fixing the power lines is not welcomed by many farmers, as the perception exist that it can lead to an increase in crime.

Impact variable	Crime and violence
Nature of impact	Increase in crime levels in the community and on the farms
Extent	Local
Intensity	Moderate
Duration	Medium term
Probability	Moderate
Sensitivity of receptor	High
Significance without mitigation	Moderate, negative.
Mitigation measure	<ul style="list-style-type: none"> • ESKOM must liaise with the farmer's unions and a protocol for gaining access to farms should be established and

	<p>distributed to all parties involved.</p> <ul style="list-style-type: none"> Construction teams should be clearly identified by wearing uniforms of identification cards that should be exhibited in a visible place on their body.
Mitigation potential	Moderate

6.3 Economic impacts and material well-being

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Economic impacts and material well-being	Workload				
	Standard of living				
	Economic prosperity and resilience				
	Income		√		
	Property values		√	√	
	Employment		√		
	Replacement cost of environmental functions		√	√	
	Economic dependency				

These impacts relate to the wealth and prosperity of individuals and the community as a whole.

- Income

This impact will be addressed with the discussion on employment.

- Property values

The development might have an impact on property values and resale potential. Servitudes must be acquired by ESKOM. Farmers will receive compensation for their land.

Impact variable	Property values
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Nature of impact	Loss of property value
Extent	Local
Intensity	High
Duration	Long term
Probability	High
Sensitivity of receptor	High (The property value and utilisation directly impacts on the livelihoods of the affected land owners)
Significance without mitigation	High, negative.
Mitigation measure	ESKOM's Land Acquisitions Unit must be in contact with the affected parties throughout the process.
Mitigation potential	Moderate

- Employment

There are high levels of unemployment amongst residents of the area. The demand for especially unskilled labour outnumbers the opportunities by far. In the construction phase very little jobs for unskilled labourers will be available. It is preferable that these jobs must be sourced from local communities, as they might oppose the presence of people from outside, whilst there are skilled individuals inside the community that could fill these positions. An added benefit would be that using local labour would obviate the need for temporary housing for construction workers. Apart from direct opportunities that will be created, a number of indirect jobs will also be created in the construction phase. In the operational phase, no jobs will be created.

Impact variable	Employment
Nature of impact	Creation of employment during construction
Extent	Local
Intensity	Moderate
Duration	Short term
Probability	Low

Sensitivity of receptor	High (Given unemployment rates)
Significance without mitigation	Low, positive.
Mitigation measure	Source labour and resources from local communities as far as possible.
Mitigation potential	Moderate

- Replacement cost of environmental functions

This refers to the cost of replacing a function that was previously provided by the environment. When the line is erected, farmers will still be able to utilise the area underneath the line and within the servitudes. Other environmental functions relate to visual impacts like the unspoilt vistas and scenic value of the area. These vistas are especially important to potential tourism enterprises.

Impact variable	Replacement cost of environmental functions
Nature of impact	Lower attraction of tourists
Extent	Local.
Intensity	High
Duration	Long term
Probability	High
Sensitivity of receptor	High (This is the livelihoods of the affected population)
Significance without mitigation	High, negative.
Mitigation measure	Avoid lines in places with high tourism potential
Mitigation potential	High

6.4 Cultural Impacts

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Cultural impacts	Change in cultural values				
	Violation of culture				
	Experience of being culturally marginalized				
	Commercial exploitation of culture				
	Loss of local language				
	Loss of natural and cultural heritage		√	√	

Cultural impacts include impacts such as the loss of language, loss of cultural heritage or change in the integrity of a culture. South Africa is a multi-cultural society and urbanization has resulted in many of the diverse cultures sacrificing their cultural integrity.

- Loss of natural and cultural heritage

The proposed power lines will add to the process of changing the sense of place. A Heritage Impact Assessment was done to identify areas of heritage importance, of which there are a number in the area. It is anticipated that some natural areas will be impacted on by the lines, and it will be investigated in the Environmental Assessment process. The culture of the local communities is also seen as unique and conservation-worthy.

Impact variable	Loss of natural and cultural heritage
Nature of impact	The area is losing its traditional sense of place as rural area with broad vistas.
Extent	Local.

Intensity	High
Duration	Long term
Probability	High
Sensitivity of receptor	High
Significance without mitigation	High, negative.
Mitigation measure	ESKOM and the CMMC must discuss the issue and develop a management plan in order to preserve these resources.
Mitigation potential	Moderate

6.5 Family and community impacts

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Family and community impacts	Alterations in family structure				
	Obligations to family/ancestors				
	Family violence				
	Social networks		√		
	Community connection		√	√	
	Community cohesion				
	Social differentiation and inequity				
	Social tension and violence				

These impacts relate to the family, social networks and the community in general.

