

Using the integrated rural mobility and access (IRMA) approach in prospering rural South Africa

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INTRODUCTION

Access and mobility are arguably the most stubborn challenges to improved service delivery in rural South Africa. For example, the demand for pedestrian bridges, access roads and services is massive, particularly in rural areas of KwaZulu-Natal, Limpopo, Mpumalanga and the Eastern Cape. However, infrastructure and services backlog still remain huge nationally^{1,2}.

Examining, analysing and suggesting appropriate interventions to rural development struggles facing contemporary South Africa remains a growing challenge. In this presentation, it is argued that rural prosperity is more than just an increase in output/economic growth. An instrument with the potential to unlock sustainable socio-economic and spatial livelihood opportunities – the integrated rural mobility and access approach (IRMA) is presented.

RURAL POVERTY AND DEPRIVATION

Affordable and reliable transport is critical in enabling access to basic services and resources. Effective and efficient transport infrastructure and services act as stimuli for growth and development as well as uplifting livelihoods through opening a range of socio-economic opportunities to individuals and communities alike. However, geographical isolation, long distances, poverty levels, poor infrastructure and limited transport services inhibit access to services and resources, particularly for children, youths, disabled and the aged in rural and peri-urban areas³. Between 40 and 55% of South Africa's population can be classified as living in poverty while 25% of the population can be categorised as ultra-poor⁴. The incidence of poverty is closely related to unemployment, underemployment, and un-remunerative forms of employment.

This presentation showcases a rural area where government has intervened proactively. The example is drawn from the Department of Roads and Transport, in Mpumalanga, making references to aspects that reflect the spirit and purpose of the Expanded Public Works Programme.

DEFINITION OF TERMS

Rural prosperity has to do with economic growth, increase in individual, household and communal disposable income, reduction of inequalities, appropriate use of local knowledge and content, institutional alignment and strengthening, engagement and dialogue and ultimately pushing the frontiers of poverty back.

The IRMA approach is defined as endeavours to find innovative and sustainable solutions to challenges relating to accessing socio-economic opportunities by communities through the provision of appropriate and integrated rural transportation infrastructure and services complete with adequate funding streams for maintenance and development⁵.

Poverty is defined as "the denial of opportunities and choices most basic to human development to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and respect from others"⁶.

RURAL DEVELOPMENT IMPACT TECHNOLOGY IN PRACTICE - THE IRMA PROJECT IN MPUMALANGA: A CASE STUDY

Inherent to South Africa is a dual socio-economic 'access divide', clearly visible between metropolitan/urban and non-metropolitan/rural areas, which has subsequently led to a significant gap between the first and deep rural economies. Rural communities lag behind considerably in terms of infrastructure and service delivery due to geographic isolation, low population densities, poor transport and telecommunication connectivity and legacies of apartheid, especially in the former 'homelands'. In response to this, the CSIR has undertaken research in pursuit of a better understanding of rural issues and the development of innovative and sustainable solutions. One such approach is what is termed the IRMA approach, which is presented in **Figure 1**.

