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TRANSPORT POLICY REFORM AND POVERTY REDUCTION IN KENYA:

BRIDGING RURAL–URBAN TRANSPORT GAPS THROUGH IMT

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Introduction

Intermediate Means of Transport (IMT) is one of the oldest forms and modes of intermediate means of transport (IMTs) in human history. The influence of the car in the expansion of cities and its spread to the tropics in the 19th – 20th and now 21st centuries, however, has not satisfied the need for travel especially in third world where: the majority (over half of the population live below poverty line; private car is out of reach for over 98% of the population; while public transport is still expensive to majority of rural dwellers; and over 40% of urban dwellers still walk to work (Obiero 1992, Kasuku 1995, 2001).

This paper recognizes the role played by (IMTs) in the functioning of various urban and rural activities ranging from marketing, farm produce and household essentials transportation, commerce, and development of the informal sector, and residential areas among others. The paper notes that there is an increasingly high demand for IMT facilities despite inadequacies in policy, legal and Institutional frameworks to cater for the same in SSA. The paper recommends the use of: spatial planning techniques that are animal friendly, (especially; segregation from motor traffic where necessary,); integrative planning methodology in conformity to recent planning guides such as Agenda 21 recommendations; and integrative planning and design to relate IMT mode with other modes and land use to enhance accessibility, mobility efficiency and safer travel.

1.1 IMTs Conceptual Framework

Whereas Governments / countries world over race for motorization as a superior means transport, the bulk of their population especially those living in less developed economies remain without a well-defined transport service and infrastructure. Rural and peri urban economies mainly rely on Intermediate means of transport e.g. walking,

animal traction/carts bicycles, and canoes among others considering that rural travel demand is based on activities from household levels. It's therefore the aggregation of the transport needs of individual households that form the basic demand for means of travel in rural areas.

1.2 IMTs development nexus

Researches carried out in SSA has establish that over 98% of rural movements in rural areas take place off the road and are usually journeys to and from farms, water points, local markets, communal gathering and fetching fuel wood among others thus constituting the rural economic activity. It should not be lost that it's the efficiency of rural intermediate means of travel that determines the activity level within a region and consequently the level of a national economy. Recent MSE infrastructure surveys in Kenya revealed that the development of the sector was greatly affected by lack of infrastructure for over 60% of the population, the deficiency levels were specifically high for women.

It has been equally established through research in Kenya among other SSA countries that there is a direct relationship between the urban and rural activity systems with regard to the level and efficiency of rural accessibility and cost of living in urban areas. Where rural accessibility levels are low, transport costs are high, hence hindering the movement of goods produced from rural areas to urban areas. This results to high commodity price index in urban areas (e.g. industrial inputs, foodstuffs etc) as transport costs eat into profits and finally low consumption levels. In effect, the rural population experience limited market for their products resulting to low earnings and eventually increased poverty levels. A depressed rural production system directly translates to a depressed national economy and increased poverty levels

Based on the above argument planning for peri-urban and rural intermediate means of transport must consider such issues as access needs, appropriate and affordable cost of transport, the involvement of private sector, sustainable technology of labour based methods and poverty issues. Accessibility to services; be they water points, market places, health facilities, educational institutions; recreation among others in rural areas is a function of the transport system and is indeed critical. Any complication in accessibility to goods and services will translate itself to higher costs of transport, which lowers return values to private sector initiatives. The ability of the private sector to intervene and invest in facilities for intermediate means of transport therefore becomes a determinant of how new and sustainable technology can be adopted and eventually transferred to benefit and meet demand for travel for a wider rural population.

The development of intermediate means of transport services is viewed as a bolster to the growth of the private sector, which consists of manufacturers of transport equipment (carts, spares for bicycles among others). It's therefore considered that affordable transport technology would foster a multiplier effect in both the urban and rural economies and thus alleviate poverty through on-farm and off-farm employment creation. Farmers would be able to carry more loads of farm products to wider markets using carts, rickshaws or bicycles than if they were to carry on their heads. Using standards for motorized roads, intermediate means of transport paths are usually narrower and do not require heavy machinery with associated costs to build, but merely labour based methods which could equally employ local labour in the process.