- Social networks

This impact relates to the social interaction of household members with other people in the community. A huge portion of the community is very poor and there is a high unemployment rate. An influx of people with disposable income might lead to an increase in prostitution, which can impact on the HIV and unwanted pregnancy rate

in the area. There can be a number of spin-offs like alcohol abuse and disintegration of families.

Impact variable	Social networks
Nature of impact	Increase in prostitution, unwanted pregnancies and HIV as a result of influx of people with disposable income.
Extent	Local
Intensity	Moderate
Duration	Long term
Probability	High
Sensitivity of receptor	High.
Significance without mitigation	High, negative
Mitigation measure	The CMMC must work with municipalities to create awareness on the issues at hand.
Mitigation potential	Moderate

- Community connection

It is perceived that there is a lot of social capital in the community. Social capital can be defined as a public good comprised of trust among a diverse group of citizens within the same community that facilitates cooperative networks among those citizens (Young Larance, 1996:13). Social capital comprises the abilities, traditions and attitudes that help ensure that a group of people will support each other, respond to challenges in a constructive manner, and innovate. Social capital is traditionally found amongst the communities, because these communities are isolated and members of the communities need to rely on each other in times of need. In poorer communities, survival depends on interdependence. Individuals in lower income groups often do not have the resources to operate as an individual – they need to look out for each other by sharing food, responsibilities and other social assets.

Impact variable	Community connection.
Nature of impact	The community is well connected and working together on a project like this enhances the connectedness.
Extent	Local

Intensity	Moderate
Duration	Long term
Probability	High
Sensitivity of receptor	Low.
Significance without mitigation	Low, positive.
Mitigation measure	The CMMC might play a role in making members aware of the importance of communities standing together by its mere existence.
Mitigation potential	Moderate

6.6 Institutional, legal, political and equity impacts

Theme	Impact Variable	Phase at which impact is relevant			
		Prior to Construction	Construction	Operation	Decommission
Institutional, legal, political and equity impacts	Functioning of government agencies				
	Integrity of government agencies				
	Legal rights				
	Human rights				
	Participation in decision making				
	Access to legal advice				
	Impact equity			√	√

These impacts refer to the capacity of the authorities and other institutions to cope with the workload generated by the proposed interventions.

- **Impact equity**

Impact equity is related to the fairness of the distribution of impacts across the community. It must be ensured that the people who will benefit from the development must also share in carrying the costs. Of great concern is the fact that

the transmission line will cross over a number of farms that do not have access to electricity, and bypass communities that struggles to obtain adequate electrical supplies, but not provide a solution to these local problems. The project will lead to gain on a national level, but the local people who will be impacted on will not benefit from the project.

Impact variable	Impact equity
Nature of impact	Those who receive the benefit do not carry the costs.
Extent	Local.
Intensity	Moderate
Duration	Short to medium term
Probability	Moderate
Sensitivity of receptor	High
Significance without mitigation	Moderate, negative.
Mitigation measure	Benefits must be ploughed back into the community. The CMMC can assist in identifying worthy recipients and ensuring impact equity. ESKOM Transmission must convey the message to ESKOM Distribution and aid in empowering the community on all levels, starting with providing information on the correct procedures to follow to obtain the required results.
Mitigation potential	Moderate

6.7 Gender relations

Theme	Impact Variable	Prior to Construction	Construction	Operation	Decommission
Gender relations	Woman's physical integrity				
	Personal autonomy of woman				
	Gendered division of labour		√		
	Access to resources & facilities				
	Political emancipation of woman				

Gender gaps are widespread in access to and control over resources, in economic opportunities, in power and in political voice. Women tend to bear the largest and most direct social impacts, and therefore it is a core social impact issue (Vanclay, 2003:88).

- Gendered division of labour.

The construction industry does not lend itself to employment of woman. In the construction phase, woman will have less opportunity to become employed.

Impact variable	Gendered division of labour
Nature of impact	Women to be excluded from economic opportunities created
Extent	Local.
Intensity	Moderate
Duration	Long term
Probability	Moderate
Sensitivity of receptor	High (Women is seen as a vulnerable group).
Significance without mitigation	Moderate, negative.

Mitigation measure	<ul style="list-style-type: none"> • Woman must have equal employment opportunities. • Salaries of woman must be equal to that of a man doing the same job
Mitigation potential	Moderate

7. Sense of place

Sense of place is an important consideration before any development, since sprawl development tends to eliminate unique features of the landscape. Sense of place can be described as defining oneself in terms of a given piece of land. There are four major components that contribute to a sense of place. These components are (Xu, 1995):

- Toponymic – related to naming places
- Narrative – involving personal or group stories and legends
- Experiential – associated particularly with dependence and survival
- Numinous – spiritual

Sense of place has a number of characteristics, namely (James, 2001):

- It is difficult to quantify and it is abstract.
- It is comprised of natural features, patterns of human settlement and social relationships.
- It is determined by local knowledge.
- It is embodied in folklore, personal narrative and amateur history.

