SPECIAL DEVELOPMENT PROJECT:

PONDOLAND

Community Empowerment Impact Assessment Report:

Phase 1

EXECUTIVE SUMMARY

February 2007
# TABLE OF CONTENTS

1 PART 1: SOCIO-ECONOMIC PROFILE .................................................................6

1.1 EASTERN CAPE ..............................................................................................6

1.1.1 Geography ..................................................................................................6

1.1.2 Demographic profile review of the Eastern Cape ........................................6

1.1.3 Education profile of the Eastern Cape .......................................................6

1.1.4 Socio-economic profile of the Eastern Cape ..............................................7

1.1.5 Health in the Eastern Cape ...........................................................................9

1.1.6 Service delivery in the Eastern Cape .........................................................10

1.1.7 Roads and transport in the Eastern Cape ..................................................10

1.2 O.R. TAMBO DISTRICT (DC15) PROFILE ..................................................11

1.2.1 Demographics ..........................................................................................11

1.2.2 Education profile .......................................................................................11

1.2.3 Socio-economic profile .............................................................................11

1.2.4 District health ............................................................................................12

1.2.5 Service delivery in OR Tambo district .......................................................13

1.2.6 Roads and transport ..................................................................................13

1.3 OVERVIEW OF PORT ST. JOHNS MUNICIPALITY ......................................14

1.3.1 Demographics ..........................................................................................14

1.3.2 Education ...................................................................................................14

1.3.3 Health and health facilities in Port St. Johns .............................................15

1.3.4 Socio-economic profiles ...........................................................................15

1.3.5 Access to services .....................................................................................16

1.4 QAUKENI LOCAL MUNICIPALITY ...............................................................17

1.4.1 Demographics ..........................................................................................17

1.4.2 Socio-economic profile .............................................................................17

1.4.3 Education profile of Qaukeni Ward 23 .....................................................18

1.4.4 Health in Qaukeni Ward 23 ......................................................................19

1.4.5 Service delivery in Qaukeni Ward 23 .......................................................19

1.4.6 Transport in Qaukeni Ward 23 ..................................................................19

1.5 MBIZANA LOCAL MUNICIPALITY WARD 5 .................................................20

1.5.1 Demographic information Mbizana Ward 5 ............................................20

1.5.2 Education status of Mbizana Ward 5 .......................................................20

1.5.3 Socio economic status of Mbizana Ward 5 ..............................................20

1.5.4 Access to services in Mbizana Ward .......................................................21
1.5.5 Transport in Mbizana Ward 5 ................................................................. 21

2 COMMUNITY SURVEY - LEARNERS ......................................................... 21
2.1 Demographics .......................................................................................... 21
2.2 Safety of school trip ................................................................................ 22
2.3 Night-time walking and visibility ............................................................. 22
2.4 Alcohol and drugs ................................................................................... 24
2.5 Road safety education ............................................................................. 24
2.6 Learner involvement in road traffic accidents ........................................ 25
2.7 Desks and chairs .................................................................................... 26
2.8 Walking and cycling preference ............................................................... 26
2.9 RECOMMENDATIONS ............................................................................. 27
2.9.1 Recommendations in regard to road safety programmes ...................... 27
2.9.2 Recommendations for further research ................................................. 28

3 INFRASTRUCTURE UPGRADING ................................................................. 28
3.1 ENSURING BASIC ACCESS FOR RURAL COMMUNITIES .................. 28
3.1.1 The rationale for rural transport infrastructure improvement ............... 28
3.1.2 RTI and road safety ............................................................................ 29
3.1.3 The value of RTI improvement ............................................................ 30
3.1.4 RTI approach and principles ............................................................... 31
3.1.5 The Basic Access Concept ................................................................. 31
3.1.6 Project ranking methods ..................................................................... 32
3.2 CONSTRUCTION AND UPGRADING OF MPOPHOMENI ACCESS ROAD, WARD 12, PORT ST JOHN’S LOCAL MUNICIPALITY ......................................................... 32
3.2.1 Location of project ............................................................................. 32
3.2.2 Proposed scope of works ................................................................. 32
3.2.3 Value added by the project ............................................................... 33
3.2.4 Recommendations ........................................................................... 33
3.3 CONSTRUCTION AND UPGRADING OF MATEKO RIVER TO MSIKABA ACCESS ROAD, WARD 23, QUAKENI LOCAL MUNICIPALITY ......................................................... 34
3.3.1 Location of project ........................................................................... 34
3.3.2 Proposed scope of work ................................................................. 34
3.3.3 Value added by the project ............................................................... 35
3.3.4 Recommendations ........................................................................................................ 35

3.4 CONSTRUCTION AND UPGRADING OF MBOMENI ACCESS ROAD IN
WARD 5 OF MBIZANA LOCAL MUNICIPALITY .................................................................. 36
3.4.1 Location of project ....................................................................................................... 36
3.4.2 Proposed scope of works ........................................................................................... 36
3.4.3 Value added by the project ......................................................................................... 37
3.4.4 Recommendations ...................................................................................................... 37

3.5 In conclusion .................................................................................................................. 37

LIST OF TABLES

Table 1: DPLG free basic service survey Eastern Cape municipalities. .............................. 13
Table 2: Port St John’s population in relation to other Local authorities in OR Tambo
   District.................................................................................................................................. 14
Table 3: Income distribution Port St Johns ............................................................................ 15
Table 4: Employment status of people living in Ward 12 ..................................................... 16
Table 5: Percentage of households with sanitation............................................................... 16
Table 6: Qaukeni population in relation to other Local authorities in OR Tambo
   District................................................................................................................................. 17
Table 7: Dwellings in Qaukeni.............................................................................................. 18
Table 8: Industries of employment (Ward 23) ...................................................................... 18
Table 9: Schools Qaukeni Ward 23 ..................................................................................... 19
Table 10: Type of dwellings found in Mbizana local authority ........................................... 20
PART 1

EASTERN CAPE PROVINCIAL PROFILE
1 PART 1: SOCIO-ECONOMIC PROFILE

1.1 EASTERN CAPE

1.1.1 Geography
The Eastern Cape is the second largest province in South Africa, covering approximately 170 616 km².

The Province is divided into 6 municipal districts and 1 metropole. The Province has 7 district municipalities: Alfred Nzo; R Tambo; Ukhahlamba; Chris Hani; Amatole; and Cacadu. Nelson Mandela district is the Metropole.

The Province has high soil degradation, particularly in commercial farmland areas and most of the province is classified as Affected Drylands. More than two thirds of the province is privately owned with less than one third communal areas. Annual rainfall in the Eastern Cape is between 650-750mm in the Southern regions.

1.1.2 Demographic profile review of the Eastern Cape
In 2001 the Eastern Cape had a population of 8.16 million people living in 1 506 540 households. The Eastern Cape is the third most populated province (after KZN and Gauteng) in South Africa. 49% of households are headed by males and most people in the Eastern Cape live in rural areas. Females represent 54% of the Eastern Cape population, compared to males. 87% of the population is Black, 8% Colored and 5% White.

People in the Eastern Cape mainly speak Xhosa, followed by English and Afrikaans.

More than 45% of the population is below the age of 20 years. In the 20-24 year age group there are more females than males.

Migrant labour issues affected mostly the Eastern regions of the province. Migration of adults has implications for health-, social-, and educational services related to children, sick people and the elderly. It influences planning, human resources, budget allocation of areas such as social work, maternal care, as well as health services for women, the elderly and poor in the Eastern Cape.