1.3 Rural-Urban Transformations and mobility issues

The last half of the 20th century has seen the continuous transformation of the world's population into urban dwellers. Urban population has increased from less than

30% of the total in 1950 to more than 47% in the year 2000. It is projected that more than 47% of the world population will be living in cities by the year 2006 and it's expected to reach 57% by the year 2020. Three quarters of this population is expected to be found in developing countries. Whereas world rural population is expected to contract by 2020, urban population growth is expected to account for more than 100per cent of the world's total net growth. During the 2020's, it's projected that some 77million persons will be added to the world's urban population each year of which 74 million will occur in developing countries. Population growth will be mainly through natural population growth, thus giving rise for the need of efficient urban and rural transportation systems. (UNCHS Habitat 1999, 1998, World Bank 1999, Kasuku 2001)

Kenya has among the highest national and urban population growth rates in the world. In 1962 the national population was 8.6 million with an urban population of 748,000 persons living in 34 towns of at least 2000 persons. By 1969 census, the national population had increased (at 3.9% per annum) to 10.9 million while the urban population rose to 1.07million in 48 towns. The 1979 census revealed an increase in national population to 16.03 million while urban population clocked 2.1 million in 67 towns. Recent statistics shows that by the year 2000, Kenya's population had reached 28.7 million against an urban population of 8 million constituting nearly 32% of the population compared to 8% and 24% in 1962 and 1991 respectively (Population census 1962, 1969, 1979, 1989, 1999). Given the national population growth rate of 3.5%p.a. and an urban population growth rate of 7-8% p.a. there is need to base development of transport infrastructure and services on population, urbanization and rural production mobility needs as critical success factors for promoting economic growth and development and facilitating rural urban balance (Kenya 1986, Kasuku 2001).

1.4 Current Rural-Urban mobility perspectives

Howe (1994) states that at the end of 1998, SSA's population of about 443 million shared 1.9 million light vehicles. With an average household size of 5.9 persons and assuming that only 40% of such vehicles would be available for private use the remainder being used by international organizations, representatives, companies, NGOs and government then abut 1% of households could be said to have had access to private motor vehicles. He asserts that even though public transport provides additional access, however, its extent has been modest and in recent years, supply has not been able to keep up with population growth even for the limited proportion of people who can afford its services. He notes that in rural and urban areas, the level of services is low and the average expenditure on transport high forcing many poor majority of population, to use IMT. Similarly, due to low levels activity and income, in individual rural household 'traffic' cannot in general support a public transport system for internal village trips and the only alternative is to use IMTs such as walking or cycling and donkey/ox carts. Given the bleak prospects for increased access and mobility by motorized road transport, it is legitimate to consider how IMTs can be used to bridge the gap between motorized transport and demand for travel in rural areas.

Public transport has deteriorated to a low quality service for the urban poor and others who do not have access to private car. Consequently, public transport is often overcrowded, technically insufficient and inadequate in network length and capacity, thus resulting to highway congestion, and sometimes dangerous to use (UNCHS Habitat 1999, Obiero 1992, Omwenga *et al* 1994). Research has also showed that public transport is equally not efficient in comparison to other modes of transport apart from the private car and is therefore less attractive to majority of peri-urban and rural dwellers who are the poor and the most probable potential users.

The above notwithstanding, the development of transport infrastructure in both urban and rural areas of Kenya has tended to ignore the need for non-motorized transport (NMT), particularly intermediate means of transport (animal powered transport).

In the rural areas the scarcity and inadequacy of passenger transport is much more acute than in the urban areas because of low vehicle density which in turn is due to inadequate or lack of road infrastructure and low incomes of residents. However, the matatu are still the commonest mode of passenger transport together with a few buses in these areas. As in the urban areas, they are usually overloaded, often un-roadworthy and risky for passengers because of their scarcity, and have no regular time schedules. Because of these factors rural passenger travel times are usually much longer even for short distances, leading to inefficiency and frustration.