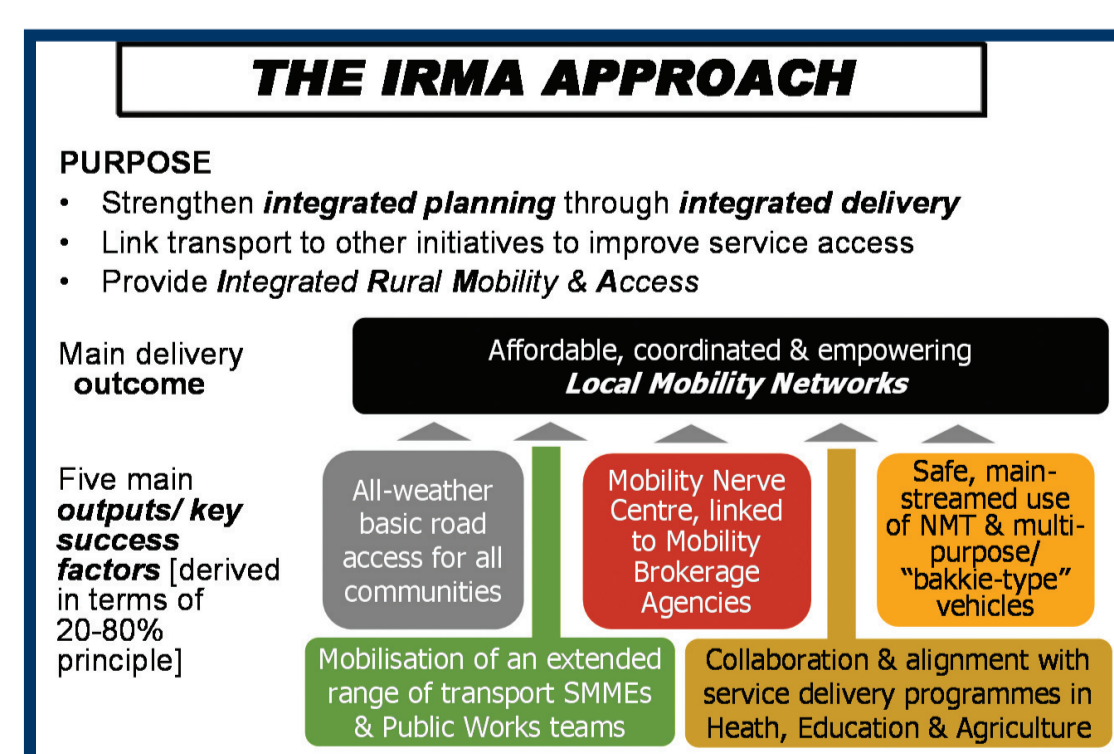


Figure 1: The guiding concept underpinning the integrated rural access and mobility approach

The Mpumalanga Department of Roads and Transport (MDORT) developed and published a Rural Transport Strategy for the province in May 2006 based on the realisation that the key to sustainability is an integrated approach to rural development. MDORT, in collaboration with the CSIR, has been piloting largely infrastructure-related elements of the IRMA approach in the Albert Luthuli Municipality in Mpumalanga. The CSIR has thus implemented only pillar 1 and part of pillar 2 of the 5 pillars of the IRMA approach illustrated in **Figure 1**. Pillars 1 and 2 relate to all-weather basic road access for all communities and mobilisation of an extended range of small, micro and medium enterprises (SMMEs) in the area of transport and public works teams. In terms of pillar 2, the current phase of IRMA did not include the SMMEs but had some component of the public works teams. The CSIR is

currently in the process of identifying partners to implement the other four pillars of the IRMA project so that the full project impact and potential can be demonstrated entirely.

Phase one IRMA low-cost technology interventions include the provision of appropriate and integrated rural transportation infrastructure such as pedestrian bridges, low-level crossings and all-weather road and footpath access to socio-economic facilities such as schools, clinics, shops and government offices.

The current IRMA project benefits deprived resource-poor rural communities by building local-level intra and intermobility and access infrastructure essential for livelihood sustenance. **Figure 2** illustrates that the IRMA approach is a practical low-cost technology outcomes-based intervention package.

Phase one has addressed the transport needs of rural households including the most indigent, and opened opportunities for them. Villagers and community members have testified how much such interventions have alleviated their daily access challenges as well as reduced their transport burdens.