1.1.3 Education profile of the Eastern Cape
Literacy levels in the Eastern Cape were reported to be 73.1% in 2003. The Eastern Cape Development Corporation indicated that this figure is probably lower (estimated at 54% of the province’s adults). Generally skills levels are low. 51% of people (older
than 20 years in 2001) had not had more than primary school education while 30% had some secondary school education. 22.8% of the Eastern Cape population older than 20 years in 2001 indicated that they had no schooling compared to the 20% in 1996.

The Eastern Cape Development Corporation (ECDC) found that the learner/educator ratio in schools were 32:1 (The national average is 33:1). The ratio differs in some districts (e.g. in 1998 the HSRC reported that the learner/classroom ratio in the former Transkei and Ciskei areas exceeded 60:1 in certain districts). The HSRC also found that the Eastern Cape had a high percentage of over-aged learners (i.e. three or more years older than the average for the grade, with the average for Grade 1 seven years), and more than 30% of all learners in the secondary grades were found to be too old for the grade they were enrolled in.

60% of South Africa’s classroom backlogs are found in the Eastern Cape. The Eastern Cape education sector also struggles with under-qualified educators; high school dropout rates and poor matric pass rates.

1.1.4 Socio-economic profile of the Eastern Cape

The Eastern Cape is described as one of the poorest provinces in South Africa. O.R. Tambo district is pointed out as the most deprived and poorest district municipality in the Eastern Cape.

1.1.4.1 Employment and income

Only 21% of total Eastern Cape population is employed, 25% are unemployed and 54% are not economically active. Unemployment rate for both genders in the province is almost equal. People living in rural areas (already living in severe poverty) relied on low-income sources such as pension as well as child- and disability grants as a means of revenue.

According to the Eastern Cape Department of Health (2005), the 2001 Census indicated that the unemployment rate in the Eastern Cape was the highest of all the provinces. The Eastern Cape unemployment rate was 55%, compared to the national average of 41%.

Of the 21% employed, 25% are employed in community services, 14% in wholesales, hotels and restaurants, 12% in private households, 12% in manufacturing, and 10% in agriculture.
The agricultural industry provides employment to 70 000 farm workers on commercial farms. A further 436 000 people are dependent on small-scale and subsistence farming in the former homelands.

79% of people do not receive any income and 19% receive less than R1601 per month.

There are approximately 835 433 households living below the minimum living level (R800 per month) in the Eastern Cape which amounts to approximately 54% of the households living in poverty.

1.1.4.2 Child-headed households

DWAF (2006) estimated that there are approximately 1 586 132 households in the Eastern Cape. The Eastern Cape Department of Social Development estimated that the province had approximately 42 756 child-headed households. Children heading these households are between the ages of 0-19 years. 17.2% of child headed households (0-19 years) in South Africa are in the Eastern Cape

According to the Department of Social Development the Province had 755 social workers in 2005. There was a ratio of approximately 9324 people per social worker.

The norm is ±3000 people per social worker.

1.1.4.3 Infant mortality rate and Human Development Index

The Eastern Cape (in 2003) had the highest infant mortality rate (55.1) in South Africa. The National average was 41.

The Human Development Index for the Eastern Cape was estimated at 0.51 (lower than the National average of 0.58) and life expectancy for people in the province was estimated at 49.1 years.

1.1.4.4 Leading causes of death in the Eastern Cape

HIV AIDS is the leading cause of death for males and females in the Eastern Cape. HIV AIDS accounted for more than 20% of deaths in the Province during 2000.

Tuberculosis was the second leading cause of death for all persons in the Province followed by stroke as the third leading cause.

Road traffic accidents were the leading cause of death for both males and females between the ages of 5 to 15 years.
1.1.4.5 Industries

Industrial Development Zones (IDZs) or “purpose-built industrial estates geared for duty-free production for exports”, play an important part in South Africa’s macro-economic policy. The province has two IDZs, at Coega and at East London. While the East London IDZ is earmarked for light engineering and agro-processing, the much larger Coega IDZ, with the dedicated deepwater port of Ngqura, will have heavy-duty processing of metals such as aluminium and stainless steel. Both IDZs will have strong automotive production clusters linked to the already expanding local industry.

The manufacturing sector includes the automotive, plastics, textiles, pharmaceuticals, metal and electronics (ICT) industries. The automotive industry provides 60% of South Africa’s passenger car exports. Daimler Chrysler, Delta Corporation and Volkswagen are the largest international vehicle assemblers based in the Eastern Cape.

The clothing industry is emerging from rapid restructuring in the 1990s to increasing exports to Europe and the USA and new trade agreements. Investment opportunities include an export oriented integrated textile mill in the IDZ, an associated clothing cluster, the use of new and indigenous fabrics, and close integration with fashion and design.

1.1.5 Health in the Eastern Cape

7.6% of the Eastern Cape population has a disability, which is somewhat higher than the average for South Africa (5%).

In 2003, the Eastern Cape had a Primary Health infrastructure that comprised of 633 fixed clinics, 124 mobile, 64 district hospitals and 28 community health centres.

According to the HSRC there were 13 doctors, 2 specialists, 0.8 dentists and 230 nurses for every 100 000 people in the Eastern Cape.

The purpose of a recently established Provincial Health Council (PHC) is to provide leadership and direction with regard to health policy issues within the context of inter-governmental relations framework.

Emergency services are included as the number one priority area for 2006/07. In the long run the Department of Health envisage the project to:

- Create approximately 1000 jobs of various categories of EMS practitioners
- Acquire sufficient emergency vehicles allocated on an unbiased and fair basis
- Upgrade ambulance control centers (such as the automation of a provincial call centre that will be able to track EMS vehicles to ensure effective utilization)

In 2006 the Department of Health pointed out that the HIV prevalence rate for the Eastern Cape has increased by approximately 2.4% from 27.1% in 2003 to 29.5% in 2005. South African HIV AIDS indicators for 2005 show a national HIV AIDS prevalence of 16.25% for adults older than 15 years.

### 1.1.6 Service delivery in the Eastern Cape

36% of the Eastern Cape population has no access to water. 20% have piped water in their yard and 19% have piped water in their dwelling.

43% of Eastern Cape residents make use of their own refuse dump, while 38% have their rubbish removed once a week. 17% has no rubbish disposal.

Overcrowding in households is a huge problem in the Eastern Cape, with more than a third of households living in dwellings with two rooms or less.

The majority of the population of the province is young (under 34 years of age) and resides in the Amatole and O.R. Tambo District Municipalities, and the Nelson Mandela Metropolitan Municipality.

### 1.1.7 Roads and transport in the Eastern Cape

The province has approximately 7000 km of surfaced roads and an estimated 23 000 km gravel roads.

The Eastern Province is already referred to as one of the poorest provinces in South Africa. Along with this reputation their provincial budget pertaining to the upgrading of road infrastructure has been steadily declining from a 1996/97 budget of R471 million to a 2000/01 budget of only R120 million. This implicated a budget reduction of 75%.

In 2005, the number of registered vehicles was 52 6369, increasing with 7.05% in 2006.

The Road Traffic Management Corporation (RTMC) reported that the biggest provincial increase in buses was seen in the Eastern Cape where buses increased by 22.25%. The bus population grew from 2054 in 2005 to 2511 in 2006.
The average number of people per vehicle in the Eastern Cape (2005) was 15.12 compared to 16.28 previously. There has been a 7.1% decrease in the average number of people using a vehicle in the Eastern Cape.

1.2 O.R. TAMBO DISTRICT (DC15) PROFILE

1.2.1 Demographics

O.R. Tambo District Municipality is situated along the eastern side of the Province. It is regarded as one of the tourist attraction areas in South Africa. This is mainly due to the fact that it lies along the coastline of the Indian Ocean that stretches for up to 160km. The inhabitants of these areas are mainly rural.

