

**SPECIAL DEVELOPMENT PROJECT:**

**TUBATSE - R37**

**Community Empowerment Impact Assessment Report:  
Phase 1**

**EXECUTIVE SUMMARY**

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# 1. SOCIO ECONOMIC PROFILE

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## 1.1. LIMPOPO PROVINCE

Limpopo Province is the most Northern province in South Africa and borders with Mozambique, Botswana and Zimbabwe. In the south the province border Gauteng, Mpumalanga and North West Province.

There are approximately between 5.2 and 5.4 million people living in Limpopo Province and Limpopo represents approximately 12.8% of the total population in South Africa and contributes to approximately 4% of South Africa's GGP. Limpopo has the highest female: male ratio in South Africa (Limpopo Provincial Treasury: 2005). Females account for approximately 55% of Limpopo population where the National average is 52%. The population of Limpopo is somewhat younger than that of the rest of the Country. The population ratio seems to decline from 20-24 year old group and it might be attributed to the fact that the productive age groups migrate to other Provinces. It also signifies a flight of skills, which places extra demands on education, recreational and developmental challenges.

Unemployment in the Province is quite high, estimated to be between 36% and 68% differing in the 6 districts and 25 local municipalities. In the 2001 Census, 33.4% of the population older than 20 years had no schooling, 49% of the economic active age group (15-64 years) was unemployed and 61% of the population lived below the 2002 national poverty line.

The mining sector employs 6% of the 693 000 people employed in the Limpopo Province, and contributes approximately 20% of the GGP of the Limpopo Province. It is believed that this figure has increased drastically, with the development of the Dilokong Corridor. Investment in the mining sector is important as it brings with it investment in infrastructure, which results in the creation of job opportunities and generates other economic spin-offs. Limpopo Province as a whole has a disabled population of 12.9%.

According to the Department of Education (2002) the adult literacy rate in the Province was 59% in 2000. There are approximately 1.8 million learners in Limpopo of which 1.4% (24877) attends farm schools.

Most schools do not have access to basic services in the Province (90% have access to toilet facilities, 60% to water and 50% to electricity) .Limpopo province spent approximately R3 720 per learner/year in the Province.

The Limpopo In Motion Strategy (2003) deals with the profile of public transport, firstly by describing the operations and secondly the infrastructure on which and places where the services are provided:

No rail commuter systems are provided in the Limpopo Province with only a main line service towards Zimbabwe.

Three types of bus operators currently provide services in the province, namely privately owned state-subsidised operators, parastatal state-subsidised operators; and privately owned non-subsidised operators. Services are provided through multi-journey tickets and cash fares.

There are a total number of buses of 1 166, the bus industry carries about 18,5 million passengers per annum, buses travel more than 43 million km per annum and the bus industry employs just over 3 000 people.

Key figures for the minibus-taxi industry are: number of routes -177; number of operators -1 948; number of vehicles - 6 000 and number of associations -113

According to the Limpopo in Motion strategy document (2003) only 32% of trips are made for commuting, 6% for education, and 62% for other reasons. On average 63% of trips take less than 30 minutes. The waiting time of only 42% of all taxi passengers is 10 minutes or less. 47% of passengers pay R5,00 or less for their transport and 78% pay less than R10,00. Given an option 23% taxi passengers would prefer bus transport and 11% rail transport.

87% of people walk, while 5% mainly used cars, 4% bus transport and 3% taxi transport.

Transportation of learners is a big problem in especially rural areas. In many areas there are no other means of transport except for learners to walk great distances to school, which impacts on their ability to learn.

Limpopo Province has approximately 6403 km paved roads, 11866 km gravel roads and 10 578 km unsurfaced roads.

## **1.2. SEKHUKHUNE DISTRICT MUNICIPALITY**

The District Municipal area measures approximately 1,326,437 ha in extent. The area is largely rural and is located outside of major towns and cities, with Pretoria and Johannesburg being approximately 200 km and 250 km away respectively. Sekhukhune District consists of 5 local Municipalities namely Fetakgomo local Municipality, Greater Globlersdal local Municipality, Greater Marble local Municipality, Greater Tubatse local Municipality and Makhudumathamaga local Municipality.

### **1.2.1 Demographic information: Sekhukhune District**

The District Municipal area, approximately 1,326,437 ha in extent lay across both Mpumalanga and Limpopo Provinces, making it a cross-border District Municipality. Sekhukhune District Municipality is situated North West of Mpumalanga and South of Limpopo.

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In 2001, the President and the Lekgotla Cabinet declared 13 nodal areas in South Africa specific areas for accelerated development. These areas were identified within the framework of the Rural Development Strategy. These are rural areas in extreme poverty, with a serious lack of skills and services .

According to the Sekhukhune IDP 2004/2005 there are 967 197 people living in the District Municipality. Sekhukhune is 94% rural and 5.3% urban.

### **1.2.2 Sekhukhune socio-economic status**

Seventy three percent of the houses in the District are formal houses on separate stands. Tubatse has the least formal houses standing on separate stands (69.6%) in the District. Tubatse also have the highest percentage of traditional dwellings (18.4%) and informal dwellings (6.3%) in the District.

### **1.2.3 Sekhukhune economic activities**

Sekhukhune District has a variety of economic activities of which mining (in Tubatse) is the biggest and most important and the Districts' main contributor to the GGP in the Province. Other economic activities include housing and construction, trade and retail and a growing tourism industry due to the rich cultural diversity of the District. Although agricultural activities should contribute to the area's economy, most farming is done on a subsistence basis and only 30% of the Districts land is utilized for commercial farming. The scarcity of water is one of the reasons that farmers do not do well. Investment in irrigation schemes and projects is one of the biggest priorities for local government. The other reason is the fact that three quarters of Sekhukhune District Municipality is under land claims disputes that still need to be resolved.

## **1.3. GREATER TUBATSE LOCAL MUNICIPALITY COMMUNITY PROFILE**

### **1.3.1 Description of Greater Tubatse municipality area**

The R37 is a Regional Route in South Africa that connects Polokwane with Nelspruit via Burgersfort and Lydenburg and is approximately 142 km. This regional route was proclaimed a national route on 30 July 2005.

