

KSD IRTP: PLANNING & DELIVERING MORE INTEGRATED & SUSTAINABLE RURAL ACCESS SYSTEMS

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ABSTRACT

This paper revolves around the data-driven development of an integrated rural transport plan (IRTP) for King Sabata Dalindyebo Municipality (KSD) in the Province of the Eastern Cape in South Africa. The IRTP's departure point is that there is a high socio-economic price to pay if the travel and transport needs of the poor rural majority are not adequately provided for. This realization compelled KSD to seek to craft an inclusive intervention regime with a view to not only to improving access to socio-economic opportunities, but also stimulating sustainable economic development. The KSD IRTP was thus structured around four strategic pillars, as follows:

- Establishing and strengthening KSD's ***spatial logic through spatial reorganization*** by way of coordinated development of an interlinked network of rural service nodes and transportation linkages – ***nodal and linkage development***
- Improving ***access to socio-economic opportunities*** through not only integrated planning but also development of a responsive, balanced and sustainable transportation system
- ***Widening economic choices*** by ensuring that the plan stimulates and oils not just the mainstream economy, but also facilitates and entrenches KSD's "***second economy***", and
- Establishing and nurturing a ***community-based service delivery agenda***, especially given KSD's privileged position not only at the epicentre of a relatively impoverished rural region, but also at the coal face of development endeavours.

The KSD IRTP provides both strategic direction and operational guidance to the development of transport for sustainable rural development in KSD. As indicated above, it does this through the medium of strategic intervention pillars undergirding it. These pillars find expression in and are supported by the KSD IRTP Action Agenda. The KSD IRTP Action Agenda is an amalgam of proposed policy positions, supported by intervention options, which are in turn, buttressed and made operational through detailed specific action items. Finally, a selection of projects (which seek to find a balance between focusing on investment for economic growth and investment in social redistributive measures to ensure development endeavours

also reach poor households in KSD) are drawn complete with indicative costs – providing a blueprint for plan implementation.

Key Words: KSD, sustainable development, inclusive transport interventions, rural poverty, nodal and linkage development, service delivery.

1. INTRODUCTION

1.1. *Contextual Background*

Rural development, encompassing local economic and human resources development, as well as improved service delivery relating largely to health, education and welfare, is one of the key priority areas identified by the South African government to restructure the socio-economic and spatial relations scarred by a painful past wrought by apartheid. Rural development may crudely be defined as the introduction of structural changes in the rural socio-economic circumstances to achieve improved livelihoods for rural communities and making the process of their development self-sustaining (Mashiri et al, 2009). Invariably, such structural changes often involve investment in sustainable rural transportation. In addition, well-appointed infrastructure and services investment underpinned by beneficiary-oriented programs improves productivity, promotes rural employment, positively impacts income growth and eventually irreversibly erodes poverty (Mashiri et al, 2010). King Sabata Dalindyebo Municipality (KSD), like most other developing rural areas are characterized by a fragile, narrow and vulnerable economic base, poorly developed road networks and services, and under-developed market facilities, storage and other logistical infrastructure and services (Mashiri et al, 2013b). It often depends on an outside system of economics to meet its requirements. The need to develop a plan that would, in essence, be an integrative framework that would trigger off pro-poor development outcomes was compelling. Thus the strategic *raison d'être* for the development of an integrated rural transport plan (IRTP) for KSD relates to the need to:

- Provide guidance on the nature (type), extent and location of rural development that the people of KSD need and deserve and the infrastructure necessary to service it
- Provide guidance on the scale, form and design of rural development which is appropriate for KSD
- Respond to and ensure coordination of the spatial implications of other development policies and strategies; and
- Ensure that the KSD transport planning and management function is repositioned strategically to influence the spatial structuring of the municipality to strengthen mobility and access to socio-economic opportunities.

1.2. Approach

A mixed method approach was employed to assemble information, while a three-pronged approach was utilized to generate the IRTP, namely:

- Literature review synthesizing existing knowledge on transportation and development and highlighting information gaps
- Field consultations, internal reviews, analysis and synthesis and feedback workshops, and
- Development of the plan.

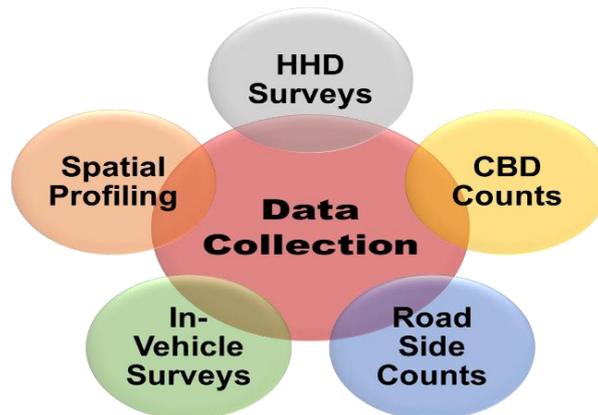


Figure 1: Types of data collected in support of the plan

The fieldwork involved household surveys (with a sample size of 2000 households – selected to broadly represent diversity in KSD and to capture rural and urban dimensions by carving out KSD into rural typologies), Mthatha CBD counts (21 intersections), roadside counts (freight) (18 points), in-vehicle survey on major public transport routes and spatial profiling the municipality. In-depth discussions with a selection of stakeholders were undertaken between April and November 2011. Rapid rural appraisal methods were also employed to collect other KSD socio-economic data. In addition, profiling the KSD spatial (settlement) hierarchy of nodes, linkages & satellites was undertaken together with accessibility mapping and economic profiling. Finally, findings were analyzed and solution concepts generated. The sections that follow unpack these solution concepts and strategic intervention options.

