ACHIEVING SUSTAINABLE URBAN TRANSPORT IN HARARE, ZIMBABWE: WHAT ARE THE REQUIREMENTS TO REACH THE MILESTONE?

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ABSTRACT

Sustainability has become a buzz word within the socio-economic development agenda. Sustainability creates and maintains conditions under which society can cope and viably support livelihood requirements. Lack of economic growth and a rapid rise in urban population have created unintended consequences impacting on the economy, social fabric and the environment. Africa is urbanizing at an annual growth rate of 3.4% (United Nations 2011). Zimbabwe, akin other developing countries is also urbanizing at a high rate. Ironically, as urban population grew, conventional public transport declined, mainly as a result of an adverse operational environment. The twin factors of increasing population and the dearth of conventional public transport stimulated the growth of the informal public transport and private car ownership. As the informal sector and private motorisation expands, the city’s main urban public space is increasingly more congested impeding rather than facilitating the urban population’s ability to access the required social and economic services. A clear mismatch between the demand for traffic space and its availability is evident. Demand for traffic space exceeds its supply, inevitably resulting in congestion which can be protracted. Urban productivity is key to the growth of our urban economies and this requires the provision of a reliable, efficient transport system to move goods and labour. The paper examines and assesses the various strategies that can contribute to achieving a sustainable urban transport system. Data was collected through unstructured interviews from key stakeholders in both private and public sector. Stakeholders are agreed on the need to improve transport in Harare and proffered solutions which included mass transit, infrastructure improvements, institutional capacity and good governance among others.

1. INTRODUCTION

Sustainability has become a buzz word within the socio-economic development agenda. According to Beatley (1995), there is no universally accepted definition of sustainability, sustainable development or sustainable transport. The European Union Council of Ministers of Transport (EUCMT 2004) defined sustainable transport as allowing “the basic access and development needs of individuals, companies and society to be met safely and in a manner consistent with human and ecosystem health, and promotes equity within and between successive generations …. affordable …..limit emissions …. while minimizing the impact on the use of land and the generation of noise”. Other authors (Black and Nijkamp, 2002; Litman, 2008; Richardson, 1999; TRB, 1997; Tumlin, 2012) have also proffered definitions of
sustainable transport. These definitions have brought to the fore the key measures of transport sustainability which includes economic, social, environmental and financial dimensions. Thus, sustainability creates and maintains conditions under which society can cope and viably support livelihood requirements. Sustainable transport is threatened when transport becomes inefficient, is perceived as unsafe, contributes towards a deteriorating air quality standard, and creates delays and bottlenecks for users inter alia. Urban transport in many cities of the developing countries, exhibit these shortcomings.

1.1 Trends in Urban growth

Worldwide, urbanization is growing in both the developed and developing countries. In 2008, for the first time in history, more than half of the world’s population were living in towns and cities (UNFPA 2007). The proportion of the world’s urban population is expected to increase to 5 billion people by 2050 (Ibid). Figure 1 illustrates the growth in urban and rural population from the 1950s and projections up to 2030.

![Figure 1: Growth in urban and rural population with projections up to 2030](image)

**Source:** United Nations (2005) World Urbanisation Prospects, the 2005 Revision Department of Economic and Social Affairs, Population Division

It is in cities of the developing world where rapid increases in population is occurring. According to the African Development Bank (AfDB 2012), more than 90% of future population growth will be accounted for by the large cities in the developing countries.
Africa in particular, has experienced unprecedented urban growth. According to the United Nations (2011), urban population in African cities has been increasing by an annual rate of 3.4%. The rapid rate of urbanization in Africa, is a result of natural growth as well as the movement of people from rural areas to cities (rural-urban migration) in order to seek economic opportunities. This high growth in population has in turn increased pressure on services and in some cases resulting in the proliferation of slum.

Urbanisation in Zimbabwe, exhibits the worldwide trends discussed above. The population of Zimbabwe is approximately 12.97 million with an annual growth rate of 1.1% (ZimStat 2012). Urban population increased from 608 446 people in 1964 to 4.93 million by 2012. Urban population is 38.6% of total population with a growth rate of 3.4% (The Zimbabwe Demographics Profile 2013). Greater Harare, which is the subject of this paper has a current population of 2.1 million people representing 16.2% of the total population in the country (ZimStat 2012). The rising population has in turn resulted in the physical expansion of the city as well as an increase in density.