OR Tambo DM is the largest District Municipality in the Eastern Cape Province.

- 88% of the households live below minimum poverty level
- 71.5% of the economically active population is unemployed
- 47.5% of the population is under 15 years of age
- 93.3% of inhabitants live in rural conditions
- 75% of the population do not have formal RDP standard water supply

99% of the district population speaks isiXhosa. The other 1% is made up of English speaking persons. 55% of the people living in the district are female and female-headed households are estimated at 61%. 58% of the population is 19 years or younger.

1.2.2 Education profile

38% of people had no schooling, 26% had some primary school education or completed primary school, 34% had some secondary school training or completed secondary school. Of those age groups in the district that should attend educational institutions 24% attended none, 3% attend pre-school and 72% are going to school. There are approximately 1847 pre-primary, primary and secondary schools in the district.

1.2.3 Socio-economic profile

68% of the district population is not economically active (pre-school, elderly, disabled, not looking for work). 11% are employed and 21% are unemployed.
82% of the district population has no personal income. 6% earn between R1-R400 and a slightly higher percentage (9%) earn between R401-R800 per month. Only 1% of the population earn more than R3 201 per month.

37% of the households in the district have no income. 12% of the households earn between R1-R4 800 per year and 25% between R4 801-R9 600 per year.

Despite the evident high levels of poverty the municipal demarcation board (2006) indicates that 56% of the households in the district stay in their own dwelling, which has been paid off.

Approximately 58% of the employed people in the district are employed by community and welfare services. The wholesale and retail sectors are the second largest employers, followed by the business sector. Construction and Agriculture sectors both employ 5% of the workers while the Transport and Communication sector as well as the manufacturing industry both employ about 4% of the working force.

27% of the employed people have elementary occupations. 15% have technical or associated work and 11% are service workers. 3% work for the government and 8% are professionals. 9% of the working population are clerks and 2% engage in skilled agriculture work.

1.2.4 District health

In terms of Primary Health Care in the District- OR Tambo District has:

- An excess of 46 professional nurses
- A shortage of 50 doctors
- 100 enrolled nurses
- 80 councilors and
- 40 admin staff

According to the 2005 “Spatial development project-OR Tambo district profile”, the district has approximately 8 home-based care sites with an estimated 7927 beneficiaries. 12 240 children have been identified as orphans due to HIV/AIDS related illnesses.

The most prevalent type of disability among the 6% of the disabled population is physical disability (28%) followed by sight (22%) and hearing difficulties (18%).

The Municipal Demarcation Board states that there are 189 clinics, hospitals and mobile clinics in the district.
1.2.5 Service delivery in OR Tambo district

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population</th>
<th>Households</th>
<th>Mun provides free water</th>
<th>Mun provides free energy</th>
<th>Mun provides free sanitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Sabata Dalindyebo Local Municipality</td>
<td>415229</td>
<td>89470</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mbizana Municipality</td>
<td>245421</td>
<td>45728</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Ntabankulu Local Municipality</td>
<td>136391</td>
<td>26932</td>
<td>Did Not Answer</td>
<td>Yes</td>
<td>Did Not Answer</td>
</tr>
<tr>
<td>Nyandeni Municipality</td>
<td>281256</td>
<td>55759</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Port St Johns Municipality</td>
<td>146135</td>
<td>28716</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Qaukent Municipality</td>
<td>255374</td>
<td>50381</td>
<td>Yes</td>
<td>Yes</td>
<td>Did Not Answer</td>
</tr>
</tbody>
</table>

36% of the district population had no access to piped water and 28% made use of a river or stream. 2% made use of a spring, 2% of a borehole and 2% of a pool or dam where water is stagnant. 2% of the population has piped water in their dwelling, 4% in their yard, 3% have access to piped water within 200m while 6% have access to piped water although it is further away than 200m.

Most people in the district make use of wood for heat (66%) and for cooking (64%). Candles (59%) are used to make light.

52% of the district does not have any sanitation. 36% make use of a pit latrine. Only 7% have a flush toilet and only 3% a flush toilet with a tank. A chemical toilet is used by 3% of the population.

64% of the population used their own refuse dump, while 26% had no disposal.

1.2.6 Roads and transport

89% of the people in the district walked to their destination. 6% made use of a minibus taxi in order to travel while 1% used the bus. 3% of the population travelled as a passenger in a vehicle and 1% drove their own vehicle.

OR Tambo District has a road network of: National roads 136 km; Trunk roads 57 km; Main roads 438 km; District roads 2792 km; Minor roads 0 km; Access roads 2957 km.
1.3 OVERVIEW OF PORT ST. JOHNS MUNICIPALITY

1.3.1 Demographics

<table>
<thead>
<tr>
<th>Local Municipality Name in DC15</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Sabata Dalindyebo</td>
<td>429,000</td>
</tr>
<tr>
<td>Qaukeni</td>
<td>269,000</td>
</tr>
<tr>
<td>Mbizana</td>
<td>255,000</td>
</tr>
<tr>
<td>Mhlontlo</td>
<td>213,000</td>
</tr>
<tr>
<td>Ntabankulu</td>
<td>128,000</td>
</tr>
<tr>
<td>Nyandeni</td>
<td>294,000</td>
</tr>
<tr>
<td>Port St John's</td>
<td>152,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,741,000</td>
</tr>
</tbody>
</table>

Table 2 gives the actual population figures for the local authorities, part of O.R. Tambo District. Port St. Johns had approximately 152,000 people (9% of the district population).

In Ward 12 (Mphophomeni access road), 56% of the population is female and 44% is male. 66% of the head of households are female and only 34% male.

The Port St. Johns local municipality has a very young population, with almost half (46%) under the age of 15 years.

The economically active age group represents only 27% of the population:

- 46% of the population is under 15 years
- 20% between 15-24 years
- 27% between 25-64 years
- 6% older than 64 years.

1.3.2 Education

Most people living in Ward 12 had no schooling (54%). 20% had some primary and 17% some secondary schooling. 4% of the people living in the Ward completed Grade 12 and 1% went on to higher education institutions. During the Census (2001) 29% children of school-going age was not attending any educational institutions while 71% of the potential learners in the Ward attended school.
1.3.3 Health and health facilities in Port St. Johns

6% of the local authority population had a form of disability. Of the disabled people in Port St. Johns, 21% had sight, 23% hearing 4% communication, 24% physical, 9% intellectual and 10% emotional and 9% multiple disabilities.

Hospitals and clinics in the area include:

Bambisana Hospital; Bambisana Mobile Clinic; Bambisana Phc Clinic; Bomvini Clinic; Isilimela Gateway Clinic; Isilimela Hospital; Kohlo Clinic; Ludalasi Clinic; Luthshaya Clinic; Majola Clinic; Mantusini Clinic; Mevana Clinic; Mtambalala Clinic; Ngcoya Clinic; Ntafufu Clinic; Port St Johns Chc; Qandu Clinic; Tombo Clinic

1.3.4 Socio-economic profiles

19% of the local authority population is not employed, 73% is not economically active, leaving 8% of the population employed.

Of the population that are employed: 80% are paid employees, 7% are self-employed, 5% are paid family workers, 3% are employers and 3% are unpaid workers (volunteers). Industries of employment in Port St. Johns include community service sectors that provide employment for approximately 57% of the economically active population, Wholesale and retail sectors (13%), Agriculture and farming (7%), Construction industries (7%) and the mining sector provides work for 5% of the employed population. Elementary occupations are held by most of the employed population in Port St. Johns.