Efficiency in the movement of goods within urban and rural areas cannot bee over-emphasized. High transport costs may render our exports uncompetitive on the external markets, lead to higher prices of industrial and agricultural inputs as well as finished products and even lead further to serious constraints in production, and distribution., For bulky products such as cement and grain, transport costs may constitute as much as 80% of the retail price. It is essential therefore the freight vehicle operating costs should be kept to a minimum.

It is in light of the above scenario that a strong case can be made for non-motorized transport in both rural and urban areas in the form of horse-drawn coaches and carts, carts drawn by oxen, camels, donkeys and mules, handcarts and tricycles. At the moment animal draught vehicles are visible in very few areas in Kenya. In the urban areas the use of non-motorized freight vehicles is hampered by lack of basic infrastructure and by cultural attitudes.

The rapid growth of population and urbanization and the Government's commitment to ensure a rapid economic growth and development necessitate that priority should be given not only to increasing the supply, productivity, and efficiency of all modes of transport but also that cheaper and more appropriate transport modes should be developed. It is also essential that in order to ensure sustainability of the infrastructure supply, priority should be given to the maintenance and rehabilitation of the road infrastructure that has been developed. It is necessary also that the Government's efforts in increasing road safety should be intensified.

The development of infrastructure in both urban and rural areas has tended to ignore NMT. Although in the early 1960's there were provisions for pedestrian footpaths, bicycle and motor cycle parking bays in Nairobi and Mombasa, for instance, these soon disappeared from the town and city planners' schemes and as of now, both NMT and motorized transport compete for the same road space, including pedestrians in many areas. Probably because of lack of appropriate infrastructure and partly because of cultural biases against NMTs (often seen as inferior modes), there has never been a positive policy to develop infrastructure that can accommodate NMT.

As the cost of motorized transport is likely to increase, there is a need to ensure continued agricultural productivity in the rural areas, particularly in the up and coming towns outside Nairobi and Mombasa, by promoting NMT in smaller towns especially for rural and urban freight transport. The use of horses on farms, ox-carts, and mule-drawn carts should be promoted in the rural areas as cheaper means of increasing agricultural productivity. At the moment moving even one tone of grain, sugar, and cement for a distance of one km. In the rural areas non-motorized transport is not only unaffordable to many low-income urban or rural inhabitants. But is also uneconomical. This mode of transport (NMT) is, moreover, pollution-free and utilizes

renewable resources (wood and animals), employs technical skills that may easily be developed in the rural and the JuaKali enterprises. In this respect it is important to note the role of horse drawn carriages in Europe and America during their critical stages of development and event to day. Moreover, since women and children carry the bulk of goods on their head to and from market centers in rural areas, the development of NMT would go along way in easing the burden on them.

Rural transport is specifically crucial in facilitating attainment of high productivity in the manufacturing, service and other sectors of the economy in SSA. The current plan states that despite government effort which has seen the road transport network account for over 80% of the country's total passenger and freight traffic, there has been a major deterioration in road conditions over the last 15 years, caused by increased car traffic, overloading, high cost of construction and inadequate funding. The share of the road maintenance expenditure has been falling from 31% to 19% in 1986/87 and 1987/88 financial years respectively Kasuku 2001).

Owen (1964) and Meyer *et al* (1984) states that it is apparent that the needs for the productive and services sectors must be identified and the transport infrastructure and facilities be provided to satisfy the needs, thus integrating transport and non-transport sectors in policy formulation. Transportation of persons or goods is in essence geared towards achieving some other purposes i.e. getting to work, purchasing food from the market among others. It is therefore imperative that development will occur when travelling needs are progressively met.