2. KSD IRTP STRATEGIC INTERVENTION LEVERS

Strategic intervention levers which constitute core solution concepts undergirding the KSD IRTP namely, *spatial reorganization, improving access to socio-economic opportunities, diversification and strengthening of local economic circuits, and putting in place and nurturing a community-based service delivery agenda*, were generated through an iterative process.

2.1. KSD Spatial Reorganization

In the context of rural South Africa, the developmental rationale for various aspects of coordinated nodal and linkage development (NLD) stem from work on integrated approaches to rural accessibility and associated development problems (Mashiri, 1994; 1997 & 1998; Naudé et al, 1998); economic justification for increased

investment in transport and telecommunications (Stilwell & Atkinson, 1998) and on the developmental rationale of a rationalized rural service centre hierarchy (Robinson & Associates, 1998). Two sets of issues provided a compelling departure point:

- *Poverty, arrested economic development and related access issues*: The inaccessibility and spatial-economic marginalization of deep rural areas from the economic mainstream, and
- *Spatial dispersal of central place facilities*: Uncoordinated geographic dispersal of infrastructure investment, leading to high and unsustainable cost burdens.

This body of work provided a platform for the focus on rural accessibility as the core theme, and on mutually complementary development of different forms of nodal and linkage infrastructure. In addition, studies of the development rationale for increased investment in ICT, tele-centers, distance education and related infrastructure, most of which are focused on how to overcome '*the digital divide*', improve access to '*the information society*' also influenced the development trajectory of the nodal and linkage thrust.

In the context of KSD, NLD is essentially concerned with:

- Strengthening the role of *selected nodes and/or corridors* within the KSD service centre hierarchy
- Improving the *transport and communication linkages* at and between the different levels (see definitions for the levels below)
- Facilitating the development of *periodic services and interchanges*, e.g. the establishment of a circuit of periodic markets, and
- Fundamentally *re-organizing* the service centre hierarchy – e.g. in terms of an innovative set of hub-satellite and periodic service arrangements.

As elaborated in Figure 2 below, NLD is thus typically a combination of spatial planning, infrastructure development and enterprise development actions with access, cohesion and sustainability as the watchwords. The deliverables of this combination of actions have been included as integral parts of the KSD IRTP Action Agenda and further lifted out as projects in the implementation framework.

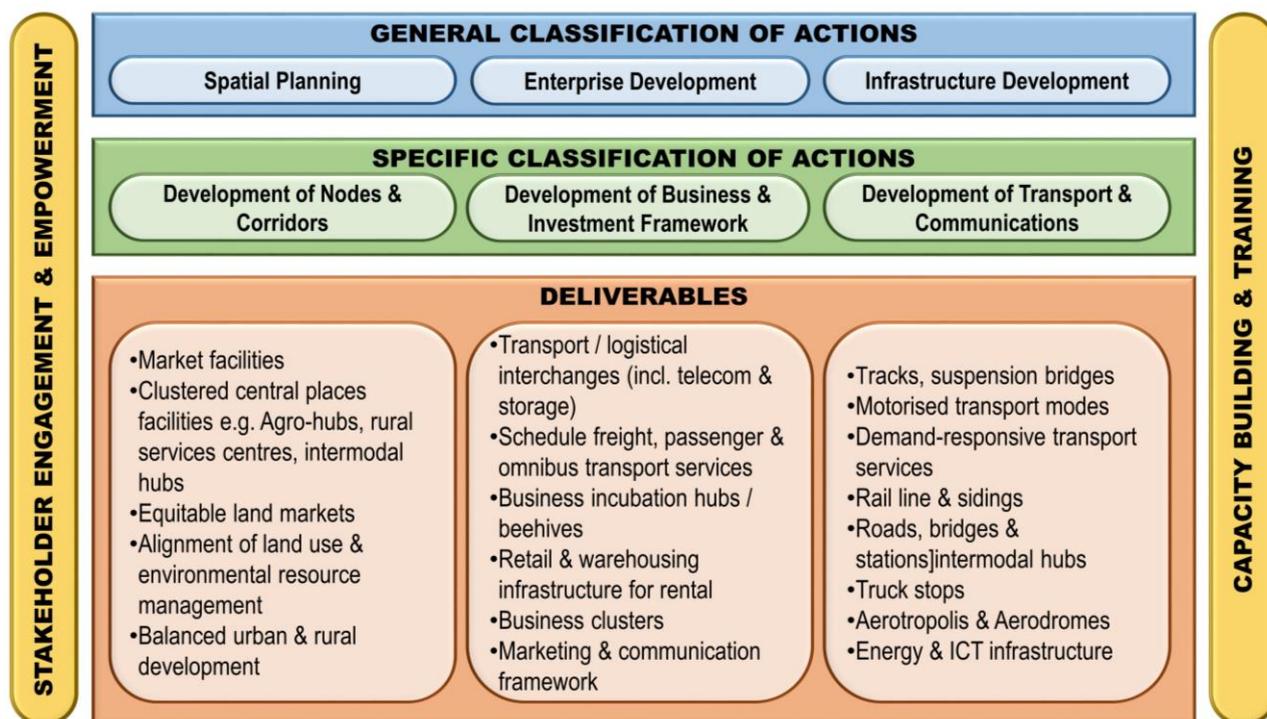


Figure 2: Range of linkage development actions and deliverables

Thus the development of a settlement hierarchy that is intended not only to stimulate and focus the rural economy, but also to transform and reshape the inherited organization of space, which has the effect of facilitating better communication, information dissemination, service delivery as well as saving on infrastructure costs is consistent with the explicitly developmental approach to development that KSD aspires to. Reorganizing the space economy to ensure a balanced hierarchy of nodes and linkages also allows higher order goods and services such as banking to be procured at rural service centres closer to rural people thereby reducing the need to travel and travel costs markedly.

