

A young boy in a school uniform (green sweater over a white collared shirt) is looking back over his shoulder towards the camera. He is standing on a paved road with yellow dashed lines. In the background, a large white truck with 'Noble' written on its side is driving away. The sky is blue with some clouds. A green semi-transparent banner is overlaid on the top half of the image, containing the title text.

Walking school bus in rural communities

M Groenewald

South African challenges:

- **Poor land use development**
- **Higher order roads adjacent or through rural communities**

South Africa needs:

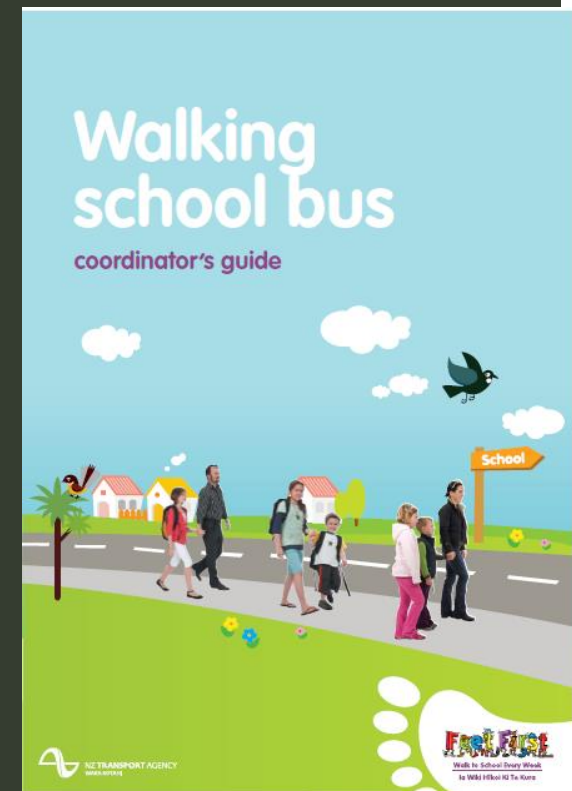
- **Formalise pedestrian crossings**
- **Address lack of education of pedestrians**

Outline of presentation

- 1. Background**
- 2. Community road safety project**
 - Community road safety committee
 - Community pedestrian officer
 - Training, mentoring and coaching
- 3. Case studies:**
 - Ngodwana, Mpumalanga
 - Olifant's River, Limpopo
- 4. Critical success factors**

Walking school bus

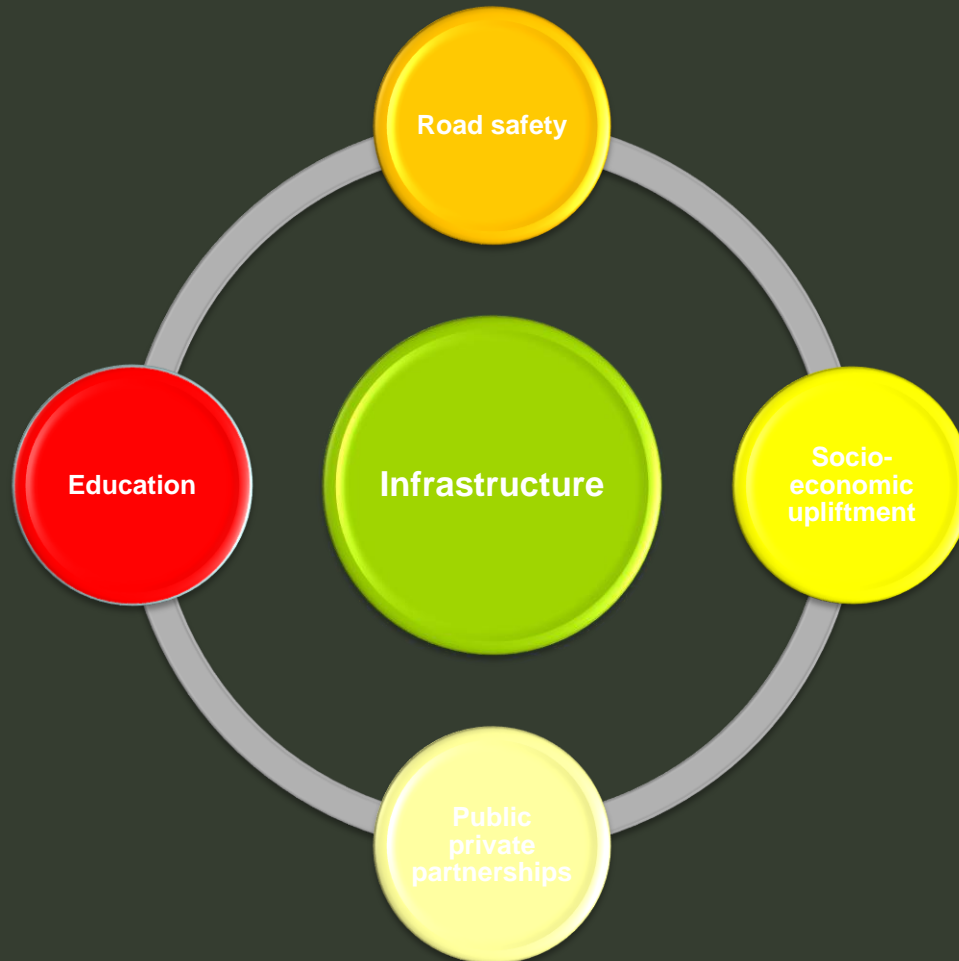
- Volunteer program
- Primary schools
- Learners walk with adults to school
- Identify school walking route(s)
- Identify and train parents/adults



