

PROVENTION CONSORTIUM

Community Risk Assessment
and Action Planning project

SOUTH AFRICA – Tshwane Metropolitan Municipality, Gauteng Province



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A transect walk undertaken
in the informal settlement of Itereleng
to observe community vulnerability

CRA Toolkit
CASE STUDY

This case study is part of a broader ProVention Consortium initiative aimed at collecting and analyzing community risk assessment cases. For more information on this project, see www.proventionconsortium.org.

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Click-on reference to the **ReliefWeb country file for South Africa:**
<http://www.reliefweb.int/rw/dbc.nsf/doc104?OpenForm&rc=1&cc=zaf>.

Note:

A Guidance Note has been developed for this case study. It contains an abstract, analyzes the main findings of the study, provides contextual and strategic notes and highlights the main lessons learned from the case. The guidance note has been developed by Ben Wisner in close collaboration with the author(s) of the case study and the organization(s) involved.

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Integrated picture essay throughout this document was completed by D. van Staden.

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1. ACKNOWLEDGEMENTS

The Southern Business School study group would like to acknowledge and thank the following people who provided assistance and support during the transect walk on 21 June 2006 in the Itereleng informal settlement in Ward 61 of the City of Tshwane Metropolitan Municipality (CTMM): Councillor Mohamed Essop, the Ward Councillor, who gave permission for the students to carry out the transect walk and he also participated in the process. Mr. Ismail Essa, who is responsible for community safety in the ward, also played a vital role in the transect walk.

Mr. Themba Tshaiso, who is the Chief Executive Officer of the local residents association (Sophakama Sisonke Itereleng Residents Association), provided detailed information regarding the origin of the informal settlement. Mrs. Sylvia Lande, who is the Community Development Worker in the ward, provided assistance in the process and gave information regarding demographic details of the informal settlement. Finally, thanks are expressed to the following community leaders who were involved in the entire transect walk process: Jeanette Malaka, Philippine Raphasha, Steven Monyatsiwa, Matshidiso Likulwana and Mr Baloyi.

We would also like to thank the residents of Itereleng who contributed to information gathering throughout the transect walk.

2. BACKGROUND

One of the greatest challenges facing Local Government is to keep up with the ever-changing and numerous demands of the various communities.

Among these communities is the informal settlement of Itereleng (formerly known as Scrapyard), which was founded in around the 1940s, and is situated just south of Laudium's Kathmandu Street, in Tshwane. The entire settlement is approximately 171 000m².

"Itereleng" is a Tswana word meaning "people doing things for themselves", which is true for this diverse community as detailed later in this document.

From aerial photographs taken in 2003 and again in 2005, it is one of the few informal settlements whose boundary remains constant, however within the boundary new dwellings have been erected, especially toward the south part of the settlement reducing the number of roads and access to that part of the settlement.

Over the years Itereleng has grown to accommodate more than 12 000 people comprising of locals as well as foreigners from places such as Malawi, Mozambique and Zimbabwe, and as is the case with most informal settlements the age group of the residents varies from infants to the elderly who were among the first to take up residence there, or who came along when their families moved.

Among the complaints and demands of this community is the Government's failure to provide adequate services such as housing, street lights, roads and other amenities.

According to an article by SAPA (2006), these demands were recently re-voiced at a meeting with the Gauteng MEC for Local Government, Qedani Dorothy Mahlangu on 28 February 2006. At this meeting the residents also complained that they are still awaiting the apparent change for the better which was promised to them since the dawn of the new dispensation. They also raised concern that this specific visit was a result of the forthcoming elections, however, this claim was addressed by the MEC

who informed the community that imbizos had been held throughout the Province during 2005 to address the various communities' needs.

One of the greatest risks facing the residents of Itereleng, and the reason why Itereleng cannot be formalised, is that the settlement is built on a dolomite area, and although many residents indicated they were aware of this, very few of them knew exactly what this fact entailed.

Negotiations are underway within the City of Tshwane Metropolitan Municipality and the relevant external role-players to relocate this community to a safer formalised environment where they will have access to everyday amenities, however, many residents are adamant that they are unwilling to relocate.

Within the City of Tshwane Metropolitan Municipality (CTMM) a group of 10 (ten) officials from the Emergency Management Services Department, Disaster Management Division undertook a transect walk through the Itereleng informal settlement as part of a course on Community Based Disaster Risk Reduction.

Accompanying the Disaster Management students was Dr Dewald van Niekerk from the University of the North West, the Ward Councillor, Councillor Essop as well as the community representative.

The Disaster Management officials had to go into the community under the pretext of being student researchers for the University. This was due to the fact that if the community knew that members of the Municipality were in their presence they would have made demands which the students were not in a position to meet and any response given to the demands could have been construed as a promise to deliver.

The purpose of the transect walk was to determine the vulnerabilities of the community of Itereleng. These vulnerabilities are discussed in detail within this document.

The walk started at the entrance to the informal settlement commencing down the second road until the end of the settlement, then up along the outskirts until the last road was reached. Finally the return walk commenced by going back across through the settlement, detouring among some of the houses and back down to the entrance.



The transect walk took about 3 hours to complete.