2 Policy reform and poverty reduction initiatives in Kenya

Transport became a policy issue from early years of independence when the government of Kenya stated in Sessional paper No. 10 of 1965 on "African Socialism and its application to planning in Kenya", that the provision of transportation facilities like roads, railways, airports was its sole responsibility. Since then, both national and urban motorized transports have dominated the government's planning and provision of transport infrastructure. The eighth National development Plan 1997 – 2001 (1997), The National Poverty eradication Plan by the year 2015 (1999), The Sessional Paper on Industrial transformation to the year 2020 (1997) the Sessional paper No. 1 on Economic management for renewed growth (1986) and Sessional paper No. 1 of 1994 on Recovery and Sustainable Development to the year 2010 recognized that an efficient transport network both in urban and rural areas is a crucial requirement for economic social and political development in Kenya. The paper (Sessional paper No. 1 on Economic management for renewed growth of 1986) identified five modes of transport as: road, railway, pipeline, water, and air. The transport modes combined play a key role in integrating various production and population centers and in facilitating mobility in both urban and rural areas as well as enhancing human welfare (Kasuku 2000, Kasuku 2001, Kasuku 2001a).

The Government of Kenya recognizes that a viable and efficient transport sector is a prerequisite for industrial, economic social and political development. GoK (1997) states that transport plays a key role in intergrading the various production and population centres and facilitating mobility in both rural and urban areas as well as enhancing human welfare. Cognizant of this fact, the government's policies and objectives on the provision of transport facilities and services are based on the principle that transport is a service sector which should be developed in line with the

needs of the productive and service sectors (Kenya 1997, Meyer and Miller 1984, Werner 1985, Kasuku 1995, Kasuku 2001).

The government in 1997 finalized the preparation of the strategic plan for roads sector management, which encompasses: (i) capacity building, (ii) provision of adequate funding for road, (iii) transparent management of funds, and (iv) Make provisions for pedestrian and bicycle routes along future roads. The plan however notes that building of more motorways in urban/rural areas will not benefit the majority because of the resulting high vehicle operating costs charged for public transport which is unaffordable to many urban and rural travellers, the majority of whom are forced to IMT services. The present policy of the development of NMT infrastructure is based on increasing accessibility and mobility in rural areas to supplement motorized transport.

2.1 Recognizing IMT in Policy

The role and need for non motorized transport only started receiving appreciation over 30 years after independence when it was first mentioned in the 1994 –1996 National development plan, which recognized NMT as a sixth and the youngest mode of transport and development in both urban and rural areas (Kasuku 2001, Kasuku 2001a). Subsequently, the Government in 1996 launched the National Forum Group on Rural Transport and Development, whose efforts together with that made by others transport enthusiasts led to the recognition of NMT as the sixth and the youngest mode of transport in the 8th National development Plan 1997 - 2001. This plan recognized that the majority of urban and rural residents live below the poverty line and are captive in the NMT mode, hence the justification to provide facilities and vehicles in the same. This paper expounded on NMT as a service and a supportive factor for production in both economic and social aspects of life in the 1997 – 2001

National development plan, which departed from the earlier emphasis that development is only supported by motorized transport (Economic Survey 2000, 2001).

The governments Interim Poverty Reduction Strategy Paper (2000) and the National Poverty Eradication Plan by the year 2015 (1999) all recognized transport (NMT included) as a requisite ingredient for fighting poverty in Kenya. Currently, The Poverty Reduction Strategy paper 2001 – 2004 further underscores the need to provide pro poor transport facilities.

Further, the Government in the 2001/2002 financial year budget, zero rated bicycle import duty to enable a wider population access them with a view to improving urban and rural mobility among the poor. Indeed, the earlier omission of IMT/NMT issues in National development plans and policies explain why no financial measures were put in place to address IMT infrastructure and facilities demand.

The tax exemption has resulted to the reduction of bicycle prices countrywide from over Kshs. 3600 down to between Kshs. 3000 and Kshs. 3400. Even though these price reductions are seen to be minimal, its impact has registered tremendous improvement in bicycle ownership countrywide thus improving overall mobility needs by the poor. In addition to this, other associated impacts both in the short and long term have been registered as below.