<table>
<thead>
<tr>
<th>Table 3: Income distribution Port St Johns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal income in Port St. Johns</strong></td>
</tr>
<tr>
<td>No income</td>
</tr>
<tr>
<td>R1 - R400</td>
</tr>
<tr>
<td>R401 - R800</td>
</tr>
<tr>
<td>R801 - R1 600</td>
</tr>
<tr>
<td>R1 601 - R3 200</td>
</tr>
<tr>
<td><strong>Household income Port St. Johns</strong></td>
</tr>
<tr>
<td>No income</td>
</tr>
<tr>
<td>R1 - R4 800</td>
</tr>
<tr>
<td>R4 801 - R 9 600</td>
</tr>
<tr>
<td>R9 601 - R 19 200</td>
</tr>
<tr>
<td>R19 201 - R 38 400</td>
</tr>
<tr>
<td>R38 401 - R 76 800</td>
</tr>
<tr>
<td>R76 801 - R153 600</td>
</tr>
</tbody>
</table>

Employment status of the community in Ward 12 is low with only 4% being employed. 83% of the community was not economically active.
Table 4: Employment status of people living in Ward 12

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>4%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>13%</td>
</tr>
<tr>
<td>Not Economically Active</td>
<td>83%</td>
</tr>
</tbody>
</table>

85% of people in Ward 12 had no income while the rest earned less than R800 per month. 45% of households had no income, while 39% received less than R 9 601 per year and 10% earned between R 9 601 to R 19 200 per year.

53% of the people in Ward 12 owned their house (dwelling fully paid), 16% owned their own dwelling and was still paying it off. 29 % live rent free and 2% paid rent. There are mostly between 5-7 people per household.

1.3.5 Access to services

Only 1% of the population had access to piped water in their dwelling. 10% of the Ward’s households made use of a spring and 34% of a river for water. 2% had access to piped water within 200m of their house, while 2% had access to piped water further away than 200m of their home.

Table 5: Percentage of households with sanitation

<table>
<thead>
<tr>
<th>Sanitation</th>
<th>Households</th>
<th>Percentage of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flush toilet sewer</td>
<td>18</td>
<td>1%</td>
</tr>
<tr>
<td>Flush toilet tank</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Chemical toilet</td>
<td>15</td>
<td>1%</td>
</tr>
<tr>
<td>Pit latrine W/vent</td>
<td>11</td>
<td>1%</td>
</tr>
<tr>
<td>Pit lat WO/vent</td>
<td>211</td>
<td>12%</td>
</tr>
<tr>
<td>Bucket latrine</td>
<td>6</td>
<td>0%</td>
</tr>
<tr>
<td>None</td>
<td>1554</td>
<td>85%</td>
</tr>
</tbody>
</table>

93% of households made use of wood to cook and to get heat; 5% made use of paraffin to cook and to get heat; 1% made use of gas and 1% of other sources of energy to cook. 1% made use of electricity and 1% of other sources of energy for heat. 92% of the population in Ward 12 used candles for lighting and 8% use paraffin for lighting.

Port St. Johns Ward 12 seems to have no refuse removal system at all. 70% of the population make use of their own rubbish dump while 30% of the households have no means of disposal.
1.4 QAUKENI LOCAL MUNICIPALITY

1.4.1 Demographics

Table 6: Qaukeni population in relation to other Local authorities in OR Tambo District

<table>
<thead>
<tr>
<th>Local Municipality Name in DC15</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Sabata Dalindyebo</td>
<td>429,000</td>
</tr>
<tr>
<td>Qaukeni</td>
<td>269,000</td>
</tr>
<tr>
<td>Mbizana</td>
<td>255,000</td>
</tr>
<tr>
<td>Mhlontlo</td>
<td>213,000</td>
</tr>
<tr>
<td>Ntabankulu</td>
<td>128,000</td>
</tr>
<tr>
<td>Nyandeni</td>
<td>294,000</td>
</tr>
<tr>
<td>Port St John's</td>
<td>152,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,741,000</td>
</tr>
</tbody>
</table>

According to the Municipal demarcation Board (2006), Qaukeni Ward 23 has approximately 10472 people of which 99% are Black and 1% Coloured. There are an estimated 1991 households in the Ward. 99% of the population speaks Xhosa while the other 1% speaks mostly Sepedi and English.

Gender distribution in the Ward is 45% male and 55% female. 64% of households are headed by females.

16% of the Ward 23 population is 4 years or younger. The Ward has a youth population of which 32% are between 5 and 14 years. Almost half of the population is between the ages of 15 years and 64 years. 6% are older than 64 years.

1.4.2 Socio-economic profile

In Ward 23, 37% of households owned their own dwelling while 8% were still paying it off and 53% of the Ward population were living in a dwelling rent-free. 9% of the population had ten or more people living in the house/dwelling. The Eastern Cape Department of housing in 2001 indicated that Qaukeni (EC153) had a total number of 33502 houses/dwellings of which 608 (2%) were classified as urban and 32 894 (98%) as rural.

Table 7 gives an indication of type of dwellings in Qaukeni local municipality.
64% of the population is not economically active. 7% are employed and 29% are unemployed. Of the employed population, 1% were employers; 89% were paid workers; 2% were paid family workers and 8% were self-employed.

Qaukeni Ward 23 is very poor with 81% of people receiving no personal income.

40% of households received no income while 29% of the households received between R4801 – R9800 annually. 10% of households received between R1-R4800 and 13% received between R9 601 and R19 200. Only 8% received more than R19200.

Table 7: Dwellings in Qaukeni

<table>
<thead>
<tr>
<th>Dwelling type</th>
<th>Actual number of dwellings</th>
<th>% of total number of dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Dwellings</td>
<td>11672</td>
<td>26%</td>
</tr>
<tr>
<td>Informal Dwellings</td>
<td>282</td>
<td>0.6%</td>
</tr>
<tr>
<td>Traditional dwellings</td>
<td>32894</td>
<td>73%</td>
</tr>
<tr>
<td>Total</td>
<td>44848</td>
<td>100%</td>
</tr>
</tbody>
</table>

52% of the employed people had elementary occupations while 10% had technical or related work, 4% do clerical work, 5% are service (e.g. municipal service) workers, 5% are plant operators, 3% senior government officials and 7% are involved in agricultural related work. NEC-occupations account for 7% employment in the area.

1.4.3 Education profile of Qaukeni Ward 23

According to the Municipal Demarcation Board 38% of the population of school-going age was not attending any education institutions. 3% attended pre-schools and 59% were attending schools.

Most of Ward 23 residents (20 years and older) had no schooling (46%). 26% had some primary school and 6% completed primary school. Only 4% completed Grade
12 while 17% had some secondary school education. Higher education was only reported by 1% of the Ward’s population.

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE OF SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khonjwayo</td>
<td>Senior Primary School</td>
</tr>
<tr>
<td>Maqulu</td>
<td>Junior Secondary School</td>
</tr>
<tr>
<td>Mateko</td>
<td>Junior Primary School</td>
</tr>
<tr>
<td>Mxhume</td>
<td>Junior Secondary School</td>
</tr>
<tr>
<td>Ndindindi</td>
<td>Senior Primary School</td>
</tr>
<tr>
<td>Njombela</td>
<td>Junior Secondary School</td>
</tr>
<tr>
<td>Ntlamvukazi</td>
<td>Senior Primary School</td>
</tr>
<tr>
<td>Phambili</td>
<td>Secondary School</td>
</tr>
</tbody>
</table>

### 1.4.4 Health in Qaukeni Ward 23

93% of the population had no disability. The most prevalent type of disability in Ward 23 is physical disabilities, which constitute for 38% of the disabilities in the Ward.