There was a constant group of residents who walked with the students explaining some the hardships they encounter and the reasons therefore, as well giving an indication of what community life entails.

Certain hardships and health dangers could clearly be seen, such the lack of working taps, the lack of proper sanitation as the pit latrine method is used, and a few of the temporary toilet cubicles were locked, furthermore the settlement is built on a rather steep incline and if flooding occurred it would surge through the settlement with great force and speed.

The residents informed the students that the greatest risk to the community is fire. There are large areas of dry grass surrounding the settlement and no fire hydrants or hoses could be seen. Another problem the students was made aware of by the residents, is that the roads are in a terrible condition and rescue vehicles cannot access Itereleng easily. To add to the problem, the dwellings towards the back (south part) of the settlement are practically on top of each other, and are not partitioned with roads. Thus if a fire does break out it spreads quickly to the surrounding dwellings making escape and rescue difficult.

These and other issues will be addressed in detail throughout the document and conclusions will be made on how the issues should be addressed to achieve safe and liveable conditions for the residents of Itereleng informal settlement.

3. COMMUNITY BASED DISASTER RISK

The City of Tshwane Metropolitan Municipality consists of highly developed communities, but also many informal settlements that are very vulnerable to several hazards such as shack fires, floods, sink holes, thunderstorms and many social hazards to mention but a few. Solutions to the many social, environmental and economic problems existing in and caused by informal settlements are continuously being investigated to reduce the vulnerability of such settlements and increase their capacity to cope with emergencies and disasters.

Disaster risk reduction is the “systematic development and application of policies, strategies and practices to minimise vulnerabilities and disaster risks throughout society, to avoid (prevent) or limit (mitigate and be prepared for) the adverse impact of hazards, within the broad context of sustainable development” (Holloway, 2003:34). According to the Yokohama Strategy and Plan for Action for a Safer World (May 1994), “Preventive measures are most effective when they involve participation at all levels from the local community through the national government to the regional and international level”. According to Twigg (2001:5), preventive measures fail because the role-players involved in long-terms sustainable development programmes work in silos.

In past approaches, the suffering communities were seen as helpless, illiterate needy victims and they were not consulted in addressing the problems that existed. The focus was on the disaster itself and emergency relief were supplied to the affected community by external agencies. The incident or disaster that occurred was not seen within the broader societal context and root causes were not identified and addressed. McEntire (2001:190) pleads for a more holistic perspective on disasters, “one that takes into account multiple causal sources, catalytic processes, and the compound interaction of physical, built, technological and social systems...”

The realization of the importance of the active involvement of the community itself became evident in the SA National Disaster Management Framework (2005:29) which stated: “The community is at the coalface of disaster management. It is from

the conditions of risk that exist in communities that all other disaster management activities evolve. It is the community where all the operational activities related to disaster management take place. All risk reduction planning, the development of projects and programmes and the allocation of responsibilities must be founded on the needs and priorities of communities. Risk reduction is a community-driven process.”

Each community has a way in which its members organise themselves and rules exist to ensure the normal functioning and protection of its members and their activities. Examples are locking of doors, fences, time frames for washing, noise management etc. No two communities are exactly the same and therefore that cannot be a “one-size-fits-all” way of addressing disaster risk reduction (CBDRR study guide:8). Past approaches failed to address the specific local needs of vulnerable communities, ignore the potential of local resources and capacities, and may, in some cases, even increase people’s vulnerability.

This led to adopting and implementing the concept of community-based disaster risk management. It is an approach that relies on the capacity of the community to remedy their disaster situation themselves and to help each other (Heijmans & Victoria 2001:13). Victoria (Undated:2) identifies the following features and elements of CBDRM:

- The participation of residents in the whole process;
- Identifying the most vulnerable groups, families and people as priority one;
- Risk reduction measures are community-specific and are identified after an analysis of the community’s disaster risk;
- Existing coping mechanisms and capacities are recognized;
- The aim is to reduce vulnerabilities by strengthening capacities;
- Links disaster risk reduction with development and
- Outsiders have only a supporting and facilitating role.

This approach fits in with the current IDP processes in local municipalities.

Twigg (2004:241) makes a valuable contribution to risk reduction measures in urban areas by distinguishing between 'private' and 'public' space. According to him, urban residents may be willing to participate in risk reduction activities to protect their own homes, but may feel that 'public space' like drains, roads etc is the responsibility of the local government. The attitude and view of the community with regards to local government responsibility can therefore hamper or enhance community involvement in risk reduction activities.

Victoria (Undated:4) identifies the following steps for implementing CBDRR:

- Initiate the process through building a relationship with the community;
- Perform a community profile to understand the disaster situation;
- Perform a community participatory risk assessment;
- Formulate an initial disaster risk reduction plan;
- Establish a community disaster response organization;
- Implement short-, medium- and long term risk reduction measures;
- Monitor and evaluate the success of the measures and update where necessary.

In any disaster risk reduction activity, the disaster management practitioner can no longer develop programmes in isolation or design one programme and duplicate it in several other communities. The practitioner must visit the community and do a detailed situation analysis to obtain information from the residents and determine existing livelihoods. Only then, can risk reduction measures be identified and implemented with the cooperation of the community itself to move them towards disaster resilience.

