13. SOCIAL SCOPING ASSESSMENT

This social assessment provides an overview of the social characteristics and the anticipated social impacts within the study area, extending approximately 100 km between Cookhouse in the north and the coastal area, as well as the issues and concerns raised by I&APs through the public participation process. The study area is characterised by varying landscapes, ranging from open agricultural areas in the north (near the Poseidon Substation), through the mountainous Zuurberg down towards the coastal plateau (Grassridge Substation), and the land-use is dominated by various farming and tourism related activities.

13.1. Objectives of the Social Scoping Assessment

In conjunction with an interactive public participation process, the social scoping assessment has fulfilled the following minimum requirements:

- Liaison with landowners and other individuals who are considered affected parties on an individual basis. This was undertaken in order to provide opportunities for information sharing, and to address issues and concerns where feasible to do so at this stage.
- Identification of and liaison with I&APs, key stakeholders and NGOs. These included, *inter alia*, councils, ratepayers associations, tourist groups, wildlife and conservation associations, SANP and authorities.
- Recorded perceptions of I&APs regarding the project, issues of concern, as well as support for the project. Information sharing was facilitated through two formal public information sessions, which were held in Middelton and Addo.
- Provided an indication of the social issues (both positive and negative) with regards to the project.

13.2. Description of the Social Environment

13.2.1. Land-use within the Study Area

The northern portion of the study area to the south of the Poseidon Substation up to the northern boundary of Zuurberg mountains includes centres such as Cookhouse, Golden Valley and Middleton. This area is characterised by small stock, cattle and sheep farming, crop farming and cultivated lands, as well as ostrich farming in places.

The central area of the study area includes the Zuurberg mountain range, the AENP and other areas proposed to be included within the proposed GANP. South of the Zuurberg mountains lies the town of Addo. Addo is well known for its citrus farming, tourism (predominantly from the AENP) and various small-scale game farms and resorts. Small stock farming also occurs within the Addo area. Paterson lies to the east of this central portion of the study area, and has developed mainly around farming activities, with the two primary employers for the area being East Cape Agriculture Corporation and Bulkop.

The southern portion of the study area includes the area around the Grassridge Substation, which is earmarked to be included within the proposed Coega IDZ and Port. The small town of Coega falls within this area. Activities that take place in the area are small stock farming, pig farming and industrial activities (including La Farge and PPC). To the east of Grassridge is Colchester/Sundays River. Colchester is a small resort town that has developed along the banks of the Sundays River within the valley.

13.2.2. Major Towns within the Study Area

The major towns which can be found within the study area include:

- Cookhouse in the north (closest to the Poseidon Substation),
- Middleton in the Golden Valley area,
- the farming area of Kommadagga and Ann's Villa,
- the town of Nomathanisanqa,
- the town of Addo within the Zuurberg mountains,
- the farming town of Paterson to the east of the proposed GANP on the N10,
- the small resort town of Colchester, Sundays River and Cannonvale on the coastal plain to the west of Grassridge, and
- the small town of Coega near the Grassridge Substation.

The major centres beyond the borders of the study area include Port Elizabeth and Motherwell.

13.2.3. Demographics

Table 13.1 provides information on the demographics of the broader study area for both formal and informal residents, as well as a gender breakdown.

Table 13.1: Demographics of the study area for both formal and informal residents

	Port Elizabeth	Coega	Paterson	Cookhouse	Middleton	Colchester/ Sundays River	Addo/ Zuurberg
Population size	752 641	985	1190	1075	356	522	1600
Number of informal residents	187 289	370	-	-	-	335	-
Number of formal residents	565 352	615	1190	1075	356	187	1600
% Male	48%	49%	52%	50%	49%	49%	51%
% Female	52%	51%	48%	50%	51%	51%	49%

This data indicates that the northern and central portions of the study area are populated largely by formal residents. Those areas closer to the more densely populated urban areas, or areas along roads have a greater number of informal residents. Both Port Elizabeth and Colchester/Sundays River centres have informal communities on their outskirts.

13.2.4. Socio-Economics

Table 13.2 provides a breakdown of unemployment figures for the main towns within the broader study area.

