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Democracy, Governance and Service Delivery

Exploring South African Attitudes towards the Proposed New Section of N2 between Port Edward & Lusikisiki

Report Prepared for

South African National Roads Agency

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Acronyms and abbreviations

Agri SA	Agri South Africa
EIA	Environmental Impact Assessment
GIS	Geograhic Information System
ANOVA	Analysis of Variance
EA	Enumerator Areas
HSRC	Human Sciences Research Council
SAL	Small Area Layer
SANRAL	South African National Roads Agency
SASAS	South African Social Attitude Survey

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We would like to express our appreciation to the following individuals who contributed to the successful completion of this study on exploring the N2 between Port Edward & Lusikisiki.

- The 3108 South Africans who generously gave of their time to participate in the survey and share their views and experiences.

- The SARNAL managing team for support and guidance and for supplying background documents to review for this project.

- The HSRC's provincial supervisors, sub-supervisors and data collectors who traversed the country - often under difficult circumstances - to ensure that high quality information was collected from all those who were interviewed.

Executive Summary

THE AIM OF THE SURVEY

The overall aim of the SANRAL attitude survey was to examine attitudes towards the proposed N2 route between Port Edward and Port St Johns. The survey collected information on people's attitudes, beliefs and behaviour patterns in all nine provinces around the building of the new route. Specifically, the SANRAL Survey objectives were to (a) determine knowledge regarding the proposed N2 route between Port Edward and Port St Johns; (b) determine concerns around the proposed N2 route; (c) determine potential benefits around the proposed N2 route; (d) investigate attitudes around corruption and job creation given the proposed development (e) determine if the proposed route will impact travel patterns and enhance quality of life.

RESEARCH METHODOLOGY

The SASAS SANRAL survey consists of a sample of 500 Population Census Small Area Layers (SALs) as primary sampling units, stratified by province, geographical sub-type, and majority population group. A total of 3108 individuals aged 16 and older were interviewed in households which are geographically spread across the country's nine provinces. The data are weighted and benchmarked to Statistics South Africa's mid-year population estimates for 2014 to ensure that the results are representative of the population older than 15 years. Adherence to ethical and quality protocols was stringent. This survey represents the views of 36778675 South Africans of 16 years and older.

KEY FINDINGS

CONSIDERATIONS WHEN UNDERTAKING LARGE SCALE DEVELOPMENTS

More and more studies are being conducted in an attempt to understand the intricate relationship between environmental awareness and large scale developments. In this study, respondents were asked whether municipalities should consider the impact to the environment, job creation or communities when deciding whether to approve a large development project or not. For more than half (51%) of South Africans, job creation was paramount when considering large scale developments. The impact on the lives of people in a community was considered as the second most important issue with fewer people stating that the greatest consideration should be the impact on the environment (14%). The economically vulnerable and the unemployed were more likely to mention jobs as a primary consideration when considering large scale developments whilst those that are economically more well-off were more inclined to consider the community and the environment.

KNOWLEDGE OF THE PLANNED ROUTE

Less than a fifth (18%) of South Africans admitted to be knowledgeable about the planned N2 route, with 6% stating they are very knowledgeable and 12% somewhat knowledgeable. Just under a tenth (7%) were not very knowledgeable and by their own admission, more

than two thirds (66%) of South Africans were not knowledgeable at all about this new planned route. The rest stated don't know-also an indication of poor knowledge.

As could be expected, awareness and knowledge of the route was highest in the Eastern Cape with almost a third (29%) professing some knowledge. Higher that average knowledge levels were also recorded for Gauteng residents with more than a quarter (26%) aware of the planned N2. White South Africans were most knowledgeable about the proposed route followed by Indian, black African and coloured respondents. As could be expected, those with no schooling and primary schooling were significantly less knowledgeable about the route than those with higher education levels. A socio-economic or class effect is also noted with people describing themselves as "non-poor" more likely to be knowledgeable about the route than those describing themselves as "getting along" or "poor".

CONCERNS REGARDING THE PLANNED ROUTE

In order to better understand what type of concerns individuals may have about a development such as the planned N2 highway, respondents were asked what concerns (if any) they would associated with such a project. The vast majority (84%) of adult South Africans were able to identify a concern they had about a project like the new N2 route. The type of concerns ranged from financial to aesthetic, and the four major concerns identified were as follows: (i) increased number of visitors in the area (27% of the total adult population); (ii) toll gates (18%); (iii) risk of overspending (17%); and (iv) increased danger to children and pedestrians from fast moving traffic in the area (17%).

Members of the public who are more knowledge of the planned highway tend to be more likely to voice concerns (with the exemption of concerns related to toll gates) associated with major road developments. Individuals with greater levels of knowledge, in particular, tend to worry that urban intensification would have a negative impact on the area of development. Residents of the Eastern Cape were found to, on average, be less concerned about possible problems associated with a development project like the planned N2 highway. Residents of the provinces of North West, Gauteng and Northern Cape, on the other hand, tended to be more prone to expressing concerns about a development like the planned N2 highway than residents in most other provinces.

BENEFITS REGARDING THE PLANNED ROUTE

In order to better understand what type of benefits individuals may associate with a development such as the planned N2 highway, respondents were asked what benefits (if any) would they associated with such a development project. Only a tiny minority (5%) of adult South Africans were unable to identify a potential benefit linked to such a project. The type of benefits ranged from economic to social, and the four major benefits identified were as follows: (i) job creation/job opportunities (51% of the total adult population); (ii) increased tourism in the area (35%) ;(iii) better quality transport route (22%); and (iv) reduced cost of travel(22%).

Adult South Africans who are more knowledge tend to be more inclined to see benefits (with the exemption of job creation) associated with a major road development. Greater levels of knowledge seemed to have an especially strong relationship with benefits linked to economic opportunities. Residents in the Eastern Cape were especially positive about job creation linked to road development projects but less likely to identify economic opportunities (i.e. increased tourism and increased trading) as benefits of such projects. Eastern Cape residents (along with those from KwaZulu-Natal and the Free State) listed fewer benefits, on average, than residents in most other provinces.

GENERAL ATTITUDES REGARDING THE PLANNED ROUTE

To assess public perceptions about the planned N2 highway, respondents were asked if they agreed or disagreed with a series of statements about the planned N2 highway. These statements are grouped into three categories: (i) economic development; (ii) transport development; and (iii) harmful development. For interpretive ease, responses options for each category were reversed so that larger scores signified a more positive view, and then each transformed into a 0-100 index. A high value on these three indexes indicates a belief that the new N2 route will result in (i) economic development; (ii) transport development; and (iii) harmful development depending on which index is being used. To understand which groups may be the most cynical, subgroup analysis was conducted to better understand individual attitudes towards the planned N2 route.

The vast majority of adult South Africans agreed that the planned N2 highway will bring economic development to at least some parts of the Eastern Cape. Most South Africans had economic development index mean score between 72 and 75. The lion's share of the adult public in South Africa believe that the planned N2 highway between Port Edward and Port St Johns will reduce travel costs and open up the Wild Coast. Generally adults had transport development index mean score between 65 and 68. The majority of the adult public do not agree that the planned N2 highway will bring significant harm to the economic and social development of the Eastern Cape. Most had harmful development index mean scores between 51 and 54.

Compared to residents of other provinces, those residing in the Eastern Cape residents exhibited the lowest mean harmful development score. On the other hand, people in the Eastern in contrast to other provinces, tended to have higher mean scores on the economic development index (with the exception of KwaZulu-Natal residents). Those adults who are more knowledge of the planned highway tend to be more likely to believe that the highway would reduce the cost of travel and open up the Wild Coast. However the level of difference (in terms of mean score) between the knowledgeable and the unknowledgeable was somewhat low. On the other hand, individual beliefs about the economic development value of the planned highway were not strongly related to knowledge. The same was true of individual attitudes towards the potential harmful impacts that the project may have.

DIRECT EXPERIENCE OF, AND INTEREST IN VISITING, THE PORT EDWARD/PORT ST JOHNS LOCALITY

It could be argued that having visited and spent time in the parts of the Eastern Cape between Port Edward and Port St Johns is likely to have a bearing on one's attitudes towards developments in that locality. In this study we found that 18% of South Africans have visited the Eastern Cape before with the majority 82% never having visited this part of the country. Visiting the area was most commonly reported by Indian and white adults, those with a tertiary level education, and those in paid employment. Provincially, residents from the Eastern Cape and KwaZulu-Natal were most likely to visit these parts of the province. Conversely, the lowest level of experience is observed in residents in Limpopo, North West, Mpumalanga Gauteng and Free State. These results therefore suggest that a mix of affluence and proximity informs the chances of going to this part of the province. Interestingly, larger than expected proportions of people in informal settlements (24%), from KwaZulu-Natal, Eastern Cape, North West and Mpumalanga have visited these parts of the Eastern Cape.

On average, we find that slightly under a fifth (18%) expresses a strong desire to visit these parts of the Eastern Cape, a further quarter (26%) voiced moderate levels of interest and around a half expressed limited or no interest. A positive correlation was found between past experience of visiting the area and interest in visiting the area. Overall, slightly more than a third agree (35%) that the new route would improve the likelihood that South Africans would visit the area, with 34% neutral or unsure, and 30% providing an opposing view. There is evidence that having visited the Port Edward/Port St Johns area previously predisposes South Africans towards a more positive view on the probability of going to the province in the future.

THE ASSOCIATIONS BETWEEN SUPPORT FOR THE PLANNED N2 PROJECT AND INDIVIDUAL CHARACTERISTICS

In order to understand what characteristics are associated with support for the planned new N2 route between Port Edward and Port St Johns, a multinomial logit regression was conducted. This regression analysis allowed us to identify the associations between support for the planned N2 project and individual characteristics and attitudes. Controlling for a range of descriptive variables (including political affiliation) being male and belonging to the country's racial majority was associated with seeing the route as more of a benefit than a risk. Poorly educated individuals (i.e. those with primary education and below) were less likely to see the route as a benefit and more likely to see the new road as a risk. Those groups who were more likely to see the planned new N2 route as more of a risk than a benefit, tended also to be 'neutral' or indifferent to the project.

There is a need to assess the relationship between public perceptions about the planned N2 route and support for the route. An individual belief that building the new route will result in corruption, environmental damage and dangerous traffic is correlated negatively with support for the project. Public's perceptions of the developmental potential of the new highway resulted in considerably increase the relative log odds of believing this project is

more of a benefit (vs. more of a risk). Compared to other independent variables in the multinomial logit regression, such perceptions had the largest impact on support for new planned N2 route. Disinterest in visiting the parts of the Eastern Cape around Port Edward and Port St Johns was correlated significantly with seeing the new route as a risk. Whether an individual had visited parts of the Eastern Cape around Port Edward and Port St Johns was not statistically significant in the multivariate regression.

1. Introduction

As part of the research project to determine public perceptions regarding the possible construction of a new section of the N2 between Port Edward and Port St Johns, the South African National Roads Agency commissioned the Human Sciences Research Council in 2014 to conduct a study exploring South African attitudes towards the proposed new section of road. The research project comprised of four components, namely (1) a study of communities and people adjacent to the planed route, (2) a study of businesses in the vicinity of the planned route, (3) migrant workers that reside in the Eastern Cape and (4) a national survey of attitudes and perceptions around the planned route.

This report speaks to the latter component and determines general attitudes towards the proposed N2 route. Whilst the other parts of this project focuses on areas adjacent to the proposed route, this report will focus on national attitudes to determine if attitudes differ per region and per province. The sample is designed to represent all South Africans 16 years and older.

1.1. Survey objectives

The overall aim of the SANRAL attitude survey was to examine attitudes towards the proposed N2 route between Port Edward and Port St Johns. The survey collected information on people's attitudes, beliefs and behaviour patterns in all nine provinces.

Specifically, the objectives of the survey were to:

- Determine knowledge regarding the proposed N2 route between Port Edward and Port St Johns
- Determine concerns around the proposed N2 route;
- Determine potential benefits around the proposed N2 route;
- Investigate attitudes around corruption and job creation given the proposed development
- Determine if the proposed route will impact travel patterns and enhance quality of life.

2. Contextual Background

An Environmental Impact Assessment (EIA) for the proposed N2 Wild Coast Toll Highway resulted in the issuing of an environmental Record of Decision in December 2003, which authorised the South African National Roads Agency Limited (SANRAL) to undertake the proposed project. However, numerous subsequent appeals were lodged objecting to the authorisation granted to SANRAL and in 2004 the Minister upheld the appeals and set aside the authorisation on the grounds that the appointed environmental consultant did not meet the requirement for independence as contemplated in the EIA Regulations. Following this, a new application for environmental authorisation was commissioned by SANRAL. A new consultant was appointed to undertake the required EIA of the proposed project as per the requirements of the ECA EIA Regulations. Specialist studies were undertaken in the following fields: vegetation and flora; fauna; aquatic ecosystems; soils, land use and agriculture; social; tourism; cultural and historical heritage; noise; air quality; visual; traffic; planning/development; and economic (CCA environmental, 2009).

In the social supplement of the report, mention was made of the following concerns that people might have regarding the N2 route.

- *Access*: Residents were concerned about the restricted access across the highway. They felt they would not be able to move freely from one area to another.
- *Safety*: Residents were concerned about safety issues; particularly about the safety of their children and livestock given that cars would be speeding along the route.
- *Health and noise pollution*: Some concerns were raised regarding health issues due to air pollution and quality of life issues due to noise pollution. The increase in traffic potentially has a bearing on both.
- *Increase in crime*: people were concerned about the possibility of an increase in crime due to high volumes of people that would potentially visit the areas.
- *Economic impact of tolls*: People were concerned about the economic impact of these toll gates and that they would not be able to afford to travel on the toll roads (CCA environmental, 2009).

As part of the national survey, these issues were interrogated as possible concerns to the proposed new route. A module of questions pertaining to these issues were placed in the HSRC's annual South African Social Attitude Survey and tested among a sample of 3500 South Africans. The research methodology and sample design is discussed in the next section.

3. Research Methodology

3.1. Research Universe

The target population for the SANRAL South African Social Attitude Survey (SASAS) project is individuals aged 16 and over who are resident in South Africa. More specifically, the target population comprised people living in households, hostels and other structures. People living in special institutions such as hospitals and prisons were excluded from the sample. We reasoned that the inclusion of people from these institutions would compromise our random selection procedure. Also, past experience has shown that access to people in these institutions is difficult since obtaining permission is cumbersome and complex.

3.2. The sample design

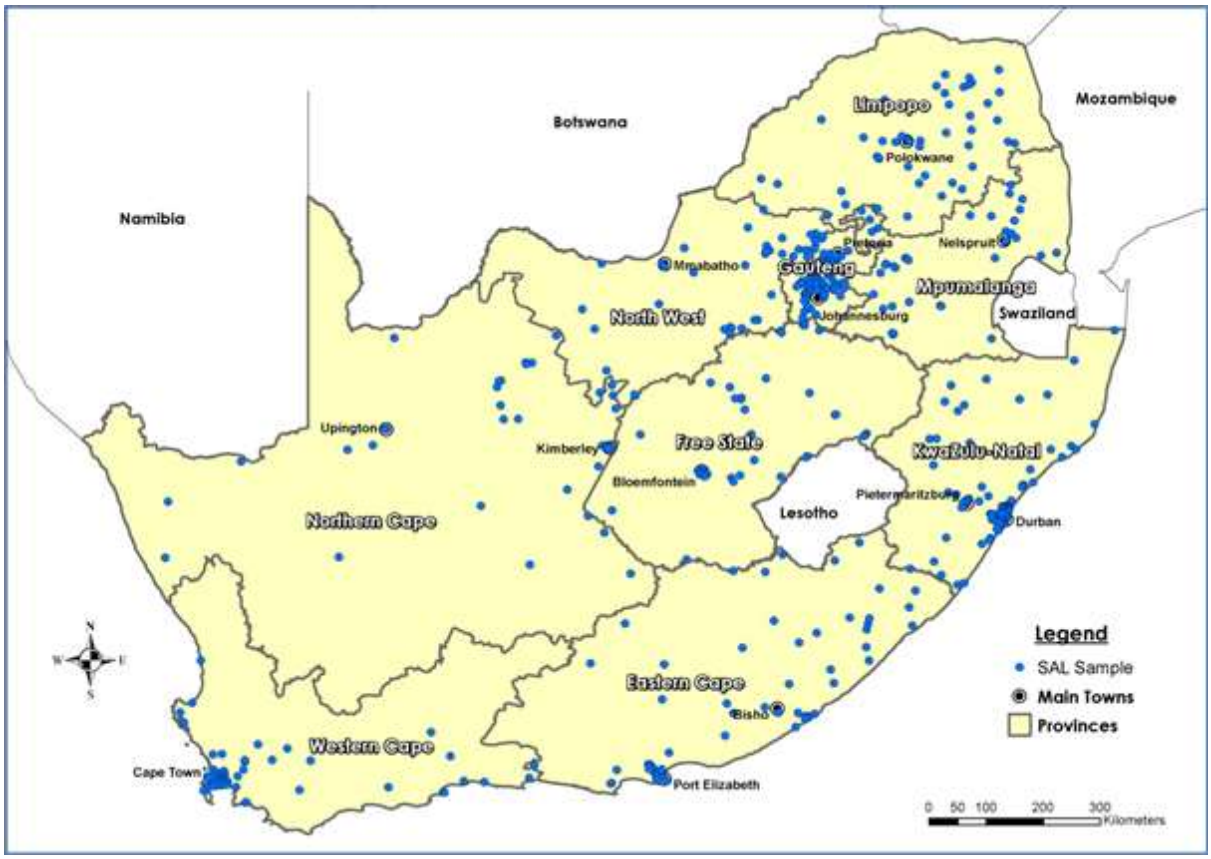
SASAS has been designed to yield a representative sample of 3500 adult South African citizens aged 16 and older (with no upper age limit), in households geographically spread across the country's nine provinces. The sampling frame used for the survey was based on the 2011 census and a set of small area layers (SALs). Estimates of the population numbers for various categories of the census variables were obtained per SAL. In this sampling frame special institutions (such as hospitals, military camps, old age homes, schools and university hostels), recreational areas, industrial areas and vacant SALs were excluded prior to the drawing of the sample.

Small area layers (SALs) were used as primary sampling units and the estimated number of dwelling units (taken as visiting points) in the SALs as secondary sampling units. In the first sampling stage the primary sampling units (SALs) were drawn with probability proportional to size, using the estimated number of dwelling units in an SAL as measure of size. The dwelling units as secondary sampling units were defined as "separate (non-vacant) residential stands, addresses, structures, flats, homesteads, etc." In the second sampling stage a predetermined numbers of individual dwelling units (or visiting points) were drawn with equal probability in each of the drawn dwelling units. Finally, in the third sampling stage a person was drawn with equal probability from all 16 year and older persons in the drawn dwelling units.

Three explicit stratification variables were used, namely province, geographic type and majority population group. As stated earlier, within each stratum, the allocated number of primary sampling units (which could differ between different strata) was drawn using proportional to size probability sampling with the estimated number of dwelling units in the primary sampling units as measure of size. In each of these drawn primary sampling units, seven dwelling units were drawn. This resulted in a sample of 3500 individuals.

A list of the 500 drawn SALs were given to geographic information specialists (GIS) and maps were then created for each of the 500 areas, indicating certain navigational beacons such as schools, roads churches etc. A graphical representation of the location of the 500 selected small area layers portrayed on the national map below.