4. RESEARCH METHODOLOGY

The aim of this section is to outline the research methodology that was utilised in collecting data in the Itereleng Informal settlement. The tool that the research students utilised is known as a transect walk.

A transect walk is a participatory approach that enable researchers to gather qualitative information.

Transect walks are mostly used in participatory rural appraisal (PRA) and are regarded as useful and cost effective tools to address rural issues effectively. According to Mahiri (1998:1) a transect walk in PRA is

normally conducted by a mixed group of local people and visiting professionals.



The transect team with the Itereleng residents that walked with the students and provided the information which is contained in this document

Chambers (1994:1253) described PRA as a growing family of approaches and methods to enable local (rural or urban) people to express, enhance, share and analyze their knowledge of life and conditions, to plan and to act. A transect walk could be regarded as a mobile interview during which members of the students walk from the beginning of the village to the most outer part of the village. The students is usually accompanied by key informants from the village that are knowledgeable around community issues and the management of natural resources in Itereleng.

It is regarded as good practice to develop an observation guide prior to the start of the transect walk. During this process information is mainly gathered through direct

observation, probing amongst the key informants who are part of the students and by questioning and talking to people you meet along the way. Members of the transect walk from the village or local community can be chosen on the basis of some of the following factors: their interest on the management of local natural resources, their long term residency in Itereleng, their leadership roles and standing in the community and their availability to participate in the transect walk.

The following are some of the aspects that could be observed during the transect walk:

- Housing conditions.
- Availability of sanitation facilities or lack of.
- Availability of health facilities.
- Livelihood strategies.
- Prevalence of hazards.
- The extent of vulnerability to natural and man made disasters.
- Presence of informal business activities.
- Location of natural and other resources.

As part of PRA transect walks should be carried out in the early stages of the PRA process. During the transect walk it may be useful to divide the students into smaller groups of people. This observational tool assists the students in getting a holistic and visual view of the community in question. It provides the students with a physical sense of the environment and an opportunity to directly observe the daily activities of the residents in the natural setting. The other qualitative research data gathering tool that closely overlaps with transect walks is observation.

It is also important that the students should include both men and women so as to ensure that the information that is gathered is gender sensitive and balanced.

The following are regarded as some of the strengths of this qualitative research data gathering tool:

- It enables corroboration of informant's responses to questions.
- It assists students in familiarising themselves with the community.
- It enables rural people to share their knowledge of the local environment.
- It provides a platform for residents, community leaders and experts to interact and exchange views on local environmental issues.

The following are some of the weaknesses and challenges that confront people in carrying out transect walks:

- Logistical aspects in terms of finding a day that may suit all informants.
- The possibilities of raising expectations amongst the residents whose community is being studied.
- Poor security in some communities renders walking around the community unsafe and dangerous.
- Some members may not be able to take notes whilst walking around the village.
- Students may forget to observe conditions during the walk.

It is clear that transect walk can be an effective tool of gathering spatial related data and information. Based on the information that was gathered during the transect walk, it is clear that this methodology was successful.

During this transect walk, the group was divided into three, each group was tasked to gather data on specific observations. At the end of the transect walk the groups combined all their observations.

5. OBSERVATIONAL

During the transect walk the students made numerous observations regarding the settlement and its residents.

These observations are broken down into the following: social, physical and natural, all of which will be detailed in the paragraphs to follow.

5.1. SOCIAL OBSERVATION

a) Different nationalities

There are several immigrant groups from neighbouring countries, including Zimbabwe, Malawi and Mozambique. Some residents claimed that most informal businesses are owned by these immigrants and thus contribute in creating tension and possible conflicts.



Inexpensive new and second hand clothing are always available and it is literally just around the corner

b) Different religions

There were different religious factors that were a particular major stressor, because the community has conflicting views on morality, ethics, theology, cultural views, family traditions, etc. It was claimed that these influence many of the community decisions, wants, priorities and needs.

c) Child headed households

There was no indication of any child headed households, but some members confirmed that the community takes care of these children whenever such a situation occurs.

An example of this is when illness or disability does not allow the parents / guardians to effectively run the household.

Diseases such as Aids and TB are major contributing factors to child headed households. Therefore it is important that the community is made aware of these issues and how it will affect them and their families if they don't get the proper treatment and care.

d) Crime

The community experiences criminal activities and these activities still occur even after the introduction of a community structure was set in place.

Some members claimed that the reason for this might be that criminals steal and resell within the community, and that community must stop buying goods which are stolen. They also claimed that some high ranking members are involved in these activities.

There were a number illegal gambling's and "*fafie*" and one woman claimed that it is the only way she can put a dish on the table for family.

A number of young men confirmed that there are a number of brothels in Itereleng, but they were not willing to point out these areas.

One high ranking member of the community claimed that he obtained permission for his electricity from Council and that he is paying every month for the services, yet the Councillor stated that there is not supposed to be any electricity in the houses because this area is not formalised. This clearly shows that the

Municipality does not have the manpower to enforce legislation, thus allowing the community leaders to create their own system whereby the community must live, although it seems that the residents do not have many objections to this type of system.

e) Employment

Most of the Itereleng community is unemployed. Some of the residents generate an income by collecting scrap metal or cardboard, piling it onto trolleys, and selling them to scrap dealers.