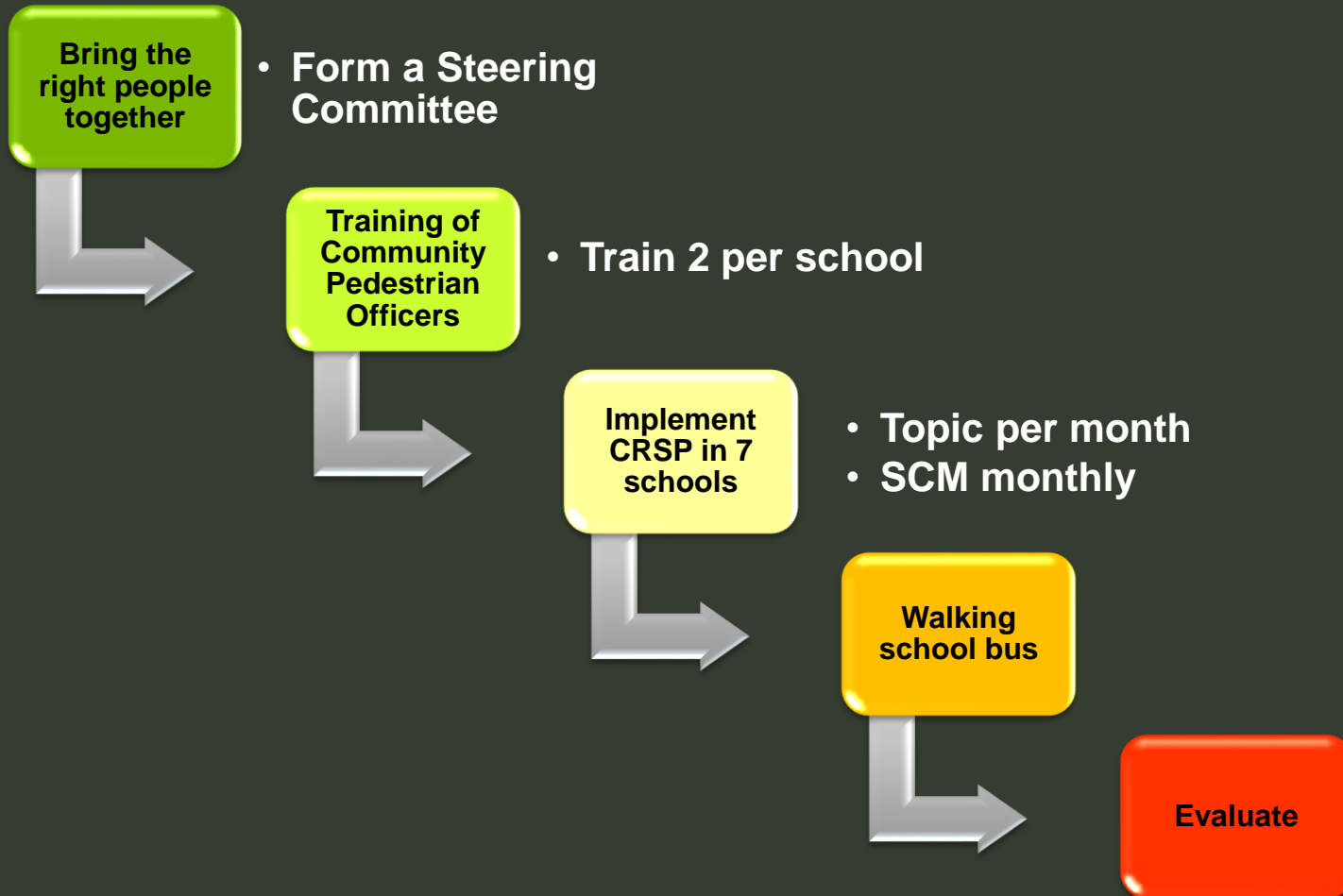
Community Road Safety Project

Philosophy

Vision



CRSP Process





Road safety education during Life Orientation

Monthly topic

I am important!