Figure 1: A graphical representation of the 500 selected small area layers

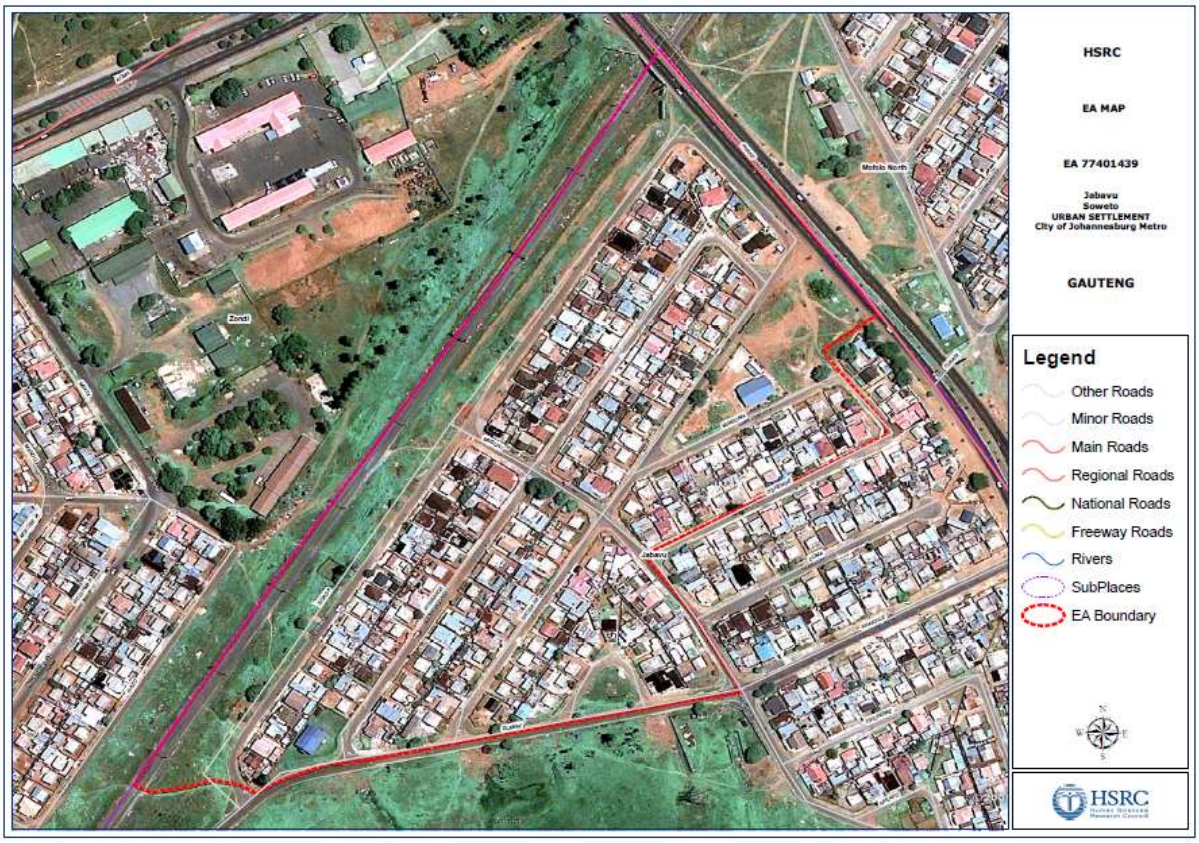


3.3. Navigation to the selected areas

Once the sample of 500 SALs was selected, a navigational toolkit was developed to assist the field teams in finding the selected SALs. These kits assisted the supervisors and fieldworkers to locate the exact SAL where the interviews were to take place. The navigational kits included:

- Route descriptions, to assist the teams to navigate their way into the selected enumerator areas.
- Maps that, using aerial photographs as a base, identified the exact geographic location of the enumerator areas to be sampled throughout the country.
- More detailed maps that identified the exact area, pinpointing street names and places of interest such as schools, clinics, hospitals etc. selected by the office-based sampling team, within the SALs where respondents would be interviewed.

Figure 2: An example of a SAL map used to assist the field teams to navigate to the correct areas



3.4. Introduction of the project to the communities

Prior to starting the actual interviewing process, supervisors were instructed to visit the local police stations, indunas, traditional leaders, or other role players in the various areas to ensure that the authorities were aware of the project and to inform the communities of their intent. Official letters describing the project and its duration and relevant ethical issues were distributed to the authorities. This was done not only as a form of research and ethical protocol, but also to ensure the safety of the field teams.

3.5. Selecting a household and individual

After driving through the SAL and introducing the project to the local authorities, supervisors had to identify the selected households. A household was selected using a random starting point and counting an interval between households. The interval was calculated using the number of households in the SAL. Once the selected household had been identified, a household member had to be selected randomly as a respondent. This household member (respondent) needed to be 16 years or older. For the purpose of this survey, the Kish grid was used to randomly select the respondent in the household. (See Kish Grid on Page iii of the Questionnaire – Appendix A).

3.6. Data collection protocol

The following general protocol guidelines for data gathering were implemented:

- Fieldworkers and supervisors were required to notify the relevant local authorities that they would be working in the specific area. The purpose was to assist with their own safety and to reassure respondents, especially the elderly or suspicious, that the survey was official.
- They were advised to inform the inkosi or induna in a traditional authority area, whilst in urban formal or urban informal areas a visit the local police and, if possible, the local councillor was to be made prior to commencing work in the area.
- They were further advised that farms should be entered with caution and that they should report to the local Agri South Africa (Agri SA) offices before doing so. Field supervisors were issued with 'Farm letters' which contained information on the purpose of the study and contact details in case they had queries.
- Consent forms needed to be completed upon successfully finishing each interview. While verbal consent was to be secured from the respondent before the interview, a written consent form had to be signed afterwards.
- Fieldworkers were issued with name tags and letters of introduction to be used in the field. The introduction letter was translated from English into six other languages.
- Fieldworkers had to present their identity cards when introducing themselves.

3.7. Training

Two-day training sessions were held in various provinces. The main training session took place in Pretoria and covered the Northern provinces: namely, Gauteng, Limpopo, Mpumalanga and North West. All relevant remarks and instructions discussed during the training session were included in the training manual. Other training sessions were held in East London, Durban, Kimberley and Western Cape.

The training session included sessions on selection and sampling of households; fieldwork operating procedures; research protocol and ethical considerations. The questionnaire was discussed in detail. As far as possible, the training was designed to be participatory, practical and interactive, and gave fieldworkers the opportunity to seek clarification on questions. A training manual was also developed as part of the training toolkit.
The fieldwork commenced in February 2015 and ended in March 2015. A network of locally-based fieldwork supervisors in all parts of the country assisted in data collection. Competent fieldworkers with a thorough understanding of the local areas were employed as part of this project.

3.8. Quality control

HSRC researchers conducted random visits to selected areas and worked with the fieldworkers for a certain period to ensure that they adhered to ethical research practices and that they understood the intent of the questions in the questionnaire. HSRC researchers also ensured that the correct selection protocols were followed in order to identify

households and respondents in the household. The researchers also checked on procedures followed in administering the research instrument. Field back checks were also conducted in eight of the nine provinces. Telephonic back checks were done on 10 % of the total sample.

3.9. Data capturing and cleaning

The data-capturing was conducted by the HSRC's Data Capturing Unit. The newly established unit has the capacity to design capturing templates and capture data fast and effectively. All questionnaires were double captured in CSPRO to ensure that no capturing errors occur. The final dataset was converted into SAS and SPSS and a data manager embarked on a data-cleaning exercise. Data was checked and edited for logical consistency, for permitted ranges, for reliability on derived variables and for filter instructions.

Table 1: Sample realisation

Province	Number of replaced SALs	Ideal sample (N Households)	Realised sample (N Households)	% Realisation
Western Cape	0	455	395	87
Eastern Cape	1	455	391	86
Northern Cape	0	259	226	87
Free State	0	266	246	92
KwaZulu-Natal	1	651	587	90
North West	1	259	225	87
Gauteng	5	581	498	86
Mpumalanga	1	266	249	94
Limpopo	0	308	291	94
Total	9	3500	3108	89

After data cleaning, the analytical team received the realisation rates of the survey. As can be seen from the table above, a realisation rate of 89% was achieved. This is a high realisation rate and was partly achieved owing to the fact that communities were well informed about the survey and also because of the data collection methodology – namely, face-to-face interviews.

3.10. Data weighting

The data were weighted to take account of the fact that not all units covered in the survey had the same probability of section. The weighting reflected the relative selection probabilities of the individual at the three main stages of selection: visiting point (address), household and individual. In order to ensure representivity of smaller groups, i.e. Northern Cape residents or Indian/Asian people, weights needed to be applied. Person and household weights were benchmarked using the SAS CALMAR macro and province, population group, gender and 5 age groups (i.e. 16-24, 25-34, 35-49, 50-59 and 60 and older). These benchmark variables for persons and province and population group of the respondent in the household were selected due to their reliability and validity. The marginal totals for the benchmark variables were obtained from the 2014 mid-year population estimates as published by Statistics South Africa. The estimated South African population was therefore used as the target population. A total of 3 108 people were interviewed

during this study. When weighted, this total represents 36 778 675 South Africans of 16 years and older. The final data set (unweighted and weighted) are disaggregated in **Error! Not a valid bookmark self-reference.** by key demographic variables.

Table 2: Sample (Unweighted and Weighted)

	Unweighted N	Percent	Weighted N	Percent
South Africa	3108	100	36778675	100
Male	1188	38	17683015	48.1
Female	1920	62	19095660	51.9
Black African	1806	58	28670004	78
Coloured	560	18	3386112	9.2
Indian/Asian	328	11	1031120	2.8
White	414	13	3691439	10
16-24 years	486	16	9437844	25.7
25-34 years	699	23	9041632	24.6
35-49 years	794	26	8953316	24.3
50-64 years	676	22	6238535	17
65+ years	449	14	3094408	8.4
No answer	4	0	12940	0
Primary	567	18.2	5695968	15.5
Incomplete secondary	1164	37.5	14267463	38.8
Complete secondary	963	31	12759703	34.7
Tertiary	351	11.3	3542553	9.6
Other/Don't know	23	0.7	189105	0.5
No answer	40	1.3	323883	0.9
Non poor	1423	45.8	15574352	42.3
Just getting along	1005	32.3	11970789	32.5
Poor	648	20.8	8950998	24.3
No answer	32	1	282535	0.8
Working	896	28.8	10391011	28.3
Non-working	2212	71.2	26387663	71.7
Urban,formal	2200	70.8	24449468	66.5
Urban,informal	133	4.3	2529084	6.9
Tribal	626	20.1	8520105	23.2
Rural,formal	149	4.8	1280018	3.5
Western Cape	395	12.7	4390602	11.9
Eastern Cape	391	12.6	4266834	11.6
Northern Cape	226	7.3	816647	2.2
Free State	246	7.9	1932822	5.3
KwaZulu-Natal	587	18.9	6805286	18.5
North West	225	7.2	2479851	6.7
Gauteng	498	16	9654300	26.2
Mpumalanga	249	8	2789770	7.6
Limpopo	291	9.4	3642563	9.9

4. Results

4.1. Considerations when undertaking large scale developments

There is an intricate relationship between large scale developments and concern for the environment and more and more studies are being conducted in an attempt to understand the intricate relationship between environmental awareness, attitudes towards the environment and large scale developments. In order to investigate attitudes around these issues the first question posed to the respondents was whether they felt their municipality should consider the impact to the environment, jobs or the communities when deciding whether to approve a large development project or not. Given the high unemployment rate in South Africa, it was not surprising that people felt job creation should be paramount when considering large scale developments. For more than half (51%) of South Africans, job creation was the primary consideration. The impact of a development on the lives of people in the community was considered as the second most important issue, mentioned by just more than a quarter of South Africans (27%). Fewer people were of the opinion that the greatest consideration should be the impact on the environment (14%).

Literature suggests that the way people view the environment and development is at least in part dependent on the material resources available to them. Individuals that are pre-occupied with their material survival are much less concerned about environmental protection and are likely to regard food and jobs in a more important light than environmental issues. Contrary if people's basic material needs are satisfied, they are more likely to consider post modernistic values, striving for abstract principles of enhanced quality of life and environmental aesthesm.

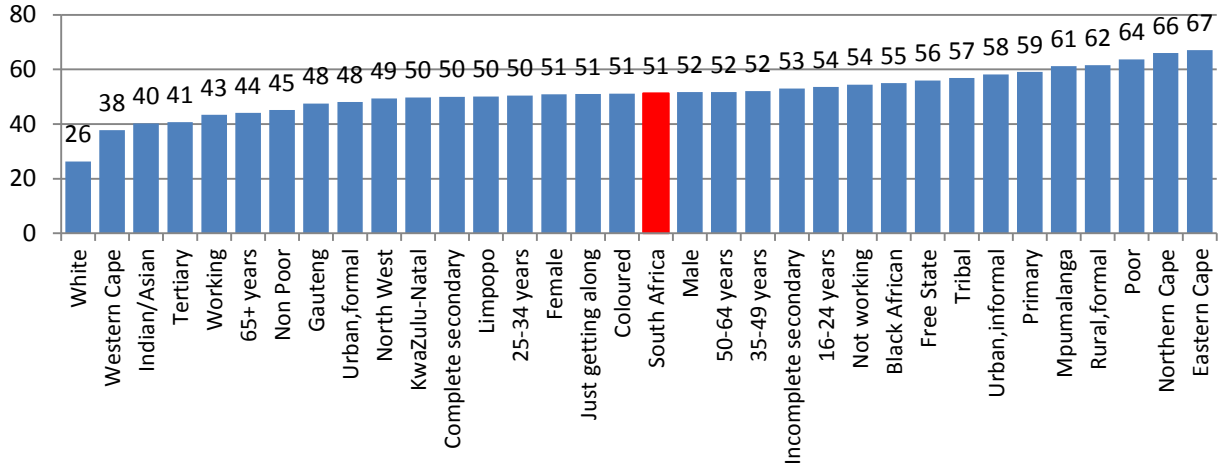
Therefore it was not surprisingly to find that socio-economic realities did impact on people's views of large developments such as the planned N2 route. As can be seen from Table 3, it was primarily the economically vulnerable, namely the poor (64%), people with no or only primary school education (59%), people residing in urban informal areas (58%) or rural traditional areas (57%), Black South Africans (55%) and the unemployed (54%) who were more likely to mention jobs as a primary consideration when considering large scale developments. Given that the Eastern Cape is the poorest province, it was to be expected that a large majority (in this case (67%) of the people in this province considered job creation as paramount when undertaking a development. A large contingent of people living in the Northern Cape (66%) and Mpumalanga (61%) were also of the opinion that job creation is paramount when considering large scale developments. Contrary, Whites (26%), people from the Western Cape (38%), Indian respondents (40%), those with a tertiary education (41%) or working (41%) were least concerned with job creation when considering large scale developmental projects.

Table 3: Considerations for large scale developments (percentage)

	The jobs that the project would create	The impact on the lives of people in the community	The impact on the environment	Other (Specify)	Can't choose	No answer	Total
South Africa	51	27	14	1	5	2	100
Male	52	27	14	1	4	2	100
Female	51	27	14	1	5	2	100
Black African	55	24	14	1	4	2	100
Coloured	51	33	8	0	7	1	100
Indian/Asian	40	36	19	0	5	0	100
White	26	42	21	1	8	3	100
16-24 years	54	24	15	1	6	1	100
25-34 years	50	30	13	2	3	2	100
35-49 years	52	25	15	1	5	2	100
50-64 years	52	27	14	0	5	2	100
65+ years	44	36	11	1	8	0	100
Primary	59	18	14	1	7	1	100
Some secondary	53	30	11	1	4	1	100
Matric	50	27	17	1	4	1	100
Tertiary	41	34	15	2	6	2	100
Non Poor	45	30	17	1	6	1	100
Just getting by	51	29	15	1	4	1	100
Poor	64	21	8	2	5	1	100
Working	43	33	18	1	4	1	100
Not working	54	25	12	1	5	2	100
Urban,formal	48	29	14	1	5	2	100
Urban,informal	58	25	14	0	2	1	100
Tribal	57	23	12	1	5	3	100
Rural,formal	62	17	17	0	4	0	100
Western Cape	38	39	15	0	8	0	100
Eastern Cape	67	14	10	1	7	1	100
Northern Cape	66	17	12	1	3	2	100
Free State	56	26	12	1	1	4	100
KwaZulu-Natal	50	33	12	1	4	1	100
North West	49	27	16	1	5	3	100
Gauteng	48	30	16	2	3	2	100
Mpumalanga	61	13	9	0	12	4	100
Limpopo	50	26	20	2	1	1	100

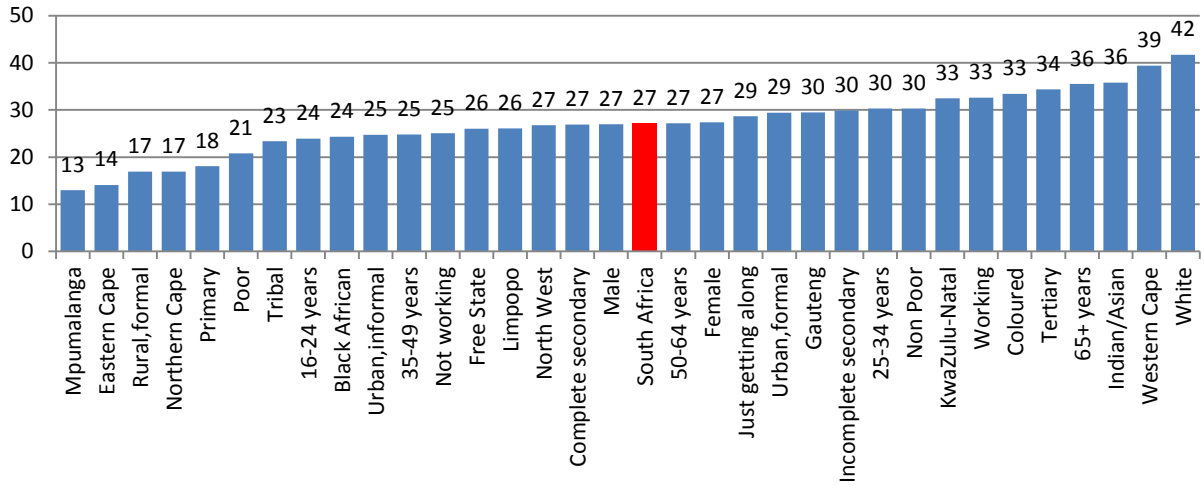
Green shading represents values that are higher than the national average.

Figure 3(a): Profiling those who consider job creation as paramount when considering large scale developments (ranked percentage)



Socio-economic disparities were also evident when analysing the views of people who felt the community is paramount when considering large scale developments. The privileged namely Whites (42%), people from the Western Cape (39%), Indian respondents (36%) older respondents (36%) or those with a tertiary qualify (34%) were more likely to consider the community. By contrast, people with only a primary or lower education (18%), the poor (21%), people in traditional authority areas (23%) or the young (24%) were least likely to consider the community as paramount when looking at large scale developments. Looking at the provincial responses, residents from the Western Cape (39%) were most likely to consider the community whilst residents from Mpumalanga (13%) and Eastern Cape (14%) were least likely to consider the community.

