# SOLVING ROAD (AND PEDESTRIAN) SAFETY PROBLEMS THROUGH SUSTAINABLE JOB CREATION IN OUR COMMUNITIES

# M GROENEWALD, L LAMBERT, A HEYL\* and A VISAGIE

Aurecon, PO Box 905, Pretoria, Gauteng, South Africa, 0001
Tel: 012 346 5580; Fax: 012 346 5581; E-mail: <a href="Melissa.Groenewald@aurecongroup.com">Melissa.Groenewald@aurecongroup.com</a>
Trans African Concessions (Pty) Limited, T +2711 805 8788, +2782 922 7354(mobile), 086672 8886 (fax), aheyl@tracn4.co.za

#### **ABSTRACT**

Southern Africa faces many challenges, amongst others unemployment and road deaths, almost half of the road fatalities being pedestrians. Innovative solutions for solving road safety (and especially pedestrian safety) challenges in our rural communities can be achieved by involving the local community in the solution. This should be done in such a way that the local community members actively participate in road safety and particularly pedestrian safety education. Training is one way of achieving this goal.

The experience in labour intensive construction infrastructure provision in rural and urban communities can be applied in community pedestrian safety projects. This paper will indicate how facilitating the forming of a steering committee (representing the local community, local school, SAPS, Traffic), implementing authorities (municipal, provincial, toll concessionaire), implementing agent (consultants, project managers) and training in this case a community safety/pedestrian officer, (instead of the usual community liaison officer) who can implement the community pedestrian project can be used to enhance existing road safety education in schools.

The added advantages of such projects includes the creation of creating sustainable jobs, meaningful employment and sustained road safety awareness in communities, empowerment of local communities, involvement and buy-in of communities at large. Private enterprises involved in these road safety initiatives have the added advantage of funding such projects with Corporate Social Investment funding, with significant benefits for such companies.

Other examples of innovative road safety projects that create employment will also be discussed. Specifically the for example the pointsmen that an insurance company has placed at intersections during peak traffic to assist with traffic flow and improved road safety.

#### 1. INTRODUCTION

Transport Minister Sibusiso Ndebele commented: "The reduction in road deaths is not just a desirable; it is an urgent non-negotiable, and has become our daily mission, which has called upon world leaders to work together and to share solutions to this challenge." (Sowetan, 2012). He continued, "We would like to request that, collectively, we make 2012 the beginning of the end of bad driving. More than 40 people die on South African roads every day, and we need a paradigm shift in our approach to road safety. Road safety is everybody's responsibility. As government, we want to make it very clear that we remain steadfast in our resolve into bring(ing) down the fatality rate on our roads. We are determined to ensure that all road-users, especially, the most vulnerable, are safe when travelling on our roads."

At the 7<sup>th</sup> Annual Africa Road Safety Summit it was stated that by 2015 road accidents will be the leading cause of premature death among young people. The top three causes of child mortality from accidental injury are road traffic accidents (32%), drowning (17%) and burns (9%). (Van As, 2010). School age children are more vulnerable on public roads, compared to younger children that are more likely to be injured in and around the home. Focussing on road and pedestrian safety or vulnerable groups such as children, makes logical sense.

# 32 % of children fatalities in SA due to road accidents

Nearly half of the deaths that occur on South African roads are that of pedestrians. Pedestrians are legitimate road users and are most vulnerable on our roads. Due to a lack of public transport infrastructure in some areas or not being able to afford the fares, people walk for long distances to reach buses and taxis. Due to informal and unplanned housing some places of creation are separated by highways.

The integrated approach to road safety is that the disciplines of engineering, education and enforcement each play a role in reducing road accidents. SANRAL Road Safety Management System approach entails:

- Reactive Measures (Measures that can improve the safety after a number of accidents have occurred);
- Proactive Measures (Measures to address road safety concerns while the road is still being designed, for example Road Safety Audit at design stage);
- Road Safety Education and Training.