1.2 Background to the City of Harare

Harare is the capital and industrial and commercial city of Zimbabwe. It was declared a municipality in 1897 and became a city in 1935. Formerly dubbed ‘the sunshine city’, Harare has in the last few years been affected by the country’s debilitating macro-economic situation. The once glamorous streets are now characterised by potholes and litter.

Harare once prided itself with a reasonably good 4,000 km of surfaced road network. The road network system is failing to cope with increases in the number of vehicles. Notwithstanding the adverse economic environment, the people have found a reasonably cheap source of motor vehicles from Japan and Asia. Vehicles arrive in the country daily in great quantities and the majority of them are destined for Harare. According to the Central Vehicle Registry (CVR 2012), the number of vehicles in the country increased by approximately 6% from 522 682 in 1999 to 973 188 by 2009. Albeit the non-availability of figures by city, it is estimated that about 70% of these vehicles are in Harare. It is evident that there is a clear mismatch between increases in the number of vehicles plying the streets of Harare and provision of road space resulting in severe congestion. The city experiences high levels of congestion which can be protracted for several hours. Residents in Harare at times casually tell a joke that the number of vehicles plying the streets outnumbers the population. Clearly, as this is an exaggeration, it however highlights the magnitude of congestion in the city.

Congestion is compounded by small vehicles which are used as modes of public transport. Figure 2 shows the level of congestion on one street which minibus drivers have unilaterally converted into a terminus. Up to 1983, public transport in Harare was solely provided by conventional buses. Progressively, the increasing public-supply/demand gap compelled the proliferation of pirate taxis (informal sector) which started to surface on high density corridors. The growth of the informal sector was
given impetus by the Economic Structural Adjustment Programme (ESAP), which was introduced in 1990 (Government of Zimbabwe 1993). In essence, the main objective of ESAP was to liberalise the economy. This culminated in the deregulation of urban passenger transport in 1993 when privately operated public transport vehicles were for the first time legally permitted to operate in urban areas. Privately operated vehicles in the form of minibuses (officially known as commuter omnibuses in Zimbabwe) have mushroomed and now dominate the entire public transport market in Harare resulting in the dearth of the conventional bus operator. In addition, some operators (illegal) have taken advantage of unmet demand and are plying on short routes. These small cars and minibuses park willy-nilly blocking other traffic and causing congestion as illustrated in Figure 3.

![Figure 2: Street totally blocked by minibuses](Image1)

**Figure 2:** Street totally blocked by minibuses

**Source:** Authors

![Figure 3: Minibus loading in the middle of a road](Image2)

**Figure 3:** Minibus loading in the middle of a road

During the rush peak hour periods, congestion in Harare can reach gridlock levels increasing frustrations to motorists who at times vent their anger against each other. Some motorists try to avoid congestion by choosing alternative routes but as one respondent remarked: “You should not assume that you are the only rational commuter. Choosing an alternative route or even using back roads won’t work because other motorists will take similar decisions resulting in congestion on these alternative routes”. Thus, congestion in Harare is a real challenge which causes delays and in turn affects production negatively.

Traffic jams in Harare have also increased accidents. According to statistics provided by the Traffic Safety Council of Zimbabwe (TSCZ 2012) total vehicle accidents in Harare increased from 20 676 in 2007 to 25 404 in 2010 and the number of people killed increased from 540 to 604 during the same period. Although current accident and fatality statistics are not available, these could be considerably higher due to the increase in the number of vehicles and the deteriorating infrastructure characterised by potholes and malfunctioning traffic signals. A considerable number of these accidents
are attributed to minibus operations. A recent accident (The herald 26 May 2014) that killed 10 passengers in Harare when a minibus hit a tree exposed the uncaring behaviour of operators and drivers. The driver was speeding and had no licence. These practices are perceived to be common in this industry.

In summary, the city of Harare is facing grave challenges which inter alia include an increase in population and the number of motor vehicles, a deteriorating transport infrastructure, severe congestion, an inefficient public transport and a high rate of accidents. All these snags have implications on achieving a sustainable transport and hence the need to raise the question on the requirements of achieving sustainable transport for the city.