### 1.4.5 Service delivery in Qaukeni Ward 23

Half of the residents in Ward 23 had no access to piped water. 45% got water from a river or stream and 3% from a spring. The other 3% got water from their local school, rain water tank or have access to piped water although it is further away than 200m.

Most people in Ward 23 made use of wood for cooking (92%) and heating (89%). 88% of the population made use of candles and 9% of paraffin to make light.

Sanitation issues are not applicable to 74% of the population, in Ward 23. To those that are concerned with sanitation issues, 70% made use of a pit latrine without a vent, 11% of a pit latrine with a vent, 12% of a bucket latrine and 2% of a chemical toilet. Only 3% had a flush toilet sewer and 2% a flush toilet tank.

47% of the community had their own refuse dump, while 51% had no refuse disposal. 1% had their refuse infrequently removed and the other 1% made use of a communal dump.

### 1.4.6 Transport in Qaukeni Ward 23

95% of the people from Ward 23 walked as their main mode of transport. 45% occasionally made use of public transport and 1% reported to be a passenger in a vehicle.
1.5 MBIZANA LOCAL MUNICIPALITY WARD 5

1.5.1 Demographic information Mbizana Ward 5

Stats SA estimated the population of Mbizana local authority at approximately 239229 people. The local municipality has 25 wards and according to the Municipal Demarcation Board Ward 5 has approximately 11 163 people and 2160 households living in the Ward of which 97.4% are Black, 1.1% White and the rest Coloured.

The main language spoken in the Ward is Xhosa. 56% of the population is female and 44% male. 30% of the households have males as the head of the household.

48% of the Ward population is below 15 years of age. 16% fall in the economically active age group of 25 to 64 years and 19% are considered youth or young adults. 6% are elderly people.

The Department of Local Government indicated that Mbizana had a population of approximately 30 161 people of which 792 lived in urban areas and 29 369 in the rural areas.

<table>
<thead>
<tr>
<th>Table 10: Type of dwellings found in Mbizana local authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Dwellings</td>
</tr>
<tr>
<td>Informal Dwellings</td>
</tr>
<tr>
<td>Traditional dwellings</td>
</tr>
</tbody>
</table>

1.5.2 Education status of Mbizana Ward 5

22% of the people of school-going age living in the Ward were not attending any education facility during the Census 2001, while 75% were attending school and 3% were attending pre-school. 37% of the population received no schooling, 28% some primary schooling, 7% completed primary school, 21% received some secondary school and 4% completed Grade 10 to 12.

1.5.3 Socio economic status of Mbizana Ward 5

7% of the population in Ward 5 were employed, 21% unemployed and 72% were not economically active.

Of the employed people in the Ward, 82% worked for an employer, 1% was an employer and 14% were self-employed. 3% were paid family workers.

Community services (33%) and people working in private households (25%) were the biggest employment sectors for Ward 5.
Most people in occupations had elementary occupations such as gardening or cleaning. Other occupations held by people in this Ward were technical or associated professions and service workers.

35% of households received no income, 16% received less than R4 800, 24% between R4 801 and R9 600, 15% R9 601 to R19 200.

1.5.4 Access to services in Mbizana Ward

50% of people living in Ward 5 had no access to piped water. 42% made use of a nearby river or stream and 3% of a spring. 2% of the community get water from stagnant sources such as a dam or pool and 1% from a rain tank.

The community in Ward 5 had the following type of sanitation:

- Flush toilet sewer -1%
- Chemical toilet -1%
- Pit latrine with a vent -11%
- Pit latrine without a vent -58%
- None -29%

97% of the Ward had their own refuse dump and 3% had no means of disposal.

1.5.5 Transport in Mbizana Ward 5

91% of the people walked. 3% make use of the bus, 2% of taxis and 3% of private transport. 1% of the people used a bicycle.

2 COMMUNITY SURVEY - LEARNERS

2.1 DEMOGRAPHICS

The sample consisted of 602 children, of which 60% were girls and 40% boys and only Embombeni had equal numbers of girls and boys. Girls and boys had somewhat different distributions of answers for some questions, and this could have influenced the overall answers from individual schools. Grades were fairly equally distributed for the total sample, for the Grades 4, 5 and 6. Individual schools had somewhat different distributions, e.g. 69% of Njombela male learners were Grade 4 boys, compared to 53% of female learners, who were in Grade 4. Khanyisa also had more learners in Grade 4: 48% of female learners were in Grade 4.

Some schools drew learners from one community, while other schools had children coming from various different communities.
The average age of learners in the sample was 12.3 years.

Most of the learners (98%) walked to school and the school trip took most of them (70%) 30 minutes or less.

More than 50% of children going to Khanyisa School took longer than 30 minutes to get to school and almost 40% took an hour or longer. Learners from Jongikhaya had the shortest school trips (87% were 30 minutes or shorter).

2.2 SAFETY OF SCHOOL TRIP

Less than 60% of children from Jongikhaya thought that their school journey was safe compared to 80% of the rest of the sample. Khanyisa learners also thought their journey was not safe (only 60% said it was safe).

For girls the perception of safety or unsafety does not seem to be influenced by grade, whereas for boys grade did have an influence (fewer Grade 5 boys thought the journey unsafe).

15% of the learners gave reasons as to why the walk to school would be unsafe.

The most popular answer was: “crossing the river without a bridge” (53%), followed by “the distance” (17%), followed by traffic and road related answers (12%). Other answers included weather conditions, criminals, and animals. Khanyisa learners mostly responded in regard to the crossing of the river, while Embombeni learners had a problem with the distance and the weather conditions. Very few learners from Jongikhaya gave answers as to why they thought the trip was not safe, but most answers focused on the road and traffic issues.

2.3 NIGHT-TIME WALKING AND VISIBILITY

9% of learners said that they did go out at night and 47.4% said that they sometimes went out at night, leaving 43.6% who said that they did not go out at night. The school with the most “no” answers were Jongikhaya (78.7% said that they did not go out at night). Jongikhaya was followed by Njombela (67.6% of “no” answers). Only 9.6% of learners from Embombeni said that they did not go out at night.

286 learners (47.5% of the sample) responded to Q10 as to where they went when going out at night. The rural character of the schools is illustrated in their answers which indicated that 38.8% went to the toilet when they went out at night, followed by 17.4% going to the shop, 14, and 3% going to the “next room”, 5.2% who went to
night prayer, 4.8% who went out to watch television and 2.8% fetching water from the stream.

Grade had an influence on whether learners went out at night. The effect of Grade was more marked with boys: 44% of Grade 4 boys went out at night compared to 75% of Grade 5 boys and 71% of Grade 6 boys. 45% of Grade 4 girls went out at night, compared to 57% of Grade 5 and 54% of Grade 6 girls. Overall, more boys went out at night than girls (63% compared to 52%).

Grade, more than gender seemed to influence the perception of visibility at night, although there was a larger difference between Grade 4 girls and boys. Fewer Grade 4 learners thought that they were visible at night (41% of boys compared to 56% of girls.

70.6% of learners said that they were visible at night. At Embombeni, Jongikhaya and Khanyisa schools 10% or less thought that they were not visible, while 58.8% of learners at Njombela said that they were not visible, followed by 38.1% at Ntafufu.

Most learners (59.2%) said that they used bright clothes to make them visible at night, but there are differences in the answers from the 5 schools: While 100% of the learners from Jongikhaya and 99.3% of learners from Embombeni used bright clothes, only 49.4% of Ntafufu learners, 41.4% of Njombela learners and 24.7% of Khanyisa learners made use of bright clothes to make them visible. The most popular answer from these last schools was that they did “nothing” to make them visible at night. Njombela school learners gave the biggest variety of answers, with 12.1% who said that they wore retro-reflective material in clothing and 15.2% who said that they word retro-reflective strips in their shoes.