Specific interventions included:

- **Designating strategic transport corridors:** These include the N2 (north-south economic spine), the R61 (Mandela Tourism Route) and the Mthatha-Coffee Bay corridors. The designated corridors will be transformed overtime through proactive but selective investment especially in tourism and agriculture. Along the corridors, transport safety would be prioritized including the implementation of community-based safety programs as well as ancillary facilities, such as truck stops, emergency service areas, intermodal facilities, information kiosks, and good signage.
- **Revitalizing Mthatha (municipal capital):** Mthatha's sphere of influence is geographically much wider than the administrative boundaries of KSD. Mthatha is thus a regional rural town servicing a hinterland characterized by significant structural problems that tend to impede the rural poor from accessing services, resources, markets and information. In order for the regional rural development agenda to take root, KSD needs to carve out a pragmatic and proactive leading role for Mthatha in support of shared growth for KSD and the region. KSD needs to nurture and accentuate the role of Mthatha as a regional centre offering not only higher order services, but also significant employment opportunities to a potential growth region underpinned by appropriate investment packages. Currently, Mthatha at best displays no

ambition to lead, and at worst, its relationship with the hinterland is predatory. In order to play this developmental role effectively, firstly, the town needs to be productive, which could in turn, stimulate the hinterland to be equally productive to satisfy the higher demand. Specific interventions proposed include:

- **Improved transportation and productivity:** Productivity in Mthatha is negatively impacted by the ever-present congestion, resulting largely from through truck traffic, exacerbated by road infrastructure conditions and shortage of parking space. Congestion is also worsened by the masses of hinterland dwellers that stream into the city, especially on payday. Thus circulation (and by extension doing business) within the CBD is decidedly cumbersome, while movement through town is interminable – generating a relatively significant carbon footprint for a town of its size.
- **Transshipment hub:** Given its centrality and the type of cargo carried by trucks that cause congestion in the municipal capital, Mthatha needs to establish a Transshipment hub serving the port of East London.
- **Aerotropolis:** KSD needs to firstly visualize Mthatha Airport, including the Mthatha Dam area, as a potential growth precinct with a view to developing a precinct plan to direct priority investments (that could include human settlements, shopping and conferencing facilities). Secondly, it needs to conceptualize the Mthatha Airport and the Dam precinct as an *aerotropolis* serving the region, and market it as such to attract investment, especially given the tourism, agricultural and agro-business potential of KSD and the region (including the Wild Coast) as a whole.

2.2. Access to Socio-Economic Opportunities

2.2.1. Rural Poverty and Access

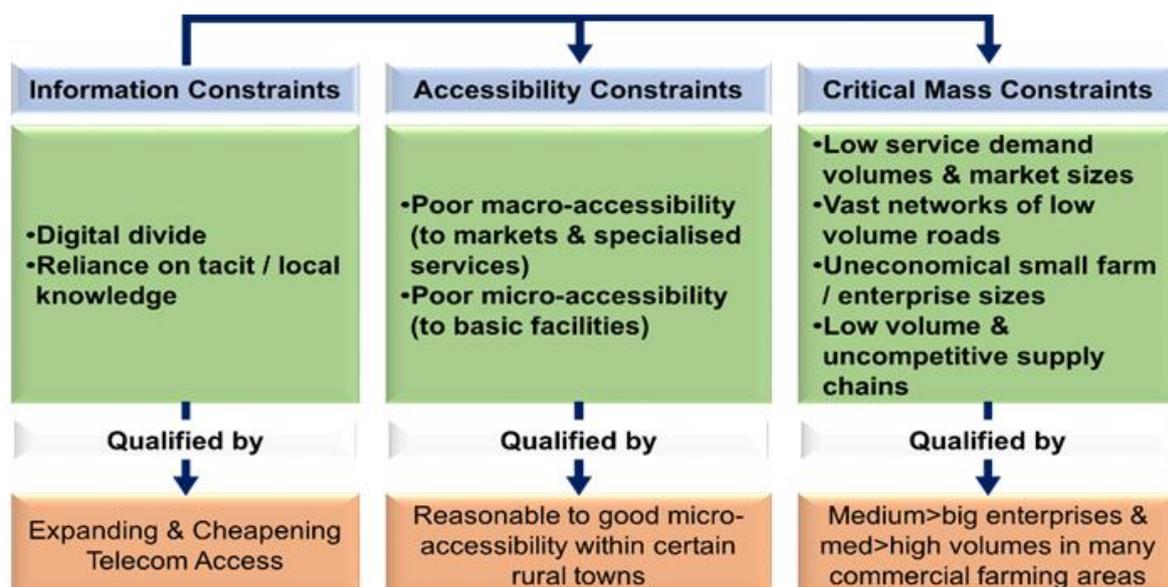


Figure 3: KSD's main development constraints

Rural poverty is closely associated with poor access to socio-economic opportunities. Accessibility represents the real value of transport infrastructure and services as it encapsulates all the advantages of spatial interaction / exchange of goods, information, know-how and experience (Mashiri et al, 1998). Access is a critical element in rural development because its existence or absence defines the opportunity that rural communities have to improve their socio-economic stations. Key elements of accessibility include the extent and quality of infrastructure, the extent and condition of communications, facility (e.g. health, education, etc.) location relative to settlement patterns, and availability and affordability of transport services. For KSD, three main constraints are recognized (as illustrated in Figure 3), namely, information, accessibility and critical mass constraints.