2. METHODOLOGY

In this study, a qualitative research method was followed. Information was sought from a group of key urban transport stakeholders. The first group was comprised of Government (Ministries of Transport and Local Government), City of Harare, and the Traffic Safety Council of Zimbabwe. The second group covered the private sector and interviews were conducted with the Chartered Institute of Logistics and Transport, Consultancies and companies. The third group encompassed minibus operators. The fourth group was confined to academics and the fifth and final cluster targeted users of public transport and interviews were conducted at termini. Thus, there are five identifiable categories from which information was sought, namely, the public sector which represents policy formulation, the private sector, academia, public transport operators and public transport users.

For this type of study, unstructured questionnaires were found to be the most suitable. Respondents are not confined to a set of answers and can therefore express their views without any limitation.

Questions revolved around the respondents’ understanding of sustainable urban transport and how it can be achieved. Responses were grouped according to sectors of interviewees in order to discern any meaningful trend from the groups of stakeholders identified above.

3. FINDINGS

3.1 Is urban transport sustainability understood?

The question brought mixed responses from stakeholders. For the general members of society who invariably are commuters, urban transport sustainability is associated with the improvement of public transport in regard to two key factors, adequacy and affordability.

Most interviewees from the public sector (Government, Local Authority, Parastatals) responded to this question by making reference to the National Transport Policy
A document which stipulates one of the objectives of urban transport as the “improvement of the supply of public transport services without compromising passenger safety and comfort” and one of the strategies to achieve this objective was “to promote high capacity transport public transport vehicles and embarking on gradual phasing out minibuses” (Government of Zimbabwe 2012). An official in the Department of Physical Planning, in the Ministry of Local Government summarised urban transport sustainability as making “cities resource efficient, environmentally friendly, transport and land use being integrated and public interest must be in the forefront”.

The private sector’s main concern and understanding of transport sustainability revolved around cost reduction and making cities productive. An efficient urban public transport system was considered to be a necessary ingredient to economic growth.

Divergent views emerged from minibus operators. One group expressed the view that sustainable urban transport revolved around minibuses which are providing a vital service to commuters and their ‘operations need to be sustained’. The other group associated urban sustainable transport with big buses which they described as “efficient users of road space”. This group is aware and influenced by Government’s new policy to phase out minibuses. Therefore the group wants to take a proactive approach to seek assistance to invest in bigger buses so that when the policy is implemented, they will not be found to be on the wrong side of the law.

As expected, academia expressed views that reflected depth of knowledge on the concept of sustainability. One academic defined urban transport sustainability as “the provision of transport facilities to enable people to use the system without compromising future generations”. This definition resonates the sustainable development definition that was popularized in Our Common Future (World Commission on Environment and Development, 1987) in which sustainable development was defined as the “development which meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The three pillars (economy, society and environment) of sustainable transport were articulated by academia. A male academic defined sustainable urban transport as “the need to achieve economic, social and environmental equilibrium, it is about facilitating movement, pricing being just to users and minimising emissions”.

Another angle of sustainability expressed by academia was on the importance of not only providing the requisite transport infrastructure, but managing and maintaining it as well. The crumbling urban roads in Harare, which are full of potholes due to lack of maintenance, were cited as an example of unsustainability.

4. REQUIREMENTS TO REACH THE MILESTONE

This section provides a critique on how sustainable urban transport in Harare can be achieved in light of the definitions proffered in the introductory section as well as
suggestions and views expressed by stakeholders. Although many suggestions were made, the most recurrent and relevant ones to be considered in this paper are, mass transit system, institutional capacity, infrastructure improvements, and governance. Surprisingly, Travel Demand Management (TDM), a technique that can considerably contribute to sustainable urban transport was not mentioned, but will be discussed in this paper.