The Greater Tubatse Municipality was established on 5 December 2000 as part of the Sekhukhune District Municipality. The Greater Municipality of Tubatse was part of the former Lebowakgomo homeland, and is mainly rural in nature. The nearest urbanised settlements are respectively the towns of Burgersfort and Steelpoort. The Municipality is a cross border area, situated in the Olifantsriver basin.

The Local municipality consists of 29 wards. The economic centre of Greater Tubatse is the town of Burgersfort,. The mining activities around Burgersfort necessitated the construction of a Platinum Smelter in Polokwane. A railway line is planned between Burgersfort and Polokwane to transport the ore from the mines to the Smelter. There are currently 15 mines in the Greater Tubatse area, and 10 more mines are planned towards the end of 2006. It is estimate that Burgersfort would be a city by 2016, with 23 billion Rand being invested in the area. Other economic activities include agriculture and tourism.

The increased value of platinum (on world markets) and the development of the Dilokong Corridor (for local development) is very important for the Province. The Dilokong Corridor development project is a top priority for Provincial Government.

### **1.3.2 The environment and natural resources in the municipality**

The Greater Tubatse Municipality is approximately 229 082 ha. Exposed rock (miscellaneous) are the main land type and soil, it mostly consists of clay and loam (loam and clay – 49%; loam 25%). 51% of soil depth is classified as steep slopes and 28% as very deep.

77% of the province is various forms of bushveld. 53% of the area is steep or very steep slopes.

Water is a scarce commodity in the Greater Tubatse Municipality. According to the Tubatse Integrated Resource Information Report (2005), the average rainfall for this area fluctuates between 500mm and 800mm per year. The main River in the area is the Olifants/Eliphants. Catchments areas are the Blyde River, Steelpoort and Watervals River. The Greater Tubatse Municipality gets water from the Olifants/Elephant River and the main catchment area (50%) is the Steelpoort River.

### **1.3.3 Land utilisation**

Most of the land (76%) is thicket and bushland and grassland. Even though mining is such an important industry in the Tubatse area, the amount of land that they occupy and use is statistically insignificant, while forestry and farming seem to utilize more land.

There are three types of land ownership in the area:

- Privately owned land-commercial farming purposes
- State owned land-commercial and residential purposes
- Tribal land- subsistence farming (very overcrowded)

Currently there are 850 land claims (75% of the whole Sekhukhune District) that would not be resolved soon.

### **1.3.4 General population demographics**

There are approximately 270 122 people and 53 850 households living in the Greater Tubatse area. The population of Tubatse contributes towards 28% of the Sekhukhune District Municipality population. Ninety-nine percent of the population is Black and 1% White.

The average number of people living in one household (under one roof) is 4.72. An estimated 7.1% of the population, (19 195 people) stay in 11 traditional villages in Tubatse.

In general people living in this area are very poor with approximately 19 people financially dependent on one income earner.

The Mpumalanga Department of Agriculture and Land Administration (2006) estimated that the normal population growth rate is estimated to be approximately 3.4% per annum. Taking into consideration the impact of HIV AIDS on the population growth rates, it is expected that population rates might start to decline with 1% in the near future.

### **1.3.5 Gender distribution**

The gender distribution between different age groups varies. In the pre- and school-going age group male and female representation is equal (50/50). In the “working-years” age group there are more females (59%) and only 41% male representation in the community. The fact that female representation is higher between the ages of within the area might be attributed to the fact that men leave their homes to go and work in the cities. Lastly in the elderly age group of 65 years and older male representation declined with 10%, while female representation in the



community is 69%. The decline in male representation in the community might also be attributed to deaths due to natural or unnatural causes.

Overall women represent 54% of the total Greater Tubatse population and men 46%.

Sekhukhune District is mainly rural (94.7%) with 5.3% of the population in urban areas. Only 0.9% of the total population of Tubatse resides in urban areas while, 99.1% is rural.

91% of people speak Sepedi, 4% Swazi and 2 % Tsonga

### **1.3.6 Disability**

In Tubatse, 5% of the population has some kind of disability. Consideration of disability is important in road safety because the accessibility of the build environment and infrastructure needs to be built in such a way that disabled people can access it safely, easily, and equally.

### **1.3.7 Education**

Twenty two percent of the population in Tubatse, 20 years and older, has had no form of education or schooling.

There are 246 educational institutions in Tubatse. According to the Municipal Demarcation Board (2006), there are:

- Primary schools-70
- Secondary schools-55
- Unspecified-115
- Farm schools-4
- Higher education institutions-2

There is approximately one educator for every 36 primary school learners in Tubatse and one educator for every 34 secondary school learners.

Impala and Anglo Mines envisaged the building of educational facilities to curb the problem of illiteracy and to stimulate job creation in the area.

The Joint Education Trust initiated the Limpopo Education Support Programme in 2003. The goal of this programme is to improve learning achievement and life opportunities of young people, especially in disadvantaged and marginalized communities.

### **1.3.8 Socio-economic status in Tubatse**

66% percent of the population is not economically active (does not work/does not look for work), 21% indicated that they are unemployed while 13% indicated that they have employment.

Most of the people who are employed in Tubatse, work within the Government sector (27%), where they provide services within the health and social development sectors. This trend is seen throughout the District. Mining employs approximately 20% of the employed people and agriculture, forestry and fishing, 12% of the people. Most of the people in the District (62.7%) live in poverty.

Employers for Sekhukhune District Municipality include: Government 25%; Agriculture 16%; Wholesale and retail 13%; Mining 12%; Private employers 11%; Manufacturing 5%; and Other 18%.

Only approximately 1 295 individuals in the Greater Tubatse Municipality earn more than R6400 per month with the average income in Tubatse between R1-R2 400. Of the 39% people employed in the whole District, 23% of these people live in Tubatse. The economic indicators support the fact that Tubatse is a poor rural area.

### **1.3.9 Health**

According to the Limpopo Department of Health and Wellness (2003), Sekhukhune District Municipality is one of the areas that receive the least health services. On average there are 4.7 hospital beds for every 1000 people in Tubatse.