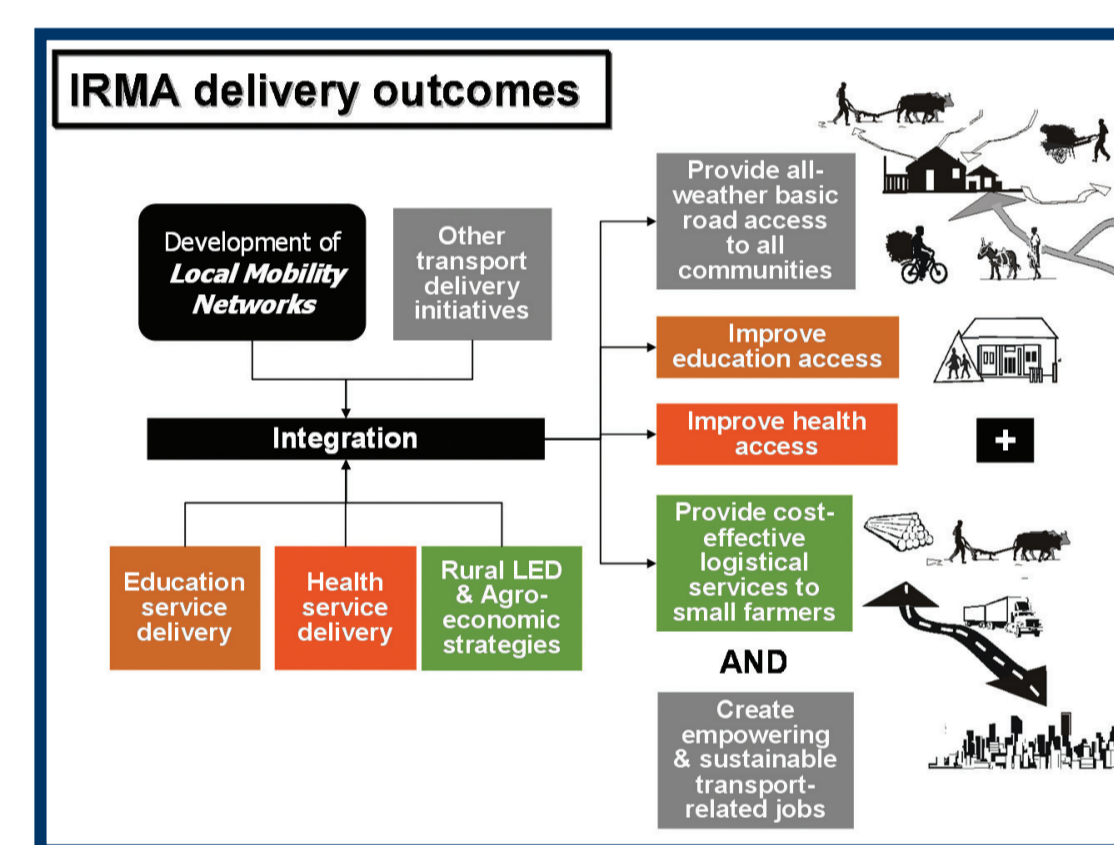


Figure 2: IRMA outcomes and impact schematic representation

"...Circuitous routes of up to 8 km for example have been reduced to 3 km through the provision of footbridges. Socio-economic opportunities such as schools and hospitals are now accessible in all-weather conditions. The local level travel and transport burden for the learners, youths, elderly and to some extent, the persons with disabilities have been reduced significantly, thanks to the collaborative efforts of the CSIR and the Mpumalanga Department of Transport and Albert Luthuli Municipality..." (extract of an interview with a businessman at Mayflower Multi-Purpose Centre, 18 September 2008).

The photos below depict the impact of the IRMA interventions, through contrasting learners' daily experiences in crossing the Mpuluzi River in Mayflower, Albert Luthuli Municipality before intervention and after intervention profiles.