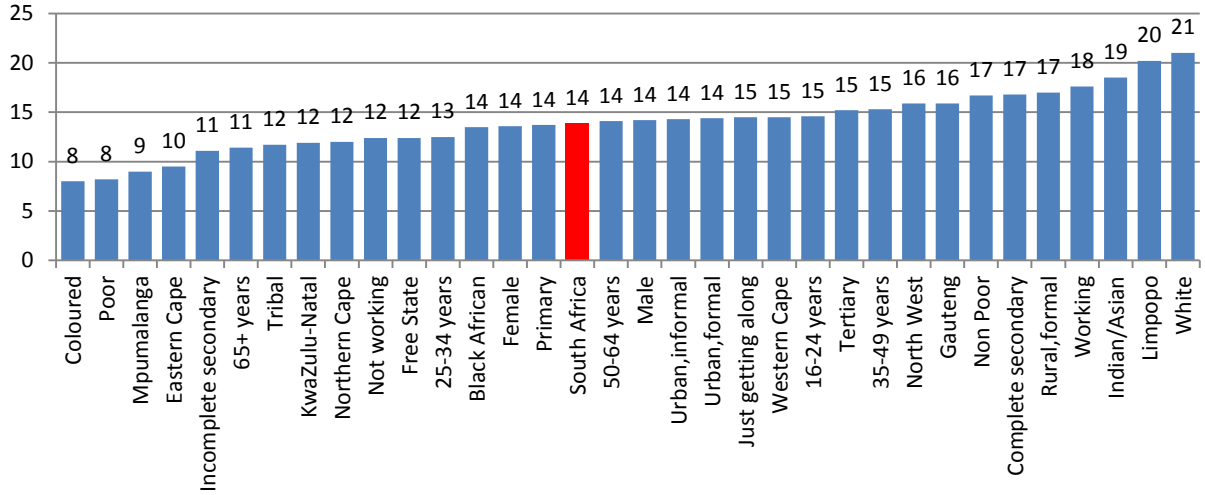
Figure 3(b) : Profiling those who consider the community as paramount when considering large scale development (percentage)



The relationship between environmental concern and welfare is again evident in Figure 3(c). Whites (21%), Indian respondents (19%) and the employed (18%) are most concerned about

the impact of large scale developments on the environment, whilst it is again those that typifies lower living standards namely the poor (8%), the coloured community (8%), the lower educated (11%) and people from the tribal authority areas (12%) that are least concerned about the environmental impact of the project.

Figure 3(c): Profiling those who consider the environment as paramount when considering large scale developments (percentage)



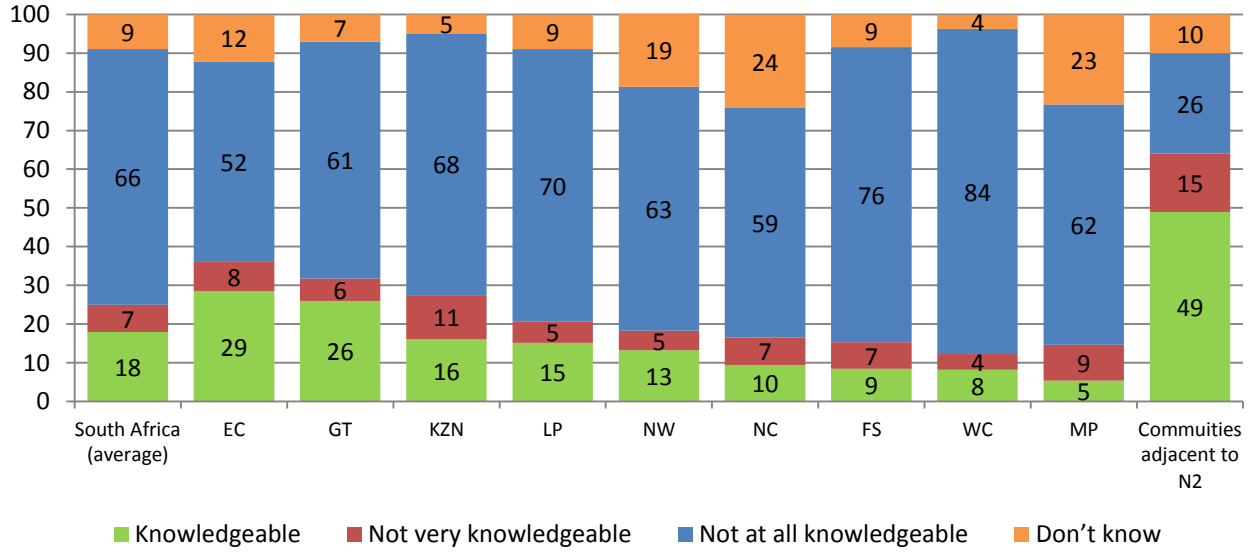
4.2. Knowledge of the proposed N2 highway

Having established the trend in terms of considerations given to large scale developments in general, respondents were directed towards the planned new N2 route between Port Edward and Port St Johns. They were informed about the planned new route and asked how knowledgeable they are about the route. A subjective knowledge question was posed to the respondents. They had to rate their own knowledge, and could rate themselves as very knowledgeable, somewhat knowledgeable, not very knowledgeable or not at all knowledgeable. As can be seen from Figure 4, very few South Africans admitted to be knowledgeable about the route, with 6% stating they are very knowledgeable and 12% somewhat knowledgeable. Just under a tenth (7%) were not very knowledgeable and by their own admission, more than two thirds (66%) of South Africans were not knowledgeable at all about this new planned route. The rest stated don't know-also an indication of poor knowledge. Less than a fifth (18%) of South Africans therefore professes to have some knowledge of the planned route.

As could be expected, awareness and knowledge of the route was highest in the Eastern Cape with almost a third (29%) professing some knowledge. Higher that average knowledge levels were also recorded for Gauteng residents with more than a quarter (26%) aware of the planned N2. This might be driven by higher than average literacy levels as well as migratory issues-with many people from the Eastern Cape working in Gauteng and adjacent

areas. Provinces least knowledgeable about this route were Mpumalanga (14%), Western Cape (12%) and the Free State (16%) being least knowledgeable.

Figure 4: Knowledge of the proposed highway (percentage)



Source: SASAS 2014 and survey of adjacent communities

In order to further explore knowledge of the proposed route along the various demographic groupings, a table was developed illustrating the percentage of people knowledgeable about the route as well as a means score illustrating knowledge per selected demographic sub-groups. The mean score was created by recoding responses to represent a knowledge score ranging from 4 (very knowledgeable) to 1 (not knowledgeable at all). A high score therefore reflected a greater level of knowledge. "Don't know" and "no answers" were recoded as missing. These scores were converted to a means score between 0 and 100. The mean scores for the various socio-demographic groups are presented in the table below and reflect an average mean of 18 points.

On aggregate, the results reaffirm that knowledge of the propose route is low but vary substantively among the various socio economic subgroups. When the scores are compared for the various socio-economic subgroups, no significant differences between males and females are found. However, significant differences regarding knowledge were found for the different race groups with white South Africans (28%) being much more knowledgeable about the proposed route, followed by Indian (24%) and black African respondents (18%) . Coloured respondent had the least knowledge (6%) about the proposed route which could be due to issues relating to proximity as well as relationships with people in the province.

Table 4: Knowledge of the proposed new route (percentage and mean)

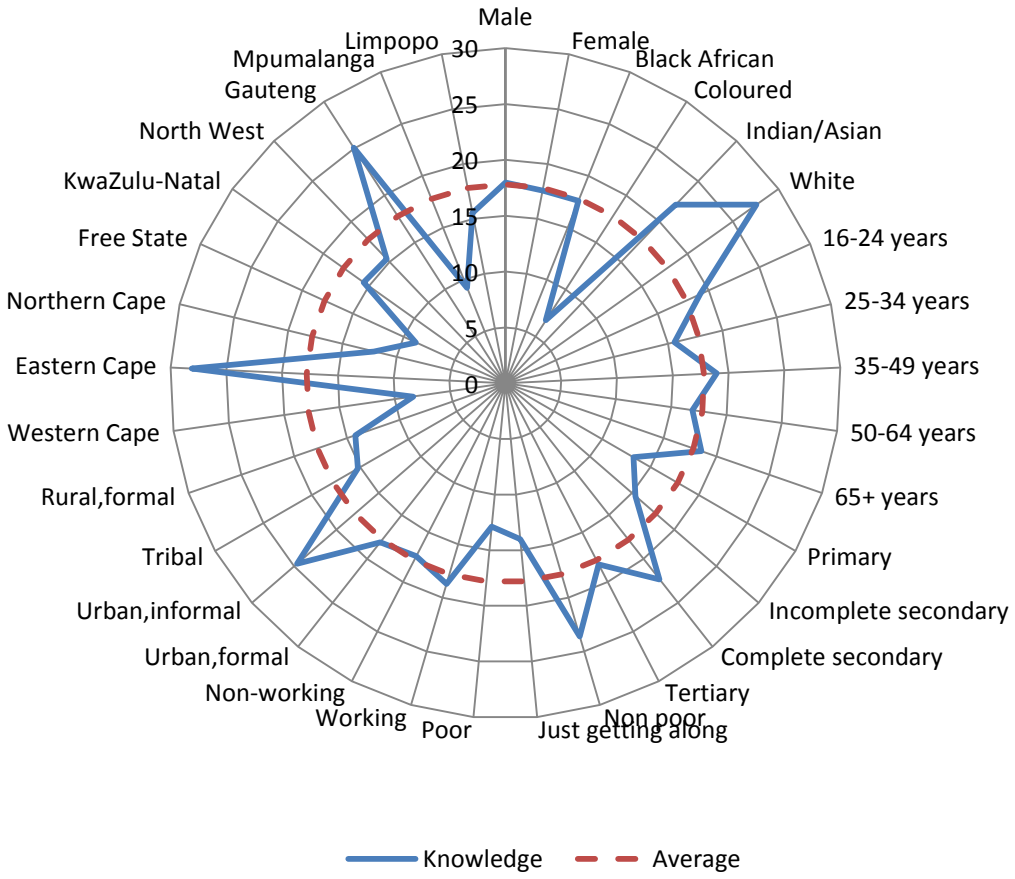
	Very know-ledgeable	Somewhat knowledge-able	Not very knowledge-able	Not at all knowledge-able	Do not know	No answer	Total	Mean
South Africa	6	12	7	66	8	1	100	17.8
Male	6	13	7	66	8	1	100	18.0
Female	6	11	8	66	9	2	100	17.6
Black African	6	12	8	66	8	1	100	17.6
Coloured	2	4	2	78	12	1	100	6.7
Indian/Asian	3	21	6	55	15	1	100	22.1
White	12	16	8	56	5	3	100	27.6
16-24 years	6	13	7	63	10	1	100	19.2
25-34 years	5	11	6	70	7	1	100	15.6
35-49 years	8	11	7	65	8	2	100	18.9
50-64 years	7	9	7	67	9	2	100	16.9
65+ years	3	17	9	63	8	0	100	18.6
Primary	3	11	5	73	8	0	100	13.2
Incomplete sec	6	9	6	69	10	0	100	15.4
Grade 12	8	15	8	61	7	1	100	22.3
Tertiary	5	12	10	64	7	2	100	18.2
Non poor	9	14	9	58	9	1	100	23.6
Just getting by	4	11	5	72	8	1	100	14.0
Poor	4	8	7	73	7	1	100	12.9
	0	0	0	0	0	0	0	
Working	5	15	7	66	7	0	100	18.7
Non-working	6	10	7	66	9	2	100	17.4
	0	0	0	0	0	0	0	
Urban, formal	6	13	6	66	8	2	100	18.1
Urban informal	12	11	11	59	6	1	100	24.7
Tribal	5	9	9	67	9	1	100	15.2
Rural,formal	7	6	6	72	9	0	100	14.2
Western Cape	3	5	4	84	4	0	100	8.3
Eastern Cape	9	19	8	52	11	1	100	28.1
Northern Cape	1	8	7	59	23	1	100	12.1
Free State	0	8	7	76	6	3	100	8.8
KwaZulu-Natal	1	15	11	68	4	1	100	15.6
North West	6	7	5	63	18	1	100	15.4
Gauteng	12	14	6	61	5	2	100	25.1
Mpumalanga	1	4	9	62	23	1	100	9.2
Limpopo	7	9	5	70	7	2	100	15.5

Note: The mean scores are based on 0-100 scale where 0= "Not at all knowledgeable" to 100="Very knowledgeable". Green shading represents values that are higher than the national average. The significant tests are based on Analysis of Variance (ANOVA) analysis, with *=p<.05; **=p<.01; ***=p<.001.

Significant differences were noted between the educational levels. As could be expected, those with no schooling and primary schooling (14%) were significantly less knowledgeable

about the route than those with higher education levels. A socio-economic or class effect is also noted with people describing themselves as "non-poor" more likely to be knowledgeable(23%) about the route than those describing themselves as "getting along" (15%) or "poor" (12%). Placing these findings in geographic context it is interesting to note that people from the urban informal areas (23%) were most knowledgeable about the N2 route, more than people in urban formal areas (19%). This might be explained by many job seekers from the Eastern Cape residing in informal urban settlements in other provinces. The mean score also confirmed earlier findings that the Eastern Cape (28%) and Gauteng (26%) had above average knowledge levels.

Figure 5: Knowledge by select socio-demographics (mean score)



In order to graphically illustrate differences the mean score for the various subgroups are portrayed in Figure 5. From the mean knowledge scores portrayed below it is evident that residents from the Eastern Cape, Whites residents from Gauteng and those living in urban informal areas and the non-poor are most knowledgeable. Notable is the fact that Coloured people, people from the Western Cape, Free State and Mpumalanga were the least knowledgeable.

People that are knowledgeable about the N2 were asked whether they felt the route post more of a benefit than a risk. Interestingly, those that were very knowledgeable and somewhat knowledgeable tended to see the route more as a benefit than a risk. However, a greater proportion of the people that were somewhat knowledgeable were of the opinion that the route posed a risk. In this case there is some evidence that a limited knowledge seem to impact on the sense that this road poses a risk.

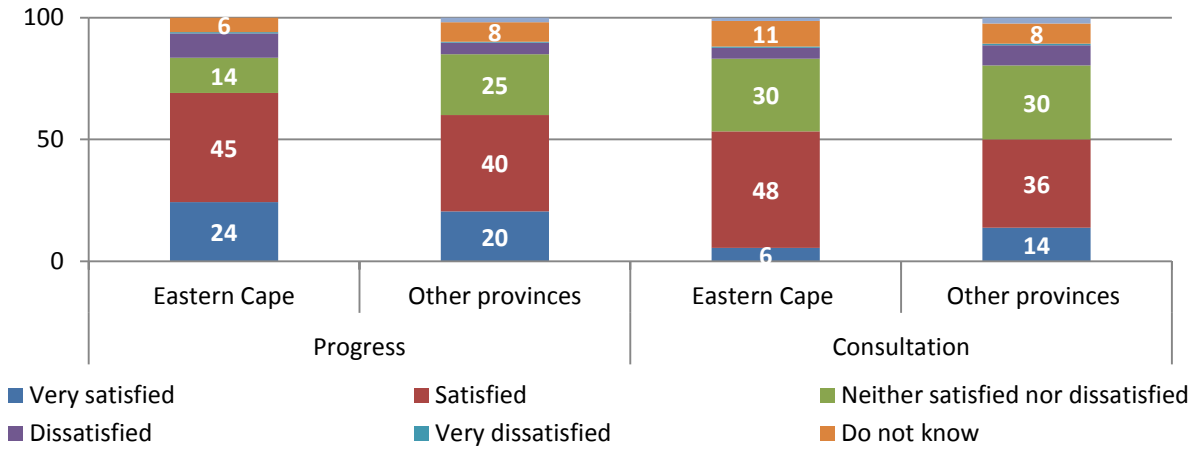
Table 5: Knowledge by benefit /risk (row percentage)

	More as a benefit	More as a risk	Neither / indifferent	(Do not know)	(No answer)
Very knowledgeable	57.3	10.0	28.6	4.2	0
Somewhat knowledgeable	58.0	17.6	22.5	1.8	0
Not very knowledgeable	47.5	10.7	35.2	6.6	0
Not at all knowledgeable	40.0	5.8	42.4	11.6	0.1
(Do not know)	30.4	5.1	21.2	43.2	0
(No answer)	22.6	1.6	6.9	5.4	63.5

4.3 Satisfaction with progress and consultation around the planned N2 route

Three quarters of the national sampled respondents could not answer the question about satisfaction around progress and consultation regarding the planned N2 route. The majority of these respondents did not know of the route and could therefore not comment and the rest felt although they knew about progress or consultation regarding this route. In order to facilitate meaningful analysis, only the people that were knowledgeable about the route were asked their opinion regarding progress and consultation. From the graph below it was evident that the majority of people who were knowledgeable about the route were also satisfied with progress and consultation.

Figure 6: Satisfaction with progress and consolation around the planned N2 (percentage)



More than three fifths (62%) of respondents were satisfied (22% very satisfied and 40% satisfied) with progress around the planned N2. Just under a quarter (23%) was neither satisfied nor dissatisfied and more than a tenth 14% were dissatisfied of which half of these respondents (7%) were very dissatisfied. With regards to consultation, smaller proportions expressed satisfaction (50%), with only 9% being very satisfied. People knowledgeable about the project were therefore more satisfied with progress than consultation.

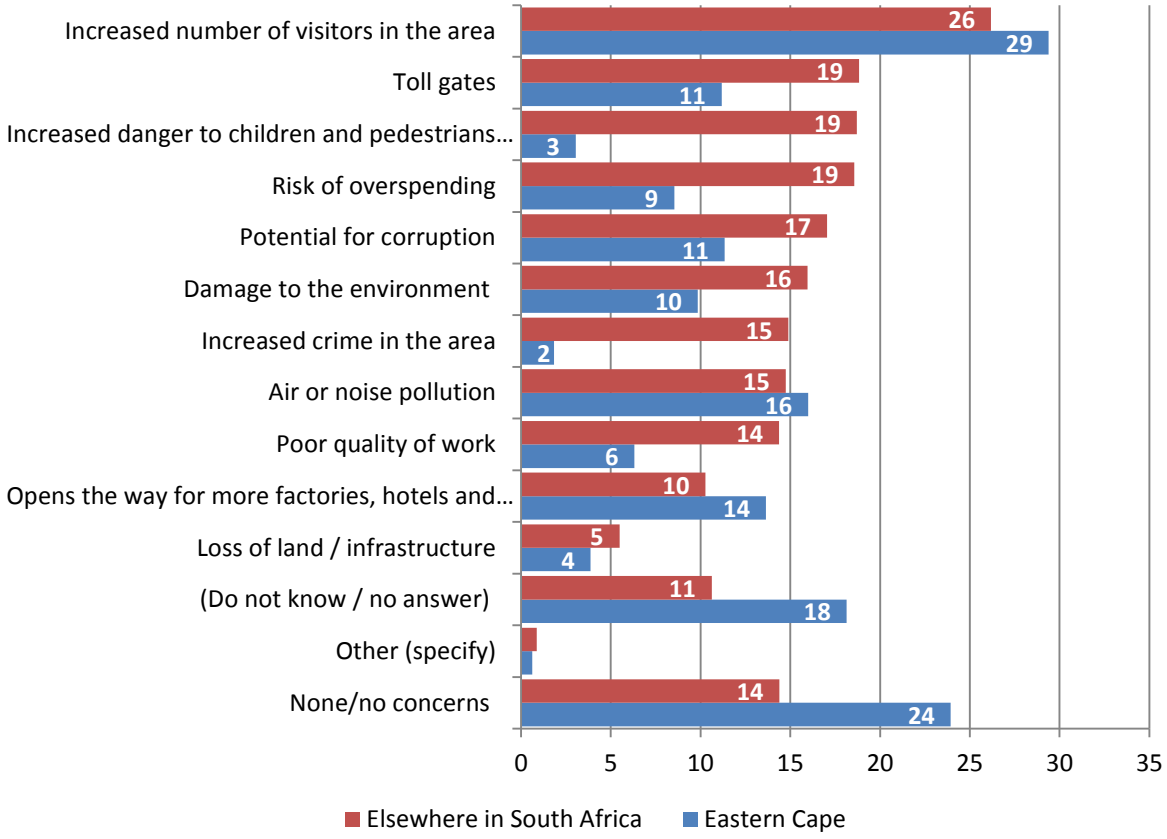
4.4 Concerns and Benefits associated with Major Road Development Projects

The module on the planned N2 route between Port Edward and Port St Johns is designed to improve our understanding of how the perceptions and values held by South Africa's citizens towards major road development. In order to better understand how people think about such a development, respondents were asked what concerns/benefits (if any) they would associate with such a project. This section will present data gathered on the responses to these questions, focusing on variations in attitudes towards a major development project of this type.