Putting up unnatural structures in a natural area will impact on the sense of place. Vistas will be broken and the rural feeling will get lost. The tourism potential of the area must also be taken in consideration, as it strongly relates to the sense of place. Most tourism initiatives are based on the remoteness and uniqueness of the area. An influx of new comers and loss of local culture as result will add to the loss of sense of place, as the cultural uniqueness is another attraction to the area.

8. Brief discussion of proposed alternatives from a social perspective.

Social impacts are not necessarily site-specific, and therefore impacts might occur in communities near the proposed alignment. The focus of this brief discussion is on the potential impact on tourism. The location of the construction camps will have definite social impacts on all the alternatives.

It is important to understand what an alternative is. The concept of alternative can be defined as a possible course of action, in place of another, that would meet the same purpose and need. It is critical that an alternative relate to both the purpose and need of a proposed project. The need and purpose of any given project should be evaluated against local, regional and national priorities (DEAT, 2004 Criteria for identifying alternatives in EIA). In the case of the Kudu integration project, the need and purpose for the project is to supply electricity to the Western Cape which is currently experiencing power shortages. A number of alternatives has been analysed for this project, but the specialists could reach no agreement on a preferred line. The only alternatives that have been investigated, was routing alternatives. It is proposed that location alternatives and activity alternatives should also be investigated. Another important factor to consider is who will pay the price of the development and who will benefit from it. From a social and tourism perspective, it can be said that not only the local people will be impacted on by the line, but the impact may also be felt on regional and national scale. The reason for this statement is that the area in which the line is proposed is one of the nations prime tourist attractions, based on its natural beauty and ecological uniqueness, and is visited by local and foreign tourists for this reason. The sustainability of a power line should be weighed against the long term and permanent impact on the natural environment, which have the potential to generate a sustainable income to communities in the area. Some of these communities have already been working towards eco-tourism initiatives. It is a well-known fact that social development is not a short-term process, and that economic development does not necessarily lead to social development. Economic opportunities in the area are also limited, making the emphasis placed on tourism even more important. A realistic assessment of whether the proposed line will have a timely impact on Cape Town's energy crisis needs to be considered.

Social impacts are not necessarily site-specific, and therefore impacts might occur in communities near the proposed alignment. The main focus of this brief discussion is on the potential impact that the project might have on tourism. The location of the construction camps will have definite social

impacts on all the alternatives. Another important factor to consider is that many farmers do not have access to electricity, and therefore the impact of having a line traversing the farm without having access to electricity yourself need to be considered.

Alternative A:

Alternative A is considered to be a no-go area because of the potential impact on tourism. The proposed alternative crosses the Namaqua National Park, a relatively new park with a high development potential. Tourists visit the park especially during the flower season to view unspoilt vistas of flower carpets and night skies.

Alternative B

Alternative B is slightly longer and crosses an area that was previously not open to the public. A new national park is planned for the area. This alternative is not ideal as a lot of new infrastructure will be created and there will be an impact on the farmers in the area. Many farmers do not have access to electricity themselves, and will be impacted on without benefiting from the project. In addition, people unfamiliar with farming practices will have access to the farm and can cause damage by something as simple as not closing a gate. There are also safety issues. The Knersvlakte is seen as an area with high tourism potential from both a cultural and natural perspective.

Alternative C

Alternative C follows the N7. Although it is the main tourist route to Namibia, and concerns have been expressed about the visual impact, it is deemed to be the most suitable route from a social perspective. Very little new infrastructure is needed and construction camps can be located in existing towns. Although this can lead to some negative social impacts, it will also have a number of positive impacts, especially secondary impacts. The area of impact will be smaller, and being on the main tourism route the communities are already exposed and would therefore be more resilient than the smaller communities on the other routes, because the smaller and more homogenous the community the higher the possible social impact.

Alternative D

Alternative D is much longer than the other routes, and falls outside the study area where the field work has been conducted. A concern about this alternative is that no community consultation has taken place. Without input from the affected

communities this alternative can not be considered. The longer route will result in the need for more infrastructure, and this will impact highly on the farming communities. Before the route can be considered, community consultation must take place with the directly affected communities – this can otherwise be a classic example of NIMBY – not in my back yard – and transferring issues to a community outside the affected community.

Alternative E

Alternative E avoids the West Coast National Park, but still crosses an area that is set aside as national park. The impact on tourism will be greater.

Alternative C is the preferred alternative. Alternative D could only be considered if further public consultation will be done. Alternative A, B and E are rejected on the grounds of their possible impact on tourism in the area.