4.1 Mass transit

There is a growing realization that the present public transport system in Harare which is dominated by minibuses is unsustainable. The majority of stakeholders expressed the view that the introduction of mass transit in the form of bigger buses is the ‘only’ solution to the present unreliable public transport system. This is a reasonable suggestion because the present public transport system is characterised by small vehicles and the operations are fragmented and inefficient as they are run by individuals. Secondly, mass transit vehicles carry a far higher number of passengers, making them an efficient user of road space ultimately decongesting the city. Thirdly, due to their sizes and ability to carry people en mass, the cost per passenger kilometre is lower, making them affordable to users. Fourthly, as mass transit systems carry more efficient engines, they can save fuel better than small vehicles. Finally, their impacts (negative effects) on the external environment is lower compared to small vehicles. From the foregoing discussion, mass transit provides solutions to the economic, social, energy and environmental challenges in the city.

In probing the stakeholders on the practicability of achieving mass transit, two views were expressed. The first entails a ban on importation and licensing of small capacity public transport vehicles. This suggestion bodes well with Government policy on phasing out public transport vehicles with a sitting capacity of less than 26. The Minister of Transport has also indicated Government’s intention to ban minibuses. This cannot be instant but a process which takes time. It is inconceivable and unrealistic to go for an abrupt ban as small vehicles are at present the backbone of public transport in Harare. Authorities need to act decisively and start the process to phase out minibuses by not licensing new ones. Concomitantly, they need to curb on all unregistered vehicles which is a significant proportion of the minibus population.

Empowering the current operators to acquire and operate bigger buses was the second option suggested by stakeholders. This entails the present operators combining their resources or partnering with the local authority and other interested parties to buy bigger buses. Already, a group of minibus operators who have responded to the policy direction of mass transit have formed an association with the intention of importing conventional buses. The initiative is a move in the right direction as operating under the umbrella of an association reduces the number of individual operators. Urban operations are not ideal for individual operators. Therefore the initiative needs to be supported by Government. For instance, Government needs to provide the necessary guarantees to enable these operators to buy buses. However, Government, as the decision maker has failed to ‘walk the talk’ in its support of the mass transit system.
In its budget presented on 19 December 2013, the budget was silent on improving public transport.

Franchising of routes is another option that the City Council can use to introduce bigger buses on high demand corridors. For the successful implementation of this option, there are conditions that should be met. Minibuses must not be allowed to operate on these routes and strict enforcement is required. The city Council and the company operating on a franchised route should agree and sign a performance contract that would guarantee an acceptable level of service. The awarding of a contract need to take cognisance of the company’s ability to deliver the required service and not to be based on favouritism. Contracts based on favouritism do not last (not sustainable) and service delivery is poor.

4.2 Institutional capacity

Institutional capacity is an essential ingredient for a sustainable urban transport in the city of Harare. Currently, there is a serious lack of technical skills to address urban transport challenges at the City. The Traffic and Transport Department at the City of Harare has no employee with relevant qualifications and experience in transport. In order to plan and implement appropriate transport projects that would contribute to a sustainable city, the City of Harare needs to acquire skills capacity. While the capacity requirements is urgent, sadly, the state of the economy is not conducive to the attraction of these skills. Due to financial constraints experienced by the Local Authority, even outsourcing the requisite capacity becomes difficult. Capacity remains an intractable issue whose resolution appears to be remote and even stakeholders could not come up with concrete suggestions.

4.3 Infrastructure improvements

Transport infrastructure is in dire need of improvement. As one respondent (University of Zimbabwe Lecturer) in response to the necessary requirements to achieve sustainable transport pointed out “After providing infrastructure it has to be well managed and maintained”. In Harare, roads are characterised by potholes, most traffic signals are malfunctioning and public transport termini are in need of face lifting. Potholes and malfunctioning traffic signals are external factors that also contribute to higher levels of congestion and pollution in the city. Both factors do not allow traffic to flow smoothly and such delays affect the economy through loss of production. Clearly, infrastructure improvement is a necessary condition of a sustainable urban transport. Again, akin the case of institutional capacity, infrastructure improvements are being constrained by financial resources. A senior officer in the City’s Engineering Department on 29 March 2012 had this to say, ‘there has been no functional budget for the last 10 years. In 2009, the division got $8 million for road maintenance but the amount of money only existed on paper’
4.4 Governance

According to Birner (2007), Governance is the exercise of economic, political, and administrative authority to manage a country’s affairs at all levels. The concept is an important one in assessing the relationship between the ‘governors’ and the ‘governed’. Governance is participatory, transparent, and accountable and promotes the rule of law. Birner (2007) in the International Food Policy Research Institute publication, quoted the former Secretary General of the United Nations, Kofi Anani saying “Good governance is perhaps the single most important factor in eradicating poverty and promoting development” (reference with page number).