Although collecting cardboard generates an income for some residents, it creates a fire risk that will endanger their lives as it is stored next to the house.

Some of the female residents are employed as part-time domestic workers in the neighbouring areas.

There is small fraction, mostly men, employed by a local brick factory on a part time basis.

The students were also told that resistance to relocate is caused by land lords because they generate about R150 per house, and they will lose this income if this community is relocated. One high ranking member admitted that he has almost 20 housing units in his yard.

f) Public phones

There are several public phone shops around the community thus making communication easier. These phone shops help a great deal in case of emergency situations.



Business owners use creative advertisements to attract more customers to use their services

g) Daycare centres

A number of women formed two child care centres to generate income. These centres have few facilities and resources to cater for these children, which results in some of the children being left alone which makes them vulnerable to injury.



Education starts at an early age even if you stay in an informal settlement and live without basic services.

The structures for the day care centres are not conducive for this type of a service because dangerous objects lie around and some of the children use these objects as toys.

h) Goodwill between community leader and community

The community has a good leadership structure which involves women, youth and elderly people. These structures play a major role in controlling and solving

community matters. The students were informed that things were very bad until the Councillor initiated this type of structure.

One of the residents also confirmed that the crime rate and has declined since the introduction of their forum. The Councillor made mention of the good cooperation and partnership with the South African Police.

i) Health facility

Two Community Development Workers play a big role within this community by observing and referring cases to the relevant authority which are reported by other residents. Some of the sensitive cases involving children were seen during the transect walk.

Most of the residents need to travel kilometres to neighbouring areas for health service. The community has an agreement regarding the assembly point where ambulances collect patients.

j) Sport facilities available

There are limited sports facilities in Itereleng, however there is a soccer field at the entrance to the Informal settlement. Different clubs need to share the soccer field and this sometimes leads to conflict.

Unemployed men keep themselves busy by playing “Umrabaraba”, while some of the women occupy themselves by crocheting.



Soccer greats such as Ronaldinho started out playing on a soccer field similar to this. So keep your eye on Bafana Bafana as a future captain may arise from this community



Although the unemployment rate is high in Itereleng some residents find ways to earn an income by selling their handcrafted goods.

It was noted that children in this community resort to crime, drugs and other illegal activities, and that the rate of teenage pregnancy is very high. These factors may be as a result of the lack of activities that engage youth.

k) Education

There are different factors contributing to lack of education in this community. The community was told that there will be no formal structure erected on this area and this results that children need to travel long distance for education. Some of the children have being mugged and robbed, and some girls have being raped on their way to school.

l) Pollution

Itereleng has noticeable air and environmental pollution. There is also no Environmental Health Service in Itereleng responsible for protecting and promoting public health and to carry out the monitoring of pollution.



Pollution is an unwelcome concentration of substances that are beyond the environment's capacity to handle. These substances are detrimental to people and other living things

5.2 PHYSICAL OBSERVATION

The purpose of this section is to create an understanding of the physical aspects of the residents of the Itereleng informal settlement and of the settlement as a whole, and will include such factors as services rendered to the settlement, business opportunities within the community, details on the area wherein the settlement is situated, transport to and from the settlement, as well as health issues and schooling.

a) The Area



An aerial map of Itereleng where the open mine is visible which employs \pm 200 residents.

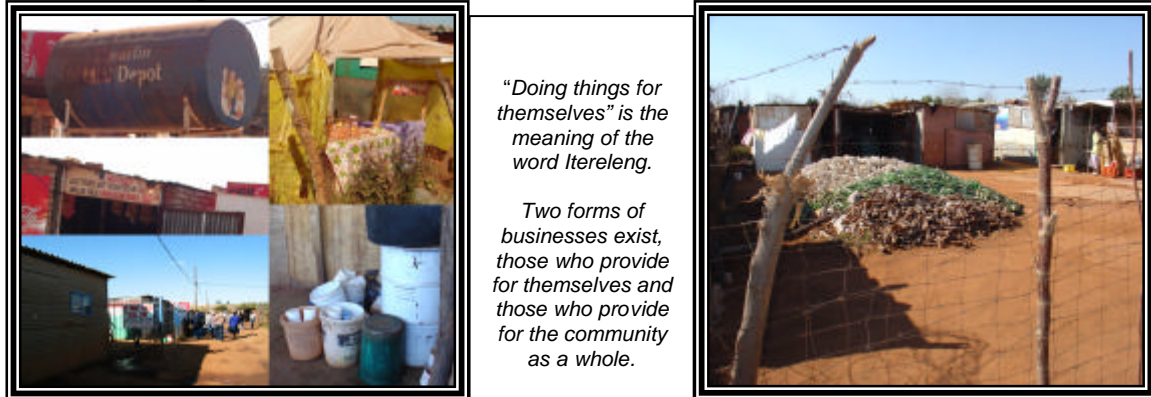
The Itereleng informal settlement is situated in Ward 61 of the CTMM, and is represented by Councillor Mohamed Essop. Itereleng is situated south of the mainly Indian populated Laudium, a formal housing area.