SANRAL (SANRAL, 2006) has identified the need for a strategic National Pedestrian Road Safety Awareness and Education Campaign, aimed at amongst others the appropriate use of pedestrian infrastructure. It is a reality that pedestrians have to make use of the National Road Network, for example children to get to school or to visit shops. The challenge is to ensure that pedestrians make use of national roads in a responsible manner and the onus rests on the provision of appropriate infrastructure that are supported by education and enforcement initiatives.

"We will also continue to focus on primary schools and have developed multi—media road safety education materials to improve effectiveness of road safety education programmes in schools.' President Zuma said.

Photo 1: Pedestrians at Ngodwana, Mpumalanga



Innovative solutions for solving road safety and especially pedestrian safety are needed. Challenges in our rural communities can be addressed by involving the local community in the solution, in such a way as to liaise and train local members of the community to actively participate in road safety especially pedestrian safety education in schools.

The experience in labour intensive construction infrastructure provision in rural and urban communities can be applied in amongst others to community pedestrian safety projects. The paper shows how the principles of facilitating the forming of a steering committee (representing the local community, local school, SAPS, Traffic), implementing authorities (municipal, provincial, toll concessionaire), implementing agent (consultants, project managers) and training in this case a community safety/pedestrian officer, (instead of the usual community liaison officer) who can implement the community pedestrian project, can be used to enhance existing road safety education in schools.

The added advantages of such projects will be illustrated in terms of , especially of creating sustainable jobs, meaningful employment and sustained road safety awareness in communities, empowerment of local communities, involvement and buy-in of communities at large. Private enterprises involved in these road safety initiatives have the added advantage of funding such projects with Corporate Social Investment funding, with significant benefits for such companies.

Other examples of innovative road safety projects that create employment will also be discussed, for example the Pointsmen Project (pointsmen placed at intersections at peak traffic to assist with traffic flow).

# 2. COMMUNITY PEDESTRIAN SAFETY PHILOSOPHY

Local communities can become part of the solution of addressing road safety concerns. Members of the community can form part of a road safety steering committee with other stake holders representing education, engineering and enforcement. Awareness of road safety concerns in the community can be addressed at such forums and the education of children in schools can be co-ordinated. Members of the community can even be trained to teach the children in schools.

Experience in labour intensive construction infrastructure provision in rural and urban communities can be applied in community pedestrian safety projects. This paper will indicate how the principles of facilitating the forming of a steering committee (representing the local community, local school, SAPS, Traffic), implementing authorities (municipal,

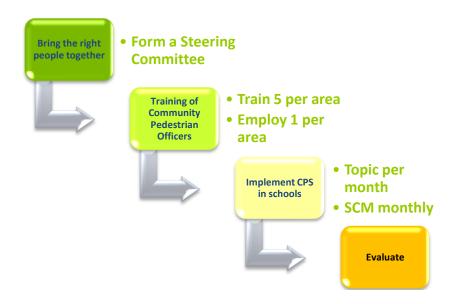
provincial, toll concessionaires), implementing agent (consultants, project managers) and training, in this case a community pedestrian officer, (instead of the usual community liaison officer) who can implement the community pedestrian project to be used to enhance existing road safety education in schools.

The added advantages of a community pedestrian safety project will be indicated, especially of creating sustainable jobs, meaningful employment and sustained road safety awareness in communities, empowerment of local communities, involvement and buy-in of communities at large.

Research has indicated that successful pedestrian safety projects at schools have two aspects in common: a. developing leaders and b. keeping the programme visible and exciting. Pedestrian safety projects aims at not only improving road safety knowledge but also for the children to practise to implement road safety in order to change behaviour through reinforcement with songs, art and role play/drama.

Figure 1: The Community Pedestrian Safety project process is as follows:

# **CPS Process:**



# Steering Committee

A Steering Committee will be formed from (or in each case a representative thereof) the headmaster of each school, local SAPS, local/provincial traffic, local Councillor or community leader, client body, programme managers and other interested parties as deemed necessary by the client body, the Programme Managers or the Steering Committee. The Steering Committee will meet before the inception of the programme and thereafter will meet on a monthly basis. The Steering Committee will form a strong support and success factor to this programme. Each member of the committee represents an important pillar to the solution for pedestrian safety and education of children. Each body/organisation represented in the Steering Committee has a direct or indirect link to pedestrian safety education and benefits from the reduction of pedestrian accidents in the community.