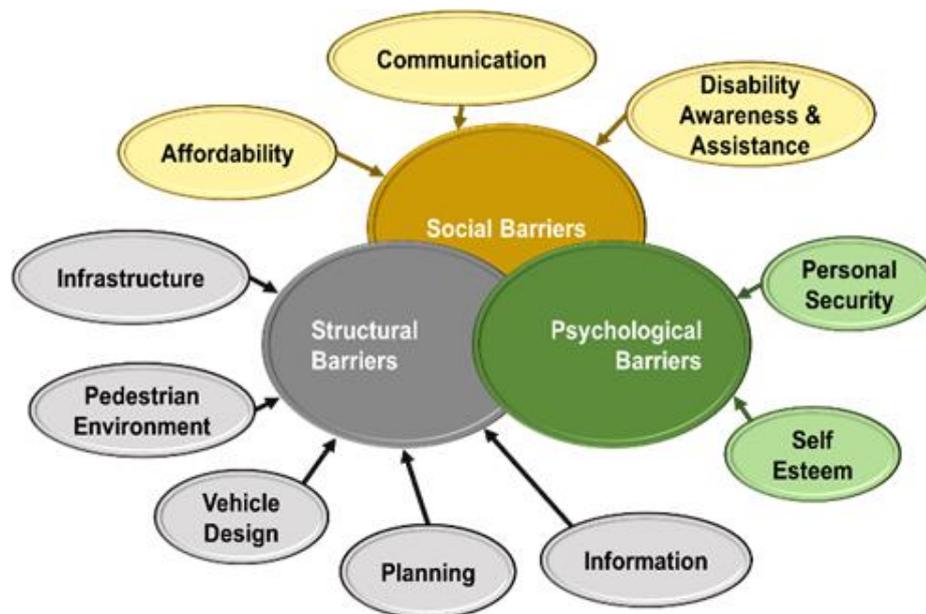


Figure 4: Barriers to access and mobility

In addition, and as illustrated in Figure 4, the baseline study indicated that barriers to accessing the built environment especially for persons with disabilities (PWD) and the elderly are largely a combination of social, psychological and structural barriers, which tend to circumscribe the activities in which an individual or an institution can participate in (Venter et al, 2004).

However, accessibility can be positively impacted by changes in location of activities vis-a-vis the transport system, the availability of an appropriate mode, infrastructure or operating framework. For KSD communities, transport is perceived not as a problem in itself, but always as part of a far more general socio-economic and political problem, which implies the need for integrated sustainable solutions that treat the total value chain. Innovative integrated planning has, however, largely been sacrificed on the altar of sectoral planning despite the many shortcomings associated with adherence to sectoral fiefdoms.

2.2.2. Transport Infrastructure for Rural Development

One of KSD's main developmental challenges continues to be the backlogs in physical infrastructure. These backlogs have tended to limit the ability of traders to travel to and communicate with productive villagers in KSD's 'deep' rural areas, limiting market access from these areas and eliminating competition for their produce. Provision of rural roads almost inevitably leads to increases in agricultural production and productivity by bringing in new land into cultivation or by intensifying existing land use to take advantage of expanded market opportunities (Mashiri et al, 2005). In addition to facilitating agricultural commercialization and diversification, rural infrastructure, particularly roads, consolidates the links between agricultural and nonagricultural activities within rural areas and between rural and urban areas (IFAD, 1995).

Improved infrastructure also leads to expansion of markets, economies of scale and improvement in factor market operations. Furthermore, easier access to markets allows an expansion of perishable and transport-cost intensive products. It can also lead to a conversion of latent demand into effective commercial demand. Rural infrastructure provision thus accentuates the process of commercialization in agriculture and the rural sector (Jaffee & Morton, 1995), thus scaling-up trade as trading costs per unit are reduced owing to the economies of scale.

In order to ensure competitiveness of local production vis-à-vis imports into KSD by reducing the cost of production, storage and transportation of produce to the markets and to stimulate higher volumes of production and trade, it will be imperative to invest significantly in construction and maintenance of new and existing infrastructure including paths, low-level and pedestrian bridges prioritized according to the impact they have on, for example, economic development, accessibility, public transport and freight development.

2.3. *Rural Transport Services*

The baseline study clearly indicated the private sector has a captive rural public transport market. However, the market for these services does not operate effectively largely because of inadequate transport infrastructure, affordability considerations, market manipulations and distortions through cartel-like practices, poor information flows between transport operators and users, and the lack of effective demand. Thus public transport in KSD is not only operating in a crisis situation but it is also grossly underfunded. Given the poverty conditions in the municipality, the socio-economic role that public transport could play has not been fully realized. In addition, services are often provided along the relatively lucrative main corridors by way of poorly maintained, largely old, and often unsafe vehicles, some of which are retired from the urban areas. This leaves out a significant portion of the rural inhabitants without reliable means to access socio-economic opportunities.

The main routes that were assessed describe a mixture of trip purposes ranging from those almost exclusively associated with work, to shopping, job-seeking, banking, through to pension payout and accessing educational facilities – mostly describing daily trips that are of crucial importance to the livelihoods of many people. In this lopsided market, the minibus-taxi mode plays a key role in providing transport

services to the inhabitants of KSD. Buses and light delivery vehicles also ferry both passengers and goods.