An open dolomite mine and cement brick factory is situated to the South East of Itereleng and employs approximately 200 of the residents.

Itereleng is situated on a slope running towards the Hennops River. To the southern side there are small hills and open spaces towards a suburb called Erasmia.

b) Businesses

A variety of active informal businesses exist in Itereleng. A bread delivery vehicle was delivering bread.



The students observed a shebeen, which operates mainly in the evening and on weekends. Some residents collect bottles and sell it back to the glass factory for a profit. Some residents grow a vegetable garden on the outskirts of Itereleng and sell the produce to the community. Paraffin is bought in bulk and sold to the residents in many of the shops in the settlement, however if the residents wish to purchase the paraffin they need to provide their own containers. During the transect walk many advertising signs were seen for public and cell phone shops. Many of the foreign residents sell clothing and accessories which enables them to provide for their families with a better lifestyle than they had in their home countries.

c) Schools

No formal education institutions exist in Itereleng. One of the female residents makes use of the Church facilities to provide a daycare centre. A school taxi bus service exists for children to be transported to the nearby schools.

d) Housing

Most of the houses are built from wood and corrugated iron. Itereleng's borders have been defined by the CTMM and the residents are not allowed to erect houses beyond these set borders, which forces the residents to erect more

houses per stand resulting in very cramped living spaces. A fire risk is created due to the close proximity of the houses.

e) Roads

The roads in Itereleng are gravel roads which are very narrow and in some places vehicles cannot pass through. In the event of a fire or a medical emergency, it will not be possible for the emergency vehicles to reach their destination.



The only access road to Itereleng is a tarred/gravel road.

f) Health And Welfare

There are no clinics in Itereleng, however a mobile clinic visits Itereleng for basic health care and refers patients to the nearest Provincial hospital which is the Kalafong Hospital. If residents need health care at times when the mobile clinic is not at the settlement, they make use of the nearest clinic which is in Laudium. .



Dr. Maboti's advertisement claims he can solve almost any problem

g) Services

- Water

The only water supply to the residents of Itereleng is communal water taps which are situated in the lower part of the settlement. The location of these taps causes the residents in the upper part to have to walk longer distances for water than those in the lower part. It will suffice to state that the Informal settlement has below standard water provision.

- Electricity

Street lights have been installed in the lower part of the settlement for security reasons. Some of the residents abuse this facility by connecting illegally to the street lights to obtain electricity for their houses or businesses. Paraffin is the main source of energy for warming, cooking and lighting



Even the church takes advantage of the illegal electricity connections

- Refuse Removal

The CTMM has provided one skip container to Itereleng which is emptied weekly, however this service is insufficient. Not all the residents use this skip as it is located at the entrance of the settlement, which results in localised waste dumps.



Above is the skip container that the CTMM provided for the residents of Itereleng.

- Storm water Drainage

As Itereleng is an informal settlement no provision for storm water drainage has been made, which causes waste water to run down the gravel roads. This waste water causes the roads to erode quickly and also creates a bad smell in the settlement.

- Sewerage

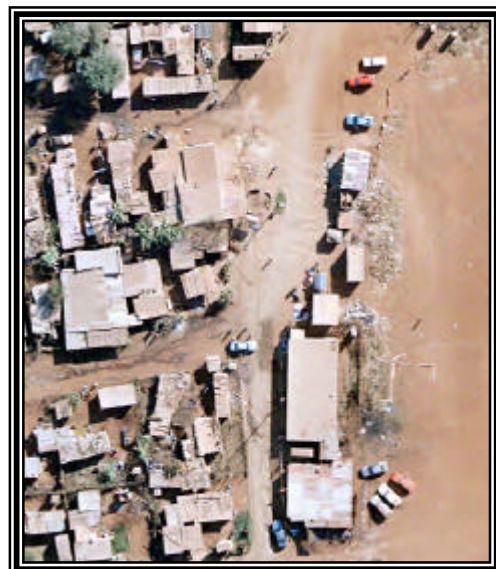
Although the CTMM does not provide for a sewerage service in Itereleng, they do provide bucket latrines, although the majority had locked doors. During the walk the students also noticed that a few of the stands had pit latrines.



Chemical toilets are provided for the residents with locked doors

h) Transport

There is an assemble point at the entrance of the settlement and from here residents can make use of either busses or taxi's to reach their destinations, and for the immigrants a long distance taxi service is available



The CBD of Itereleng

i) Emergency Services

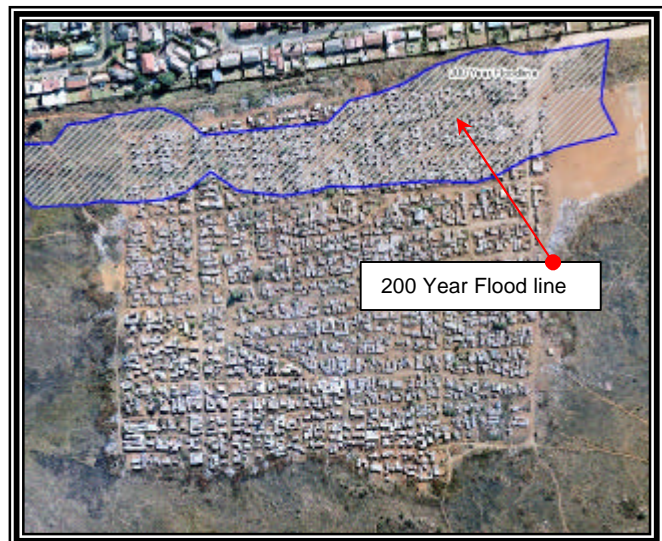
Emergency Services are provided to Itereleng from Atteridgeville fire station.