For both boys and girls, about 60% of Grade 4 learners said that they did not do anything to make themselves more visible. For all other Grades, wearing bright clothes was the most popular answer.

9.6% of learners said that they were not visible to other road users in the daytime. This percentage is mainly made up by the answers from learners at Khanyisa (16.1%) and Njombela (21.5%) who thought that they were not visible.

Overall, Grade seemed to have influenced the perception of daytime visibility – the higher the Grade, the more learners thought that they were visible. There are some difference between boys and girls, with the greatest difference between Grade 4 boys and the rest of the sample: 74% of Grade 4 boys thought that they were visible
to other road users in the day, compared to 91% of Grade girls, 87% of boys overall and 93% of girls overall.

188 learners gave methods on how to be visible during the day. Most of the learners (78.8%) said that they wore light or bright clothing. Other answers including walking on the pavement or on the right side of the road, while some children felt that the sunshine was bright enough for drivers to see them.

2.4 ALCOHOL AND DRUGS

In all the schools alcohol is a somewhat bigger problem than drugs, although the difference between alcohol and drug use is not large. Jongikhaya and Khanyisa learners indicated that neither alcohol nor drugs are used by learners in their schools. The school with both the biggest alcohol and drug problem is Embombeni, where 52% of learners used alcohol and 48% used drugs. It is disconcerting that most learners used both alcohol and drugs. On average 20% of learners indicated that alcohol was used, 18% indicated that drugs were used and that these (16%) were mostly used in conjunction with each other.

Most learners (95.4%) thought that it was not safe to walk or drive after having used alcohol and / or drugs.

More Grade 6 learners from both genders thought that learners used drugs and alcohol: 51% for both girls and boys, compared to 17% of Grade 4 learners and 10% of Grade 5 learners.

As to the safety of driving or walking after using alcohol and drugs, slightly more Grade 4 learners gave a positive answer.

2.5 ROAD SAFETY EDUCATION

93.5% of learners said that they received road safety lessons at school. Ntafufu had the lowest percentage of positive answers (87.2%). Most learners said that this consisted of 1 to 5 lessons per year (44.9%). 15.8% said it consisted of 6 to 10 lessons per year, 20% said it was 11 to 15 lessons per year and 19.3% said it was more than 15 lessons per year.

The midpoint for the categories of traffic safety lessons was calculated to derive the average number of traffic safety lessons per year. The average number of traffic safety lessons for the sample was 8.5 lessons per year. Jongikhaya had the highest average (18), followed by Khanyisa with 10.9, Ntafufu 8.9, Njombela 8.1 and Embombeni with only 3.3 traffic safety lessons per year.
20.2% of learners said that traffic safety is a separate subject in school. Njombela and Ntafufu Schools had the highest percentage of learners who indicated that traffic safety was a separate subject in school (42.9% and 28.3% respectively).

The answers given by girls fluctuate less over the different grades (ranging between 93% and 96% who said that they did receive traffic safety lessons at school). The answers from boys ranged between 87% of Grade 4 and 100% of Grade 5 learners who said that they did receive traffic safety lessons at school.

Grade 4 learners from both genders received traffic safety lessons with higher frequencies than learners in other Grades. A higher percentage of Grade 4 learners also indicated that traffic safety is a separate subject in school.

### 2.6 LEARNER INVOLVEMENT IN ROAD TRAFFIC ACCIDENTS

38.6% of the learners knew of someone from their school who were involved in a traffic accident. Jongikhaya School had the highest positive response (75.4%), followed by Khanyisa (65.3%), Ntafufu (43.9%), Embombeni (37.9%) and Njombela (6.2%).

According to 80.3% of learners indicating to knowledge of a learner involved in a traffic accident, they knew of one learner involved in such accident, 11.7% knew of two learners, 4.9% knew of three learners and 3.1% knew of more learners involved.

Although only 37.9% of Embombeni learners responded to this question, they had the highest responses for more than one person involved in an accident (50.8% of those that responded to the question said that more than one person were involved).

Learners were mostly (73.1%) involved as pedestrians, followed by 10.8% who were involved as passengers in a motorcar, 6.7% involved as passengers in a bus and 6.3% as passengers in a taxi. 3.1% were involved as cyclists. Jongikhaya, Khanyisa and Njombela clearly indicated to pedestrian involvement (93%, 98.4% and 100%). Embombeni learners indicated that 25% of learners involved in accidents were passengers in a bus, followed by 16.7% of learners involved as passengers in a motorcar, 13.3% of learners involved as passengers in motorcars and 10% involvement as cyclists. 22.8% of Ntafufu learners indicated involvement as passengers in a motorcar, followed by 7% involved as passengers in taxis. The pedestrian involvement for these two schools was 35% for Embombeni and 70.2% for Ntafufu.
Embombeni learners clearly had more knowledge of learners being injured while using public transport and Ntafufu of learners injured while using private transport.

More Grade 4 and 5 learners knew of other learners involved in traffic accidents. There is a difference between the answers of girls and boys (37% of Grade 4 boys compared to 51% of Grade 4 girls and 59% of Grade 5 boys compared to 47% of Grade 5 girls).

More Grade 4 learners (more than 90% of both genders) knew of someone involved as a pedestrian. “Passenger in motorcar” was the highest answer given by Grade 6 girls (52.2%) compared to 25% of Grade 6 boys.

57 (9.5% of the total sample) of the learners indicated that they knew of a death, 49 learners (8.1% of sample) knew of someone that was seriously injured and 112 (18.6% of the sample) knew of someone that was slightly injured. 57.9% of learners from Jongikhaya knew of someone that was fatally injured in a traffic accident, followed by 21.9% at Ntafufu, 13.6% at Embombeni, 10.5 at Khanyisa and none at Njombela.

2.7 DESKS AND CHAIRS

78.5% of learners reported that they sat at a chair and desk at school. The highest percentage of positive answers came from Embombeni (100%), followed by Njombela (96.4%), Khanyisa (89.4%), Ntafufu (44.4%) and Jongikhaya with only 28.1%.

The higher the Grade, the more likely it was that a learner would sit at a desk and chair. Gender did not seem to play a role.

2.8 WALKING AND CYCLING PREFERENCE

Children were asked whether they would prefer to walk or cycle to school. Most learners preferred cycling to school (55.4%) compared to walking (44.6%). Children from Njombela, Ntafufu and Khanyisa had the highest preference for cycling (67.6%, 65.6% and 63.2% respectively). 38.6% of Jongikhaya and 34% of learners from Embombeni learners would prefer to cycle.

Grade 5 boys would clearly prefer to cycle to school (91%). Although somewhat lower than for boys, Grade 5 girls also noted cycling as their preference (60%). 68% of boys, compared to 47% of girls, preferred cycling to walking.
2.9 RECOMMENDATIONS

2.9.1 Recommendations in regard to road safety programmes

Most of the learners did not have a perception of the road being unsafe due to road traffic, mainly due to the rural character of the environment. Most of the traffic related dangers were mentioned only by learners from Jongikhaya.

2.9.1.1 Perception of own risks

A road will change the environment of these children drastically, both in terms of the traffic related dangers, and criminal elements that may increase. A bridge across the river will ease the perceived danger of the trip for many children.

A road safety programme should increase the experience of children of busy roads in some real or simulated fashion, to make them aware of their own risks.

Learners were not aware that they were not visible to other road users at night – although younger children were more aware of this fact. Most children also thought that they were visible to motorists during the day.

A road safety programme should emphasise to the child that he/she may not be visible to the motorist – even in the daytime – that they are at risk, and that there are different strategies to be visible.