For every 500 people there are 0.2 medical officials. For every 1 000 people there are 3 nurses. 78% of the population of Tubatse is within a radius of ?? from the hospital and 45% within a 5 km radius from the nearest clinic.

There are 4 hospitals in the Greater Tubatse Municipality. Together the four hospitals have 376 beds. There are approximately 416 people working in these facilities of which 45% (186) is medical personnel and 55% administrative.

In 2005 there were 9 mobile clinics and 5 vehicles and 15 medical personnel who work in these mobile clinics in Tubatse.

#### **1.3.9.1. HIV AIDS**

Greater Sekhukhune District Municipality has an AIDS committee and role players in the District Municipality include:

AMREF-training and assistance to NGO's in the area to assist with HIV AIDS awareness and health programmes; People to People-NGO working mainly with mining companies in Municipalities; European Union-Funds NGO's who are doing HIV AIDS Projects; United Nations Children's Fund-Recognizes Sekhukhune as a convergence area for all it's programmes and therefore implement and fund all HIV, education feeding schemes etc.in the District.

#### **1.3.9.2. Mortality profile**

According to the MRC (2004) Limpopo Province had 53 815 deaths in 2000. 49.1% of the deaths were female and 50.9% male.

According to the Medical Research Council the leading cause of death in Limpopo Province was HIV AIDS estimate between 24 and 40%. Road traffic accidents are the tenth leading cause, at 3%. Road traffic accidents are a major cause of death for children (both boys and girls) age 5 and 15 (HIV AIDS is the leading cause of death for girls, with traffic accidents the 2<sup>nd</sup> most cause. For boys traffic accidents (20%) are the leading cause of death for boys, followed by lower respiratory diseases.

#### **1.3.9.3. Emergency services and disaster management**

There are no government emergency services in The Greater Tubatse Municipality (Tubatse IDP: 2005). The mines in the area provide the necessary infrastructure and training for emergency services and gives assistance mostly with industrial accidents. Tubatse Ferrochrome mine also gives assistance with traffic accidents.

Response time in rural areas is approximately 2.5 hours and in urban areas 3 hours.

#### **1.3.9.4. Health related services and projects for adults and children**

In 2003, a total number of 3 033 projects dealing with health, children and adults were identified by the Social Development Department of the University of Pretoria.

Figure 35 gives an indication of the type and number of services and projects available to children and adults in the Municipality.

### **1.3.10 Infrastructure**

#### **1.3.10.1. Housing**

Seventy-three percent of the dwellings in Tubatse are formal. Traditional dwellings (hut) constitute 18% of the dwellings and informal areas 9%. The traditional dwellings are located in villages. There are 11 traditional villages in Tubatse.

#### **1.3.10.2. Multi-Purpose Community Centres**

In South Africa, Multipurpose Community Centres have been identified as the primary vehicle for the implementation of development communication and information programmes. For the purposes of the government MPCC programme, MPCCs' are defined as those centres that have at least six government departments offering services to people who live close by. MPCCs should also have access to technology in the form of an Information Technology Centre (ITC) such as a Telecentre or other forms.

#### **1.3.10.3. Churches**

Although a number of Church groups and denominations have requested land, there are no conclusive statistics on how many churches there are in the area.

#### **1.3.10.4. Libraries**

There is one library in Steelpoort.

### **1.3.11 Access to services**

Tubatse residents depend mainly on communal stands and the river for water.

- 32% of households use natural water sources such as rivers and dams
- 51% of households have basic access to water supplies such as the water vendor and communal tap
- 13% of the households have intermediate access to water with water inside their premises
- 4% of households have full access to water

The Integrated Development Plans of the District as well as Municipalities stress the issues around the dangers and the necessity for the provision of clean water.

#### **1.3.11.1. Access to energy in tubatse**

### **ENERGY TO COOK**

67% make use of wood (to make fire) to cook ; 16% have access to electricity; 12% paraffin ; and 2% gas and 3% of gas, animal rests or coal

#### **ENERGY FOR LIGHT**

47% has electricity power; 47% use candles for light; 5% use Paraffin; and ther resources used to make light

#### **1.3.11.2. Sanitation**

Most households in Tubatse make use of a pit latrine. Twenty Five percent of the households have no sanitation. A septical tank is used by 3%, and a bucket latrine by 1% of the households. Only 5% of the households have flush toilets.

#### **1.3.11.3. Rubbish removal**

Twenty seven percent of households have no means to dispose of their rubbish, while 65% use their own rubbish dump (close to yard or home). Only 7% of the households have a weekly rubbish removal.

#### **1.3.12 Crime in Tubatse**

Crime in Tubatse is reported at two police stations. These stations are Burgersfort and the Penge police satellite station. Crime trends from April 2003 to March 2005 were 54% burglaries, robberies and theft, and 30% violent crimes. At Penge violent crimes were more prevalent.

#### **1.3.13 Transportation, traffic and road network**

17.7% of total population make use of public transport.

There are railway stations at Burgersfort, Orighstad and Steelpoort but these are mainly for the transportation of goods and not people.

According to the Tubatse IDP (2005) most community members (42%) walk where they want to be. 18% make use of public transport and 10% of private vehicles. Other transportation is used by 30% of the community.

Of the 13% of Tubatse residents that are employed, 88% are pedestrians, 4% make use of busses, 2% drive their own vehicle, 3% are passengers (lift clubs) and 3% make use of taxis.

There are numerous foot paths and tracks which have been made by community members in order to access the R37 to catch public transport, walk along, or cross the R37.

Only 34% of people take less than 15 minutes to access water, while 39% took 15 to 30 minutes;

Taking a taxi to hospital took most people more than an hour, while walking to the clinic on foot took between 15 and 30 minutes.

The school journey took mostly between 15 and 30 minutes with somewhat shorter journey times for primary schools. For about 13% of secondary school learners the journey took longer than 45 minutes. The journey to public transport services took mostly under 15 minutes, the journey to welfare services mostly more than an hour, the post office 15 to 44 minutes and the food market less than 15 minutes. People mostly made use of taxis to these services (especially welfare and hospital), they used taxis and walked to the post office and food markets and mostly walked to the clinic and to public transport facilities.