5.3 NATURAL OBSERVATION

Natural phenomena are extreme weather, water or geological (earth) processes that do not pose a threat to people or properties. When they occur in a deserted place, they are merely natural phenomena and nothing else. However, once they affect human beings, due to location or poor planning by the human beings, they are a potential hazard and could become a disaster.

Despite remarkable progress and scientific achievements, humans still know very little of their complicated natural environments. The Community of Itereleng is a good example; it seems as though they are not aware of the risks and vulnerabilities in their community.

During the rainy season there is a great risk of flooding because the settlement is built on a slope of the Skurweberg and the riverbed in the lower part of the settlement falls within the 200 year flood line.



The 200 year flood line shows that many houses will be flooded in the dry river bed

a) Air

Wind is a big hazard because Itereleng is an open area with no trees and because of the informal structure of the houses.



Open area next to Itereleng

Itereleng is very dusty and the lack of tree cover and minimum grass cover makes it even worse.

On the higher slope there is a dolomite mine, the dust from the mine and the dust of the trucks driving in and out causes air pollution.

b) Water

There are communal water taps in different locations in the lower part of the settlement to provide fresh water to the residents. Some of the taps are left open because they cannot close properly due to poor maintenance.



One of the residents said that he would do the maintenance on the water taps if the CTMM will provide him with the necessary tools

During the rainy season the natural incline might cause flooding of the houses.

Lack of proper sanitation results in the community throwing their waste water everywhere, this causes stagnant filthy water where different bacteria can live and grow in, e.g. Mosquito's in summer.

c) Waste

In and around Itereleng there is a lot of waste and dead animals laying around which pose a health risk to especially the children playing.



Carcasses create a health risk for the residents of Itereleng

d) Grass and soil

The grass veldt causes an enormous fire risk because the grass grows next to the houses on the southern side. On the western, northern and eastern sides there are fire breaks which avert fires.

The soil on the eastern side is very fertile and a resident started a garden project to be able to sell the produce for a profit to the other residents.



Fresh vegetables are grown for the residents own use

e) Noise

The dolomite mine regularly blasts rock to use, this cause a loud noise and earth tremors.



The brick factory makes use of heavy vehicles to transport their cargo.

f) General

Due to the close proximity of the houses to each other, there is limited privacy for individual households.



Fire is the highest priority risk in any informal settlement. The main reason is that the residents build their houses too close to each other.

6. LIVELIHOODS

“The Development Alternatives approach regarding sustainable livelihoods encompasses activities intended to help economically disadvantaged members of society meet their daily subsistence needs in a manner that is dignified, locally appropriate, and environmentally sustainable.” DA development alternatives 1999. Retrieved July 3, 2006, <http://www/dainet.org/livelihoods/slvision.htm>.

Below are the livelihoods or coping mechanism made use of in the Itereleng Informal settlement on a day to day basis, observed and questioned by students of SBS.

a) Skills / Capabilities

In Itereleng, the students saw four unemployed women who decided to start a child care centre / crèche and charge R50 per child. This is a very lucrative livelihood which benefits both parties as it provides care for the children and an income for the women. After asking questions regarding child headed households, the students were informed that when parents died, other family members took care of those children.



Pre-Primary children in a classroom (Church on Sundays) singing and learning while their parents are at work.

The Evangelism with Fire Ministries Church is used on a day to day basis. A notice with the whole week programme showed the students that this Church is active and also includes a cleaning and a Youth practise programme.

Walking through the settlement the students noticed that some of the structures were built by professional builders with experience. This is another income

generating opportunity for those builders and the rest of residents who can afford to build better structures.



Church services are a way to uplift and bring the community together.

There were also notices informing residents of films which are shown from Fridays to Sundays from 11 am till late in the evening which is another income generating venture and entertainment to the residents.

The students were informed that the Youth League under the leadership of Sylvia Lande as Chairperson dealt with crime in the past. After the election of the new Councillor, Mohamed Essop, the elders in the settlement decided to initiate a new crime combating approach to deal with crime in a more sustainable manner.

After asking the residents about the relationship between themselves and the newly elected Ward Councillor, they confirmed that they have a good working relationship with him despite the presence of the previous Councillor.

A Traditional healer is deriving an income from the residents in Itereleng by providing a traditional health service.

b) Economically

Only approximately 200 members of the community are working on a temporary basis at the nearby dolomite mine and some have piece jobs (temporary employment) but most of the residents are unemployed.

After questioning some of the landlords, it was clear that after they erected a few smaller houses, they stay in the biggest one and rent the others out for R100 each per month.