Table 13.2: Breakdown of unemployment figures for the main towns within the broader study area

	% Unemployed	% Male	% Female
Port Elizabeth	15% of total population	46%	54%
Coega	12% of total population	25%	75%
Paterson	11% of total population	61%	39%
Cookhouse	15% of total population	46%	54%
Middleton	2% of total population	29%	71%
Colchester/Sundays River	8% of total population	61%	39%
Addo/Zuurberg	18% of total population	45%	55%

The primary income-generating activities within the broader study area include various farming and tourist related activities. The unemployment rate for this area is, in general, below South Africa's national unemployment rate, which is currently approximately 25%. With the advent of the Coega IDZ project, industrial and other business activities will become more prevalent for the coastal area than at present, where industrial activities are limited to

the urban areas of Port Elizabeth and Uitenhage. With the increase in industrial activities, a firm and sufficient electricity supply to the area will become essential. In addition, the number of households in the area are increasing and, as not all households within the study area are currently supplied with electrical power (refer to table 13.3), this increase in demand may be significant in the near future.

Table 13.3: Breakdown of the power sources per household within the study area

	Authority	Other	Gas	Paraffin	Candles
Port Elizabeth					
Formal	127 739	340	500	48 267	1 380
Informal	171	-	-	25	2
Coega					
Informal	86	1	2	147	23
Paterson					
Formal	234	-	-	32	-
Cookhouse					
Formal	116	-	1	138	11
Colchester/Sundays River					
Formal	75	-	3	77	-
Middleton					
Informal	40	4	-	19	45
Addo/Zuurberg					
Formal	227	-	2	46	3

It is evident that a high proportion of the households within the study area have a reliance on receiving power in the form of electricity. Port Elizabeth and Paterson households are the most intensive in this regard, which relates to the high degree of urbanisation of these populations. Other more rural areas which are removed from urban centres and are predominantly farming areas, tend to be less reliant on electricity-supplied power due to the traditional unreliability of supply to these remote areas. Those areas which are showing growth in the tourism industry, and which are becoming competitive in this industry have higher dependencies on electrical power. The numbers in Table 13.3 for the Addo/Zuurberg area illustrates this.

The ever-growing demand for a firm power supply is required to be met by the suppliers. Therefore, additional power being supplied to the Greater Port Elizabeth area will enable the power-suppliers to meet future demands.

13.3. Potential Impacts and Mitigation Measures

The following outlines the key social issues which emerged during the public participation process. A summary of issues and concerns raised by landowners and I&APs are attached as an issues trail in Appendix G.

13.3.1. Loss of Agricultural Land

Stakeholders, mainly in the Addo area, have expressed concern regarding the loss of viable agricultural land as a result of the construction of the proposed Transmission line. Impacts on agricultural lands are predominantly confined to the citrus industry, and where crop farmers have several existing powerlines (including traction lines and distribution lines) on their land. The accumulation of these servitudes is of concern to the landowners, who's farming viability is potentially threatened in some areas.

The primary concern to local citrus farmers relates to the overhead lines, which restrict the height of windbreaks required for protecting citrus orchards. The height of the windbreaks planted on the citrus farms determines the area of orchard protected from wind. A reduction in the height of these windbreaks can have an impact on the success of the orchards. A special meeting was held with affected farmers in the Addo area to determine the extent of the concern and identify possible solutions. At this meeting, Eskom undertook to investigate the possibility of re-routing the portion of corridor 1 which affects these properties to lie adjacent to the railway line, should this alternative corridor be considered favourable. This would effectively divert the Transmission line away from affected farmers and reduce concerns to a minimum.

Due to the consolidation of infrastructure, as proposed for the length of corridor 1 and for the northern half of corridor 2, concerns regarding the cumulative width of the Transmission line servitude were raised, predominantly by crop farmers. The placement of towers, as well as the footprint these towers occupy, was raised as a concern, as several of the farms which are orientated in a north-south direction are narrow. Further, limitations on portions available for farming may render some farms unviable. This concern has been acknowledged by Eskom, and can actively be addressed during negotiations for final line placement.