The challenge in rural areas such as Tubatse is to sustain an effective accessible road network, with a secondary road network in place. Paved roads include:

- 350 km roads
- Degrading rapidly due to no maintenance
- Are well connected by provincial arterial roads
- R37 declared National road

Gravel roads include:

- 400 km
- Used to transport people in area
- Condition of roads - below standard
- Village streets - worse

#### **1.3.14 Rural women and transport needs in limpopo**

As indicated earlier, Tubatse, Limpopo Province is in the unique situation where the population consists of more women than men. Transport needs for rural women in Limpopo arise from:

- Productive needs- To earn income to provide for their families (Most households female headed in Province, District and Municipality).

- Reproductive needs-Activities carried out in household e.g. fetching water, wood, taking care of the children, elderly, sick or disabled.
- Social needs- To visit friends and family, clinics, shops etc.

Futhermore the transport needs of rural women differ from other people as they are governed in many instances by traditional laws which entails a division of gender, controlling access to resources, power relations and patriarchal system. This influences a woman's choice of transport, purpose, distance, direction and even route. Without roads travel time increase which makes it more difficult for these rural communities to integrate with the larger society. Rural women in Limpopo (according to Mahapa, 2003) make use of transport for the following reasons:

- Subsistence needs: Fetch water, wood, food
- Economic purposes: Agricultural/craft products to market, farm etc., look for/travel to work, trading, visit services, general commerce.
- Social purposes: Visit friends/family, go to church, government offices, shopping, hospital and community meetings.
- Development of human capital: Educational settings, health centres, meetings, training

### **1.3.15 Roleplayers and prospective partners**

Tourism – cultural tourism is supported in the area.

Mining – there are various corridor mining projects (ASA/Dilokong, EAMI, LimDev, Attaclay JV, Stopetec). Lebalelo Water Users Association (This is a strategic investment aimed at facilitating mining development in the Limpopo Province).

Education - JET Education Services, The Limpopo Education Support Programme (LESP) (funded by DFID with approximately 19 million pounds between the last 5-7 years. The objective of the programme is to improve learning and life quality in especially disadvantaged communities.)

Health – HIV AIDS community capacity empowerment – (a programme funded by the Government of Denmark which has been implemented in 3 of the 9 Provinces, including the Greater Tubatse Area of Limpopo). Ford Foundation HIV AIDS support programme in South Africa (Greater Tubastse Area, Sekhukune-Development of an operational model to address the HIV AIDS epidemic, through an expanded micro-credit programme in S.A. This project is supported by RADAR NGO ).

Anglo-American - Engage local community through formal monthly meetings. (Anglo American Corporate Social Responsibility Report 2003.) Have 4 mines in the Greater Sekhukhune District namely: Leplats, Twickenham, Ga-Phashwa, Modikwa, Brodichen. The Company engages the community in labour intensive projects where skills transfer can take place. They contribute to the provision of water, roads and housing projects as well as the development of quality education institutions in the areas where they work (Anglo American Corporate Social Responsibility Report: 2004).

Anglo American-Marula Platinum - The Joint Development Forum-Established in 2002 between the District Municipality and the five local municipalities to work together with the mining industries, The Steelport Valley Producers Forum: comprises of the main mining industry role players in the District, The Marula Community Trust: Established in 2004 to benefit the immediate communities. The Trust contributes to promote education, enterprise development, job creation, health and welfare, and social infrastructure. The aim is social and economic upliftment within the Tubatse community.

In 2005, the Economic development report indicated that Marula Platinum would contribute to:

- The training of high school educators in math or science
- Computer skills development at schools
- Extend the HIVAIDS awareness campaign to the broader community
- Establish a woodchip project
- Road safety education and awareness programme in the area for children

BHB Billington-Samancor - Tubatse Ferrochrome -BHB Billington Corporate Social Responsibility – various developments are expected to add about 10 000 new jobs.

Other role players: AMREF: Training and assistance to NGO's in the area to assist with HIV AIDS awareness and health programmes. People to People: NGO working mainly with mining companies in Municipalities. European Union: Funds NGO's who are doing HIV AIDS Projects. United Nations Children's Fund: Recognizes Sekhukhune as a convergence area for all it's programmes and therefore implement and fund all HIV, education feeding schemes etc.in the District.



## **2. COMMUNITY TRAFFIC SAFETY SURVEY**

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### **2.1. ACCIDENT STATISTICS FOR THE R37 TUBATSE**

Crash statistics were obtained from the Tubatse South African Police Service station for the period May 2005-May 2006. This statistics were used in conjunction with statistics obtained for the R37, Riba Crossing and Driekop for the period 2002-2005 and 2005-2006. Statistics for the year 2004-2005 could not be obtained.

The Tubatse Police Station is only a year old and is responsible for the R37 Dilokong hospital to Polokwane from the Bridge (just outside Burgersfort) up to the Dilokong hospital. Praktiseer SAPS is responsible for the rest of the R37 from the Bridge (just outside Burgersfort).

Weekends had the most accidents contributing to almost 40% of the accidents on the R37. Fridays contributed to 20% of the accidents on the R37.

Fridays contributed to 21% of no-injury accidents and 18% of injury accidents. Saturdays constituted to 18% of accidents where there were injuries and to 19% of accidents where no injuries were reported. On Sundays, in 23% of the accidents serious or fatal injuries were recorded while in the no-injury category only 17% happened on Sundays.

Most accidents in which people were injured happened between 18:00 pm and 20:00 pm in the evening (25%). Mornings between 8:00 am-10:00 am constituted 14% of the total number of accidents reported in which no one was injured. Collisions represented 40% of the accidents in which no injuries were reported. Side-swipe collisions were reported in 33% of accidents. Stray animals were responsible for 18% of the accidents, collisions in which vehicles overturned in 5%, and pedestrians for 2% of the accidents.

In injury accidents, collisions represented 26% of the accidents and overturning vehicles 12%. Vehicles involved in side-swipe accidents represented 6% and stray animals causing an accident and injury 3%.