4.4.1 Public Perceptions of the Concerns associated with Major Road Development Projects

In order to better understand what type of concerns individuals may have about a development such as the planned N2 highway, respondents were asked what concerns (if any) they would associated with such a development project. The vast majority (84%) of adult South Africans were able to identify a concern they had about such a project. The type of concerns ranged from financial to aesthetic, and showcased a realistic set of concerns that have in the past been linked to road development projects. Given the importance of attitudes towards the planned N2 highway in the Eastern Cape, results presented here are disaggregated by residents of the Eastern Cape and residents of other provinces (Figure 7).

Figure 7: Individual Concerns about a Development such as the Planned N2 Highway by Selected Groups (multiple response: percentages)



Development project like the planned N2 highway tend to result in *urban development and urban intensification*. It is therefore not surprising that the greatest concern raised by Eastern Cape residents as well as residents in other parts of the country was risks of urban intensification (such as increased number of visitors in the area). The fact that such a development would open up the way for more factories and hotels (i.e. urban commercialisation) was also a concern of more than a tenth of Eastern Cape residents. Interestingly *toll gates* were identified as a concern by almost a fifth (19%) of the adult public living outside the Eastern Cape compared with only 11% of those living in the province. This suggests the people of the Eastern Cape are not particularly concerned about installation of punitive toll gates a consequence of a major road development.

A significant number of the adult population identified *environmental impacts as a concern*. About a sixth (15%) of individuals living in the Eastern Cape as well as those living outside that province raised concerns about air or noise pollution associated with a major development such as the planned N2 highway. People in the Eastern Cape were, however, less worried about the damage to the environment that such a development would cause in comparison to residents of other provinces.

It is interesting to note that residents of the Eastern Cape are relatively unconcerned about fast *moving traffic in the area and crime*. Less than a twentieth (3%) of Eastern Cape residents expressed concerns about the increased danger to children and pedestrians from fast moving traffic in the area compared to a fifth (19%) of those living in other provinces. A similar disparity was noted when comparing concerns about an increase in crime in the area between those living inside and outside the Eastern Cape. For residents of the Eastern Cape, it is apparent that these problems –fast moving traffic in the area and crime –are not readily associated with development project like the planned N2 highway.

Residents of the Eastern Cape were found to less express concern about problems associated with the *quality and integrity of the construction* involved in a development project like the planned N2 highway. Approximately a fifth (19%) of those living outside the Eastern Cape expressed concerns about overspending compared to 9% of those living inside the province. Similar disparities between those inside and those outside the Eastern Cape were noted on concerns about potential for corruption and the quality of the work.

Table 6: Knowledge of the Planned N2 Highway and Individual Concerns of a Major Road Development

	Knowledgeable		Not knowledgeable		
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Prob > F**
Damage to the environment	0.21	0.41	0.14	0.35	0.000
Air or noise pollution	0.19	0.39	0.14	0.35	0.008
Potential for corruption	0.23	0.42	0.15	0.36	0.000
Risk of overspending	0.19	0.39	0.17	0.38	0.382
Poor quality of work	0.14	0.34	0.13	0.34	0.918
Increased visitors	0.46	0.5	0.22	0.42	0.000
Fast moving traffic in the area	0.21	0.41	0.16	0.37	0.006
Increased crime	0.25	0.43	0.11	0.31	0.000
Urban commercialisation	0.28	0.45	0.07	0.25	0.000
Loss of land/infrastructure	0.05	0.21	0.05	0.23	0.361
Toll Gates	0.13	0.34	0.19	0.39	0.002

Note: Data is weighted to nationally representative of the adult South Africans. 2. Mean values (0-1) represent public identification of a specific concern. 3. Prob > F column present results from significant tests based on Analysis of Variance (ANOVA) analysis –the lower the Prob>F the higher the level of significance.

In order to understand if knowledge of the planned N2 highway between Port Edward and Port St Johns in the Eastern Cape had an impact on how adult South Africans connect concerns to a major road development, an Analysis of Variance (ANOVA) analysis was conducted. The results (see Table 6) show that those who are more knowledge of the planned highway tend to be more likely to voice concerns (with the exemption of concerns related to toll gates) associated with major road developments. Individuals with greater levels of knowledge, in particular, tend to worry that urban intensification (e.g. increased visitors, fast moving traffic in the area, increased crime and urban commercialisation) would have a negative impact on the area of development.

Table 7: Summary statistics for Concern Indicators (mean score)

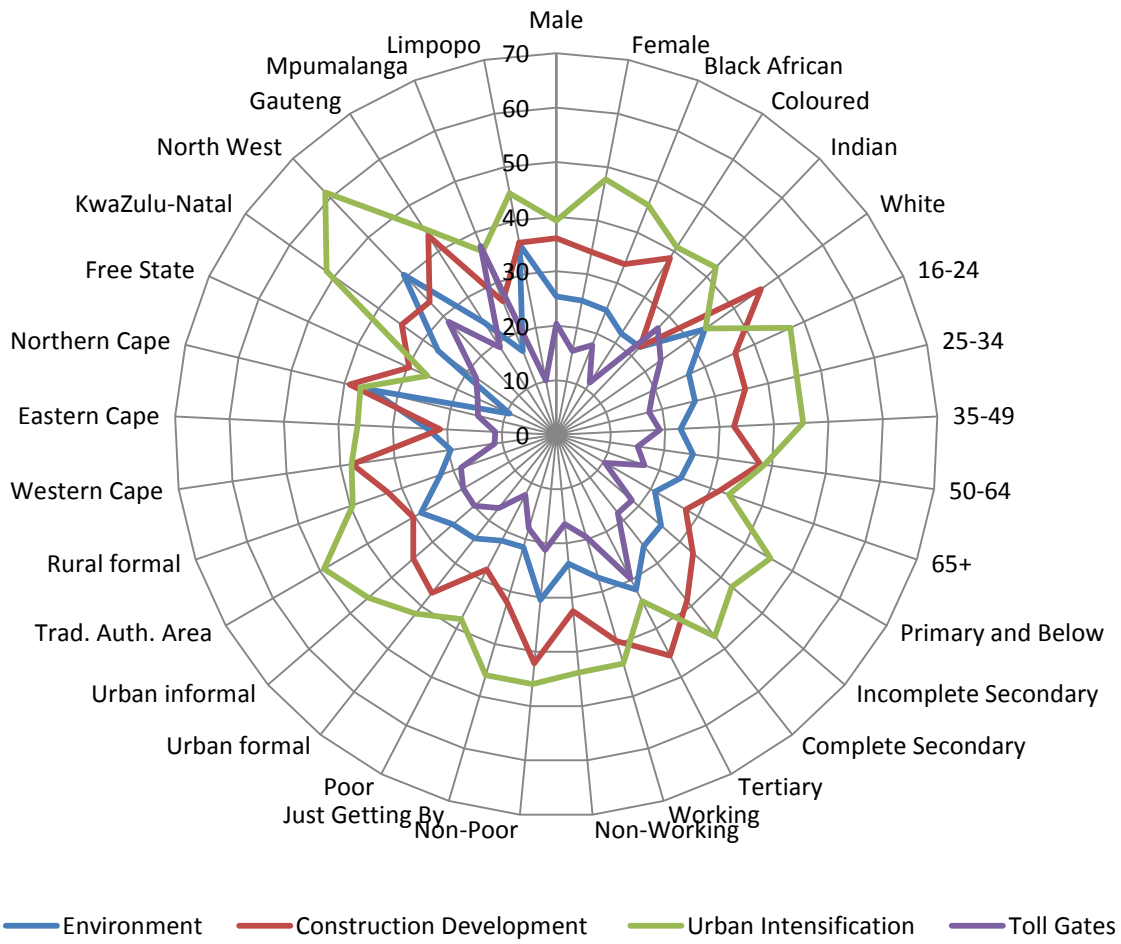
Variable	Mean	Std. Dev.	Min	Max
Environmental				
Damage to the environment	0.15	0.36	0	1
Air or noise pollution	0.15	0.35	0	1
Combined	0.25	0.43	0	1
Construction				
Potential for corruption	0.16	0.37	0	1
Risk of overspending	0.17	0.38	0	1
Poor quality of work	0.13	0.34	0	1
Combined	0.35	0.48	0	1
Urban Intensification				
Increased visitors	0.26	0.44	0	1
Fast moving traffic in the area	0.17	0.37	0	1
Increased crime	0.13	0.34	0	1
Urban commercialisation	0.11	0.31	0	1
Loss of land/infrastructure	0.05	0.22	0	1
Combined	0.49	0.50	0	1
Taxation				
Toll Gates	0.18	0.38	0	1

Note: Data is weighted to nationally representative of the adult South Africans. 2. Mean values (0-1) represent public identification of a specific concern or grouped concern indicator.

Based on responses to the item on concerns individuals may have about a development such as the planned N2 highway, the concerns options shown in Figure 7 were transformed into binary variables (with 1 representing identification of the concern by the respondent). These binary variables were then grouped into four identified concern indicators, these were: (i) environmental; (ii) project construction; (iii) urban intensification and (iv) taxation (see Table 7 for which options were grouped into which indicators).
Table **7** presents descriptive summary statistics for each of the binary concern options and for the combined concern indicators. Concern indicators were coded as 0-1 with 1 representing the share that mentioned one of the concern options grouped into this indicator.

Having established these indicators, it is worthwhile to examine the share of the population who identified individual concern types by subgroup. Such an examination will allow us to ascertain those subgroups which harbour the strongest cynicism towards major road developments such as the planned N2 highway. The results of this subgroup analysis are depicted in Figure 8.

Figure 8: Individual Concern Indicators by Selected Subgroup



Concerns about urban intensification were expressed by more than two-fifths (44%) of adult South Africans. Interestingly a higher share of women (48%) mentioned concerns of this type than men (39%). Younger South Africans were more likely to see urban intensification as a concern than their older counterparts –almost half (47%) of those in the 16-24 age cohort identified this concern compared to 34% of those 65 and older. In contrast to what was observed on other concern type indicators, tertiary-educated were far less worried about urban intensification than less educated South Africans. A majority of residents of the provinces of the North West (61%) and KwaZulu-Natal (52%) saw urban intensification as a concern associated with development projects like the planned N2 highway. In particular, a considerable share (43%) of North West residents identified increased danger to children and pedestrians from fast moving traffic in the area as a concern.

Concerns about the construction process were expressed by more than a third (35%) of adult public. White South Africans were particularly worried about problems (i.e. corruption, overspending and poor quality work) associated with the construction process of a development like the N2. The tertiary-educated and the non-poor were also considerably more likely to identify this as a concern compared to other subgroups in Figure

8. Almost half (46%) of the white racial minority expressed concerns of this type. Residents of the provinces of Gauteng (43%), the Northern Cape (39%), and Western Cape (38%) tended to be more prone to express concerns about the construction process of a development such as the planned N2 highway than residents in other provinces. In contrast residents of Mpumalanga (26%) were far less likely to identify the construction process as an area of concern.

Environmental concerns were expressed by a quarter of the adult population. More than a third of the residents of the North West (41%) and Limpopo (35%) identified environmental concerns regarding a development such as the planned N2 highway. Residents of the North West were particularly concerned about air and noise pollution and almost a third (30%) of the public in that province identified pollution of this type as a problem. In contrast residents of the Free State (9%) and Mpumalanga (17%) were the least concerned about environmental concerns. Groups who mentioned environmental concerns tended to be identified with the upper middle class. The tertiary-educated, the non-poor and white South Africans were significantly more likely to voice concerns of this type than other groups.

Less than a fifth (18%) of the adult population seemed to fear that a major road development would result in the creation of punitive taxation (i.e. toll gates). As with concerns about the construction process, those who identified toll gates as a concern were more likely to be located in the upper middle class and tended to be tertiary-educated. Interestingly residents of the North West and Mpumalanga were notably more likely to identify toll gates as a concern when compared with residents in other provinces. Those living in the Eastern and Western Cape provinces seemed, in particular, less concerned about toll gates.

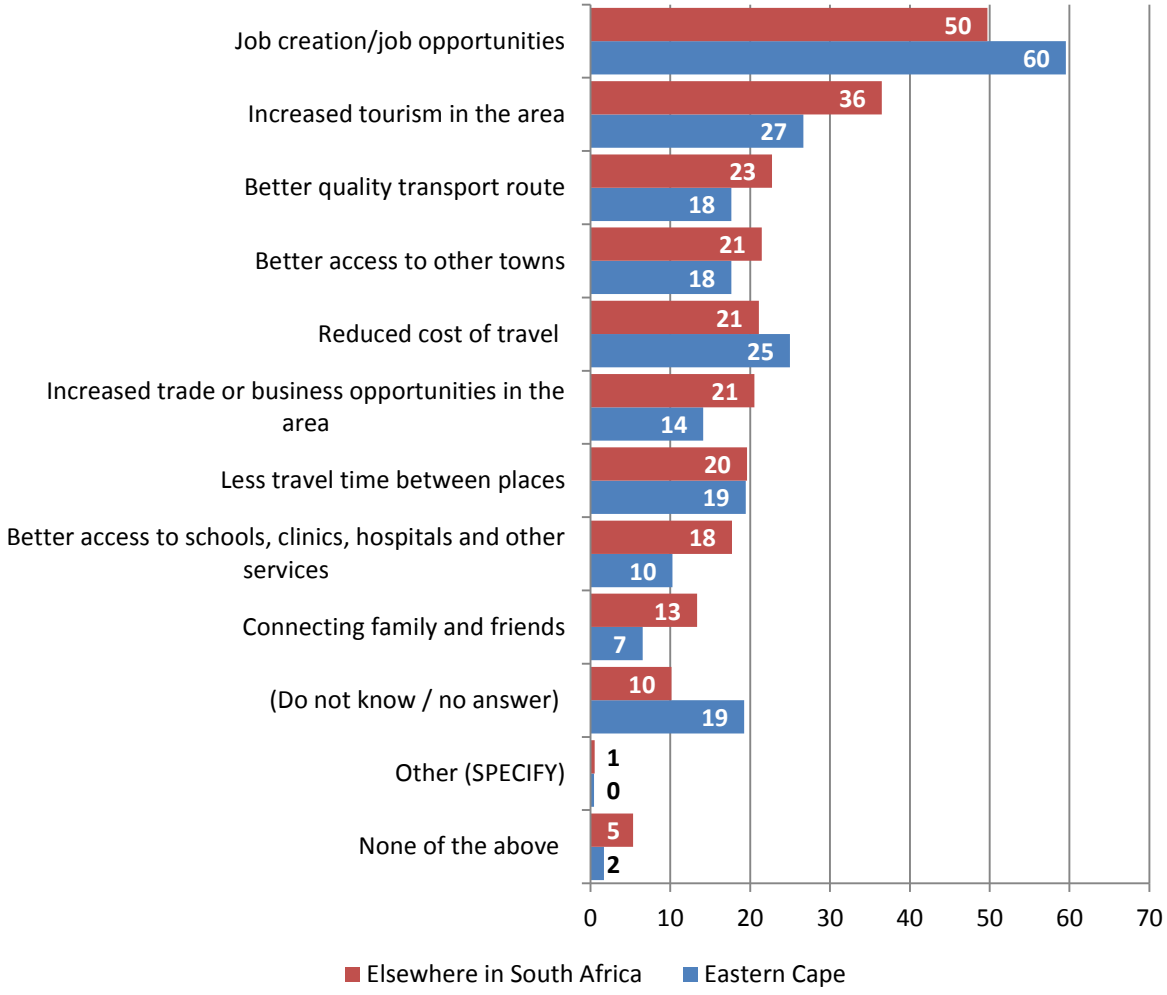
4.4.2 Public Perceptions of the Benefits connected to Major Road Development Projects

In order to better understand what type of benefits individuals may associate with a development such as the planned N2 highway, respondents were asked what benefits (if any) would they associated with such a development project. Only a tiny minority (5%) of adult South Africans were unable to identify a potential benefit linked to such a project. The type of benefits ranged from economic to social, and showcased a reasonable and pragmatic set of benefits that have in the past been connected to road development projects. Results presented here are (given the importance of attitudes towards the planned N2 highway in the Eastern Cape) disaggregated by residents of the Eastern Cape and residents of other provinces (see Figure 9).

Job creation was seen as the common recognised benefit connected to a road development project. Residents in the Eastern Cape were especially positive about job creation with two-thirds of the adult public in the province identifying this benefit. Other economic benefits identified by adult South Africans were *increased tourism and increased business*

opportunities. Interestingly residents of the Eastern Cape were somewhat less likely to identify these benefits compared to those residing outside the Eastern Cape.

Figure 9: Individual Benefits Associated with a Development such as the Planned N2 Highway by Selected Groups (multiple response: percentage)



Improving transportation was identified by many in the country with approximately a fifth of the adult population associating less travel time between places, improved transport quality and reduced travel costs with a major road development. The vast majority of respondents not did mention *connecting family and friends* –through better road connections –as a benefit of such a development. This is particularly true for those living in Eastern Cape where less than a tenth (7%) of adult provincial population identified this social benefit.

Table 8: Knowledge of the Planned N2 Highway and Individual Benefits of a Major Road Development

	Knowledgeable		Not Knowledgeable		
	Mean	Std. Dev.	Mean	Std. Dev.	Prob > F
Tourism	0.50	0.50	0.32	0.47	0.000
Trade or business	0.33	0.47	0.17	0.37	0.000
Less travel time	0.29	0.45	0.18	0.38	0.000
Reduced cost	0.32	0.47	0.19	0.39	0.000
Better quality transport	0.28	0.45	0.21	0.40	0.000
Access to other towns	0.30	0.46	0.19	0.39	0.000
Access to social services	0.25	0.44	0.15	0.36	0.000
Job Creation	0.49	0.50	0.51	0.50	0.359

Note: Data is weighted to nationally representative of the adult South Africans; 2. Those who were identified as knowledgeable were those that indicated they were either somewhat or very knowledgeable about the new route; 3. Mean values (0-1) represent public identification of a specific benefit; and 4. Prob > F column present results from significant tests based on Analysis of Variance (ANOVA) analysis –the lower the Prob>F the higher the level of significance.