Poverty reduction: Considering that bicycles can serve dual purposes of means of transport and as well as income generation tool, earnings generated from use of bicycles as commodities of trade especially in transport sector is expected to improve rural/urban household incomes. This point elaborates the intentions of the current PRSP (2001-2004), which views transport, especially IMTs as a plyer in poverty reduction.

- Currently, bicycle taxis are fashionable in several rural regions in Kenya where motorized transport is either unavailable and/or expensive.

- Firstly, **Increased mobility efficiency:** Journeys which previously took longer to cover on foot currently takes a shorter time when bicycles are used thus availing extra time and energy which are invested in other economically viable farm activities such as marketing of agricultural produce and tendering crops and animals among others.

- Secondly, **Generated backward linkages:** These are related to creation of employment opportunities in the informal sector, especially in spare parts production and repairs thus facilitating technological transfer in the transport sector.

- Thirdly, **Enhancing policy implementation:** The zero rating of bicycle import duty is widely seen as an enhancement of policy implementation in the wake of previous policy formulation, specifically PRSP, National development plans and sectoral papers.

The **9th National Development Plan 2002 – 2008** stresses the importance of including the provision of NMT infrastructure and vehicles in national planning hence attesting to the acceptance of NMT in National Planning Policy. The GoK (2002) in the policy document observes that planned construction of Facilities will relieve many town dwellers of the high cost of urban and rural transport. It notes that productivity at places of work will subsequently be improved, and further measures will be put in place to encourage development of NMT.

Local Authorities are currently providing NMT facilities in their areas of jurisdiction. For example, NCC has previously constructed new pedestrian paths across Uhuru park

and another one connecting Kenyatta Market and Nyayo High-rise with Madaraka. At the same time, Kisumu, and Mombasa Cities, Kakamega Municipality and Busia Township among other local authorities are currently improving footpaths and cycle paths to enable NMT users move efficiently.

There are Nongovernmental Organizations, which have been formed with the sole purpose of advocating for and providing pro poor transport facilities and services in Kenya. KENDAT is currently promoting the use of animal draught power in rural production and periurban areas where it provides valuable transport for water, farm produce, among other goods. KENDAT/NFG/ITDG-EA are currently carrying out a rural transport services project in Kenya to scope policy and action programs in improving IMT. Otherinitiatives include post harves programs targeting improvements of load management and marketing issues. Framing and pastoral communities are involved in donkey breeding and manufacture, maintenance and repair and management of animal draught equipment.

3 IMT problem analysis

Planning Issues

Even though IMT friendly policies continue to be enhanced, animal powered transport seems to be left out. Incentives are yet to be expanded to cover importation and manufacture of equipment for animal; powered transport, while policies that specifically address needs of animal powered transport is yet to be developed.

3.1 Poor infrastructure and route networks:

Observation shows that, even though the state of transport infrastructure in peri-urban and rural areas has been deteriorating for all modes, the situation for IMTs has worsened due to increased congestion on networks occasioned by complex nature of rural-urban activity systems.

Provision of spatial infrastructure is yet to be considered as a special requirement for IMTs. The inclusion of special facilities within terminal areas to cater for IMTs does not exist at the moment. Sub-division of rural and peri-urban land has seen the emergence of or road reserves, which are as narrow as 3m, which can hardly allow animal drawn carts to bypass each other or a car.

Animal need almost double power to move a loaded cart over roads with poor conditions (stoned and potholed surfaces), bicycle maintenance costs get higher. This results to injuries on animals thus inefficient mobility.

3.2 Conflict with motor traffic

Statistics (Traffic police records) show that IMT users account for over 70% of all accident victims in Kenya. IMT vehicles are slower than MV, thus seen as an impediment on the motorway by motorists, who often move on the roads with disregard to NMV (Non-motorized vehicles).

3.3 Poor management of animals

Animals used for transport are often mistreated by their drivers, who use affliction of pain on the animals as an acceleration strategy. This behavior is counter-productive and leads to poor animal healthy and eventually poor performance.