13.3.2. Impacts on Game Farming Activities

Game farmers within the Addo vicinity have raised concerns with regards to the impact of Transmission lines on game farms. Impacts identified include visual impacts, the reduction of vegetation for grazing, and limitations for game capture by helicopter. Those game farmers who already have existing lines on their property expressed concerns regarding the future maintenance of the Transmission line, and problems they have historically experienced with game escaping through open gates, etc.

Associations and groupings such as the East Cape Game Management Association and Schotia Safaris supported corridor 1, as this route consolidates existing Transmission line infrastructure, thereby limiting the extent of the infrastructure.

13.3.3. Addo Elephant National Park

As key stakeholders, the SANP were consulted on an individual basis on a number of occasions. The primary issues of concern raised by SANP with regards to the proposed new Transmission line included:

- In terms of the National Parks Act, Eskom cannot be issued with servitude rights beyond those which they currently hold through Schedule 1 National Parks land (i.e. the AENP). In addition, Eskom should consider all legal aspects pertaining to the proposed activity within the provisions of the National Parks Act in respect to the supply of servitudes.
- Potential visual impacts, particularly in those areas demarcated as tourist-intensive areas within the proposed GANP.
- The impact on tourists and eco-tourism for the AENP and the proposed GANP. This area is considered a high priority conservation area. The construction of an additional Transmission line in the area is viewed by SANP as being instrumental in potentially reducing tourist potential and impacting on opportunity costs for the Park.
- SANP's plans for extending AENP's boundaries, and increasing and improving infrastructure within the Park (e.g. rest camps, lodges, etc).
- Eskom's long-term planning for the area, and the effect this would have on the proposed GANP.

13.3.4. Visual Impact

It is anticipated that the impact of a new Transmission line will be highest in those areas where a servitude does not currently exist, i.e. for the southern portion of corridor 2. Negative visual impact is an issue of concern wherever new towers are required to be erected, as a Transmission line is considered a source of visual pollution. The placement of towers is required to take views and viewpoints into consideration for minimisation of the impact, particularly in areas considered to promote "critical" views. A new corridor is to be carefully planned to reduce the negative impacts associated with the introduction of new Transmission line infrastructure. Consolidation of this infrastructure within a greater corridor may assist in mitigating the significance of the visual impact. Chapter 10 provides an evaluation of the visual impact associated with the construction of a Transmission line within corridors 1 and 2.

13.3.5. Safety and Security

Farmers in the Kommadagga and Addo areas raised concerns with regards to their safety and security. Residents in the areas perceive cleared servitude lines as access routes used for theft and other crimes. Other concerns relate to the construction phase of the establishment of the Transmission line and the introduction of an "unknown" labour force into the area. With increasing incidences of farm attacks country-wide, this concern is heightened.

13.3.6. Proximity of Residences/Residential Areas

Specific concerns with regards to the alignment of the Transmission line on properties have been raised. These include visual impacts, space constraints, irrigation systems, and health and safety issues with regards to the proximity of dwellings from the line. Due to confined space available for corridor 2 in the vicinity of Colchester and Sundays River, the Residents Association has noted that a Transmission line through this area will be required to be erected between existing brick houses, the informal settlement and school, and a floodplain just north of the school. It was proposed that if corridor 2 is selected to be utilised, that the Transmission line should be positioned on top of the hill north-west of the informal settlement, where the Bisho Government has allocated 130 sites on which to build informal houses. This would have minimal impact on existing infrastructure within Colchester, but would have a heightened visual impact on both the coastal area and the AENP.

13.3.7. Health and Safety

Concerns regarding potential health impacts associated with electric and magnetic fields (EMFs) from Transmission lines were raised by I&APs. Studies have shown that EMFs reduce in magnitude with increasing distance from the source. The intensity of EMFs can be reduced by increasing the height of towers, and thus the height of the conductors above the ground. The government maximum allowable continuous exposure to EMP is 100 mT (microTefla). EMFs recorded are highest at the centre of the Transmission line servitude (approximately 6 mT) and rapidly decrease in intensity from this centre line, such that the impact of EMFs from a Transmission line is negligible beyond the servitude (1 – 2 mT 25 m away from the centre line; refer to Appendix H).