Transport is not a problem in the informal settlement and many residents use localised taxi's or bakkies which charge fair fees and the owners of the taxi's or bakkies generate an income for themselves.



Fresh Bread is delivered daily

There are a few “spaza” shops supplying various products, including gas and paraffin and many small fruit and vegetables shops which provide a good service to the community. Freshly baked bread is available on a daily basis at many shops.

Two residents recycle cardboard boxes and bottles which contributes to rubbish removal and benefits the community astatically. One of the bottle collectors informed the students that not long ago an amount of R400 was received for a full drum of glass bottles.



A bottle recycle entrepreneur

Telephone communication in Itereleng is not a problem and many phone shops achieve good business by charging the residents 90c p/min. The residents use the telephones to summon emergency services as well as the SAPS in nearby Laudium during emergencies.



Landline telephones are still the most economic method of communication

Several small mechanical workshops were observed that do car repairs ranging from punctures to engine overhauls and generate an income.

Battery shops recharged batteries and a notice advertised that TV batteries can be charged at the following prices:

12V @ R10

24V @R20

A small scale gardening project is on the way on the eastern side of Itereleng while other residents provide themselves with their own vegetable gardens, mostly cabbage, sweet potatoes, mealies and tomatoes.

There is only one visible liquor store (Thandabantu Liquor Store). It is alleged that it belongs to the previous Councillor. Some of the residents voiced their disapproval because the building used to be a church/place of worship. Some residents make their own traditional beer and also sell it to other residents locally.



Directions to the liquor store

The students noticed the growing of cash crops (appeared to be dagga) on the western side of Itereleng, which could be used to the benefit of the residents although it is against the Law.

Approximately four residents generate an income by cleaning the bucket latrines and thereby ensuring a more sanitary and healthy environment.

The students noticed advertisements on three occasions regarding external protection/security services:

- MSM Protection Services for training purposes – The advertisement encourage the reader to bring a friend and get R50 immediately.
- The Rider Security Services also advertised for guarding purposes.
- A Fire Awareness Campaign was also held at the Informal settlement at the Sports grounds at 12 June 2006.

The students saw a photographic shop specialising in ID photos, enlargements, frames and films . This service is crucial when applying for id documents and passports.



"Say Cheese" for one of the photographers in Itereleng

7. HAZARDS

a) Fire Risk

Itereleng is completely surrounded by veldt / brush highlighting the risk of runaway brush fires coupled with uncontrolled usage of various combustible materials (outside cooking).

The prevalent cooking method is paraffin or gas stoves which heightens the risk if left unattended or is incorrectly connected.

Fires are also started maliciously because of domestic disputes, lovers quarrels, jealousy or revenge.



Houses at the boundary of Itereleng with no fire break to protect it.

b) Flood Risk

- Internal

There are several communal water taps at strategic points in the streets to provide clean water. However, these taps are left running and unattended which can result in sinkholes as Itereleng is built on dolomite.



Dolomite is known for the formation of sinkholes.

- External (topography)

Itereleng lies on a slope which makes it vulnerable to flash floods during heavy rains because there is no storm water drainage.



A bird's eye view of the area showing that Itereleng is built on a slope.

c) Illegal Electrical Connections

There are street lights in certain parts of Itereleng to help reduce crime at night but this leads to illegal connections by a few of the residents (leaders and business people). Electrical supply is unavailable to the rest of the residents.



Residents do their own electrical connections. (People doing things for themselves)

d) Unsafe Usage Of Gas And Paraffin

The predominant energy source is gas and paraffin stoves which are not always in a good condition. The storage thereof also aggravates the fire risk. Paraffin in particular is stored in cold drink bottles which places small children and toddlers at risk from drinking the paraffin.



Residents need to bring their own containers to buy paraffin

e) Inadequate Servitudes

Itereleng is a self proclaimed informal and illegal settlement thus no attention was given to road servitudes, with the result that roads are narrow, inadequate and inaccessible in most places.



Roads are used as walkways and for the drainage of waste water

f) Open Pit Latrines

Although portable chemical toilets have been provided, there are too few to serve the needs of the community resulting in the digging of open pit latrines.

Several open disused pit latrines pose a particular risk to children who play around them as well as to pedestrian traffic at night.



It has conclusively been proven that nitrate loaded effluent from pit latrines is directly responsible for widespread contamination of valuable groundwater resources.

g) Overcrowding of houses

Stand owners who make a living out of hiring out their houses, build more and more houses on an ever shrinking stand in order to gain an extra income, thereby heightening the risk of runaway fires as there are very few fire breaks.



The overcrowding also contributes to various social related stressors i.e. lack of privacy, living space, noise, etc.

Overcrowding contributes to the poor ventilation in informal houses and the risks associated with paraffin (kerosene), the main cooking fuel in Itereleng.

h) Pollution Risk

Grey water (waste water, washing water, domestic usage of water) runs down the streets creating rivulets adding to the general unhygienic appearance, and the unavailability of proper sanitation results in the utilization of pit latrines which leads to unsanitary conditions.



Raw sewerage poses a particular risk to health because it mingles with waste water in the streets and flows through the stands.

Residents can control the unhygienic conditions by using their waste water to water their gardens.

i) Health Risk

There are several carcasses lying in and around Itereleng ranging from rats to chickens, dogs and other domestic animals.