Figure 2: Representation on a Steering Committee:



# Community Pedestrian Officer

Community Pedestrian Officers (CPO's) will be identified from the community and trained in order to implement the Community Pedestrian Safety Project in the specific community. Selection criteria will be proposed to the Steering Committee and will include aspects like a person living in the community, but not currently employed, ability to work with children, literacy etc. The five day training will consist amongst others road safety education, how to teach children of different ages, communication skills and meeting procedures. Specialised training providers have developed training material and monitor the implementation of the project with project manager as contracted by the Client.

The implementation of the Community Pedestrian Safety Project will consist of teaching children from the schools in the community about road and, specifically pedestrian safety. The aim of the programme is to involve and empower children to learn in a fun manner. The aim of the programme is also to empower the local community and to create a number of employment opportunities and experience of members of the local community. Through the creation of a Steering Committee, role players strengthen bonds to work together to solve road safety and other challenges in the community.

# <u>Duties of Community Pedestrian Officers</u>

Duties of the Community Pedestrian Officers will consist of at least the following:

- Attend Community Pedestrian Office training.
- Attend monthly training sessions of 2 4 hours to introduce the theme for the next month.
- Be on the roadway between school and back on a daily basis during the time that the children walk to school.
- Monitor and encourage children to develop safe pedestrian habits.
- Encourage children to sing pedestrian safety song that will be developed by children as part of the project implementation.
- Teach pedestrian safety classes at the school on a weekly basis during time allocated by each school.
- Liaise with teachers and school principal on the implementation of pedestrian safety topic of the month.

- Implement pedestrian safety topic for that month.
- Complete a weekly one page report (predesigned) and fax to Programme Managers.
- Attend monthly Steering Committee Meeting and report on activities.
- Implement actions from Steering Committee Meetings.
- Report any challenges to Programme Manager as soon as possible.

It is proposed that the local ward committee will nominate three to five individuals per community to be trained as Community Pedestrian Officers. Even though only one person per community will be employed, more people can be trained, in order to give more members of the community opportunity for training and skills transfer, to have back up trained people, and because the cost of training remains virtually the same whether two or ten people are trained. The CPO will be employed by the Client or project manager on a fixed term contract.

# Selection of Community Pedestrian Officers

Selection of Community Pedestrian Officers should be made with the following selection criteria in mind:

- Able to read and write English.
- Able to communicate in both English and local vernacular.
- Able to work with children.
- Available for employment for 6 months.
- Able to present given topics and entertain children.
- Available for 4-6 hours per day.
- Not currently employed elsewhere.

CPO candidates will undertake a written assessment in English comprehension before the onset of training. Formal assessments, a presentation to the class and a written examination, at the end of the training will rate the candidates in order to make a final selection.

All participants of the Community Pedestrian Officer Course will receive a stipend (of R60 per day) and a meal during each day of training. Each participant will be supplied with a training manual and receive a certificate of completion at the end of the course.

# Training of Community Pedestrian Officers

The 5 day Community Pedestrian Officer Course will cover the following topics:

- Road safety and specifically pedestrian safety topics.
- Teaching children (pre-schoolers, primary school children and pre-teens).
- Communication with parents, children, teachers and steering committee.
- Report writing.
- Holding effective meetings.

# **Employment of Community Pedestrian Officer**

Only one individual per school in the community will be employed for a period of six months. It is suggested that the project is initially rolled out for six months and then be evaluated. Progress will be monitored on a weekly basis (the Community Pedestrian Officer will complete a one page report (pre designed). All reports will be forwarded to the client body by the Programme Manager. The Community Pedestrian Officer will report actions taken in the last month at the monthly Steering Committee Meeting and receive input on the proposed actions for the next month. The other participants trained, will be

available as a "back up", should a Community Pedestrian Officer circumstances changes and no longer be able to serve in his/her capacity, or not perform duties to satisfactory levels as deemed by the projects managers in consultation with the school. Community Pedestrian Officers will be compensated with a daily wage that will be determined by the rate of pay for those communities. A six month contract will be negotiated will the Community Pedestrian Officers appointed, which can be terminated on a 24 hour basis. The Community Pedestrian Officers will be registered for UIF. The client body will make the monthly payments to the Community Pedestrian Officers.