Customer-based objectives: The KSD public transport system should commit to taking on board, customer-based objectives (and perhaps even codifying them into a charter – a compact with users), such as:

- Reducing waiting and travel times and increasing convenience
- Ensuring that services address a cross-section of user needs, including those of commuters, pensioners, entrepreneurs, the elderly, learners, PWD, tourists and long distance passengers.
- Improving accessibility and mobility, limiting walking distances to less than about one kilometre in Mthatha, Mqanduli and the Coffee Bay-Hole-in-the-Wall complex and three kilometres in rural areas.
- Working with other entities to ensure an affordable and convenient service with commuters spending less than about ten percent of their disposable income on transport, and
- Providing a safe, secure, reliable and sustainable service that cares for vulnerable users such as PWD, the elderly, pregnant women and children.

Planning and regulatory framework: Customer-based objectives enumerated above need to be supported by a practical planning and regulatory framework that:

- Provides appropriate institutional structures, which facilitate the effective and efficient planning, implementation, funding, regulation and law enforcement of the KSD passenger transport system.
- Ensures registration of all KSD operators as formalized commercial entities, bound by the regulations pertaining to their permission to operate.
- Implements and promotes a system of regulated competition for public transport routes or networks based on permissions or tendered contracts, and
- Plans and promotes integration with other modes such as NMTs, buses and the defunct railroad.

Affordability of rural public transport: Public transport is largely unaffordable to many KSD residents who are often stranded or are forced to walk long distances to access facilities. Fares for subsidized public transport are regulated through the contract system, (but perhaps should be linked to an operating licence). Solutions to affordability issues need to assume a multi-pronged approach:

- Exploring the mainstreaming of other means of transport such as non-motorised transport and intermediate means of transport
- Providing an environment and opportunities for employment creation to boost incomes of poor people, and
- Strengthening spatial planning efforts to consolidate settlement patterns around economic activities.

Strengthening educational outcomes: In rural KSD, access to educational facilities as is the case with access to health, social grants (pensions and child grants), policing, water and wood-fuel points is, at best, a cumbersome exercise. For most learners, for example, access to educational facilities is difficult because of (a) inadequate or lack of transport services, and (b) where they exist, they are generally unaffordable. As a result the dominant mode to school is by way of walking. Educators who do not stay at the school also have difficulties travelling to and from school every day. In addition, because some facilities, especially secondary and

tertiary facilities are located relatively far from their catchment area, many a learner suffer from fatigue at school (because of the long distances they have to walk), which impacts negatively on their schoolwork. This has the effect of increasing the spectre of absenteeism and often absconding altogether.

Logistical arrangements for ensuring educational materials such as textbooks reach educational facilities when they are needed are just as difficult especially where schools are badly located or where the roads are in a state of bad repair or where transport services are far and between – descriptions that are more often than not the norm for KSD rural areas.

Improving healthcare outcomes: Most visitations to health facilities and sangomas are largely for treatment, fetching medicines and visiting patients. Walking is the dominant mode of travel to clinics and buses predominate over the longer distances mainly to hospitals. Distances to facilities range from 5km to clinics and 46km to hospitals. For those that require regular visitations to these facilities such as people with chronic illnesses including those living with HIV/AIDS, it simply becomes unaffordable. Households in this predicament tend to abandon modern medicine for home-span nursing with the help of nearby sangomas. The KSD home-based care system is partially intended to minimize their travel burden.

There is generally a very thin security net offered to HIV/AIDS orphans. It is important for KSD to spatially quantify the problem with a view to providing adequate support including transport to access socio-economic activities.

Transfer of the sick from homesteads to the main access road is largely by walking, in part, because of the siting of homesteads. Sometimes the wheelbarrow and/or human portage are employed where a person is seriously ill (e.g. HIV/AIDS ridden householder). The problem is exacerbated by the fact that waiting for a passing *bakkie* (light delivery vehicle) or minibus taxi on the access road can be interminable. In emergencies and when available, ambulances, *bakkies* or minibus taxis are used to ferry the sick at great cost to the affected households – which often leave them indebted for life.

A system of mobile clinics, village health workers and volunteers is employed to help persons with chronic diseases such as HIV/AIDS sufferers to cope with the affliction. However, most rural health facilities are plagued not only by inadequate staff (thereby compromising service levels), but they also have a shortage of emergency vehicles and often run out of essential drugs. Communication with the often overworked few ambulance staff is also rendered difficult or altogether impossible because of lack of appropriate infrastructure. In addition, while transport infrastructure and services to and within villages are either non-existent or in a bad state of repair, this scenario is worsened by the locational inaccessibility of most homesteads – a significant number of which are located on steep gradients.

Intermediate means of transport (IMT) such as motorbikes and ancillary technologies such trailers that can be employed as ambulances hold a lot of promise in terms of improving access problems for health extension workers involved in the home-based care system. Motorbikes have already proved their mettle in moving blood samples in demonstration project areas in the Eastern Cape.