Awareness of involvement of learners in traffic accidents should be emphasized. Communities should be involved in road safety programmes to make them aware, before and during the provision of road infrastructure, that this might increase their own risk, and the risk of their children, to become involved in traffic accidents.

2.9.1.2 Integrated alcohol and drug programmes

20% of learners indicated that alcohol was used and 18% indicated that drugs were used. At Embombeni School 52% indicated alcohol use and 48% indicated drug use. It is disconcerting that learners use both alcohol and drugs.

At Embombeni School the use of alcohol and drugs seems to be of such proportion that it would be necessary to involve Social Development workers in the road safety programme. A programme focusing on alcohol and drugs should be integrated with other social programmes on substance abuse.

2.9.1.3 Road safety education

Most children mentioned that they did get road safety lessons at school.
There should be a programme aimed at teachers. Support to the RTMC multi-media project implementation should be investigated as an option.

2.9.1.4 Desks and chairs

78% of learners had desks and chairs (the higher the Grade, the more likely that the learner will have a desk and chair.

This issue is not directly related to road safety. Associating road safety with some positive aspect (which could include desks and chairs but also other needs like satchels, etc) should be investigated.

2.9.1.5 Walking and cycling preference

Overall more children would prefer to cycle, boys have a higher preference for cycling and Grade 4’s had a higher preference for cycling. The 2 schools where children had the shorter trips (Jongikhaya and Embombeni) had the lowest preference for cycling, indicating to distance playing a role in this preference.

Cycle projects could be implemented at the schools with the longest distance from communities. This should be implemented only if safe infrastructure for cycling can be provided, together with programmes to teach learners to ride safely and to manage the availability of bicycles.

2.9.2 Recommendations for further research

2.9.2.1 Teachers and education

It might be useful to interview teachers at the school as to the present syllabus and road safety lessons, in order to compare children’s perception of frequency with teacher’s lesson programmes.

3 INFRASTRUCTURE UPGRADING

3.1 ENSURING BASIC ACCESS FOR RURAL COMMUNITIES

3.1.1 The rationale for rural transport infrastructure improvement

A lack of access to basic goods and services is a contributing factor, as well as a result, of poverty. Lack of market access and access to employment centers reduces
income opportunities. In the same way poor access to education, health, clean water and information contribute to the abysmal life conditions of poor people.

These poor communities are isolated not only in physical terms but also in terms of their access to employment, financial resources, skills and information.

An effective rural transport infrastructure (RTI) is an essential requirement for rural development, although by itself, it is not sufficient to guarantee success. Improvements of the intra- and near-village path and track network, and the provision of all-season basic motorized access are essential conditions for rural development. Worldwide experience from past rural development programs and policies suggest that improving the poverty impact of RTI interventions requires attention to three guiding principles:

- An emphasis on reliable, cost-effective access to as many of the rural population as possible, rather than high access standards for a few;
- Cost-effective and innovative techniques such as spot improvement, labour-based approaches, and low-cost structures, and;
- A decentralized and participatory approach with strong local government and community involvement in decision making on local transport investment and maintenance.

The RTI network is the lowest level of the physical transport chain that connects the rural population, and therefore the majority of the poor, to markets and social services such as schools and health centers, potentially increasing their real income and improving their quality of life. The provision of basic access should be considered a basic human right, similar to the provision of basic health and basic education.

3.1.2 RTI and road safety

The road safety concerns of basic access RTI are different than those for higher-level infrastructure. Typical are single-vehicle crashes and crashes between motorised and non-motorised vehicles, pedestrians and animals. Economic considerations will normally not allow separation of different modes of transport, and it must be accepted that foot and wheeled traffic of different speeds will intermingle in the traffic stream.

The challenge is to ensure that the speed of motorized traffic is low, particularly within villages.
3.1.3 The value of RTI improvement

O R Tambo District Municipality is one of the poorest municipalities in the country, and economic development and poverty reduction are the overriding development priorities.

The value of Rural Transport Infrastructure improvement in this municipality, therefore, lies in the following:

- Positive social impacts due to improved access affecting many sectors, including agriculture, industry, marketing, education and health.
- The upgrading programme will exploit opportunities to employ the poor, including disadvantaged women, in road construction and maintenance and in taking care of vegetation along road embankments.

The upgrading programme may have four key components:

- building stakeholder capacity and improving local governance
- improving rural infrastructure
- providing income generating activities for the rural poor, and
- providing institutional support for effective management.

Upgraded roads also encourage private sector investment, especially in local trade and agro-processing.

A recent review showed that rural infrastructure development projects generated rural income, because 25% of the projects' civil works costs were paid to locally hired unskilled labor.

Lessons learned on subproject identification, design, and implementation and on road safety and maintenance suggest that strong involvement by local stakeholders in planning and design will increase the usefulness, acceptance, and maintenance of rural infrastructure.

Participatory processes can also enhance poverty reduction and the sustainability of infrastructure benefits.
3.1.4 RTI approach and principles

The overall goal of the Rural Transport Infrastructure upgrading strategy is to increase the access of the rural population to employment opportunities and to economic and social goods and services through an effective provision of sustainable rural infrastructure. The immediate objective of this strategy would be to increase the use of local resources (labour and materials), planning on the basis of people’s needs and productive job opportunities through infrastructure development and maintenance.

The aims of this strategy are to develop appropriate institutional arrangements, effective management mechanisms and training approaches in order to introduce, promote and support labour-based planning, design, implementation and maintenance technologies in the infrastructure sectors.

The planning process:

- must be top-down and bottom-up iteratively
- must be centered on the "owner" of the infrastructure
- most of all must be participative and transparent
- must regard the selection of stakeholders for the participatory process as crucial
- must use simple and transparent economic selection criteria to allow for participation
- might consider other than just economic criteria.

3.1.5 The Basic Access Concept

Basic access is one of the necessary conditions for the alleviation of poverty in rural areas of developing countries, at par with the provision of other "merit goods" such as basic health and basic education services. "Basic access" is defined as both the availability of all-weather road access from villages to the main road network and reliable access to basic social and economic services on the intra- or near village track and path network on which trips are made mainly on foot or by non-motorized means of transport.

Basic access means

- reliable access at least cost
- should be considered a human right
- interventions are the least life-cycle cost investment for ensuring reliable all-season accessibility for the prevailing means of transport
• provision could also mean improvement of the access for non-motorised means of transport.

3.1.6 Project ranking methods

The following is a ranking method that could be used when prioritizing basic access road interventions:

Cost effectiveness indicator of link = Cost of upgrading link to basic access standard / Population served by link

Why cost-effectiveness (and not cost-benefit) analysis?

• At traffic levels <50 vpd the traditional economic tools (e.g. HDM) don’t work
• Producer surplus method often leads to unrealistic results
• Emphasis is increasingly on social benefits of roads which are difficult to quantify
• Method has been traditionally applied for other rural infrastructure (wells, health centres) but not for roads.

3.2 CONSTRUCTION AND UPGRADING OF MPOPHOMENI ACCESS ROAD, WARD 12, PORT ST JOHN’S LOCAL MUNICIPALITY

3.2.1 Location of project

The site is located on the eastern side of Port St John’s Local Municipality, approximately 21km south-west of Lusikisiki traveling along the R61. The site can be accessed by traveling approximately 2.4km on trunk road T159 and then approximately 700m on access road AC60587. The proposed access road traverses in a north-westerly direction and links Ntafufu village to Ngcenge and Qolomba villages including several settlements scattered along the route for approximately 4km.