Accident statistics for the R37 (between Dilokong hospital and the bridge outside Burgersfort) were obtained from the Middelfontein, South African Police Service station for the period May 2005-May 2006.

Most of the accidents happened during the months June, November and December although July had the most fatal accidents..

Most pedestrian accidents occurred in September. Most of the crashes (43%) during the year could be attributed to more than one vehicle that collided or crashed into each other. Drivers, losing control over their vehicles, accounted for 26% of the accidents. Farm animals were the cause of 20% of the crashes and pedestrians represented 11% of accidents between May 2005 and April 2006.

Accidents that could be identified for roads included Penge (18), Alverton (15), Maboga (12) and Kgotlopong (4)

## **2.2. TUBATSE FOCUS GROUPS INTERVIEWS**

### **2.2.1 Methodology**

Focus group discussions and interviews were conducted with the Tubatse community during the week of 29 May 2006 to 1 June 2006 and then again on 7 and 8 June 2006. Thirteen focus groups and 2 individual interviews were conducted within the community.

A total number of 278 community members participated in the focus groups and interviews. Road Safety officials assisted with the focus groups.

### **2.2.2 Themes and concerns surfacing from the focus group discussions and interviews**

#### **2.2.2.1. Knowledge of SANRAL**

Ten of the 12 groups of participants had no knowledge regarding the South African National Roads Agency. Only the chiefs in at Ga-Maroga and Malapane knew that SANRAL is a national agency responsible for the maintenance and building of roads and highways.

#### **2.2.2.2. Road safety situation in Tubatse**

All the participants in all twelve focus groups indicated that road safety is a problem in Tubatse. The focus group participants identified the following hazardous locations:

- Curve at the Post Office approximately 2 km from where Dilokong hospital is situated.
- Ga-Mathupe crossing.
- T-junction at, Lehlaba to Riba crossing (Post Office).
- Mashamatone.

- Bothashoek and Praktiseer (people do not obey road signs).
- Put traffic lights at Bothashoek crossing during peak times.
- Maroga/modikwa and Riba crossing.
- Modikwa crossing (mine).
- Mooihoek: Mashamohlame village near schools.
- Corner of Steelpoort and Riba crossing.
- Dilokong hospital and Ga-mashamohlame (pedestrian bridge needed).
- Accidents where access roads meet R37.
- Accidents at Ga-Mathipa next to Badikwe bottle store (put pedestrian bridge).
- Tavern next to Driekop Post Office and Maandagshoek crossing.
- Dilokong hospital.

### **2.2.2.3. Community perspectives on what is causing the road safety problems**

Children are involved in accidents when crossing the road to go to school

Stray animals are a problem

Pedestrians (including learners) who walk in the middle of the road, close to the shoulder of the road or on the wrong side of the road are causing road safety problems. Drunken pedestrians are a familiar sight and the community felt that some responsibility should also be given to tavern owners.

Drinking and driving occurs mostly in peak hours of morning or late at night and during school holidays. One focus group also mentioned that reckless driving and inexperienced drivers contribute to road accidents on the road.

Speeding was the next most referred to cause of road accidents on the R37. Focus group participants especially pointed out:

- Taxi drivers-who want to on-and off-load passengers as quickly as possible for the next trip and more money.
- Taxi drivers were also accused of driving reckless.
- Mine workers in the area (Motorcycles and vehicles that speed through the area).
- Heavy vehicles passing through Tubatse.

Most of the focus groups felt that drivers driving without valid drivers' licenses were also contributing to the accidents on the R37.

All of the focus groups said that the road is too narrow, which causes congestion and accidents. They also indicated that there are too few pedestrian crossings or public transport facilities on the road.

Road safety knowledge in general seems to be lacking and the issue of illiteracy also contributes to accidents. Community members indicated that drivers and pedestrians ignore road signs. They also said that most of the road signs do not mean anything to most of the community because they cannot read and therefore cannot interpret the road signs.

#### **2.2.2.4. Community perspective dangerous or busy periods**

People thought that month-end traffic was worse than other periods, that the daily peak times occurred in the morning and afternoon, that roads were busier during school holidays, weekends and week days from 5 pm and pension pay-out days.

#### **2.2.2.5. Pedestrians**

The focus group participants indicated that they have to walk along, or cross the R37 due to various reasons, e.g. they do not have a clinic on their side of the road; they need to engage in social activities such as to go to the shop, church, market , social visits; to go to work and school; to fetch water.

Other issues mentioned included pedestrians not wearing visible clothing and then drivers cannot see them; drivers do not respect pedestrians and speed; there are no pedestrian crossings and drivers drive on the shoulder of the road

#### **2.2.2.6. Knowledge**

Most community members, felt that road safety knowledge and education are seriously lacking in Tubatse. Most people cannot read so they do not obey road signs. Learners submit to peer pressure even if they know what the correct behaviour is. They, for example, walk on the wrong side or in the middle of the road.

#### **2.2.2.7. Health and road safety**

The majority of focus group participants said that the use of alcohol and drugs is a big problem in Tubatse. The taverns next to the road contribute to a high number of pedestrians and drivers walking and driving drunk.

#### **2.2.2.8. Officials**

Most the participants felt that the South African Police Services, ambulances (EMS) and the traffic officials, when called in an emergency, either did not show up or arrived a long time after the emergency happened. They asked that these officials inform the community regarding jurisdiction so that they would know which officials to call in an emergency.

There is a perception that bribery and favouritism takes place with officials.

#### **2.2.2.9. Road infrastructure**

Speeding is a big problem on the R37. Drivers who are guilty of speeding include heavy vehicle, taxi and mine worker drivers. The community felt that in some areas houses are built too close to the road and that this contributes to road safety problems. Most of the community also said that the R37 is too narrow and that it should be made broader in order to relieve the congestion on the road.

Community members also indicated that the road is too sandy and that the sand is blocking drainage pipes. Drainage of water from the R37, in general, is considered problematic.