Improving access to social grants: Recipients of social grants such as pensioners support many dependents with an average of between five and ten per household. For most households, this is the only source of income. It is also important to note here that a significant number of deserving households are outside this benefit loop, which implies significant hardships for many families in KSD. The need to widen the dragnet through the work of community development workers cannot be over-emphasized. KSD needs to invest in and promote solution concepts that serve to strengthen periodic markets, including the following:

- ***Synchronizing wage payments and periodic markets:*** Given that incomes from social grants support relatively vibrant rural market days, KSD needs to facilitate the synchronization of wage payments for all government labour-based construction and maintenance projects being undertaken in areas with the pension-payout days. This will immediately release more money that could be circulated at the periodic market. Overtime and with adequate consultations, this could be extended to include all salary payments for civil servants in the area (teachers, nurses, extension workers, etc.).
- ***Variety and quality of products at periodic markets:*** The variety and quality of offerings at the spontaneous periodic markets could be enhanced by improving transport infrastructure and services connecting to higher order settlements with a view to importing quality wares from outside the villages. These periodic markets could also be synchronized with tourism activity calendars of the locality wherein tourists mingle with locals at the market thereby improving local economic circuits.
- ***Periodic markets as information dissemination conduits:*** Periodic market days could also be used as a conduit for information dissemination by various spheres of government. In addition, grant recipients who often spend up to three hours doing nothing but queuing, could use the markets as an opportunity to survey wares on sale instead.

Transport for vulnerable groups in KSD: While persons with disabilities (PWD) are physically and socio-economically isolated, disability issues tend to occupy lower rungs in respect of KSD priorities. Other vulnerable groups in the same predicament in KSD include the elderly, children, women and the youth. Isolation brings with it an array of effects which invariably constrain their development, for instance, access to employment opportunities, public sector services, schools, clinics and agricultural extension, are severely restricted. Discussions and observations revealed two levels at which PWD are excluded in KSD, namely, socio-political and economic. Adults are not invited to join social groups (e.g. stokvels [savings and social clubs], burial societies, etc.), and even when they do join, they are not voted into leadership positions – access to information, credit or social networks is thus severely limited (Mashiri, 2012b). They also do not regularly attend community or political meetings, and because meetings are the main sources of information for KSD inhabitants, they are often in the dark about opportunities.

Children are unable to attend school because of the physical distances and lack of money for fees and transport and where they can, in some cases, there are no trained teachers who can assist them, and often the built environment at the school is hardly user-friendly. In terms of economic exclusion, there are many challenges to participation in income-generating activities for PWD as access to financial or extension resources are severely limited. Community members are reluctant to extend credit to PWD let alone the banking industry. As a result, isolated individuals tend to build elaborate cocoons around themselves, and the more they look inward,

the less likely they are able to grasp new opportunities for advancement (Mashiri et al, 2012a). No doubt, improved mobility and accessibility could play a significant role towards levelling the playing field and enabling equitable participation in KSD's socio-economic development. Strategic intervention options include the following:

- ***Decoupling disability and poverty through improved access*** to socio-economic opportunities.
- ***Strengthening e-government***: Because organizations representing PWD in rural areas are weak and because PWD do not travel much, they lack vital information relating to socio-economic opportunities. This is where e-government needs to be strengthened wherein information can be accessed at lower level service centres.
- ***Subsidized service***: The frequencies and the route could be determined in a feasibility study, while the operating model could be by way of community-public-private partnerships.
- ***Planning for people – universal design principles***: Planning and implementation in KSD need to be guided by the principle of universal design, which in the built environment, is based on the premise that people represent a continuum of physical characteristics, and that design should be such that it serves the majority of people most of the time. Translated to the transportation sector, this implies design parameters that take into account basic principles of sustainable access encapsulated by the acronym SARA: safety, accessibility, reliability and affordability (Venter et al, 2004).

Basic access approach: One way to target subsidies at the most needy is to designate a basic skeleton network in rural areas, which provides scheduled, guaranteed transport at a certain minimum frequency. It could be based on criteria such as:

“...every rural household should be within twenty minutes of a public transport service that operates at least twice daily, five days a week...”

This would help address the lack of access to transport in some areas and vehicle type could be either large buses or minibuses, depending on which size vehicle can operate the service at the lowest cost. Where such a service could be operated profitably, it would be let as commercial service contracts between the authority and the operator. Where it cannot be operated profitably, it would be subsidized by the Province as a basic access social service.

2.4. Sustainable Local Economic Circuits

2.4.1. Anatomy of a dysfunctional vital organ: Revitalizing KSD Agriculture

KSD's agriculture sector is in crisis and food insecurity is high largely because KSD farmers are ill-equipped to extract value from the current market relations. So, even though most of its inhabitants are farmers (perhaps by default), it is unable to feed itself and spends a lot of money each year on food imports into the municipality (e.g. only 5% of vegetables sold in major chain stores in Mthatha are procured locally). And yet, it is this sector which offers the greatest opportunities to reduce poverty, hunger and inequality.

KSD farmers confront not only an uncertain production environment heavily impacted by the vagaries of climate change, but also enormous constraints in physically accessing markets – they are typically spatially distant from their markets and transportation costs are high, and in many cases, there are few buyers of their produce (which is often not of a high quality as confirmed, for example, by the Kei Fresh Produce Market). They are often constrained by lack of information about the markets, lack of business and negotiating experience, and lack of a collective organization which can provide them with the collective bargaining power they need to interact on equal terms with other, generally larger and stronger market intermediaries. The result is poor terms of trade and little influence over what they are offered, particularly in terms of prices for their products and costs for their inputs. Clearly though, remunerative markets are an essential element in progressively making KSD agriculture entrepreneurial given that income from well-functioning markets, when combined with credit, can offer real prospects for sustainable farmer investments needed for productive agriculture in future.