In order to understand if knowledge of the planned N2 highway between Port Edward and Port St Johns in the Eastern Cape had an impact on how adult South Africans associated benefits with a major road development, an ANOVA analysis was conducted (see Table 8). Those who are more knowledge tend to be more inclined to see benefits (with the exemption of benefits related to job creation) associated with a major road development. Greater levels of knowledge seemed to have an especially strong relationship with benefits linked to economic opportunities.

Table 9: Summary statistics for Benefit Indicators

Variable	Mean	Std. Dev.	Min	Max
Economic Opportunities				
Tourism	0.35	0.48	0	1
Trade or business	0.20	0.40	0	1
Combined	0.42	0.49	0	1
Transport Quality				
Less travel time	0.19	0.39	0	1
Reduced cost	0.21	0.41	0	1
Better quality transport	0.22	0.41	0	1
Combined	0.46	0.50	0	1
Connectivity				
Access to other towns	0.21	0.41	0	1
Access to social services	0.17	0.37	0	1
Connecting family and friends	0.12	0.33	0	1
Combined	0.37	0.48	0	1
Job Opportunities				
Job creation	0.50	0.50	0	1

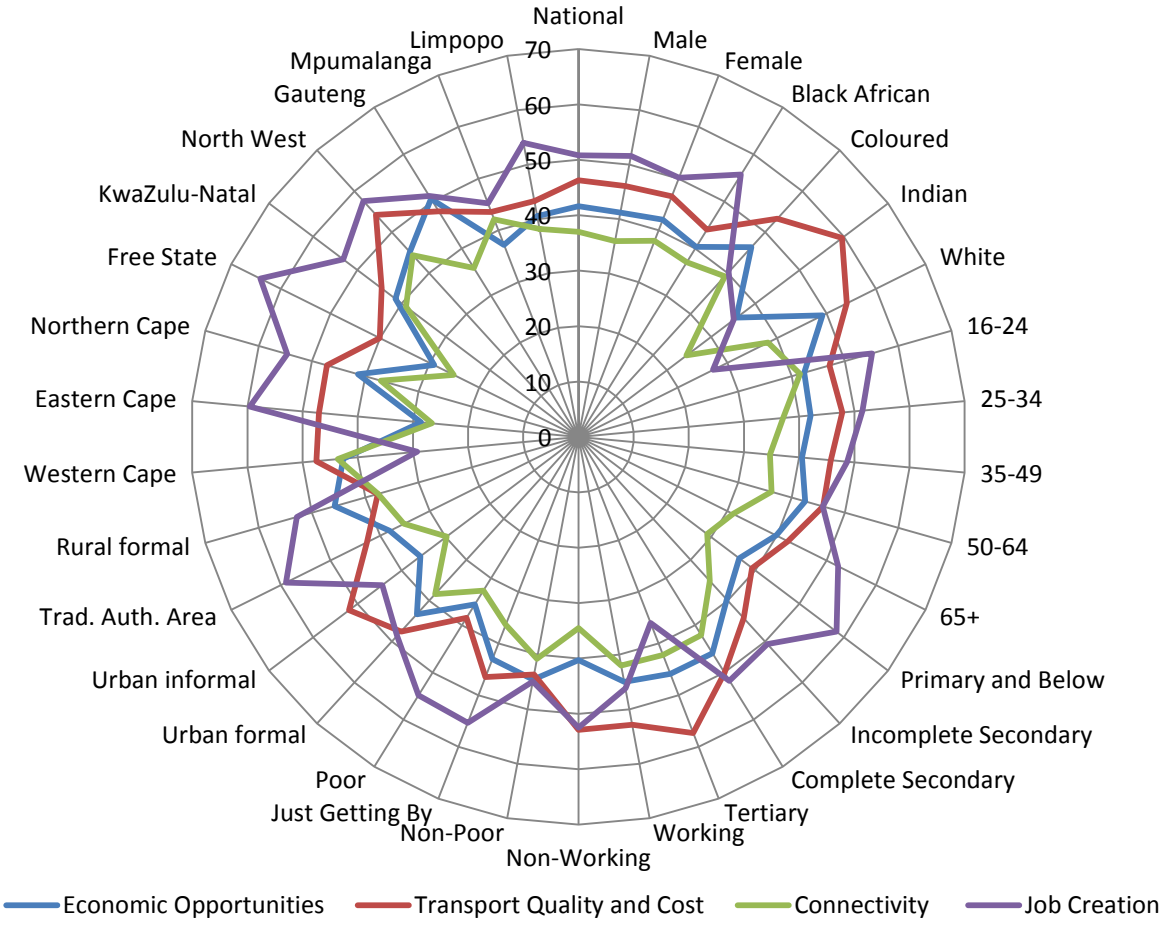
Note: Data is weighted to nationally representative of the adult South Africans; and 2. Mean values (0-1) represent public identification of a specific benefit or grouped benefit indicator.

Based on responses to the item on benefits individual may have associated with a development such as the planned N2 highway, the benefit options shown in Figure 9 were transformed into binary variables (with 1 representing identification of the benefit by the

respondent). These binary variables were then grouped into four identified benefit indicators, these were: (i) economic opportunities; (ii) job creation; (iii) transport cost and quality and (iv) greater connectivity (see Table 9 for which options were grouped into which indicators). Table 9 presents descriptive summary statistics for each of the binary concern options and for the combined concern indicators. Benefit indicators were coded as 0-1 with 1 representing the share that mentioned one of the options grouped into this indicator.

Having created these indicators, it is valuable to investigate the share of the population who identified individual benefit types by subgroup. Such an examination will allow us to ascertain those subgroups which harbour the strongest optimism towards major road developments such as the planned N2 highway. The results of this subgroup analysis are depicted in Figure 10.

Figure 10: Individual Benefits Indicators by Selected Subgroup



About half (46%) of the adult population identified reduced *travel costs, time and better quality transport* with a development like the planned N2 highway. Educational attainment had a positive association with a tendency to identify transport improvement as a benefit. Those who self-rated themselves as non-poor were more inclined to select transport quality enhancements as benefits than the self-rated poor. In contrast to other benefit indicators,

there were relatively minor differences in the responses of different provincial residents although residents of the North West were the most likely to identify transport cost and quality improvements as a benefit.

Major road development can open up previously marginalised areas to further *economic development*. Educational attainment seemed a positive association with this benefit and the tertiary-educated were more likely to identify economic opportunities as a potential benefit compared to less educated individuals. In contrast to job creation, white South Africans were more likely to mention economic opportunities as a benefit than other racial groups. The self-rated poor were also less predisposed to associate a road project like the planned N2 highway with economic opportunities than the economically better off. Provincial differences were also noted. Less than one-third of residents in the Free State[1] (29%) and the Eastern Cape (29%) associated economic opportunities with major road development. On the other hand, those adults residing in Gauteng were much more likely to view economic opportunities (particularly tourism) as benefit linked to such a development.

Better *access to other towns, social services* (e.g. schools, clinics and hospitals) *and friends and families* was considered a benefit linked with a development project like the planned N2 highway by more than a third (37%) of all adult South Africans. Younger South Africans were marginally more inclined to see greater connectivity as a benefit than their older counterparts although observed differences were not found to be statistically significant. Those who are outside paid employment were less likely to identify greater connectivity when compared to those inside paid work. Approximately two-fifths (44%) of those adults living in the North West and the Western Cape identified greater connectivity as a benefit. In contrast, roughly a quarter of adult residents in the Free State (25%) and the Eastern Cape (27%) made a similar link between greater connectivity and a project like the planned N2 highway.

If an individual identifies a number of different benefits associated with a major road development (like the planned N2 highway between Port Edward and Port St Johns) that individual may be likely to identify fewer concerns about a major road development. In order to ascertain the validity of this question, the correlation matrix (or covariance matrix) between the number of benefits identified and the number of concerns expressed was produced. The correlation was positive, statistically significant and the size of the correlation (0.669) suggests a very strong association. To put it simply, those who were able to identify a large number of concerns about a major road development were more likely to identify a large number of benefits.

[1] This may reflect residents' past experience of road development schemes in the Free State. One prominent example was the 2010 project to rehabilitate and reconstruct the R74 highway between Harrismith and Oliviershoek. The project failed and a 24km stretch of highway was left to deteriorate into a pothole- punctured one-track gravel road. This deterioration affected the local hospitality industry and two well-known resorts were forced to close.

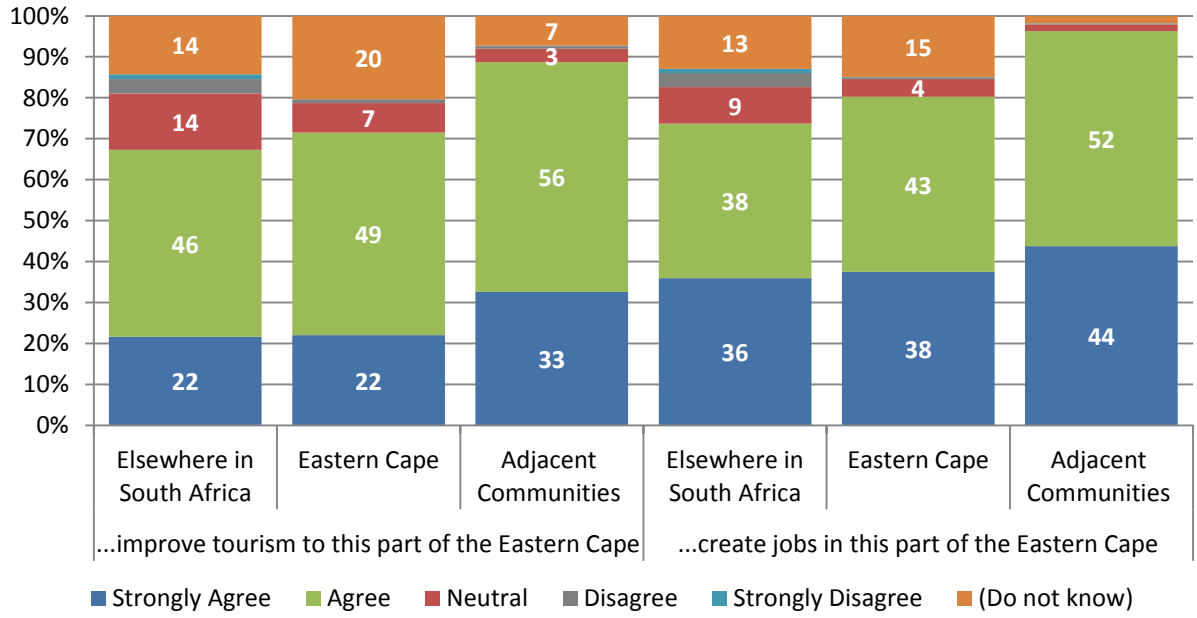
4.4.3 Attitudes towards the Potential Advantages and Disadvantages of the Planned N2 Highway

The previous set of questions looked at individual attitudes towards a major road development like the planned N2 highway between Port Edward and Port St Johns. However there is a need to assess public perceptions about the planned N2 highway itself. The goal of this section is to provide a data on both positive and negative attitudes among South Africans towards the planned route. This section will demonstrate the utility of SASAS as an anticipatory (or predictive) mechanism that can inform decision- and policy-making processes.

Potential Advantages of the Planned N2 Highway

Do people have positive attitudes towards the planned N2 highway between Port Edward and Port St Johns? In order to answer this question, respondents were asked if they agreed or disagreed with a series of statements about the potential advantages that the planned N2 highway would bring. These statements can be divided (broadly) into two categories: (i) economic benefits and (ii) transport/infrastructure benefits.

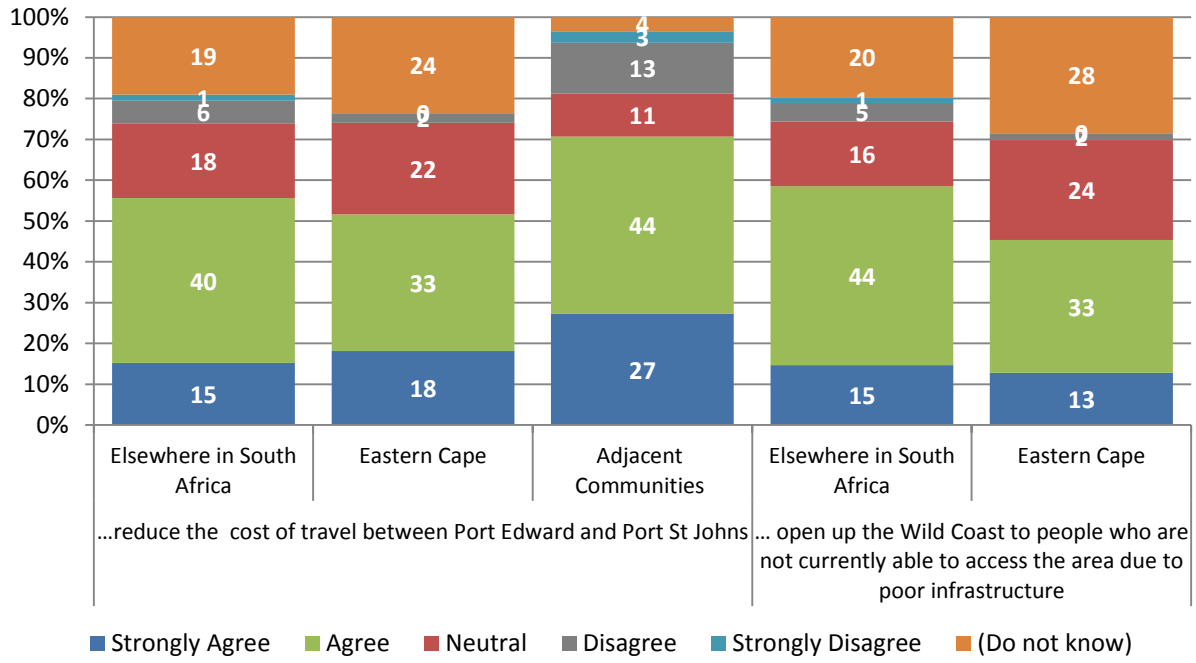
Figure 11: Attitudes towards the Potential Economic Benefits Associated with the Planned N2



First public responses to the statements about the economic benefits of the planned new N2 route are considered (see Figure 11). Given the importance of attitudes towards the planned N2 highway in the Eastern Cape, results presented here are disaggregated by residents of the Eastern Cape and residents of other provinces. As can be seen in Figure 11 the vast majority of adult South Africans agreed that the planned N2 highway will bring economic development to at least some parts of the Eastern Cape. Observed differences

between residents of the Eastern Cape and those living outside the Eastern Cape were not considerable. On the other hand, 80% of those that lived in communities adjacent to the new planned route of the respondents either strongly agree or agree that the road will improve tourism. Now public responses to the statements about the transport and/or infrastructure benefits of the planned new N2 route are considered (see Figure 12).

Figure 12: Attitudes towards the Potential Transport Benefits Associated with the Planned N2 Highway



As can be seen in Figure 12 a majority of the adult public in South Africa believe that the planned N2 highway between Port Edward and Port St Johns will reduce travel costs and open up the Wild Coast to people who are not currently able to access the area. As with what was observed in Figure 11, observed differences between residents of the Eastern Cape and those living outside the Eastern Cape were not substantial. Compared to what was observed with economic development (see Figure 11), it is apparent that a greater share of the adult population is sceptical about the role of the planned N2 highway in improving the ability of South Africans to travel to the Wild Coast. Only about half (45%) of the adult population of the Eastern Cape agreed, for instance, that the planned N2 highway will open up the Wild Coast to people who are not currently able to access the area due to poor infrastructure.

Does knowledge of the planned N2 highway between Port Edward and Port St Johns in the Eastern Cape have an impact on the public's perceptions about the potential benefits of the planned highway? In order to answer this question, an ANOVA analysis was conducted (see Table 10). The results show that those who are more knowledge of the planned highway are more likely to believe that the planned highway tend to be more likely to believe that the

highway would reduce the cost of travel, improve tourism and open up the Wild Coast. However the level of difference (in terms of mean score) between the knowledgeable and the unknowledgeable was somewhat low. Individual beliefs about the job creation potential of the project were not associated with knowledge of the project.

Table 10: Knowledge of the Planned N2 Highway and Public Perceptions of the Potential Benefits

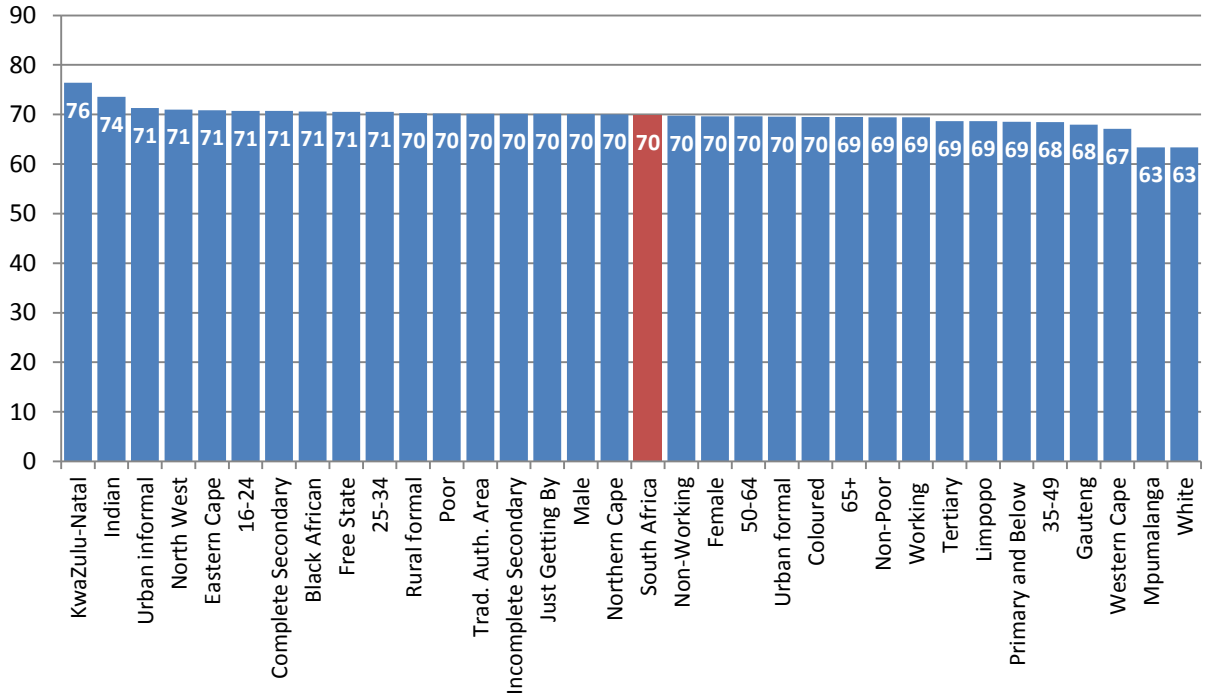
	Knowledgeable		Not Knowledgeable		
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Prob > F**
Open up the Wild Coast	74.67	20.51	64.46	19.98	0.000
Reduce the cost of travel	69.84	23.53	64.83	20.78	0.000
Improve tourism	73.22	22.64	70.65	20.3	0.009
Create jobs	75.61	24.1	76.6	21.62	0.348

Note: Data is weighted to nationally representative of the adult South Africans; 2. Those who were identified as knowledgeable were those that indicated they were either somewhat or very knowledgeable about the new route; and 3. For interpretive ease, responses options for each category were reversed so that larger scores signified a more positive view, and then transformed into a 0-100 scale, with 0 representing "strongly disagree" and 100 "strongly agree". All 'don't know' responses were moved to the mid-point.