In order to ensure that health impacts are minimised, structures are not permitted to be constructed underneath the conductors of a Transmission line (i.e. within the servitude). In addition, this fulfils safety requirements, ensuring that no person is able to have physical contact with a line conductor (e.g. by standing on the roof of a building under the conductors).

13.3.8. Impact on Vegetation During Construction

Concerns regarding the destruction of indigenous vegetation during the construction phase of the project were raised. A number of farmers cited specific vegetation types which do not readily regenerate and should be avoided as far as possible, e.g. ‘pruimhout’ and ‘olifantvoet’. It was suggested that Eskom work in association with the landowners to identify the vegetation that is required to be protected.

Further concerns were raised with regards to the perceived lack of supervision during the construction phase. Local farmers and residents suggested that strict control of the clearing of vegetation during the construction phase of the project should take place in order to minimise destruction of sensitive bush and vegetation. Bush clearance along the preferred alignment will be undertaken in accordance with Eskom’s Standard Practices (Eskom, 2000). In terms of these standards, the servitude within sensitive areas will not be cleared for construction purposes, and the erection of towers and stringing of conductors will be undertaken by helicopter. During operation, maintenance will be undertaken by helicopter, and any disturbed vegetation in the area will be allowed to regrow.

13.3.9. Access/Service Roads

Access/service roads are required for use during the construction phase of the project, as well as for routine maintenance during the operational phase. The construction of such roads, and/or the use of existing roads, is required to be negotiated with the affected landowners. The loss of stock and game through negligence by leaving gates open or unlocked, and/or unauthorised entry of persons is of great concern to local farmers and landowners. The construction of such routes is also of concern, particularly with regards to the loss of vegetation and potential erosion occurring.

Establishment of the Transmission line in areas where no existing Eskom infrastructure is present will require the construction of new access/service roads. This will be required for the southern portion of corridor 2 where no existing access/service roads currently exist. Eskom will not, however, be permitted to construct access/service roads off the National Roads, as informal access is not permitted off these roads. Corridor 1 will allow for the use of existing access roads along its length, which will reduce the potential for additional disturbance of vegetation and farming activities.

13.3.10. Compensation

Support from landowners for the erection of the Transmission line has been received. However, it was raised that sufficient compensation for losses incurred through the use of land be made to affected landowners (e.g. where servitudes are required to be widened). A suggestion was raised by the owner of the Zuurberg Inn that compensation through other means can also be considered. For example, Eskom could purchase land in the vicinity of the AENP, and donate this land to the SANP for inclusion within the proposed GANP. Affected landowners on this route in the immediate vicinity of the AENP should then be allowed access to the extended park, and, in turn, could not request compensation for their losses incurred from the servitude from Eskom. This alternate method of compensation could ensure that the objectives of all interested parties are accommodated.

13.3.11. Positive Impacts

- *Employment*

  Potential positive impacts associated with the establishment of the proposed Transmission line will be the generation of temporary employment for local labourers in the towns surrounding the establishment of the Transmission line. It is anticipated that

employment for approximately 50 unskilled or semi-skilled local labourers will be generated at peak manpower periods during the construction activity.

Employment for approximately 100 skilled semi-permanent labourers will be generated at peak manpower periods during the construction activity.

- *Electricity Supply*

  The construction of a new 400 kV Transmission line between the Poseidon and Grassridge Substations will ensure a firm and reliable supply to the Greater Port Elizabeth area, and ensure that Eskom are able to meet the growing demand in this area in terms of power-supply.

  The area north of the Zuurberg mountains (Middleton and Golden Valley) is supplied with electricity from the Somerset East Municipality. Most farmers consulted in the area commented on the unreliability and cost of this source of power. A constant supply of electricity is especially important to Ostrich farmers in the area for the incubation of ostrich eggs. Farmers see the project as an opportunity to gain a more reliable and cost effective form of power and support the establishment of a new transmission line in the area.

13.4. Conclusions

The two corridors have been presented to, and discussed with, I&APs within the study area. There is the acknowledgement by I&APs and landowners of the need for a new 400 kV Transmission line between the Poseidon and Grassridge Substations. The majority of the issues and concerns raised can be addressed during negotiations with landowners prior to the final placement of the towers and erection of the Transmission line.