In essence, the success or failure of KSD farmers will determine whether rural households have enough to eat (reduction in chronic hunger), are able to send their children to school (break the spiraling generational poverty cycle), and can earn any money to save for emergencies (disaster mitigation). Thus more than any other sector agriculture in KSD has the potential to uplift people on a mass scale. KSD should thus seek to enhance the complete agricultural value chain – from planting the highest quality seeds and improving farm management practices to bringing crops to market – while protecting farmers' natural environments. KSD needs to consider aggregating its farmers into agricultural hubs – a solution concept that resonates well with the spatial reorganization proposals that are central to this plan.

Agricultural hubs: Producer cooperatives in the agricultural sector have mushroomed and are beginning to establish themselves as significant producers on irrigable land in KSD supported heavily by government. However, access to credit, inputs as well as the market prohibits them from flourishing. Aggregation into agricultural 'clusters/hubs' thus serves to:

- Reduce transaction costs including bringing the market to the farmers.
- Provide access to the total agricultural value chain including inputs, services, transport and logistics, processing, retail and in some cases storage and post-harvest management.
- Increase the flow of information to and from the farming community
- Create non-farm jobs and thereby boosting demand for local products, and
- Create a skills transfer and extension platform.

Agro-hubs spearhead the aggregation of capital, skills and services in the form of growth corridors and agricultural hubs which address both the distance factor and the scarcity of skills and services in a mixed commercial/small-scale model of production. Such agricultural hubs would also serve to competitively and equitably create natural and efficient links between the producer – both small and large – the supplier, the financier, the market and the provider of logistics.

Strengthening agriculture transport and logistics: It is generally acknowledged that KSD has unrealized agricultural potential where commercial crops such as beetroot, maize, potatoes and horticultural products (including cut-flowers), animal husbandry and agro-forestry could ‘easily’ thrive. Ironically, some areas that boast some of the best agricultural terrains in KSD constitute some of the most inaccessible parts of the municipality. Most farming households – small-scale commercial and subsistence farmers face considerable difficulties in marketing their products largely because of inadequate, unreliable and often unaffordable transport services, due not in small measure, to ‘un-traffickable’ roads, as well as the low density of demand. This has had the effect of lowering productivity as the incentive to produce for the market is truncated.

Thus in order to exploit and realize this potential, current KSD and provincial efforts to revive agriculture need to be strongly supported by the proactive development of agro-freight logistics. Intervention options will include:

- Developing a KSD vision for agriculture that is intended to achieve food security, improve productivity, create dynamic agricultural markets, integrate farmers into the market economy, create jobs and achieve a more equitable distribution of wealth.
- Identifying with other stakeholders, existing and possible anchor projects indicating committed and future land uses in agro-forestry, existing and new crop and animal husbandry with a view to estimating effective demand for freight and logistics
- Generating options for cost-effective ways of freightage including ancillary infrastructure such as storage for primary and agro-industrial products
- Undertaking demonstration projects involving improving freight for small scale farmers showing linkages with anchor projects, rural markets and distribution points for agricultural products, storage and processing facilities, distribution points for inputs (extension, seed, fertilizers, etc.), and employing brokerage firms.
- Providing extension services through demonstration projects involving intermediate modes of transport such as motorbikes, and
- Providing basic infrastructure allowing KSD to increase and diversify agricultural output and employment, promoting local market activity and market integration, and even facilitating and developing access to export markets.

2.4.2. Tourism Transport

KSD's competitive edge in tourism: KSD's competitive edge in tourism lies in its natural and cultural diversity. Rural KSD, in particular, has a lot to offer for tourism through its bio-diversity (both fauna and flora), varied and impressive scenery, as well as its diverse traditional cultures. Conceptually, transport and tourism are inter-dependent – tourism is both a partner and a customer for transport and vice versa. Transport plays and could play a vital role in unleashing the tourism potential especially of rural tourism.

Mainstreaming tourism benefits: The majority of the poor especially rural people are still left out of the mainstream of the tourism economy even though the multiplier effect of tourism and its ability to provide linkages to other sectors present a great opportunity for impacting on the broader rural development agenda. Even with its rich cultural and natural resources, rural KSD still finds itself at the periphery of the broader tourism economy. The challenge is to create awareness regarding the tourism potential of rural areas, and how residents can position themselves to be able to participate actively in tourism activities as they have not been able to take advantage of an industry which has the ability to create jobs and often is characterized by low capital requirements in terms of starting businesses.

2.5. ***Building a Community-Based Service Delivery Agenda***

2.5.1. KSD as Transformative Local Government

Real transformative change requires human actions. However, transformation thrives in an environment of institutional plurality and stability created by the implementation of rational, progressive socio-economic policies. It is thus important to ensure that different elements of policy intersect and mutually reinforce each other to ensure progressive transformation. Transformation occurs and is at its most effective when at least three agencies interact:

- **Active citizenry** – a local authority whose conscience is vested in ordinary women and men who comprise and who act in their own and in KSD's interest.
- **Broad-based leadership** – taking initiative in the common interest, and
- **An effective local governance system** – responsive to the needs of its people, in terms of listening, policy priorities and allocation of resources.

In addition, transformation needs to be underpinned by improved *information management, training and decision support* – aimed at addressing intergovernmental coordination requirements and governance capacity constraints and improving the planning and management of service delivery.

2.5.2. Communicating Service Delivery and Development Issues

While KSD has undertaken many development projects, these gains have not been convincingly communicated to the stakeholder community, which has the effect of discrediting KSD efforts leading to mutual mistrust and general despondency by beneficiary communities. KSD needs to draw up a robust communication strategy aimed at KSD stakeholders as well as constituencies outside KSD with elements such as an interactive website, bulletins, radio talks, regular contribution to local news daily as well as dissemination of information through transport forums. It also

needs to build the capacity of ward committees as two-way conduits of information dissemination between KSD and its constituencies.