Pedestrian safety

Bus stop – drop-
go

Passenger safety

Road signs

Training of CPO

5 Day training

Communication

Teaching children
of different ages

Road safety

What is a Community Pedestrian Officer?

- Member of the community that will teach the children about pedestrian safety in the school
- Be visible example of pedestrian safety program
- Implement Walking School Bus
- Weekly report of activities
- Member of community road safety committee

Employment of CPO

- Selection criteria
- Receive 5 day training
- Employ 2 CPO per area (12 month contract)
- Training stipend of R100 pd
- Wage R100 pd
- PPE

Road safety toolkit for each school

- One trunk with lock
- Road signs
- Two steering wheels (plastic or wood)
- Two safety vests
- K53 Rule book
- Two whistles
- Two orange cones (plastic)
- Selection of stationary and arts and craft supplies

Case study 1

Ngodwana Community Pedestrian Safety Pilot Project



Ngodwana, Mpumalanga



Ngodwana road safety concerns

- Rural community
- 3 schools
- Children walk on the N4 to get to school
- Low water bridge experience occasional flooding
- Planned pedestrian facilities (pedestrian walkways and bridge)



Walking school bus

- One school bus
- 50 children
- 20 min walk

Olifant's River Water Resources Development Project, Limpopo





Steelpoort, Limpopo

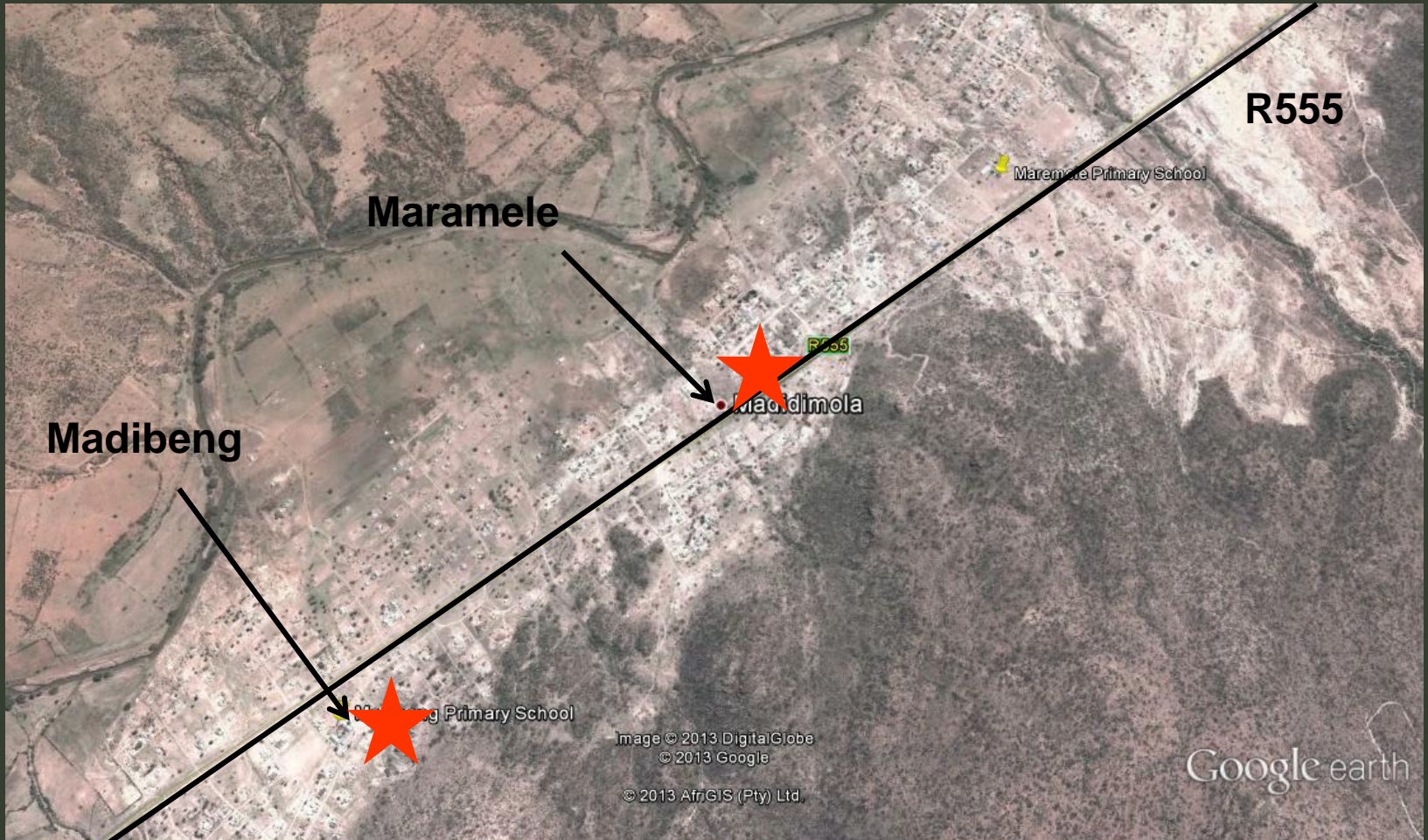


Olifant's River Community Road Safety Project

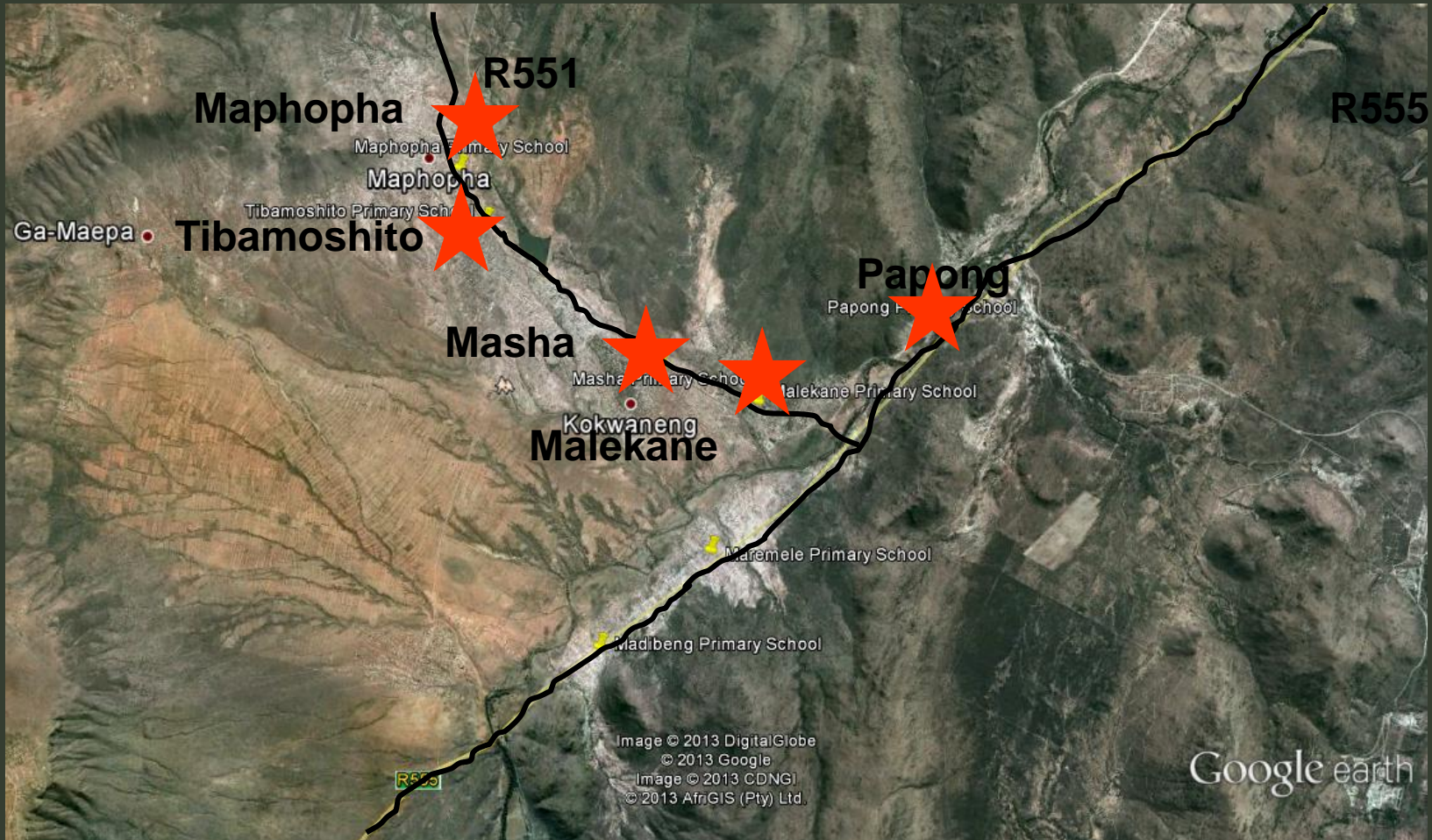
- Rural community in Steelpoort area
- 7 primary schools along the 40 km water pipeline
- Schools either on R555 or R579
- 4 250 learners
- 12 month project
- 2 CPOs per school