The stagnant pools of water place the community at risk of water borne diseases.

j) Competition For Scarce Resources can create hazardous conditions for those who have resources and place them at risk from those who have not (theft and violence). Certain factors contribute towards residents competing for resources. These factors include:

- There are not enough jobs to accommodate all able bodied job seekers.
- Water – A section of Itereleng (upper part) has no communal taps which aggravates the tension between those which have and those which have not.
- Food – Those who work and thus can provide for their families are at risk from those hungry jobless residents.
- Shelter – Because of a moratorium on expansion in Itereleng new houses are forbidden which makes competition for existing houses highly volatile.

k) Political Rivalry

During the transect walk the previous Councillor was observed on the fringes of the group accompanying the students. They would cast furtive glances in his direction before answering questions. It was very obvious that he still has an influence over the residents.

The previous Councillor was suspended and removed from office by the ruling party on charges of corruption still has influence within the community which brings the current Councillor and his supporters in conflict with each other, according to the current Councillor Mohammed Essop.

l) Jealousy

The majority of business opportunities and stalls are manned and owned by foreigners/illegal immigrants which creates tension and jealousy in the Settlement that can lead to violence at any time according to the traders that was spoken to.

m) Crime Risk

During the transect walk a criminal act (house breaking/burglary) was observed in the adjacent area of Laudium. The perpetrators ran back to Itereleng.

It was alleged by one of the residents that the severest house fire was started by a group from the upper part of Itereleng because a woman was sexually assaulted by another group also from Itereleng. This act resulted in 38 houses destroyed.

8. IDENTIFIED NEEDS / DEVELOPMENTS

The municipality regards the community of Itereleng as an illegal settlement so no new development or services will be provided other than clean drinking water and occasional scraping of the roads. The residents are unwilling to be relocated because their children go to school in nearby Laudium where they also acquire health services and employment according to Clr Essop. This reluctance places the residents in a vulnerable position which is not likely to change because there can be no development in an illegal settlement as per the official policy of the CTMM.

Physical and social environments associated with housing influence family functioning as there is not much privacy. Housing conditions often leave the community vulnerable to floods and fires.

A huge problem is the accessibility of roads in Itereleng, therefore it is impossible for emergency vehicles and the police vehicles to access Itereleng. Children have to walk very far to the nearest schools. Proper roads and schools nearby are needed to overcome these problems.

Water and electricity must be extended in order to cover the whole Settlement. Electricity and street lighting services should cover the whole Settlement in order to reduce the high crime rate as well as shack fires.

There is insufficient waste removal services which poses a health risk and two bulk waste containers should be supplied by the Local Municipality on a continuous basis.

There are insufficient communal taps and the Local Municipality should extend and maintain the communal taps system, in order to cover the whole area of the Settlement.

The Department of Social Development, Health Division will have to be approached to provide the residents with a mobile clinic.

The Sport and Culture Department of the Local Municipality can be approached to facilitate the Settlement with better recreational facilities. All these above mentioned services can not be provided because the settlement is considered illegal although there is a need for such services.

Risk Awareness projects to be initiated on a temporary basis before resettlement takes place. In the interim whilst awaiting a decision on whether the settlement will be formalised or not. (Political decision).

Awareness campaigns are needed to educate the community about the dangers they are facing whilst living in the settlement (Health Department can assist).

Social Development Department City of Tshwane can provide temporary projects to the residents to utilize the open spaces more effectively for the establishment of garden projects to generate more income and feed themselves..

The Department of Housing must be approached to hold awareness campaigns in the Settlement to make the residents more aware of better building techniques/ materials to be used when erecting a house in an informal settlement eg fire breaks, space between houses etc. The Emergency Services, Training Division can be utilized to educate the residents about prevention and mitigation of fires and basic first aid.

SAPS should be approached to give information sessions regarding the dangers of drugs and anti crime projects initiated within the community to prevent the community from taking the Law into their own hands (vigilantism).

9. CONCLUSION / RECOMMENDATIONS

On the basis of the observation done during the transect walk and through consultation with the residents of Itereleng, the students felt that the following needs to be done to minimise risks and vulnerabilities.

The people of Itereleng should be allowed to drive the development process and their needs should be the cornerstone of any development initiative. The community could also be involved in the grading and repair of roads to create access for Emergency Services and other vehicles.

The municipality can also workshop residents on issues such as how to harvest rainwater in order to supplement existing water resources. It is also important that the waste management systems should be upgraded in order to improve sanitation. Other structural mitigation measures such as installation of storm water drainage facilities could contribute in minimising flash floods.

The municipality should support emerging small business in Itereleng and the issue of skills development should be considered to reduce unemployment in Itereleng. The municipality should strengthen its programs of teaching first aid and basic fire fighting to the community.

Further geological studies in Itereleng should involve community leaders. This is necessary in order to demonstrate to these leaders the dangers of settling in a dolomitic area.

It is important to note that studies which are undertaken without the participation of the community will be dismissed by the community as unfounded.

The long-term solution is the relocation of Itereleng to an area that is declared a formal residential area where basic services will be provided to residents.

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