Training more community members has a number of benefits, not only are the community members empowered by gaining knowledge and life skills, they are compensated for each day attendance, more community members become aware of road safety and the importance it plays in everybody's life and a 'back up' system is set up. The back-up system of having extra CPO's is if one of the CPO's are absent the other CPO will be able to assist with any of the duties given to them.

# Community Pedestrian Officer Toolkit

A Road Safety Toolkit for the PCO's and client body-pack for children will be compiled. The contents of these toolkits are compiled in order to enable the Community Pedestrian Officer to have all the necessary tool/equipment in order to successfully teach and implement road safety/pedestrian safety in the schools. The toolkit will include road safety equipment like road signs, steering wheels and the like, as well as arts and crafts materials and other stationary deemed necessary. Sponsor branding can be added to material, especially to kit provided to the children.

# **Funding**

The opportunity exists for companies to become involved in such initiatives as the above and be able to use Corporate Social Investment (CSI) funding.

# Advantages of Community Pedestrian Safety Project

The advantages of the proposed Community Pedestrian Safety Project compared to conventional pedestrian safety programs will be as follow:

- Creating sustainable jobs.
- Creating meaningful employment (albeit for six months).
- Training more a number of people to potentially act as Community Pedestrian Officers at a nominal additional cost.
- Sustained road safety awareness in the schools and communities.
- Empowerment of local communities.
- Involvement and buy-in of communities at large.
- Possibility of client to continue with the project and extending the contract of the Community Pedestrian Officers after the first six months, at a small cost (Community Pedestrian Officers wages are R60 per day). Project managers together with training provider can provide project management services such as hosting a monthly Steering Committee Meeting, progress reports and supervision of the Community Pedestrian Officers.

C

# Case study

The first example of a Community Pedestrian Safety Project is at Ngodwana, with funding by TRAC N4 and Aurecon. In terms of a network level approach, appropriate pedestrian infrastructure will follow namely a pedestrian overhead bridge and separate bridge for pedestrians along the N4. Education programme at three schools in the area will prepare the community and especially the children to become more aware of their own responsibility towards road safety, visibility and finding safe places to cross the N4, as well as use of planned pedestrian infrastructure.

Eleven local members received CPO training and three were employed. The candidates rated the training and contents highly. After a month one CPO resigned due to changes in family circumstances and another candidate was employed. A steering committee was formed before the onset of the project. SAPS, Traffic, local councillor, headmasters of the three schools, Sappi, TRAC and their implementing project managers and training providers form the Steering Committee. A community pedestrian safety meeting at the one school are planned to discuss pedestrian safety concerns with parents and teachers. The project has received support by all stake holders, for example Ngodwana SAPS provide a venue for the meetings and Sappi provided a training venue. Road safety education classes are taught at the schools and the children reacted positively to the classes and the CPOs. The project is a six month long pilot project and will be evaluated after six months.

# 4. POINTSME PROJECT (OUTSURANCE POINTSMEN)

In the "Pointsmen Project", (or better known as OUTsurance Pointsmen), the concept of privatized pointsmen were launched in Johannesburg in September 2005. To date the project has been successfully rolled out to Johannesburg, Tshwane and Cape Town. The pointsmen are employed for a period of four to eight hours daily. In Johannesburg 55 - 121 static pointsmen and 25 mobile pointsmen are employed. Tshwane has 35 pointsmen and Cape Town already 20 pointsmen.

"Over the past six years, thousands of motorists around Johannesburg have come to rely on the assistance of the OUTsurance Pointsmen. The main objectives behind this project are ultimately to alleviate traffic congestion, contribute towards road safety, but also to do our bit for unemployment in underprivileged communities."