It is possible to note some important differences in how different subgroups response to the questions in Figure 11 and Figure 12. For example only about half (52%) of adult residents of the Eastern Cape agreed that the planned highway would reduce the cost of travel between Port Edward and Port St Johns. This stands in contrast to agreement levels observed among residents in KwaZulu-Natal and the North West. In those provinces resident were more likely to believe that the planned highway will improve transport network in the Eastern Cape. Clearly there is a need to better understand variation in positive public perceptions about the planned N2 route between subgroups.

To better understand subgroup variations on positive public perceptions about the planned N2 route, an attitudinal index was created based on responses to the four questions showcased in Figure 11 and Figure 12. Responses to these questions are combined to create a Development Index. The index was reversed so that larger scores signified a more positive view, and then transformed into a 0-100 scale, with 0 representing "highest perceived positive effect" and 100 "highest perceived positive effect". In other words, a high value on the index indicates a belief that the new N2 route will have positive impact on the development in the Eastern Cape.

Figure 13: Mean Scores (0-100) Development Index by Selected Subgroups

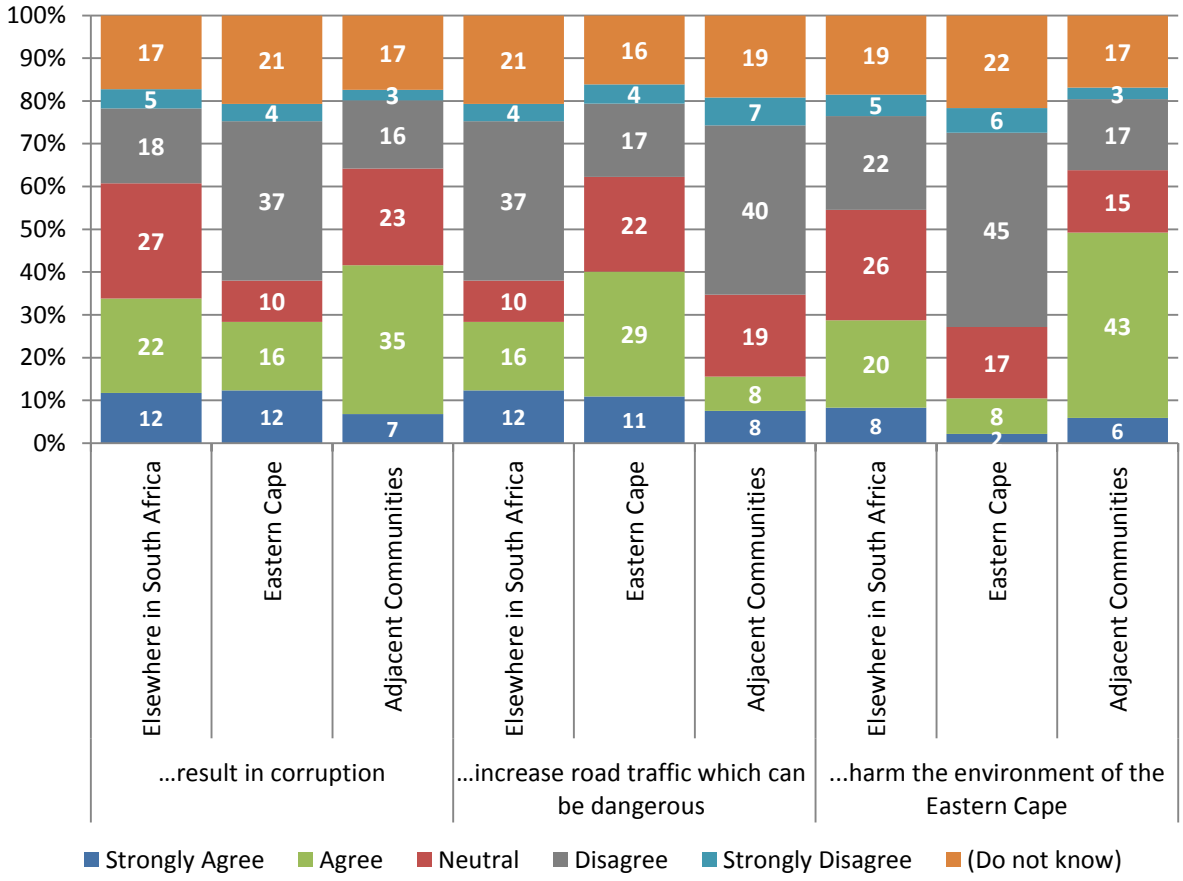


Mean results on the Development Index are shown across selected subgroups in Figure 13. There are relatively low levels of differences between subgroups observed. Most subgroups exhibit mean scores located within a relatively narrow band of 68-71. White South Africans were one of the few groups to exhibit a mean score (63) that fell outside this narrow band. This showcases the fairly sceptical nature of this racial minority towards major development projects. Compared to residents of other provinces, those residing in the Western Cape (67) and Mpumalanga (63) were found to be the most doubtful about the development potential of the planned N2 highway. In contrast, residents of KwaZulu-Natal were the most positive about the developmental potential of the new route.

Disadvantages of the Planned N2 Highway

There is a need to assess negative public perceptions about the planned N2 route. As well as positive statements about the route, respondents were also asked if thought that the new route would have a detrimental impact. Respondents were asked if they agreed or disagreed with three statements about the potential problems that could be associated with the project. Given the importance of attitudes towards the planned N2 highway in the Eastern Cape, results presented here are disaggregated by residents of the Eastern Cape and residents of other provinces.

Figure 14: Attitudes towards the Potential Detriments Associated with the Planned N2 Highway



As can be seen in Figure 14 the majority of the adult public do not agree that the planned N2 highway will bring significant harm to the economic and social development of the Eastern Cape. Those residing in the Eastern Cape were also found to less likely than living outside the province to agree that the planned N2 highway would result in corruption, increase dangerous road traffic and would harm the environment of the province. In terms of the statements on road traffic and environmental harm, those living outside the Eastern Cape were twice as likely to agree as residents of the province.

In 2010, only 31.7% mentioned dangerous moving traffic as a disadvantage to the construction of the road. In 2015, this has sadly increased considerably to about two-thirds (68%) of people either strongly agreeing or just agreeing to the fact that the N2 between Port Edward and Port St Johns will result in dangerous fast-moving traffic. Of those that lived in communities adjacent to the new planned route, fewer than half felt that the road construction will harm the environment. Two-fifths of respondents in these communities thought that the new route will result in corruption.

Does knowledge of the planned N2 highway between Port Edward and Port St Johns in the Eastern Cape have an impact on the public's perceptions about the potential detrimental

impacts of the planned highway? In order to answer this question, an ANOVA analysis was conducted (see Table 11). The results show that those who are more knowledge of the planned highway are more likely to believe that the highway would harm the environment. However the observed level of difference here was low. Individual beliefs about the other potential detrimental impacts (i.e. result in corruption and increase road traffic) were not related to differences in knowledge.

Table 11: Knowledge of the Planned N2 Highway and Public Perceptions of the Potential Detriments

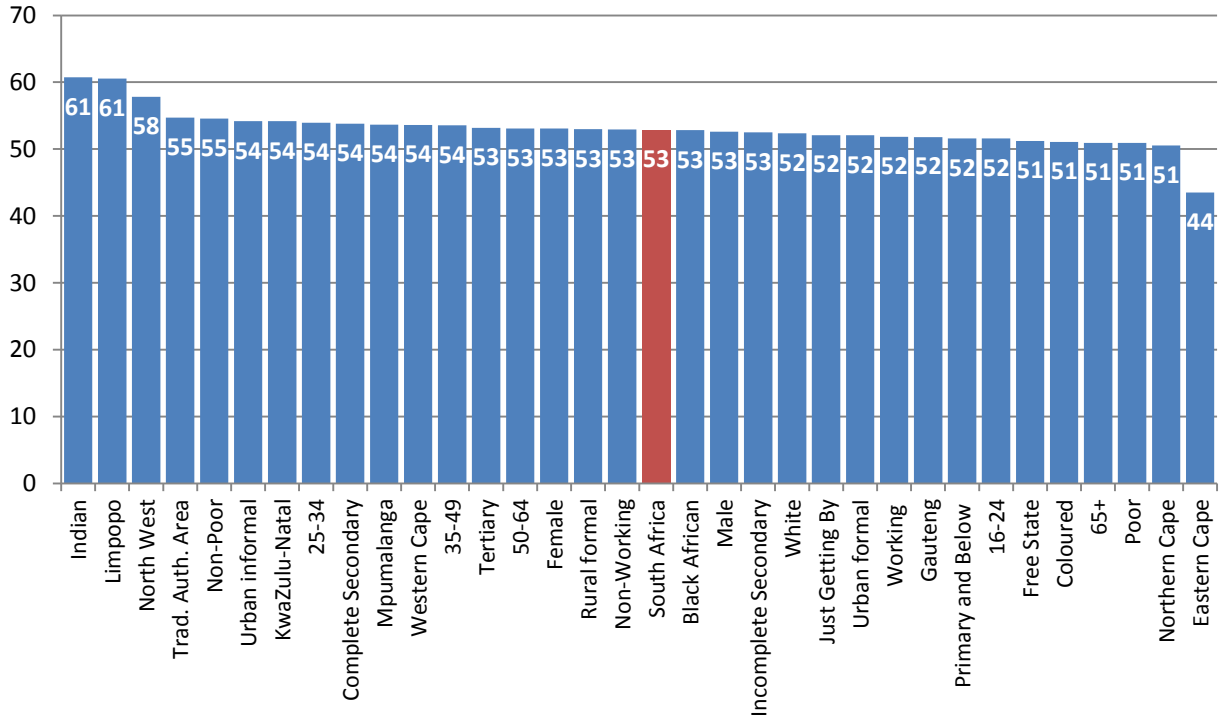
	Knowledgeable		Not Knowledgeable		
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Prob > F**
Harm the environment	51.78	27.47	49.45	23.60	0.043
Result in corruption	52.65	27.55	54.31	25.03	0.168
Increase road traffic	54.25	27.43	54.73	25.10	0.692

Note: Data is weighted to nationally representative of the adult South Africans; 2. Those who were identified as knowledgeable were those that indicated they were either somewhat or very knowledgeable about the new route; and 3. For interpretive ease, responses options for each category were reversed so that larger scores signified a more positive view, and then transformed into a 0-100 scale, with 0 representing "strongly disagree" and 100 "strongly agree". All 'don't know' responses were moved to the mid-point.

It is possible to note some important differences in how different subgroups response to the questions in Figure 11 and Figure 12. For example approximately half (52%) of all adult Indian South Africans agreed that the planned highway would result in corruption. In contrast less than a third of adults in the black African community agreed with this statement. In another example, tertiary-educated adults were far more likely than their less educated counterparts to agree that the new route may harm the environment of the Eastern Cape. There is a clearly a need to better understand variation in negative public perceptions about the planned N2 route between subgroups.

Variation on negative public perceptions about the planned N2 route between subgroups needs to be assessed. In order to achieve this, responses to the three questions in Figure 14 are combined to create a Retrogression Index. The index was reversed so that larger scores signified a more positive view, and then transformed into a 0-100 scale, with 0 representing "lowest perceived detrimental effect" and 100 "highest perceived detrimental effect". In other words, a high value on the index indicates a belief that the new N2 route will have retrogressive impact on the development in the Eastern Cape.

Figure 15: Mean Scores (0-100) Retrogression Index by Selected Subgroups



Mean results on this score is shown across selected subgroups in Figure 15. In similar manner to what we have observed in Figure 13, there are relatively low levels of differences between subgroups observed in Figure 15. Most subgroups exhibiting mean scores located within a relatively narrow band of 51-54. It is however possible to note some important differences. Compared to residents of other provinces, those residing in the Eastern Cape exhibited the lowest mean Retrogression Index score. This confirms the results of Figure 14 and suggests general support among the province's population for the planned N2 highway. This stands in contrast to the average mean scores exhibited by residents of a number of other provinces. Residents Limpopo had the highest Retrogression Index mean score compared with all other subgroups in Figure 15.[2]

[2] This may be related to residents' previous experience of major developments in the province. In 2010, for instance, transport officials in the province were forced to investigate the construction of several newly-built bridges and roads that had washed away (a scandal that involved a company owned by former ANC Youth League president Julius Malema). In a more recent outrage, the Australian company Aquila Steel cleared over 33km of roads all over the Madimatle Mountain in Limpopo during the last few years. The company drilled in about 200 locations, unlawfully clearing vegetation and protected tree species. Government departments (such as the Department of Mineral Resources) and the provincial environmental authorities took no action to halt Aquila Steel's activities during this period.

5. Direct experience of, and interest in visiting, the Port Edward/Port St Johns locality

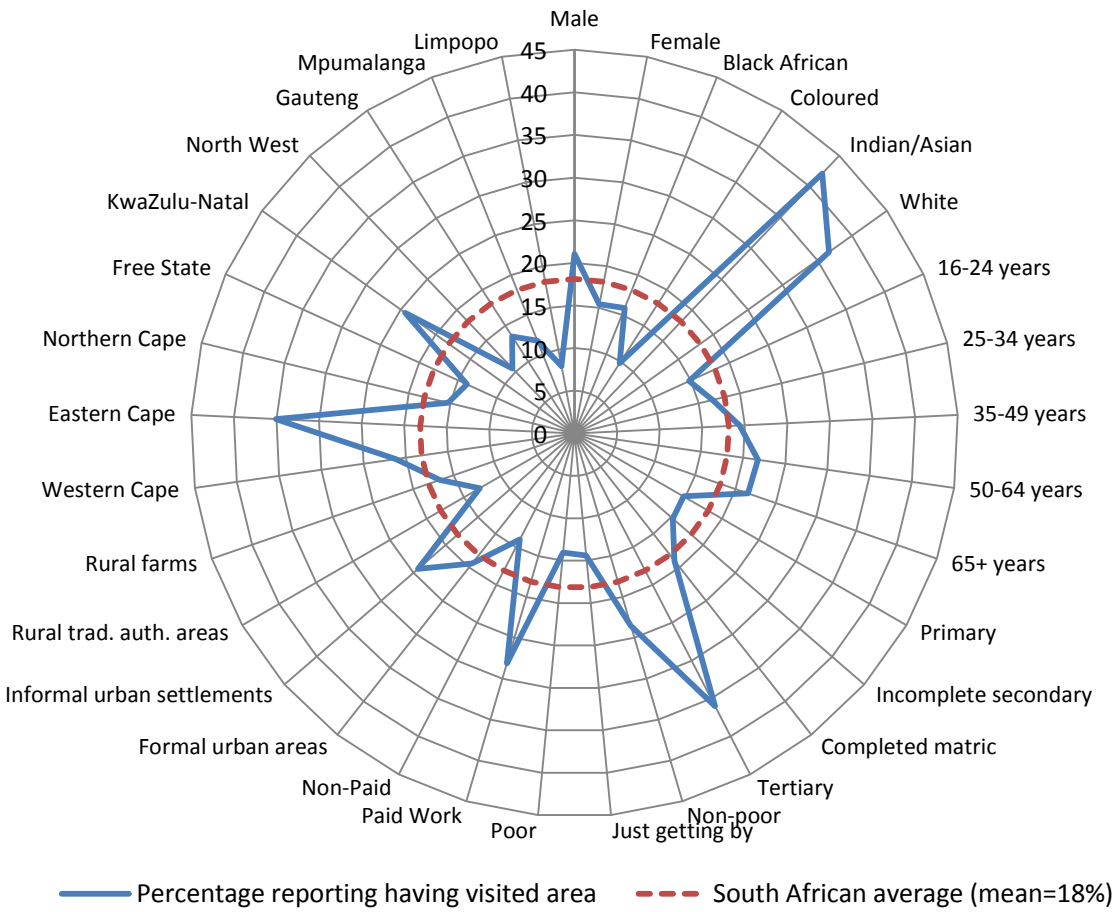
It could be argued that having visited and spent time in the parts of the Eastern Cape between Port Edward and Port St Johns in the past, whether once or multiple times, is likely to have a bearing on one's attitudes towards developments in that locality. When posed with questions about a significant infrastructural project such as the planned N2 Route, one would imagine that having direct experience of the area – its landmarks, people and culture, as well as existing transportation routes – would influence cognitive evaluations. One might therefore expect experience to operate in a similar way as residential proximity (though not necessarily equivalent – visiting cannot be equated with residing) in informing such attitudinal judgements.

The SANRAL module in SASAS included an item that asked all respondents whether they have "ever visited parts of the Eastern Cape around Port Edward and Port St Johns". Responses were captured using a four-point response scale, namely 'never', 'once or twice', 'a few times' or 'many times'. The responses suggest that 82 percent of adult South Africans have not visited this part of the country before or were unsure, with 18 percent having direct experience. In total 10 percent had visited once or twice, 6 percent a few times, with only 3 percent indicating that they had been to the areas on multiple occasions.

In Figure 16, the characteristics of those who report having been to the area in the past is presented. For interpretive ease, the four-point scale was collapsed into a dichotomous experience variable, with the two options being 'never visited/unsure' and 'visited one or more times'. From the diagram, it is readily apparent that a strong class dynamic informs patterns of experience with the area. Visiting the area was most commonly reported by Indian and white adults, those with a tertiary level education, and those in paid employment. Provincially, residents from the Eastern Cape and KwaZulu-Natal were most likely to visit these parts of the province, which is likely a reflection of geographic proximity. The Western Cape had the third highest exposure to the area, with a fifth of adults having been to the area in their lifetime. Conversely, the lowest level of experience is observed in residents in Limpopo, North West, Mpumalanga Gauteng and Free State as well as in rural traditional authority areas, as well as among coloured, poor and unemployed adults. These results therefore suggest that a mix of affluence and proximity informs the chances of going to this part of the province. Despite this apparent association between class and likelihood of having visited the area, one result that does not fit this trend is the finding from informal urban settlements, where close to a quarter (24%) of respondents indicated that they have visited these parts of the Eastern Cape. Upon closer examination, residents of informal settlements in KwaZulu-Natal, Eastern Cape, North West and Mpumalanga stand out as having a significantly higher than average level of direct experience of visiting this part of the

country (between 30 and 35%).[3] It is possible that these individuals may have family ties in these parts of the Eastern Cape or have originated from the province.