3.4 Institutional frameworks

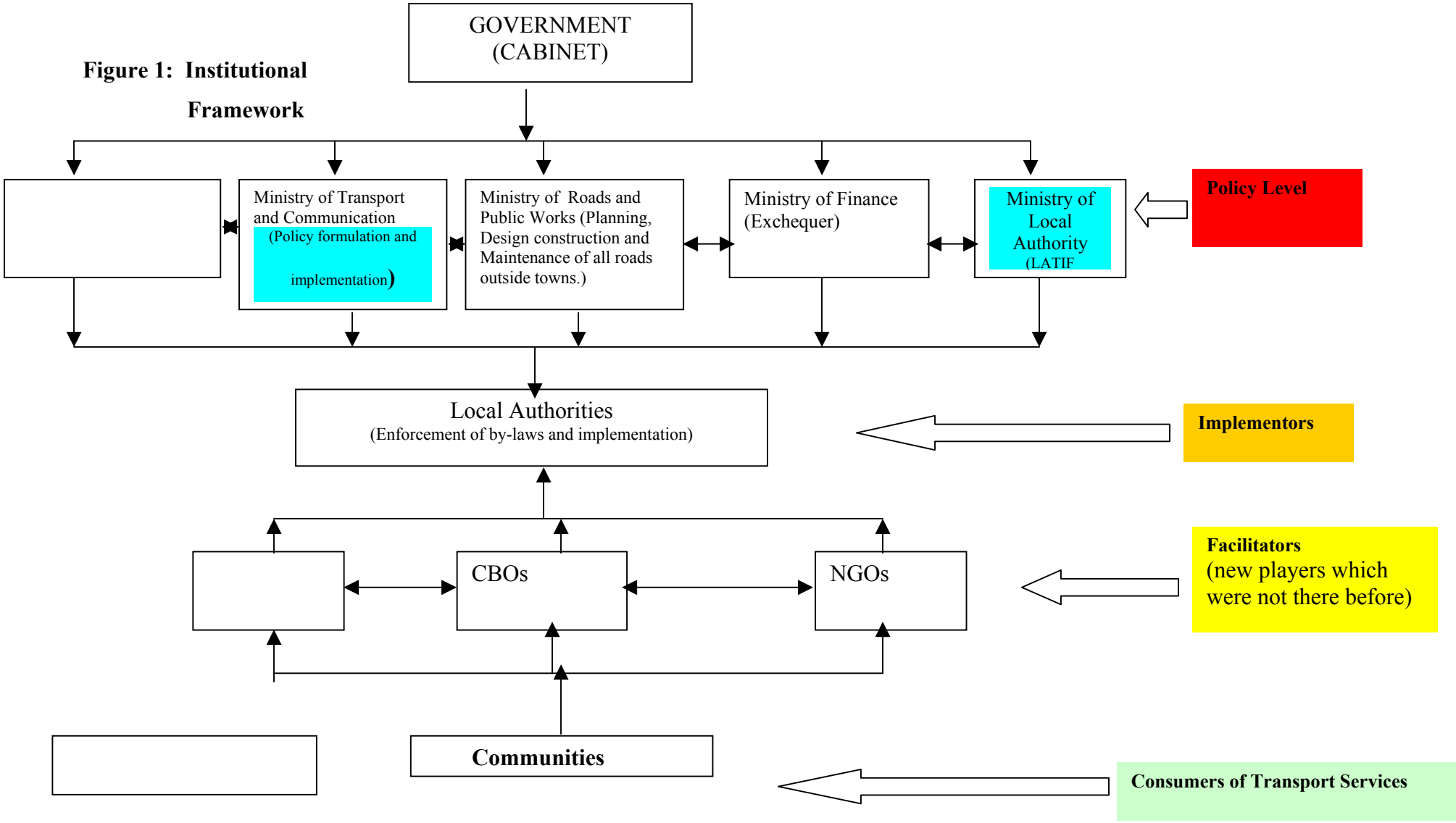
Obiero (1992) and Kasuku (2001) note that one of the bottlenecks in the provision of an optimal and well functioning urban and rural transport modes and services in SSA Africa is the weak management and organization or institutional framework. Weak horizontal linkages largely dodge institutional arrangements between the undertaking

departments where each of them works independently or with weak linkages while dealing with the same problem. It eventually results to uncoordinated, un-integrated and poor provision of IMT facilities and services despite immense resources sunk in the efforts.