Map



Map



Education and Encouragement Intervention

- Communal Road safety committee
- 2 CPOs per school
- Road safety education during life orientation
- Walking school bus (CPOs)
- Scholar patrol (adult assisted)



Pedestrian safety assessment (Before)

- Schools next to busy roads
- Scholars live both sides of the road
- Women have to cross the road with wheelbarrows with water or washing
- One school had an active scholar patrol (due to raised pedestrian crossing in front of school)
- R555 (80km/h with heavy vehicles towards mines and speeding vehicles)
- R579 less traffic, taxis and buses with raised pedestrian crossings

R555

- Painted zebra crossing
- The zebra crossing was not painted to the Road Traffic Signs Manual standard
- Not visible due to poor maintenance
- No regulatory and warning signs



R579

- Many learners walk along R579 in close proximity of vehicles travelling at relatively high speeds
- Raised pedestrian crossings poorly designed
- But effective in reducing speeds
- All placed at the approaching / beginning of the school, but not necessarily where the learners cross the road
- Or where the public cross the road



Pedestrian crossings

- Not been constructed to any specifications
- Effective in lowering the speed of approaching vehicles
- Faded road markings and no road signs
- Learners were observed crossing the road at the pedestrian crossing



Pedestrian behaviour

- Learners observed to run to the road, patiently waiting for a safe time to cross and running across the road. When a pedestrian is running across a road, the chances of them falling are higher especially carrying a heavy backpack.



Pedestrian Safety Questionnaires

- Demographics
- Nature and number of trips
- Suggestions improving pedestrian safety
- Knowledge of road signs
- Knowledge of rules of the road
- Understanding of safe pedestrian



Before Safety Questionnaires

- 15% valid drivers licences
- 15% owned a vehicle
- 73% unemployed
- Only 14% formal employment (13 % self employed)
- Primary source of transport walking or public transport
- 90% walked daily
- 30% used use on taxi weekly/monthly
- Buses seldom used (27% monthly)



Before Safety Questionnaires

- Knowledge of road signs – 89% correct
- Knowledge of rules of the road – 86%
- Importance of pedestrian safety – 83%
- Not sure how compares to other areas
- What the numbers indicate
- Interesting observations:
 - 26% sidewalks not safe
 - 23% taxi and bus lay byes not safe



Walking school bus successes

School	No learners	Number WSB	Number in bus	Time	Comments
Tibamoshito	1081	1	54	10 min	Cross river
Madibeng	347	-	-		Adult scholar patrol, learners live close, 7 @ time cross the road
Maremele	480	2	50, 20	30 min, 10 min	50 more to cross the road
Papong	256	2	150, 50	40 min, 10 min	Gravel speed humps
Masha	926	-	-		Await zebra crossing, headmaster delayed
Malekane	841	2	100, 30	20 min, 20 min	
Maphopha	650	2	40-45, 20-25	30 min, 30 min	Cross river

Weakness of systems approach

- **Sustainability**
- Aim of starting walking school bus that community will adopt and continue
- High level of unemployment makes community not interested in volunteering
- **Affordability**
- Aim of linking road safety project with infrastructure project to reduce cost
- Challenge to always have champion to implement
- **Limited infrastructure improvement expected**

What makes a rural community different?

- Informal communication structures
- Siblings walk together
- Travel in groups
- Poor service delivery
- Poor pedestrian infrastructure
- Limited maintenance
- High unemployment
- High acceptance of intervention
- Low acceptance of volunteering



Thank you!



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