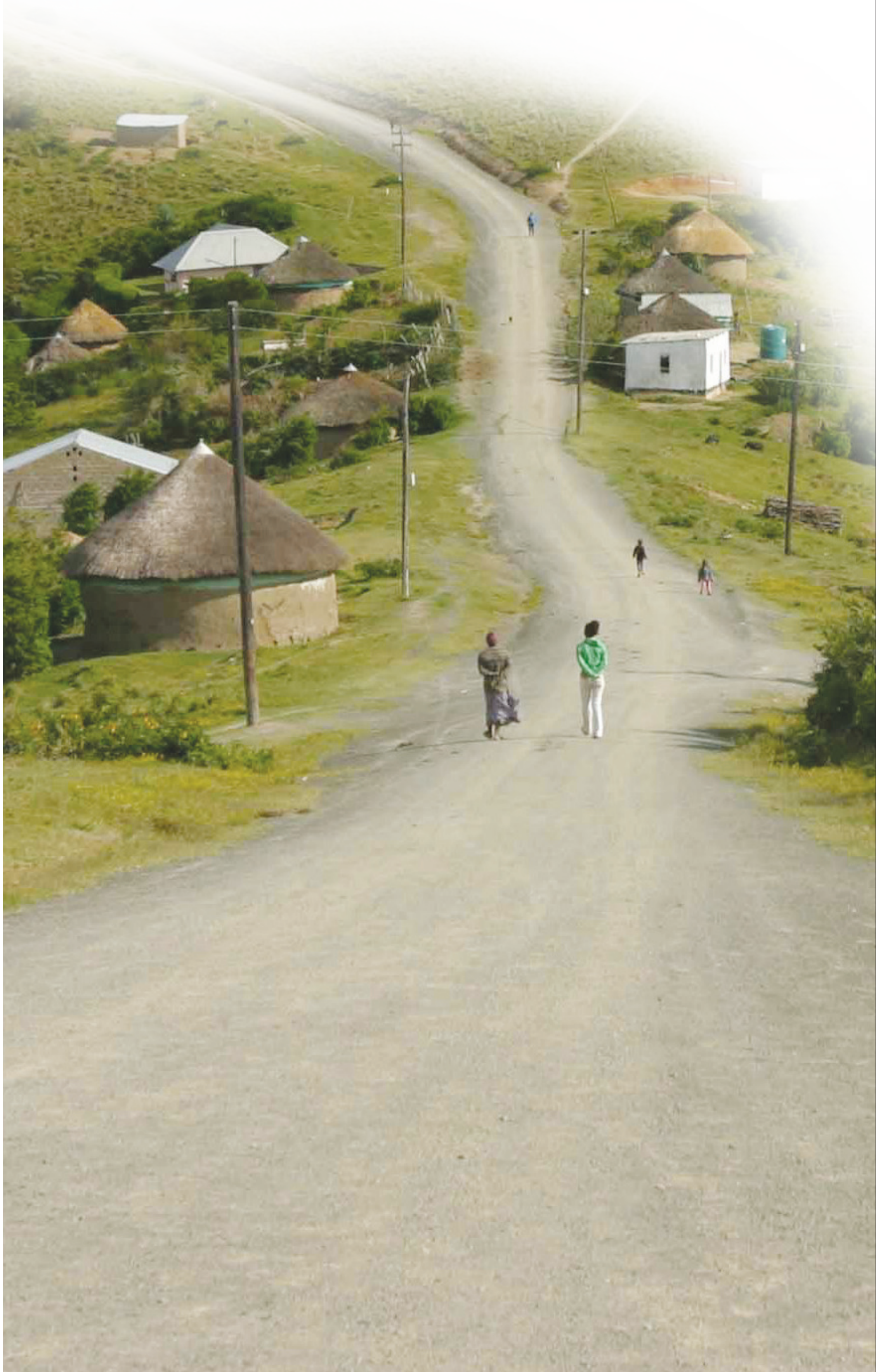
Before intervention (left): Learners wading through water in the Mpuluzi River. After intervention (right): Learners walking across the newly-constructed pedestrian bridge across the Mpuluzi River

RECOMMENDATIONS

Some of the major recommendations are as follows:

- Access and mobility interventions alone cannot guarantee prosperity in rural South Africa. For genuine rural prosperity to be entrenched it will take measures, actions and interventions in rural energy and economic development, water and sanitation for rural development, geo-spatial and ICT for rural development, gender, empowerment and a generous measure of political will.
- Inequality and poverty simply cannot be resolved let alone remedied, without the generation of long-term jobs, rising incomes, and lasting growth that competitive firms can secure. At the same time the 'trickle-down' effect from economic development policies cannot be relied on to stimulate development. Specific policies to alleviate poverty and inequality – motivating measures like public works programmes, micro-finance programmes, land reform, increased expenditure on municipal access and mobility infrastructure and services, and improved and better targeted social spending on education and training, welfare, healthcare and governance issues – are thus essential counterparts to rural economic development policy.
- Infrastructure provision and rural development is a multidisciplinary field, which requires the private sector, government, civil society, NGOs, to name but a few role players, to pool their collective resources and energies together to be successful.
- An interesting trend and observation in terms of infrastructure and rural development is the need to implement and maintain appropriate information and decision-support systems in all spheres of government to support optimal decision-making processes.

Opening access to socio-economic opportunities for communities, through providing appropriate and integrated rural transportation infrastructure and services.



CONCLUSION

Perhaps the greatest challenge that development practitioners have to contend with in rural South Africa is the development of a critical mass of infrastructure and services that would link communities to one another, thereby enhancing socio-economic and spatial cohesion, integration and transformation of spaces, places, people and cultures. The IRMA concept and approach discussed throughout this presentation is one way towards building that vision – its potential to engender a sustainable development legacy should thus be harnessed widely.

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