3.5 Incapacity in Local Authorities

The authority to acquire/safeguard, design construct and maintain NMT facilities lies with the local authority in question with exception for primary distributor roads and rural roads which are under the Central Government (Ministry of Roads and Public Works). For a local authority to access funds from the central government, or acquire/design, and construct a transport facility, the same authority must first of all prepare a development plan (approved by full council). The Minister for Local Authorities must approve the action plan to form a basis for forward budget and allocation of funds from Treasury. First, the local authorities however lack the resource capacity to undertake preparation of development and action plans to form the basis for their funding from central government.

Figure 1: Institutional Framework



4 Recommendations, Research agenda and conclusion

The importance of IMTs, and specifically animal powered transport cannot be overemphasized at this point. This paper therefore recommends areas for research and action in formulating policies, and programmes to promote and improve on existing IMT initiatives.

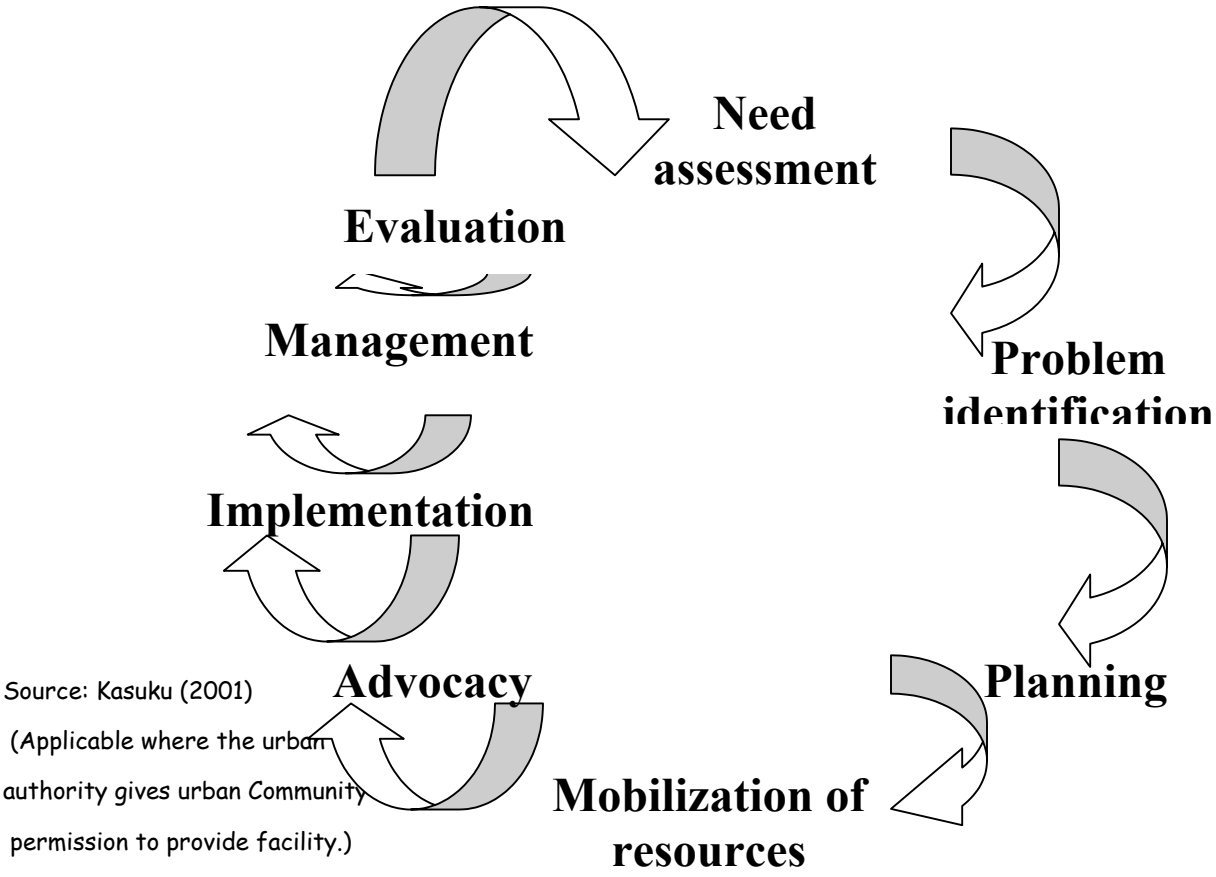
4.1 Institutional capacity Building

Institutional capacity commensurate to available work in local authorities should be examined and built to enable local authorities develop and implement IMT related policies, programs and actions.

4.2 Participatory Planning Approaches

Participatory planning exercises should be given preference over expert oriented approaches. Collaboration between Central government, Local authorities including the users themselves (the workers' organizations, Industrialists, and pedestrians) needs to be adopted to provide an all-inclusive forum for transport planning. This would ensure that optimal transport facilities are provided as a service to other sectors of the economy.

Planners and scholars have observed that transportation planning should be considered an integral part of the social and economic system of an urban area hence viewed as a set of interconnected facilities designed to provide opportunities for travel from one location to another (Figure 2).



Source: Kasuku (2001)

(Applicable where the urban authority gives urban Community permission to provide facility.)

Effective management programs should be put in place by local authorities to maintain transport networks and provide facilities that enhance the growth and use of IMTs.

4.3 Policy reform

Transport policies that are congruent to population needs ought to be articulated to guide optimal provision of IMT facilities. Policies should take cognizance of population being planned for, hence be energized by demands of the populations production process and special mobility needs.

4.4 Environment and sustainability

On environmental issues, the Habitat Agenda (1996) observes that environmentally sustainable, accessible and affordable transport and communications are essential to