Figure 16: Direct experience of visiting the Port Edward / Port St Johns area in the past, by socio-demographic attributes (%)

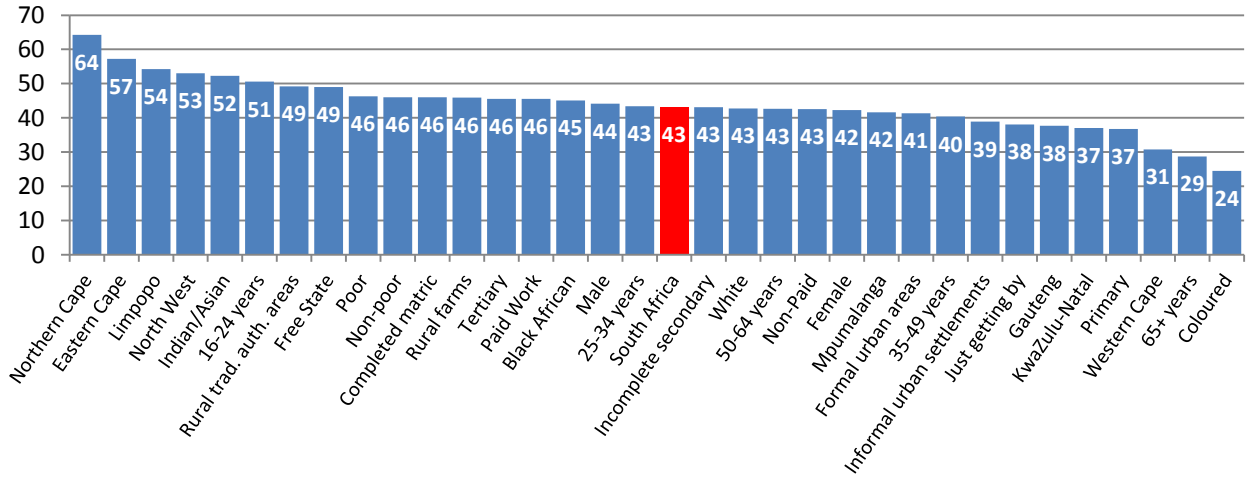


Two questions were also fielded that addressed levels of interest in visiting the Port Edward and Port St Johns area and whether the construction of the proposed N2 route would increase the probability of this happening. On average, we find that slightly under a fifth (18%) expresses a strong desire to visit these parts of the Eastern Cape, a further quarter (26%) voiced moderate levels of interest, around half expressed limited or no interest (52% - 21% hardly and 31% not at all interested), and four percent were unsure. In Figure 17, the level of interest is ranked from highest to lowest across the socio-demographic attributes of the survey respondents. The percentage that is very or quite interested in visiting the parts of the Eastern Cape between Port Alfred and Port St Johns differs appreciably, ranging between 64% among Northern Cape residents and a low of 24% among coloured adults. High levels of interest were also evident among those in the Eastern Cape, Limpopo and North West, Indian adults, the youth (16-24 years). Much lower levels of interest were

[3] This finding suggests that while Mpumalanga and North West residents on average have low exposure levels, around a third of those in informal settlements in these provinces are likely to have been to these areas.

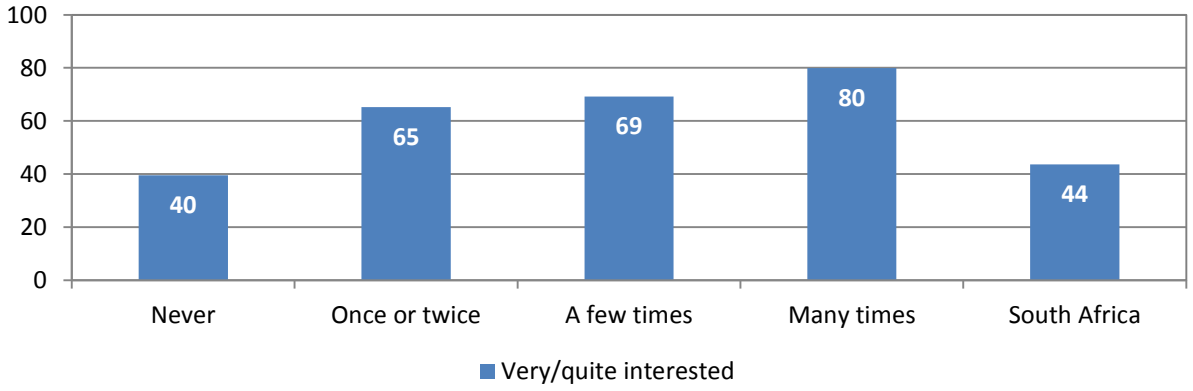
evident among those of pensionable age, those with primary level or no formal education, as well as residents in the Western Cape, KwaZulu-Natal and Gauteng. Therefore, unlike the experience factor, having an interest in visiting these parts of the Eastern Cape is not explicitly informed by markers of socio-economic status.

Figure 17: Interest in visiting the Port Edward / Port St Johns area, by socio-demographic attributes (% very or quite interested)



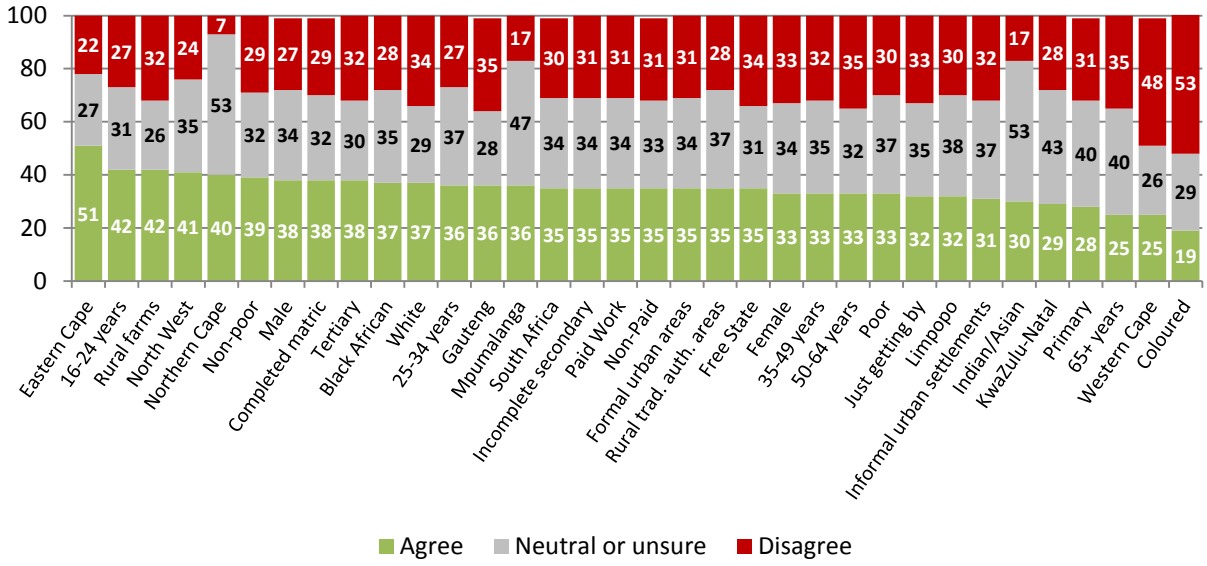
This however does not imply that past experience and interest are not related. If we cross-tabulate these two variables (Figure 18), we find that there is a notable positive association between them, with interest rising as the frequency of having visited the area increases. Therefore, for those that have visited the area many times, 80% expressed an interest in returning, in contrast with 40% of those who have never been to the area before. It is important to mention that the fact that two-fifths of those who have never been to this part of the country before express a desire to travel to this region is significant. This is by no means an insubstantial share of the population. In fact, it equates to 31% of the total adult population, given the skewed nature of past experience in visiting the region. If this interest could be converted into actual tourism behaviour, it would have a considerable, beneficial impact on the local economy in the Port Edward / Port St Johns area.

Figure 18: Interest in visiting the Port Edward / Port St Johns area, by past experience of visiting area (% very or quite interested)



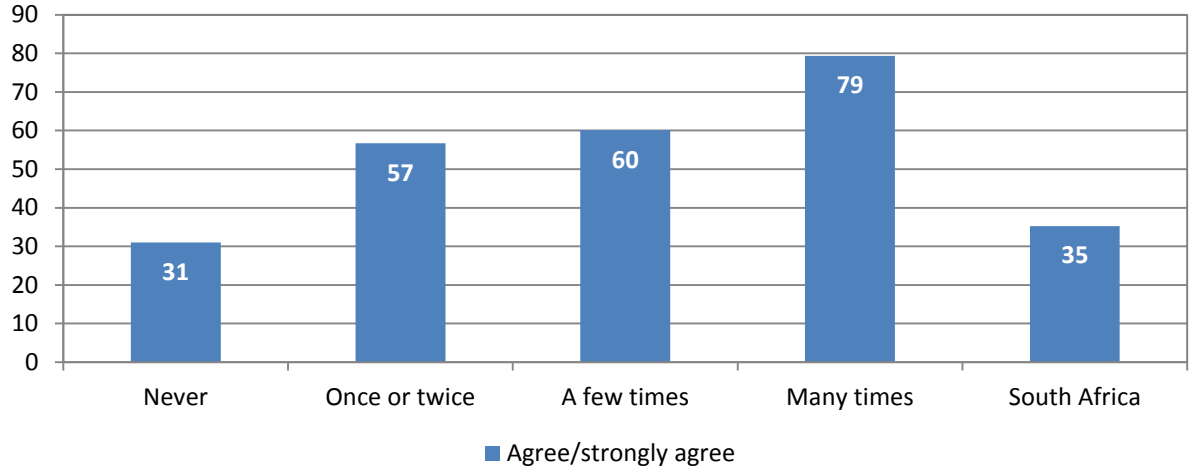
Do South Africans believe that the construction of the N2 Route would encourage them to visit the Eastern Cape? Overall, slightly more than a third agree (35% - 10% strongly agree) that the new route would improve the likelihood that South Africans would visit the area, with 34% neutral or unsure, and 30% providing an opposing view. Again we find a diversity of views underlying the national average, with the percentage agreeing varying between 51% among those in the Eastern Cape to a mere 19% among coloured adults (Figure 19). However, apart from sizable differences at the tail end of the distribution, we find that level of agreement ranges in a fairly narrow band between 30 and 40% across most of the socio-demographic characteristics examined.

Figure 19: Level of agreement with the view that the new N2 Route would increase the likelihood of visiting the Eastern Cape



We again find evidence that having visited the Port Edward/Port St Johns area previously predisposes South Africans towards a more positive view on the probability of going to the province in the future. Only a third of those never having been to the area were positive about the new route, compared to 79% of those who have been to the area on multiple occasions. This is likely to reflect knowledge of the existing road infrastructure in the area, knowledge of the new route, as well as the relative weighing up of benefits and risks to the proposed development.

Figure 20: Agreement that new route would improve chances of visiting the Eastern Cape, by past experience of visiting area (% agree or strongly agree)



6. Multinomial (polytomous) Logistic Regression

In order to understand what characteristics are associated with support for the planned new N2 route between Port Edward and Port St Johns, a multinomial logit regression was conducted. This regression analysis will allow us to predict the association between support for the planned N2 project and individual characteristics and attitudes. Multinomial logistic regression was considered appropriate because the goal was to investigate which characteristics were associated with a selected nominal outcome variable.

The nominal outcome variable (i.e. the dependent variable) used in this analysis was created from the following question in SASAS 2014: "Taking into account all that you know about this topic and thinking about you and your family, do you see the N2 route more as a benefit or more as a risk?" Possible responses included: (i) more as a benefit; (ii) more as a risk; (iii) neither / indifferent; and (iv) don't know. These last two response options were combined to produce a 'neutral' response option. The resulting nominal outcome variable allows us to examine (through multivariate analysis) which characteristics are correlated with support for the planned new N2 route between Port Edward and Port St Johns.

A number of independent variables had to be created for the multivariate analysis. How these variables were created is outlined below.

6.1. Building Models for the Multinomial (polytomous) Logistic Regression

To assess the effect of economic position on support for the planned new N2 route between Port Edward and Port St Johns a variety of different measures were used. Dummy variables were used to capture educational attainment level (primary and below, incomplete secondary, completed secondary and tertiary), self-rated wealth status (non-poor, getting along and poor) and labour market involvement (working and non-working). Census classifications of respondents' area of residence were used to construct province dummies as well as South African specific urbanisation dummies (urban formal, urban informal, rural formal and rural areas under traditional authority) to control for geographic location.

In order to adequately control for whether an individual had ever visited parts of the Eastern Cape around Port Edward and Port St Johns, responses from the question in SASAS 2014 "Have you ever visited parts of the Eastern Cape around Port Edward and Port St Johns?" were used. Based these responses a binary variable was created (0 not visited, 1 visited). A question on individual knowledge of the planned new N2 route was used to construct ordinal variable on whether an individual was knowledgeable about the route. The exact wording of the question used was: "The government is planning to build a new highway on the N2 between Port Edward and Port St Johns in the Eastern Cape. Overall, how would you rate your level of knowledge about this proposed new highway?" Responses ranged from 1 (very knowledgeable) to 4 (not at all knowledgeable). Those respondents who answered 'don't know' to this question were coded to 4.

There is a need to assess the relationship between public perceptions about the planned N2 route and support for the route. To make this assessment two indexes were used. The first was the Development Index which measures the public's perceptions of the developmental potential of the new highway. This index is based on four questions in SASAS 2014 (see section 0) and is coded on a 0 to 100 scale –a high value on the scale indicates a belief that the new N2 route will benefit the Eastern Cape. The second is the Retrogression Index which measures public perceptions that the new route will reverse or harm the economic and social development of the Eastern Cape. This index is based on three questions in SASAS 2014 (see section 0) and is coded on a 0 to 100 scale –a high value on the scale indicates a belief that the new N2 route will harm the development of the Eastern Cape.

Table 12: Item-test Correlation, Average Interitem Covariance and Cronbach's alpha for Development and Retrogression Indexes

	Item-test Correlation	Item-rest Correlation	Average Interitem Covariance	Cronbach's Alpha
Development Index				
… open up the Wild Coast to people	0.77	0.59	0.36	0.75
...improve tourism to this part of the Eastern Cape	0.82	0.66	0.33	0.71
...create jobs in this part of the Eastern Cape	0.79	0.60	0.34	0.75
…reduce the cost of travel between Port Edward and Port St Johns	0.77	0.57	0.36	0.76
Test Scale			0.35	0.79
Retrogression Index				
...harm the environment of the Eastern Cape	0.77	0.49	0.50	0.64
…result in corruption	0.79	0.51	0.45	0.61
…increase road traffic which can be dangerous	0.81	0.54	0.41	0.57
Test Scale			0.45	0.70

Note: 1. Respondents were asked if they agreed or disagreed with the statement in the table.

One of the goals of this analysis is to better grasp the relationship between the destination's desirability and support for the new N2 route. To understand the impact of individual interest in the Eastern Cape around Port Edward and Port St Johns, responses from a question on how interested a respondent would be interested in that area was used. Responses to this question were ranked from 1 (very interested) to 4 (not at all interested). Those respondents who answered 'don't know' to this question were coded as missing. To account for political affiliation I used responses to the question "If there were a national election tomorrow, for which party would you vote?" Dummy variables constructed from responses to this question were: African National Congress (ANC), Democratic Party / Alliance (DA), other opposition parties and uncertain/refused. Finally standardised structural demographic controls for gender, race and age were also used. Table 12 presents descriptive summary statistics for the independent variables used in the multivariate analysis.

6.2. Results for the Multinomial (polytomous) Logistic Regression

In Table 13, we present the results from the multinomial logit models predicting the association between the dependent and individual characteristics and attitudes. The output presented has two parts, labelled with the categories of the outcome variable. In our analysis log odds of the outcomes are modelled as a linear combination of the predictor variables. The table shows the ratio of the probability of choosing one outcome category over the probability of choosing the baseline category. These are often referred to as relative risk ratios (RRR) and it is also sometimes referred to as odds ratios. Relative risk ratios are used for ease of interpretation. As can be observed, statistical tests confirm that the model presented in Table 13 as a whole fits significantly better than an empty model (i.e. a model with no predictors).

As can be observed from the table, political affiliation, self-rated wealth status, urbanisation, age and labour market involvement were not significant determinants. The lack of relationship between wealth status and our dependents is surprising. It could be that this finding is an empirical artefact created by including multiple measures of social position (such as self-rated wealth status and labour market position) in the same model (which would suggest multicollinearity problems). But even when the other social position variables were cycled out and self-rated wealth status was used as the only proxy for societal position, this categorical variable was still not positively correlated with the dependent.

A variety of the demographic characteristics are associated with believing that the planned new N2 route between Port Edward and Port St Johns is more of a benefit than a risk. Controlling for a range of descriptive variables (including political affiliation) being male and belonging to the country's racial majority was associated with seeing the route as more of a benefit than a risk. Women were found to be more likely to see the planned route as more of a benefit. Compared to other racial minorities, and using black African as the reference category, Indian South Africans were the most unlikely to see the planned route as a benefit (compared to being more of a risk). This was followed by white and then Coloured South Africans. Poor educated individuals (i.e. those with primary education and below) were less likely to see the route as a benefit and more likely to see the new road as a risk.

Table 13: Multinomial (polytomous) Logistic Estimates Predicting Support for the Planned N2 Route between Port Edward and Port St Johns

	More as a benefit			Neutral		
	RRR	Std. Err.	P>|z|	RRR	Std. Err.	P>|z|
Female (ref. male)	0.630	0.137	0.034	0.823	0.170	0.345
Age	0.997	0.008	0.724	0.990	0.008	0.181
Racial Group (ref. Black African)						
Coloured	0.347	0.123	0.003	0.576	0.188	0.091
Indian	0.307	0.135	0.007	0.296	0.113	0.001
White	0.368	0.158	0.020	0.478	0.181	0.051
Political Affiliation (ref. ANC)						
Democratic Party/Alliance	1.384	0.567	0.428	1.074	0.387	0.843
Other Opposition	1.333	0.641	0.550	1.201	0.587	0.708
Undeclared/Unaffiliated	1.175	0.343	0.580	0.996	0.277	0.987
Labour Market Status (ref. Working)						
Non-Working	1.218	0.312	0.441	1.266	0.309	0.334
Education (ref. tertiary)						
Complete Secondary	0.586	0.252	0.213	0.513	0.214	0.110
Incomplete Secondary	0.557	0.242	0.177	0.544	0.230	0.150
Primary and Below	0.371	0.179	0.040	0.299	0.142	0.011
Subjective Wealth (ref. Non-Poor)						
Just Getting By	1.236	0.320	0.412	1.121	0.277	0.644
Poor	1.021	0.319	0.946	1.599	0.469	0.110
Development Index	1.052	0.008	0.000	1.005	0.007	0.482
Retrogression Index	0.976	0.006	0.000	0.989	0.006	0.093
Ignorance on the N2	1.496	0.163	0.000	1.687	0.190	0.000
Visited Port Edward /Port St Johns	1.002	0.285	0.924	1.211	0.330	0.483
Uninterested Port Edward /Port St Johns	0.534	0.064	0.000	1.327	0.151	0.013
Geographic Type (ref. urban formal)						
Urban informal	1.823	1.198	0.361	1.562	1.007	0.489
Rural, traditional authority areas	0.620	0.207	0.152	0.611	0.202	0.137
Rural commercial farms	1.307	0.594	0.556	1.646	0.722	0.256
Province (ref. Eastern Cape)						
Western Cape	0.344	0.153	0.016	1.034	0.436	0.936
Northern Cape	0.516	0.267	0.200	0.955	0.494	0.929
Free State	0.816	0.466	0.722	1.369	0.802	0.592
KwaZulu-Natal	2.187	1.019	0.093	3.260	1.535	0.012
North West	0.218	0.114	0.003	0.575	0.285	0.265
Gauteng	0.987	0.411	0.976	0.924	0.389	0.851
Mpumalanga	1.006	0.597	0.992	1.841	1.061	0.290
Limpopo	0.675	0.298	0.374	0.881	0.390	0.775
Number of obs	2669					
Wald chi2(56)	447.9					
Prob > chi2	0.000					
Pseudo R2	0.224					

Notes: 1. Data is weighted to be nationally representative of the adult South Africans.; 2. Estimated coefficients transformed to relative-risk ratios (RRR) and the robust standard errors are similarly transformed; and 3. The base outcome is "more as a risk".