All groups felt that there were not enough road signs. Most of them felt that the community needs pedestrian crossings, pedestrian bridges or pedestrian tunnels in designated areas to cross the road safely. There are also no road markings on the road. Public transport facilities are needed. They do not have taxi or bus lay-byes. No infrastructure exists for disabled and elderly road users.

No maintenance is done on the R37. When it rains the shoulder of the road becomes muddy and people do not want to walk on it. The rain water does not always go away due to the blocked drains. Community members indicated that even though a fence was put up next to the road, community members stole it.

#### **2.2.2.10. Pedestrian paths**

Pedestrian bridges according to the community should be erected in the following places:

- At Batau School (Mashamothane)
- Lehlaba + Mogolo Hihg Schools
- Modikwa mine + Dilokong hospital.

Overhead bridges might not be ideal - rather widen the road and put taxi and bus stops next to these areas.

#### **2.2.2.11. Public transport**

Most of the community make use of taxis to get to their destinations. The community indicated that some of the buses and taxis was not road worthy. They also indicated that in some instances they have to walk very far to board public transport. Previously use was made of light delivery vehicles as a means of public transport but according to the community this practice has been stopped.

#### **2.2.2.12. Business/NGO's influencing road safety in the area**

Focus group participants are of the opinion that businesses such as the mines contribute to providing employment in the area. Modikwa Platinum mine renovate schools such as Bachang Primary School, Nakgwadi Secondary School, Makgemeng village, Magaka-Ntsha Primary School. They also provide the Tubatse community with boreholes and water; bursaries for education, and business training. Dilokong mine provides logistics, production, and supervision education.

Negative consequences of the mines in the area include firstly that there is an influx of people from other provinces and border countries that look for work. This has an impact on the crime rate. At Bothashoek, for example, hijackings and robberies are becoming more frequent. Secondly, it contributes to the burden on the environment. Thirdly, mineworkers speed, get drunk, and contribute to the spreading of HIV AIDS and teen pregnancies.

Other businesses such as the Spaza shops and taverns should also be considered in road safety programmes for the community.

#### **2.2.2.13. Proposed solutions**

All of the participants felt that there is a definite need for road safety education in the community. Road safety education programmes should consider adults, learners, disabled and elderly people. These programmes should also keep in mind that many of the community members cannot read and write and should make use of media that do not require literacy. Driver and pedestrian education is important. Educational campaigns should also target truck drivers and mine workers

Most of the focus groups felt that speed humps or rumble strips on the R37 would bring down speeds or make drivers more aware of the community around them. Where there are gates next to the R37 (access routes to farms) pedestrian warning signs should be erected. Pedestrian

crossings should be constructed on the R37, especially near the schools where learners have to cross. Road markings on the road and traffic lights or stop streets are needed at the intersections and t-junctions. Some community members felt that a wall should be constructed next to the R37 or materials should be used that won't be stolen by the community to be used for fences. Some focus group participants identified pedestrian bridges and tunnels as the solution for road safety problems in areas such as Dilokong hospital and near schools. A sidewalk might encourage pedestrians, especially the learners, not to walk in the middle of the road.

The community indicated that they need public transport facilities such as taxi and bus lay-byes as well as shelters.

Lastly it was felt that access routes into the smaller villages should be better structured in order for taxis to drive into the village to pick people up.

Stricter law enforcement was also a popular response to curb the road safety problem in the area. Law enforcement officials should stop taking bribes and they should be visible on the whole road.

The stray animal problem must be fixed by impounding the animals in proper storage facilities. Another idea was to put reflective material around the necks of the animals - this way drivers will see the animals.

Lastly, the community felt that toll free emergency numbers for traffic, SAPS and ambulances could be displayed on big notice boards along with public telephones next to the R37.

## **2.3. PEDESTRIAN AND VEHICLE COUNTS**

### **2.3.1 Bothashoek T-junction to Praktiseer**

The problems experience at this T-junction are:

- Vehicles approaching from Burgersfort that wants to turn right have difficulty to do so due to the oncoming vehicles travelling at speeds in excess of 60km/h (the speed limit at this point). The absence of road signs indicating the speed limit contributes to this situation. Taxis stop in the passing lane on the

### **2.3.2 Pedestrian counts at Dilokong hospital**

Pedestrian activities around the hospital (site 1) are high early in the morning between 6:00 and 7:00, when community members go to work. People seem to board their public transport in this area. 15:00 signals the afternoon pedestrian rush with people returning home.

Pedestrians seem to be concentrated early in the morning. Peak times for this site are between 6:00 and 7:00, 10:00 -11:00 and then again between 17:00 and 18:00.

### **2.3.3 Pedestrian counts at Batau High**

Pedestrian activities correlate with the school children arriving at and leaving from school in the morning and afternoons. It should be kept in mind that the learners were writing exams and when they finish they are allowed to go home. This might explain the 10:00 increase that is seen in the graph above.

### **2.3.4 Vehicle volumes**

The study conducted in 2003 by the Joint Development Trust falls mainly outside of the SANRAL community empowerment project, but considering the accident data and hazardous locations as they were identified by the community, it was thought useful to give an indication of the number and volumes of traffic on the R37 as well as the access routes and intersections crossing or joining the R37.



Traffic volumes start to escalate between 9:00 and 11:00 in the morning, and then decrease again between 11:00 and 13:00. Vehicle volumes rise again between 15:00 and 18:00 with the highest number of vehicles recorded between 17:00 and 18:00.

Vehicle counts were done only at peak times. One would therefore just assume that the rest of the day is not as busy as the mornings and afternoons.

Traffic volumes are the highest in the morning between 6:00 and 8:00 and further escalates between 9:00 and 10:00, after which it decreases significantly. Afternoon traffic volumes restart again between 14:00 and 15:00 and reach a peak between 15:00 and 16:00.