the success of urban and rural settlements for easy movement of people and goods and ideas both within and between cities and remote areas. The agenda stresses the governments and other interested parties should integrate transport an land-use policy and planning to reduce the ill effects of transport systems such as pollution, congestion and accidents. Accessible, affordable, safe and efficient public transport systems would particularly help poor people, women, children, youth, older people and those with disabilities. The agenda advises that governments use pricing, land use, policies and regulations to encourage a combination of types of transport. These include walking, cycling, private and public means of transportation.

4.5 Advocacy an the role of Forum groups

The prime function of the Forums is to provide the link between Government Policy makers and planners, aid agencies, Non Governmental Organizations (NGOs), Universities, Consultants and research institutions in bridging the gap between transport policies and practices in Kenya. The Forum performs role of a facilitator and promoter of rural/urban transport systems and leaves implementation to Government, and other Development agencies through,

- developing the professional capacity in rural/urban transport research activities;
- identifying the training needs for rural/urban transport policy makers and practitioners;
- participating in transport policy formulation; and
- working together with implementing agencies in project design

Advocacy

Such forums should host and participate in policy meetings and on rural/urban transport and development both within Government and in academic fora

Networking

Considering the breadth of rural/urban transport systems and the large number of actors involved, the NFGs should strive to take the leading role in linking up all actors in an effort to network the rural/urban transport activities

The NFG should develop and maintain a data bank of institutions, organizations and agencies involved in rural/urban transport activities, both in and outside the country, and work to link them up to undertake studies and action programs geared towards reducing poverty through transport interventions.

Research Needs

The Forums should identify information deficient areas that require research and facilitate their address especially in;

- scale of transport problems in the country;
- Statistics on transport
- forms and nature of urban/rural transport in different set ups;
- impact of current policies in facilitating accessibility to transport infrastructure and facilities, health, education, housing, agriculture, environment, etc.;
- emerging transport policy areas and their potential impacts; and

- Lessons and experiences relating to approaches and technologies useful for enhancing rural/urban community development, especially that of women who carry much of the rural transport burden.

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