3.2.2 Proposed scope of works

The project comprises the construction and upgrading of approximately 4km of gravel road including a low level bridge structure and ancillary works from the AC60587 to Qolomba village in Ward 12 of Port St. John’s Local Municipality.

The current access road, which is in an extremely poor condition, provides a thoroughfare for the local villagers to the schools, the R61 and the clinic. The access
is currently a clayey loamy gravel track approximately 3.5m wide. It cuts through a mountainous terrain and has steep inclines. At the start of the access it runs through a stream which, when the level rises due to the rain, makes it difficult, if not impossible, to cross.

The upgrading will entail the following:

- Construction and upgrading of approximately 4km of road
- Improvement of geometric alignment to reduce the steep inclines
- Construction of a low-level bridge using labour enhanced techniques
- Improvement of longitudinal drainage and cross drainage using labour enhanced techniques.

3.2.3 Value added by the project

In addition to the benefits mentioned earlier, the upgrading of the access road will have the following benefit for the population of Ward 12:

- The improved road surface will allow public transport (taxis) and the mobile clinic to reach the inhabitants along the route.
- The new road will make the transportation of wood and water easier.
- The inhabitants along the route will have easier access to the R61 and proposed N2 which again will provide access to markets to buy or sell produce.
- The learners will have an improved route to school and might even consider using bicycles as mode of transport.
- A paved road surface with an adequate drainage system will provide the inhabitants with a permanent structure that will not be influenced by the weather (high rainfall).

3.2.4 Recommendations

It is recommended that the extension of the proposed upgraded road is investigated in order to create a link with other routes that connect with Bambisana Hospital. The inhabitants along this route in some instances have to use hospital facilities and presently have to travel ±45 km to reach the Bambisana Hospital via the R61 and T158. Sometimes people walk all the way to the Ntafufu Clinic on the R61 just to
learn that they have run out of medicine. There is no telephone connection to the clinic.

Various possibilities to connect with the hospital from Ngcenge have been investigated. An existing route used now and then by vehicles such as LDVs can be upgraded to establish the link. In order to curb the high costs involved in this part of the upgrading it is proposed that the Basic Access Concept is applied.

A further recommendation is to determine the specifications of the upgrading of trunk road T159 which is to commence soon and to consider the upgrading of access road AC 60587 up to the point where the road identified for upgrading starts.

3.3 CONSTRUCTION AND UPGRADING OF MATEKO RIVER TO MSIKABA ACCESS ROAD, WARD 23, QUAKENI LOCAL MUNICIPALITY

3.3.1 Location of project

The project is located on the south-eastern side of Quakeni Local Municipality, approximately 23km east of Lusikisiki traveling along trunk road T024. The facility can be accessed from Lusikisiki via the R61 for approximately 1.4km to trunk road T024 thereafter for approximately 7.2km to T141. Traverse on T141 for approximately 11km to Mateko village to join access road AC 60284 to Msikaba village for 3.7km to the start of the project.

3.3.2 Proposed scope of work

The project comprises the construction and upgrading of approximately 9km of gravel road including low level culvert structure and ancillary works in Ward 23 of Quakeni Local Municipality.

The current access road provides a thoroughfare for the local inhabitants from access road AC 60284 to Msikaba village, thereafter two-wheeled tracks to the Mateko River. Thereafter the tracks become non-existent to join the AC 60284 passing through several small holdings. Limited or no public transport facilities are available after the track road. The proposed access is currently a mixture of black turf and reddish-brown clayey loamy gravel track road approximately 5.0m wide through the village thereafter a 3.0m track grassy road traversing downhill to the Mateko River in an easterly direction and uphill in the north and later in a north-westerly direction towards AC60284. The terrain in Msikaba village is fairly flat with
drainage being one of its biggest problems. The clayey conditions and the ponding water make this road inaccessible during the rainy seasons.

The upgrading programme will entail the following:

- Construction and upgrading of approximately 9km of road
- Improvement of the geometric alignment in areas with steep slopes and bends
- Construction of low level bridge/culvert structures using labour enhancing techniques
- Improvement of drainage including cross drainage by labour enhancing methods
- Importation of borrow material

3.3.3 Value added by the project

In addition to the value of RTI projects earlier the project will be of value to the community due to the following:

- Local residents will have better access to public transport
- Local residents will have improved access to health facilities such as mobile clinics
- Learners will have better roads leading to and from school
- Improved roads could lead to the implementation of a non-motorised transport programme such as the Department of Transport’s cyclist programme.
- The transportation of labourers to the maze and potato fields during harvest times will be improved
- Improved roads will assist the inhabitants to transport wood and water

3.3.4 Recommendations

It is recommended that the loop road be extended to give a greater number of inhabitants access to the upgraded road. The extension will follow an existing trail which links the various clusters of communities.

A further recommendation is to consider the upgrading of an existing trail from the Mateku river waterfall to DR08141. With the position of the proposed N2 road and
the existence of the waterfall which is a scenic tourist attraction, tourist making use of
the N2 can be given the opportunity to leave the N2 to visit the waterfall. This could
stimulate the tourist trade in the area and create opportunities for the local residents.
At the same time it will link the communities with DR08141 which will give access to
the N2 as well as the Mateku School.

3.4 CONSTRUCTION AND UPGRADING OF MBOMENI
ACCESS ROAD IN WARD 5 OF MBIZANA LOCAL
MUNICIPALITY

3.4.1 Location of project

The project is located on the northern side of Mbizana Local Municipality, approximately 15km north-west of Mbizana town in Ward 5. The facility can be accessed via the R61 from district road DR08020 near the village of Nomfumalanga. The proposed access road is a main road which traverses in a westerly direction through the village of Mbombeni for approximately 4km.

3.4.2 Proposed scope of works

The project comprises the construction and upgrading of approximately 4km of road to surface standard through the village of Mbombeni. The current access is informal and provides a thoroughfare for the local residents accessing the main road (DR08020) with limited public transport facilities available entering and leaving the area. The proposed access begins with a 2,5m wide gravel track and becomes a two lane track due to the high erosion and potholes eminent within the proposed access. A large number of population commute daily to Mbizana and Flagstaff and have to walk long distances to access public transport. This access carries a high volume of pedestrian traffic, with a school en route.

The following will be addressed through the community development programme:

- Construction and upgrading of approximately 4km of road to surfaced standards
- Improve the geometric alignment in several areas
- Improve drainage including cross drainage through labour enhancing methods
- Importation of borrow material
• Erection of fences and public participation thereof
• Construction of pedestrian walkways

3.4.3 Value added by the project

In addition to the benefits of the upgrading of rural, the community will also enjoy the following benefits brought about by the project:

The transporting of wood and water will be made easier

• Public transport such as taxis will have access to the community irrespective of weather conditions
• Pedestrians walking to school or local amenities will be able to make use of proper pedestrian walkways

3.4.4 Recommendations

The following additional upgrades are recommended:

The women and children have to walk long distances along tracks in poor condition to fetch water. There are two water collecting points in the village.

• It is recommended that the side roads are also upgraded. These upgraded side roads lead to the watering points and are also well situated to be used to travel from one side of the community to the other, particularly to the two schools.

• The residents also requested that the road which is to be upgraded ends in a loop to avoid the vehicles making use of the road to end up in a cul de sac.

3.5 In conclusion

In development projects poorer rural women perform physically demanding tasks every day of their lives and often become involved in infrastructure improvement and maintenance. This includes the provision of heavy physical labour when needed, including road maintenance. Such involvement by women occurs even more commonly when men have emigrated from the area. This can include cleaning out of culverts and repairing of potholes. Development projects need to reflect more awareness of the role of rural women in infrastructure improvement and maintenance. This can have implications for the scheduling of work, the types of tools provided and the incentives offered.