A one-unit increase in the variable 'Development Index' is positively associated with thinking that the new N2 route is more of a benefit (compared to more of a risk). Simply put, the more an individual feels that the new route will have economic and transport/infrastructure

benefits for the Eastern Cape, the more that individual will support the project. Compared to other independent variables in Table 13, the 'Development Index' has the largest impact on support for new planned N2 route. On the other hand, a one-unit increase in the variable 'Retrogression Index is negatively correlated with thinking that the new route is more of a benefit (vs. more of a risk). In simple terms, an individual belief that this project will result in corruption, environmental damage and dangerous traffic is linked with public rejection of the project.

There is a positive correlation between ignorance about the planned route and support for the route. To put it another way, the relative risk ratio for a one-unit increase in the variable 'Ignorance of the N2 Route' is above one. A one-unit growth in the variable 'Uninterested Port Edward /Port St Johns' will negatively affect public endorsement for the road development. In other words, controlling for socio-economic status, a decrease in destination desirability will results in a lower support for the new planned N2 route. Whether an individual had visited parts of the Eastern Cape around Port Edward and Port St Johns was not statistically significant in our model.

Certain provincial differences were noted in Table 13, being located in the following provinces was statistically associated with seeing the new route as a risk (versus a benefit): Western Cape and North West. Why have these patterns emerged? One possible explanation is that individual experience with other road development projects in these provinces may have had an impact on public attitudes represented in here. Negative media stories in the local press in those provinces may have fed scepticism about road development projects in other provinces. For example expensive toll gating on N4 (a freeway that is under acute stresses due to high traffic volume) has been a major source of contention in the North West during 2014[4]. However it is not possible to draw a direct correlation between such incidents and support for planned N2 route between Port Edward and Port St Johns using SASAS 2014 data. More research is required to better understand this finding.

Those demographic groups who were more likely to see the planned new N2 route between Port Edward and Port St Johns as more of a risk than a benefit, were often less likely to see the new route to be 'neutral' or indifferent to the project (vs. seeing the project as a risk). These include: Indian South Africans and the primary educated (and below). In addition, ignorance about the new N2 route and disinterest in visiting the parts of the Eastern Cape around Port Edward and Port St Johns were correlated significantly with indifference to the new route (vs. seeing the new route as a risk). Whether an individual had ever visited parts of the Eastern Cape around Port Edward and Port St Johns was not statistically significant.

[4] The deficiency of tarred roads in many districts of the North West has long been a source of contention between residents and government. As a result of the condition of the highways, and the stress of heavy traffic on the province's N4 in particular, road accidents are frequent. In July 2015, for example, two people dead in a car accident on the N12 between Ventersdorp and Colingny during thick mist. The Congress of South African Trade Union and its affiliates in the North West have protested the state of the roads in the province as well as the current toll gate charges on the N4 and have advocated for the national transport department to lower the fees and repair alternative roads in the province.

Interestingly, being located in KwaZulu-Natal made an individual three times more likely to be indifferent towards the planned new N2 route (compared to thinking the route a risk).

7 Conclusion

The aim of the research project was to determine public perceptions regarding the possible construction of a new section of the N2 between Port Edward and Port St Johns. The research project comprised of four components, namely (1) a study of communities and people adjacent to the planed route, (2) a study of businesses in the vicinity of the planned route, (3) migrant workers that reside in the Eastern Cape and (4) a national survey of attitudes and perceptions around the planned route. This part of the study focussed on the national survey (interviewing 3108 respondents) and the conclusion draw below will reflect mostly on the national survey but will draw on findings from the other components of the research.

One of the key findings of this report is that nationally, few (18%) of South Africans are knowledgeable and by implication aware about the planned N2 route. As could be expected, proximity plays a role in terms of awareness of the route, with adjacent communities having the highest knowledge followed by residents of the Eastern Cape. People living adjacent to the planned route were also much more positive about the route, and also more cognisant of the potential benefits the route would bring.

Despite not being knowledgeable about the route, the majority of South Africans could cite benefits and concerns pertaining to such a route. Impressions of the route, whether it related to benefits or concerns, were clinked to socio-demographic or socio-political characteristics rather than actual knowledge of the route. Affluent groups in society, which tends to be white, Indian/Asian and educated tended to voice more concerns and tended to be most concerned about urban intensification, corruption and damage to the environment but were more likely to see economic opportunities. Less affluent groups on the other hand were less worried about corruption and the environment and more likely to see opportunities for job creation.

The variables that plays the largest role in terms of negative public perception of the route is if an individual beliefs that building the new route will result in corruption, environmental damage and dangerous traffic. The variables that plays the largest role in terms of positive public perception of the route is the belief in the developmental potential of the road. If people believe in the developmental potential (job creation, economic benefits) of the route, they see this project more as a benefit than a risk.

In summary, the relationship between public perceptions about the planned N2 route and support for the route is complex and there is no singular and simplistic way to view national attitudes to development projects such as the planned N2 route. However, it is evident that people adjacent to the route, although cautious, are optimistic that their lives will be bettered by this project. Although long term economic gain is not necessarily envisaged, job creation-at least in the short term is envisaged.

8 References

CCA Environmental (2009). Environmental Impact Report. Proposed N2 Wild Coast Toll highway. Final EIR.

Appendix 1: Questionnaire

SOUTH AFRICAN SOCIAL ATTITUDES SURVEY 2014

Questionnaire 2: January/March 2015

RESPONDENTS AGED 16 YEARS +

Good (morning/afternoon/evening), I'm _____ and we are conducting a survey for the Human Sciences Research Council (HSRC). The HSRC regularly conducts surveys of opinion amongst the South African population. Topics include a wide range of social matters such as communications, politics, education, unemployment, the problems of the aged and inter-group relations. As a follow-up to this earlier work, we would like to ask you questions on a variety of subjects that are of national importance. To obtain reliable, scientific information we request that you answer the questions that follow as honestly as possible. Your opinion is important in this research. The area in which you live and you yourself have been selected randomly for the purpose of this survey. The fact that you have been chosen is thus quite coincidental. The information you give to us will be kept confidential. You and your household members will not be identified by name or address in any of the reports we plan to write.

PARTICULARS OF VISITS

	DAY MONTH	TIME STARTED HR	TIME STARTED MIN	TIME COMPLETED HR	TIME COMPLETED MIN	**RESPONSE	
First visit	/ / 2015						
Second visit	/ / 2015						
Third visit	/ / 2015						

**RESPONSE CODES		
Completed questionnaire	=	01
Partially completed questionnaire (specify reason)	=	02
Revisit		
Appointment made	=	03
Selected respondent not at home	=	04
No one home	=	05
Do not qualify		
Vacant house/flat/stand/not a house or flat/demolished	=	06
No person qualifies according to the survey specifications	=	07
Respondent cannot communicate with interviewer because of language	=	08
Respondent is physically/mentally not fit to be interviewed	=	09
Refusals		
Contact person refused	=	10
Interview refused by selected respondent	=	11
Interview refused by parent	=	12
Interview refused by other household member	=	13
OFFICE USE		
	=	14

STRICTLY CONFIDENTIAL

Name of Interviewer .....

Number of interviewer

Checked by

Signature of supervisor _____

FIELDWORK CONTROL

CONTROL	YES	NO	REMARKS
Personal	1	2	
Telephonic	1	2	
Name	SIGNATURE		
.....	DATE ...../..... .../.....2015		

RESPONDENT SELECTION PROCEDURE

Number of households at visiting point

Number of persons 16 years and older at visiting point

Please list all persons at the visiting point/on the stand who are 16 years and older and were resident 15 out of the past 30 days. Once this is completed, use the Kish grid on next page to determine which person is to be interviewed.

Names of Persons Aged 16 and Older	
	01
	02
	03
	04
	05
	06
	07
	08
	09
	10
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20
	21
	22
	23
	24
	25

NAME OF RESPONDENT:
ADDRESS OF RESPONDENT:
....
TEL NO.:

GRID TO SELECT RESPONDENT

NUMBER OF QUESTION-NAIRE				NUMBER OF PERSONS FROM WHICH RESPONDENT MUST BE DRAWN																							
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	26	51	76	1	1	1	3	2	4	1	3	5	8	6	5	12	10	1	6	8	7	19	19	13	21	13	24	25
2	27	52	77	1	2	3	4	3	1	2	2	3	4	8	3	7	2	5	14	4	15	4	8	6	16	14	22	19
3	28	53	78	1	1	2	1	4	2	7	6	9	3	5	11	2	1	3	11	7	10	16	16	10	5	2	2	3
4	29	54	79	1	2	3	2	1	3	5	8	6	2	4	2	4	8	11	10	16	6	9	10	15	11	12	11	18
5	30	55	80	1	1	1	4	5	6	3	5	7	5	9	8	13	3	2	13	5	18	1	4	1	20	11	5	24
6	31	56	81	1	2	2	2	3	5	7	7	8	7	1	4	9	14	8	2	17	17	14	12	14	22	10	3	14
7	32	57	82	1	2	1	1	4	1	4	1	4	6	3	6	5	7	13	9	2	3	13	14	8	2	7	20	4
8	33	58	83	1	1	2	3	2	5	1	4	2	1	7	10	6	5	4	15	10	5	2	13	4	17	5	17	8
9	34	59	84	1	1	3	2	5	6	2	2	1	9	10	1	10	4	6	6	1	9	10	1	5	6	9	1	12
10	35	60	85	1	2	2	4	1	3	3	6	9	10	11	12	3	9	15	7	8	11	6	3	9	4	3	10	1
11	36	61	86	1	1	1	3	1	4	5	3	1	6	2	9	13	11	14	4	11	4	15	15	17	1	1	23	2
12	37	62	87	1	2	3	1	3	2	7	5	6	5	7	7	8	6	10	3	3	1	12	20	7	13	22	12	16
13	38	63	88	1	1	2	1	5	3	6	4	3	4	6	2	11	13	12	1	15	8	7	2	12	15	21	13	7
14	39	64	89	1	2	3	2	4	1	4	7	8	2	5	6	11	12	9	16	13	16	11	18	18	14	16	18	23
15	40	65	90	1	2	1	4	2	4	3	8	7	7	11	1	3	5	7	12	14	13	8	17	20	19	20	19	11
16	41	66	91	1	1	3	3	1	6	5	1	5	9	10	3	2	11	13	8	12	12	5	6	21	8	8	4	15
17	42	67	92	1	1	2	2	3	4	2	6	2	3	2	12	5	2	10	13	5	8	18	9	16	10	17	16	20
18	43	68	93	1	2	1	4	2	6	4	1	4	8	9	10	7	9	3	12	12	9	7	20	19	9	19	21	13
19	44	69	94	1	2	2	1	3	5	2	8	9	10	4	9	8	13	1	1	14	10	19	10	11	18	15	7	6
20	45	70	95	1	1	3	2	5	4	1	3	8	1	3	8	6	6	9	5	7	13	4	15	1	7	22	15	21
21	46	71	96	1	1	1	2	5	1	7	2	3	2	1	11	4	7	5	3	2	1	3	12	18	5	19	14	9
22	47	72	97	1	2	1	3	1	3	2	6	2	1	8	7	1	4	2	11	8	2	17	4	17	21	16	3	5
23	48	73	98	1	2	3	4	2	2	6	7	7	8	3	4	9	3	6	2	11	11	16	2	8	11	23	6	22
24	49	74	99	1	1	2	1	4	6	3	5	5	3	1	5	13	1	14	8	14	6	15	9	14	3	6	9	17
25	50	75	100	1	1	2	3	3	2	4	6	4	7	5	3	12	12	12	4	6	2	17	11	2	12	4	8	10

SASAS QUESTIONNAIRE 2: 2014

Number of persons in this household		
Number of persons 16 years and older in this household		

INTERVIEWER: PLEASE CIRCLE APPROPRIATE CODES

Household schedule	Write in from oldest (top) to youngest (bottom)	Person number	Household head	How old is [*name*]? (in completed years; less than 1 year =00)	Is [*name*] a male or a female? M=1 F=2	What population group does [*name*] belong to?	What is [*name*]'s relationship to the respondent
Please list all persons in the household who eat from the same cooking pot and who were resident 15 out of the past 30 days		01	01				
		02	02				
		03	03				
		04	04				
		05	05				
		06	06				
		07	07				
		08	08				
		09	09				
		10	10				
		11	11				
		12	12				
		13	13				
		14	14				
		15	15				
Note: Circle the number next to the name of the household head.		16	16				
		17	17				
		18	18				
		19	19				
		20	20				
		21	21				
		22	22				
		23	23				
		24	24				
		25	25				

Population Group
1 = Black African
2 = Coloured
3 = Indian or Asian
4 = White
5 = Other (*specify*)

Relationship to respondent codes
1 = Respondent
2 = Wife or husband or partner
3 = Son/daughter/stepchild/adopted child/foster child
4 = Father/mother/ step father/step mother
5 = Brother/sister/step brother/step sister
6 = Grandchild/great grandchild
7 = Grandparent/great grandparent
8 = Mother- or father-in-law
9 = Son- or daughter-in-law
10 = Brother- or sister-in-law
11 = Other relation (e.g. aunt/uncle)
12 = Non-relation

ROADS AND DEVELOPMENT

I am now going to ask you some questions about road construction projects and their role in development.

1. Which <u>ONE</u> of the following would be most important for your municipality to consider in deciding whether or not to approve a large development project in your area?

The impact on the environment	1
The impact on the lives of people in the community	2
The jobs that the project would create	3
Other (SPECIFY)	4
(Can't choose)	8

2. Transport like cars, buses, trains and planes can affect the environment in a number of ways. How concerned are you about damage to the countryside from building roads?

Very concerned	1
Fairly concerned	2
Not very concerned	3
Not at all concerned	4
(Don't Know)	8

3. The government is planning to build a new highway on the N2 between Port Edward and Port St Johns in the Eastern Cape. Overall, how would you rate your level of knowledge about this proposed new highway?

Very knowledgeable	1	→ **Ask Q.4**
Somewhat knowledgeable	2	
Not very knowledgeable	3	
Not at all knowledgeable	4	→ **Go to Q.6**
(Do not know)	8	

[*SHOWCARD SC 13*] How satisfied or dissatisfied are you with the following aspects of the new N2 highway between Port Edward and Port St Johns?

		Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied	(Do not know)
4.	Progress	1	2	3	4	5	8
5.	Consultation	1	2	3	4	5	8

6. [*SHOWCARD SC 28*] What benefits, if any, would you associate with a development such as the planned N2 highway?

FIELDWORKER: READ OUT OPTIONS. MULTIPLE RESPONSE – CIRCLE ALL THAT APPLY

a.	Increased tourism in the area	01
b.	Increased trade or business opportunities in the area	02
c.	Less travel time between places	03
d.	Reduced cost of travel	04
e.	Better access to other towns	05
f.	Better access to schools, clinics, hospitals and other services	06
g.	Connecting family and friends	07
h.	Better quality transport route	08
i.	Job creation/job opportunities	09

j.	Other (SPECIFY)	10
k.	None of the above	11
l.	(Do not know / no answer)	88

7. [*SHOWCARD SC 29*] What concerns, if any, would you associate with a development such as the N2 highway?

FIELDWORKER: READ OUT OPTIONS. MULTIPLE RESPONSE – CIRCLE ALL THAT APPLY

a.	Increased number of visitors in the area	01
b.	Increased danger to children and pedestrians from fast moving traffic in the area	02
c.	Increased crime in the area	03
d.	Damage to the environment	04
e.	Potential for corruption	05
f.	Risk of overspending	06
g.	Poor quality of work	07
h.	Air or noise pollution	08
i.	Opens the way for more factories, hotels and casinos to be built in the area	09
j.	Toll gates	10
k.	Loss of land / infrastructure	11
l.	Other (specify)	12
m.	None/no concerns	13
n.	(Do not know / no answer)	88

[*SHOWCARD SC 12*] To what extent do you agree or disagree with the following statements? The proposed N2 highway between Port Edward and Port St Johns will…READ OUT…

		Strongly agree	Agree	Neither agree nor disagree	Dis-agree	Strongly disagree	(Do not know)
8.	… open up the Wild Coast to people who are not currently able to access the area due to poor infrastructure	1	2	3	4	5	8
9.	…improve tourism to this part of the Eastern Cape	1	2	3	4	5	8
10.	…harm the environment of the Eastern Cape	1	2	3	4	5	8
11.	…result in corruption	1	2	3	4	5	8
12.	…increase road traffic which can be dangerous	1	2	3	4	5	8
13.	…create jobs in this part of the Eastern Cape	1	2	3	4	5	8
14.	…reduce the cost of travel between Port Edward and Port St Johns	1	2	3	4	5	8

15. Have you ever visited parts of the Eastern Cape around Port Edward and Port St Johns?

Never	1
Once or twice	2
A few times	3
Many times	4

(Don’t Know)	8

16. How interested would you be in visiting these parts of the Eastern Cape?

Very interested	1
Quite interested	2
Hardly interested	3
Not at all interested	4
(Don't Know)	8

17. [*SHOWCARD SC 12*] Please tell me the extent to which you agree or disagree with the following statement: If the new national road is build, I would be more likely to visit the Eastern Cape.

Strongly agree	1
Agree	2
Neither agree nor disagree	3
Disagree	4
Strongly disagree	5
(Don't Know)	8

18. Taking into account all that you know about this topic and thinking about you and your family, do you see the N2 route more as a benefit or more as a risk?

More as a benefit	1
More as a risk	2
Neither / indifferent	3
(Don't Know)	8

Appendix 2:

Summary statistics for the Multinomial (polytomous) Logistic Regression

Variable	Obs.	Mean	Std. Dev.	Min	Max
Age	2669	43.18	17.53	16	98
Female	2669	0.62	0.49	0	1
Coloured	2669	0.18	0.39	0	1
Indian	2669	0.11	0.31	0	1
White	2669	0.13	0.34	0	1
Democratic Party/Alliance	2669	0.22	0.42	0	1
Other Opposition	2669	0.06	0.23	0	1
Undeclared/Unaffiliated	2669	0.28	0.45	0	1
Complete Secondary	2669	0.33	0.47	0	1
Incomplete Secondary	2669	0.38	0.48	0	1
Primary and Below	2669	0.19	0.39	0	1
Non-Working	2669	0.69	0.46	0	1
Just Getting By	2669	0.33	0.47	0	1
Poor	2669	0.21	0.41	0	1
Informal urban settlements	2669	0.04	0.20	0	1
Rural Traditional Authority Areas	2669	0.20	0.40	0	1
Rural farms	2669	0.05	0.22	0	1
Western Cape	2669	0.13	0.34	0	1
Northern Cape	2669	0.06	0.24	0	1
Free State	2669	0.08	0.28	0	1
KwaZulu-Natal	2669	0.19	0.39	0	1
North West	2669	0.07	0.25	0	1
Gauteng	2669	0.17	0.37	0	1
Mpumalanga	2669	0.07	0.26	0	1
Limpopo	2669	0.10	0.30	0	1
Ignorance on the N2	2669	3.56	0.87	1	4
Visited Port Edward and Port St Johns	2669	0.80	0.40	0	1
Uninterested in Port Edward and Port St Johns	2669	2.69	1.13	1	4
Development Index	2669	3.18	0.81	1	5
Retrogression Index	2669	3.80	0.65	1	5

Note: 1. Results presented here are from a post-estimation report following the multinomial logit regression; 2.Data is *not* weighted to be nationally representative of the adult South Africans.