### 3. RECOMMENDATIONS

Table 1: Recommendations		
ISSUES	DESCRIPTION	RECOMMENDATIONS
<b>Socio-economic issues</b>	<p>The outcome of various land-claim decisions affects decision-making in the area. About 7% of people stay in traditional villages. Poverty: Most of the people in the District (62.7%) live in poverty (19 people dependent on one earner).</p> <p>Overall women represent 54% of the total Greater Tubatse population and men 46%.</p> <p>Rural: Only about 1% of the total population of Tubatse resides in urban areas while, 99% is rural.</p> <p>91% of people speak Sepedi, 4% Swazi and 2 % Tsonga.</p> <p>Education levels Twenty two percent of the population in Tubatse, 20 years and older, has had no form of education or schooling. There are 246 educational institutions in Tubatse.</p> <p>Employment Only 13% are employed (in the Government sector (27%), Mining 20% of the employed people and agriculture, forestry and fishing, 12% of the people. Only approximately 1 295 individuals in the Greater Tubatse Municipality earn more than</p>	<ul style="list-style-type: none"> <li>• Involvement in the community should be negotiated through both the municipal and traditional structures</li> <li>• Due to poverty and poor access to most services, programmes should be integrated with that of other services</li> <li>• Various role players, including international sponsors support the HIV AIDS cause – there could be some learning from this involvement</li> <li>• The main language spoken is Sepedi, but some communities may be Swazi, Tsonga or Zulu and that should be taken into consideration in the design of programmes</li> <li>• Education levels are low, which should be factored into the design of both school and adult programmes</li> <li>• The mining sector social responsibility programmes are actively involved in the area and partnerships should be sought here.</li> <li>• The provision of employment opportunities could be a lever towards powerful programmes</li> <li>• Following national trends, 5 to 15 years olds seem to be very vulnerable to road traffic accidents and special focus should be given to these groups.</li> <li>• Special attention should be given to traffic law enforcement challenges in the area</li> </ul>

	<p>HIV AIDS - According to the Medical Research Council the leading cause of death in Limpopo Province was HIV AIDS estimated between 24 and 40%. Road traffic accidents are the tenth leading cause, at 3%.</p> <p>Road traffic accidents and 5 to 15 year age group. Road traffic accidents are a major cause of death for children (both boys and girls) age 5 and 15 (HIV AIDS is the leading cause of death for girls, with traffic accidents the 2nd most cause. For boys traffic accidents (20%) are the leading cause of death for boys, followed by lower respiratory diseases.</p> <p>Emergency services and disaster management There are no government emergency services in The Greater Tubatse Municipality; Response time in rural areas is approximately 2.5 hours and in urban areas 3 hours.</p> <p>Poor access to services Tubatse residents depend mainly on communal stands and the river for water. Only 16% use electricity for cooking while 47% use electricity for lighting.</p> <p>Most households in Tubatse make use of a pit latrine. Twenty seven percent of households have no means to dispose of their rubbish, while 65% use their own rubbish dump (close to yard or home).</p>	
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	<p>Crime in Tubatse Most crime were from 54% burglaries, robberies and theft, and 30% violent crimes. At Penge violent crimes were more prevalent.</p> <p>Transportation, traffic and road network Of the 13% of Tubatse residents that are employed, 88% are pedestrians, 4% make use of buses, 2% drive their own vehicle, 3% are passengers (lift clubs) and 3% make use of taxis. There are numerous foot paths and tracks which have been made by community members in order to access the R37 to catch public transport, walk along, or cross the R37.</p>	
<b>Accidents</b>	<p>Availability of accident statistics specified for exact location is problematic. Accidents over weekends, late afternoon/early evening problematic. Accidents with animals comparatively high Pedestrian injuries and fatalities</p>	<ul style="list-style-type: none"> <li>• If special projects are run, negotiate close SAPS involvement – also support SAPS feedback to the RTMC fatal accident bureau</li> <li>• Focus on weekend accidents, which might imply alcohol use</li> <li>• Focus on later afternoon / early evening accident, which might imply a problem with visibility</li> </ul>
<b>Traffic volumes</b>	<p>Traffic volumes are the highest in the morning between 6:00 and 8:00 and further escalates between 9:00 and 10:00, after which it decreases significantly. Afternoon traffic volumes restart again between 14:00 and 15:00 and reach a peak between 15:00 and 16:00.</p>	<ul style="list-style-type: none"> <li>• Put measures into place to monitor the annual growth in traffic volumes</li> <li>• Use the traffic volume information to make adjustments to the road environment as determined by the increased traffic flow</li> </ul>
<b>Speed</b>	<p>The study has shown that the speed on the R37 is too</p>	<ul style="list-style-type: none"> <li>• Lower the speed limit</li> </ul>

	high and should be lowered through either law enforcement, speed humps or rumble strips on the road. Law enforcers are concerned that speed humps increase the risk of being hi-jacked on the road. There are extreme differences in the speeds travelled on the road. The speed limits on the road vary between 60km/h, 80km/h and a 100km/h. The road is straight, making it easy for drivers to speed. Because the community is spread over a wide area, motorists passing through might not know where the boundaries of Tubatse start and where it ends.	<ul style="list-style-type: none"> <li>• Implement speed calming measures</li> </ul>
<b>Pedestrian crossings</b>	<p>The following high risk sites were identified:</p> <ul style="list-style-type: none"> <li>• Bothashoek T-junction to Praktiseer</li> <li>• Ga-Mashamothane (Batau High School)</li> <li>• Hillside Liquor Store</li> <li>• Madisakeng (Mohlarutse High School)</li> <li>• Lehlaba T-junction – Mogolo High School and Sekabate Primary School</li> <li>• T-junction at Riba crossing</li> <li>• Steelpoort T-junction –R36</li> <li>• Mooihoek (Modikwe mine and Dilokong hospital access road)</li> <li>• Curve at Driekop Post Office</li> <li>• Sehlaku High School</li> <li>• Maroga / Dilokong mine access road</li> <li>• Ga-Mathipa (Motlolo access road)</li> </ul>	<ul style="list-style-type: none"> <li>• Improve the infrastructure according to the needs of pedestrians and motorists with specific emphasis on facilities for public transport (taxis and buses)</li> </ul>
<b>Traffic enforcement law</b>	Hardly any traffic law enforcement takes place on this section of the R37 which leads to lawlessness such as speeding, driving while intoxicated, overloading and	<ul style="list-style-type: none"> <li>• Improve visible traffic policing</li> <li>• Increased law enforcement was identified as a possible remedy at the high risk sites where</li> </ul>