Alternative F:

Alternative F is situated east of Namaqualand National Park. The mountains around Kamieskroon are seen as an area with high tourism potential. Numerous tourism activities like hiking, mountain bike trails, photographic safaris, birding and flower tours occur in the area right through the year. The photographic safaris and workshops are presented by an internationally renowned photographer and attended by people from across the globe. Kamieskroon is one of the main tourist attractions on the N7 route. Based on the potential impact the line may have on tourism, it is not seen as a viable alternative.

Alternative G:

Alternative G crosses the Namaqua National Park, and is therefore not ideal. The Namaqua National Park is a relatively new park with high development potential. Tourists visit the park especially during the flower season to view unspoilt vistas of flower carpets and night skies. Areas in and around the park is earmarked for eco-tourism development. Although there are national parks in the country which do have power lines traversing them, the landscape in which those parks are situated lends itself to visually hide the structures. From a social and tourism perspective, Alternative G is not seen as acceptable.

No-go alternative

It is recommended that the no-go alternative must be strongly considered for

this project. Building a power line will have a permanent impact on the environment and will have an irreversible impact on the sense of place. Impacts in sparsely populated and undeveloped areas will be felt more acutely than the same impacts in areas more exposed to similar developments. Globally, there is social resistance towards power lines in undeveloped areas. It is recommended that alternatives other than route alternatives must be investigated. The life of the power supply and power line must be weighed against the permanent impact the lines will have on tourism development and the possible livelihoods of communities who have been residing in the area for a number of years, especially because the line will not bring any direct benefits to those communities.

9. Conclusions and recommendations

The general perception of the community is that development is necessary, and although no one would want a power line to cut across their property, they do understand the need. The community in general prefer the alignment adjacent to the existing road, with some exceptions.

The following recommendations are made on the basis of the Social Impact Assessment study and conversations with the local community:

- It is recommended that a Community Management and Monitoring Committee (CMMC) must be established. This committee would serve as a communication channel between the community and ESKOM. Members of the committee should include representatives from environmental groups, civil society, ward councillors, government departments, construction teams and ESKOM. Such a committee will play an important role in executing the proposed mitigation measures.
- The CMMC must meet on a monthly basis during the construction phase.
- Local people should be utilised in the construction and operation of the project as far as possible. This will minimise the risk between locals and newcomers, and obviate the need for developing temporary housing for construction workers. Since it is expected that there will be an influx of newcomers to the community as result of the proposed development, a system should be in place to ensure that people getting first option on jobs are permanent residents of the area and has been for a while. It is therefore suggested that a list of local contractors and service providers must be compiled by the municipality. Contractors and suppliers can then be chosen

from the list. The CMMC should act as a watch dog.

- Local materials should be used for construction as far as possible.
- The local community must not be exploited. If they are employed, they should receive proper contracts in accordance with the Labour Act.
- The possible crime problem in the area is of great concern. All sectors of the community must be encouraged to become involved in community policing. The local authority should specifically be made aware of the impact that the influx of new people can have on services like the police in the area.
- ESKOM must liaise with the farmer's unions and a protocol for gaining access to farms should be established and distributed to all parties involved. The impact of careless conduct of contractors must be acknowledged and the contractors should go through induction to explain the possible consequences of behaviour like leaving a gate open and driving off road.
- Construction teams should be clearly identified by wearing uniforms or identification cards that should be exhibited in a visible place on their body.
- Farmers should be consulted about the exact placing of structures on their properties.
- The proposed route should not break fields or run too close to houses.
- An Environmental Control Officer must be appointed to ensure contractors conduct themselves in an appropriate way. A fining system, under the custody of the EMMC, must be put in place where those who do not interact with the environment in a respectful way must pay a fine to enable rehabilitation of the afflicted environment.
- Cumulative impacts of linear developments in the area must be taken in account, and the relevant role players (Transnet, Telkom, ESKOM) should strategise and compile a strategic framework. Existing infrastructure must be utilised and shared as far as possible.
- ESKOM Distribution must be made aware of the needs of the community and engage in discussions about possible solutions with the local municipality to ensure that the impacted community will share in the benefits of the project. Electricity supply to farms and the surrounding community should be a priority given the fact that these people are directly impacted on without receiving any benefits.

Community consultation throughout the project is imperative and the community and ESKOM should work together to obtain the best solution. Across the board farmers and community members expressed dissatisfaction with the fact that the power line will cross their community while they do not have access to electricity. It is imperative that this must be addressed by ESKOM in order to avoid the formation of social pressure groups in the society.

Tourism development has been identified as an important part of strategic planning

for the area. Impacts on possible tourist areas must be avoided at all costs, since the development of tourism in the area links strongly to the potential livelihoods of the communities.

Neither Alternative F nor Alternative G is seen as a viable and sustainable option. The recommendation remains with Alternative C, but this was not seen as a viable option during the specialist integration workshop. Taking this in account, it is therefore recommended that the no-go option must be considered.

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