2.5.3. Capacity Building and Training

Whilst in the past, local authorities existed merely to regulate and to deliver services, there has been a shift in understanding of their functions that recognizes the limitations of national government, and at the same time recognizing the benefits that emanate from decentralized decision-making involving beneficiary communities. In this regard, local authorities have been designated as the implementation wing of what is a protracted reconstruction and development process. Implementation has however, been hampered by severe capacity challenges. Nowhere is this better demonstrated than in KSD where the transport function and infrastructure director posts have not been filled for some time, resulting for example, with the transport component of IDP being extremely weak. Capacity problems have also precluded KSD from, for example, re-orienting the current rural development paradigm from a preoccupation with roads to improving accessibility. It will be important to seek to undertake capacity building and training initiatives with a view to:

- Empowering the KSD transport function to prioritise and strategically focus its activities and resources in the most effective way
- Assisting KSD councillors and officials to understand the role of transport in development, and
- Empowering community-based organizations e.g. transport forums or ward committees to contribute more meaningfully to transport and development imperatives in their area and thus establish genuine credibility in their constituency.

2.6. ***Rural Development Perspectives***

Government currently considers rural development a strategic priority. Given that KSD is largely a rural municipality, it has sought to take advantage of this sentiment by focusing investment and therefore tying its fortunes on rural development. In this regard, KSD needs to adopt and internalize, singly or in combination some strategic rural development perspectives, namely, the welfare, the land reform, the human resource development and the income generation (strengthening institutions) approaches. The four approaches are complementary and mutually inclusive (and can be adopted in combination or hybrid form). However, individually, they require different degrees of political coalition building for their actual implementation. The welfare approach which consists of transferring income to targeted beneficiaries, for example, does not threaten the interests of dominant groups and therefore does not stimulate substantial political opposition. On the other hand, the land reform approach requires strong political coalitions to transform the existing endowment structure and production relations. The pace at which the land reform agenda has moved since 1994 bears witness to this claim. The first two approaches are aimed at re-distributing rural wealth and the other two seek to improve opportunities for self-help for rural communities. Because people are the loci of attention, the departure point revolves around understanding and aligning interventions with current rural activity patterns, service provision packages and survival strategies, i.e. building on and strengthening what communities already know to ensure sustainability. In order for these development approaches to be successful, affordable and accessible ICTs must be co-opted as a development partner undergirded by strategic planning.

3. KSD IRTP ACTION AGENDA

Based on extensive discussions and analysis of recommendations emanating from the baseline study, broad policy areas and general strategic options have been generated covering spatial reorganization, access to socio-economic opportunities, local economic circuits and community-based service delivery. For each of the policy and strategic options, specific strategic actions have been fashioned as either demonstration projects or part of programs. The range of strategic interventions and their associated actions have been selected with a view to ensuring that rural development endeavours are:

- Coordinated and aligned with other government investment initiatives in KSD
- Appropriately targeted in terms of the relative potential, carrying capacity and needs in different areas
- Tailored in accordance with the requirements of different categories of rural transport customers, including women and the youth, persons with disabilities, the elderly, tourists, and
- Sustainable, both from a financial, and a broader development and environmental perspective. In this regard, sustainability emphasizes the integrated nature of human activities and therefore the need to adopt planning processes that coordinate between sectors, jurisdictions and groups.

The KSD IRTP Action Agenda which has seven action agenda items constitutes the intervention menu complete with '*shovel ready*' individual projects, selected and prioritized using the following criteria:

- **Location of project:** In order not only to maintain a balance in terms of the spatial spread of development projects and thus ensure most communities benefit from Government investment in rural development, but also to stimulate other private sector economic activity, the strategic location of the proposed projects becomes crucial.
- **Underutilized potential:** The existence of under-utilized economic potential, and evidence that this potential is being under-utilized largely owing to poor logistical connections and general inaccessibility to markets and services.
- **Demonstration effect:** Refers to the potential for effectively demonstrating the efficacy of a sufficient range of the integrated rural access interventions with a view to scaling them up to ensure critical mass.
- **Building on existing work and knowledge:** Refers to the potential for building on the results of previous projects, and achieving synergies with other sector interventions with a view to fast-tracking the implementation as well as widening the impact.
- **Development impact:** The socio-economic impact of the project especially in respect of poverty alleviation, job creation, capacity building, and the creation of value, and
- **Existence of conducive conditions:** Experience in project implementation especially in rural areas has shown that where there are no conducive conditions, such as the state of readiness of the municipality and the beneficiary communities to take up the project, no matter how much money is invested, such projects remain trapped at the inception stage.

4. CONCLUDING REMARKS

The KSD IRTP provides both strategic direction and operational guidance to the development of transport for sustainable rural development in KSD. It does this through the medium of strategic intervention pillars undergirding the IRTP. These pillars find expression in and are supported by the KSD IRTP Action Agenda. The KSD IRTP Action Agenda is an amalgam of proposed policy positions, supported by intervention options, which are in turn, buttressed and made operational through detailed specific action items. Finally, a selection of projects (which seek to find a balance between focusing on investment for economic growth and investment in social redistributive measures to ensure development endeavors also reach poor households in KSD) has been drawn complete with indicative costs – providing a platform for plan implementation in the short-to-medium and long-term horizons.

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