	driving without a drivers licence.	people do not obey road signs.
<b>Road signs</b>	Some of the pedestrian crossings have no signage, or the signage is too far from the crossing. In some places there are too many road signs competing for driver attention next to each other. Many of the drivers in the community are illiterate and might not understand the road signs. Accidents occur where access roads meet the R37.	<ul style="list-style-type: none"> <li>• Replace road signs where necessary</li> <li>• Add additional appropriate road signs where necessary</li> <li>• Focus on road sign education in the community</li> </ul>
<b>Traffic safety awareness</b>	Intoxicated or uneducated pedestrians and drivers are a huge problem. The regular road users and community along the road is in need of road safety education and an comprehensive awareness programme.	<ul style="list-style-type: none"> <li>• Implement a road safety communication and awareness programme</li> <li>• Implement a school education programme</li> <li>• Mine workers, school children and drivers should receive road safety education</li> <li>• Taxi drivers should be educated with regard to overloading, speeding and general road safety</li> <li>• Taverns should be included in educational programmes, because they contribute to the road safety problem (Hillside Liquor Store and tavern opposite Dilokong Hospital).</li> </ul>
<b>Road infrastructure</b>	<p>The present road infrastructure conditions are not conducive to safe road usage for all categories of road users, viz. pedestrians, drivers and cyclists.</p> <p>Road R37 has already been identified as a critical project, for the following reasons:</p> <ul style="list-style-type: none"> <li>• It forms part of the Dilokong corridor</li> <li>• There are numerous rural villages and a number of platinum and chrome mines adjoining the R37. This situation implies a high</li> </ul>	<ul style="list-style-type: none"> <li>• Erect barriers to prevent pedestrians from crossing the road at any point</li> <li>• Provide pedestrian/cycle paths</li> <li>• Provide taxi/bus laybys and shelters</li> <li>• Upgrade access roads</li> <li>• Provide appropriate pedestrian crossings</li> <li>• Should any part of the R37 be upgraded to 4 lanes, then the implication for pedestrians who want to cross should be taken into consideration</li> </ul>

	<p>level of movement of public transport vehicles, pedestrians and cattle.</p> <ul style="list-style-type: none"> <li>• A greater number of vehicle trips are expected as a result of increased mining activities</li> <li>• Road R37 is of national, provincial and local importance.</li> </ul>	
<p><b>Public transport facilities</b></p>	<p>Public transport facilities are needed along the road. The number of pedestrians who make use of public transport at the Dilokong hospital was confirmed through the pedestrian counts. Pedestrian counts indicated that pedestrian activity increases between 6:00am - 9:00am, and between 17:00pm-19:00pm which correlates with the times people travel to and from work. Another important aspect influencing the number of people in this area is the bus rank for mine workers opposite the hospital. Mine workers have to walk up to here, in order to board a bus that takes them to the mine they work at. Informal traders next to the road add to the road safety problem.</p> <p>On the R37 there are no public transport facilities. Public transport drivers stop and load passengers anywhere on the road due to the lack of facilities and perhaps the lack of road safety knowledge. The most important issue mentioned in the interim report on the “Development of Public Transport Transfer Facilities at mines on the Dilokong Corridor, November 2002” is that public transport should be an integral approach to the development of RoadR37 which implies that public transport transfer facilities should be provided</p>	<ul style="list-style-type: none"> <li>• Access roads to and from the villages should be upgraded in order for taxis to pick people up in the villages, which will alleviate the congestion on the R37</li> <li>• Provide shelters for pedestrians at dedicated public transport stops</li> </ul>

	strategically as close as possible to the R37.	
<b>Stray animals</b>	Stray animals are a cause of concern. Although several strategies have been tried to keep animals off the road, nothing thus far has been successful. The community remove the fences erected by the local government.	<ul style="list-style-type: none"> <li>• Introduce a stray animal programme in cooperation with the community</li> </ul>
<b>Capacity building and skills development for government officials and community members</b>	<p>There are various police stations and all of them capture their data in different manners. Incorrect and incomplete data is a serious problem.</p> <p>Teachers do not know of all the ways in which road safety education can be integrated into the existing school syllabus.</p> <p>Road safety officials should draft a road safety education and communication action plan.</p> <p>Various relevant community role players need to be informed about the basic principles of road safety management.</p>	<ul style="list-style-type: none"> <li>• SAPS officials should receive training to capture accident data</li> <li>• A road safety programme should be developed in cooperation with the Limpopo Road Safety officials.</li> <li>• Tavern owners, as well as drivers in the area need to be educated on road safety issues.</li> <li>• The mines in the area are very involved in this community. The Marula Development Trust and Joint Development Forum could be consulted on how to introduce a road safety programme for the mines and other businesses in the area</li> <li>• This community is has a generally young population. It is the only Province in South Africa in which there are more females than males. Most of them are unemployed and not well educated. In line with the Limpopo Economic Development Strategy as well as the tourism development strategy, one could consider the development of a skills programme for these women. This programme will include road safety aspects. This</li> </ul>



		<p>programme should also focus on the development of the area for the 2010 soccer world cup. Two of the world cup matches will be played in Nelspruit and the other in Polokwane, which will mean that there will be an influx of people and tourists. The R37 is located between these places and tourists will most probably travel through Tubatse to reach the soccer World Cup matches.</p>
<p><b>Coalitions</b></p>	<p>As this area has been identified as a Presidential Development Node, it is essential that all stakeholders working in this area, or who have an influence on the area in one way or another should join forces to approach all social issues in an integrated manner.</p>	<ul style="list-style-type: none"> <li>• Ensure that all relevant stakeholders have been identified</li> <li>• Develop a programme to assess the roles each of the stakeholders could play and identify opportunities for cooperation</li> <li>• Incorporate the activities into the Greater Tubatse Integrated Transport Plan</li> <li>• The mines should be consulted regarding the times the heavy vehicles are on the road as well as the distribution of the mineworkers' shift times</li> </ul>