# Selection and employment

Pointsmen are selected via an open selection process of assessment. All pointsmen are employed by the local City or Town Council and are working under the instruction of the local City or Town Council.

# **Training**

The pointsmen were trained by the local City or Town Council on the accommodation of traffic, for example:

- o Johannesburg region: Johannesburg Metropolitan Police Department.
- City of Cape Town: Cape Town Traffic Department.
- o Tshwane: Premos Leadership and Management Academy.

# Structures

Pointsmen were trained by the City Councils work under the direction of the local traffic department of the local authority. The traffic departments (with information supplied from motorists to media partners, Radio 702 and 94.5 Kfm) make logistical decisions on the placement of the pointsmen.

# Mentoring and coaching

In the first phase of training, the pointsmen received extensive training. Training includes accommodation of traffic at general and specific intersections. Deployment coincides with an officer who regularly works at a specific intersection and is able to guide trainees in terms of e.g. judging the difference in traffic flows, volumes and timings. Pointsmen are continuously made aware of factors that influence traffic flow, for example new developments, school holidays, road works and other improvements.

## Development of individuals

Most of the pointsmen are young adults (typically between 18 and 35) and were previously unemployed. In addition to having received training, mentoring and coaching the individuals have the opportunity to enjoy meaningful employment and to make a difference in the lives of all road users (in terms of reducing travelling time and increasing the road safety for all). Most of them did not have a drivers licence and have never even ridden a bicycle before. Now most of them have motor vehicle licenses, and have progressed from bicycles onto motorcycles. The pointsmen are also motivated by not just the growth within the project, but the potential to move into the Metro, Police or Traffic department.

# Advantages to sponsors

Apart from contributing to road safety, easing traffic congestion for the public, training and development and giving meaningful and sustainable employment (already for 135) previously unemployed youths, sponsors get brand exposure to their targeted areas.

### Long term vision

The long term vision of this initiative is to have a national footprint.

# **Funding**

OUTsurance is the headline sponsor and various other sponsors, including media partners like Radio 702 and 94,5 Kfm, in partnership with Johannesburg Metropolitan Police Department, City of Tshwane and City of Cape Town.

# Gender equality

Between 35 to 55% of the pointsman are female.

# 5. SUCCESS FACTORS COMMON TO JOB CREATION AND ROAD SAFETY PROJECTS

Experience has shown that successful labour intensive projects and contractor development programs (including learnerships) have the following success factors present:

- Training
- Mentoring and coaching
- Creation of meaningful employment
- Creation of sustainable employment
- Structures for training and mentoring and coaching
- Dedicated team of motivated project managers
- Win-win for companies, communities and individuals
- Opportunities for growth for individuals

# Additional plusses:

- Public-private partnership (optional)
- Able to employ youth
- Able to employ females
- Developing entrepreneurs (SMMEs)

# 6. CONCLUSIONS

Road safety projects can create job opportunities. The examples of a Community Pedestrian Safety Project, OUTsurance Pointsman have the following common denominators, namely training; mentoring and coaching; creation of meaningful employment; creation of sustainable employment; structures for training and mentoring and coaching; dedicated team of motivated project managers; win-win for companies, communities and individuals; opportunities for growth for individuals; public-private partnership; able to employ youth and females.

Improvements in road safety and unemployment cannot be achieved by one individual or discipline or even just our Government, it is a collective responsibility and a collective spirit is required of all those involved. Interventions to reduce pedestrian injury and fatalities, as well as creating meaningful and sustainable job creation require the involvement of many sectors.

# 7. REFERENCES

http://www.leadershiponline.co.za/articles/politics/1741-road-safety

http://www.southafrica.info/playyourpart/roadsafety-211211.htm

http://www.outsurance.co.za/pointsmen

http://www.trafficfreeflow.co.za/pointsmen.php

Sowetan Live, 19 Jan 2012

SANRAL Pedestrian Road Strategy, 2006

Van As, AB, Stein, D, 2010. Child safety: a neglected priority. World Journal of Paediatrics, Vol 6 No 4.