The issue of good governance featured either explicitly or implicitly in all the interviews conducted with stakeholders. Most stakeholders argued that the macro socio-economic and political landscape in the country was not conducive to the achievement of sustainable transport. The economy is depressed and investment is not forthcoming. Projects such as mass transit and improvement of infrastructure that are required to reach the sustainable transport milestone cannot attract funding both locally and internationally. The realisation of these vital projects is depended on good governance and it is only the Government which can create an enabling environment for investment.

The second governance concern cited by stakeholders pertains to institutional setup. There are a multiplicity of actors, Government Ministries (Local Government and Transport), Local Authority, Zimbabwe National Roads Administration (ZINARA), Zimbabwe Republic Police (ZRP) and others involved in transport matters. The situation was deemed to be disjointed as a coherent and systematic approach is missing. For instance ZINARA is responsible for collecting vehicle fees and the City laments the meager amounts it receives. The ZRP was blamed for mounting endless roadblocks compounding the problem of traffic flow. The roles of the Ministries of Transport and Local Government are not clearly defined albeit both being involved in urban transport matters. Some stakeholders suggested an Urban Transport Authority as a way of resolving the current institutional dysfunctional challenges. While the suggestion is plausible, the Authority can only succeed if it is given space to perform its functions without external interference.

Finance is one of the key pillars for sustainable urban transport. One of the challenges facing the City of Harare, is shortage of funds and inability to raise same in order to finance critical transport projects, let alone maintaining existing infrastructure. Ironically, its revenue base was further reduced when the Minister of Local Government unilaterally ordered all Local Authorities to write off debts owed by residents from February 2009 to the end of June 2013. Using ministerial powers under both the Rural District Council Act and the Urban Councils Act, the Minister said: “Councils are directed to write off debts in respect of rentals, unit tax, development levy, refuse charges and water and sewer fees as at June 30, 2013”. The directive was given eight days before a crucial general election and was interpreted in some quarters as a way of buying votes. One interviewee described the Minister’s action as follows:
“technically the Minister’s decree to write off debts was a non-starter as it has left local authorities with dire financial difficulties.” Local Authorities who were not consulted described the directive as ‘populist cheap politicking’ and not in favour of this directive as it was against the participatory and consensus-oriented principles of good governance. The reduction in funds as a result of an ill-advised decision has adversely affected the ability of the Local Authority to address transport requirements which include road building and maintenance among others.

The outrageous earnings paid to City of Harare executives dubbed ‘obscene salaries’ were deemed by stakeholders as a hindrance to achieve sustainable transport in Harare. The clandestine pay roll for executives, which had been kept a secret for years only got revealed after exertion of external pressure. According to the Herald (14 January 2014), (Nineteen (19) senior council employees were earning a combined US$500 000. The stakeholders’ argument was that the high salaries for a few executives, meant a diversion of money from critical projects. In addition junior staff whose salaries were at the time lagging by three months get disillusioned and fail to effectively perform their functions, which in terms of transport include planning and enforcement of traffic by-laws.

Clearly, sound national and local governance albeit not directly related to transport, is essential in achieving sustainable transport. Good governance requires transparency to enable all stakeholders to be aware of how decisions are made and justification thereof. The executive salaries of City of Harare officials cited above lacked transparency. Accountability calls for involvement, which was not the case with the Minister’s directive to write off Local Authority debts.

4.5 Role of Travel Demand Management

The role of Travel Demand Management (TDM) was not mentioned by any stakeholder, notwithstanding its importance in contributing to sustainable urban transport. The fact that TDM was not mentioned may be a reflection of the lack of capacity and paucity of a deeper knowledge on how to tackle transport challenges in the country. The achievement of sustainable urban transport cannot be accomplished without implementing some TDM measures. Equally, this paper would be incomplete without an appreciation and reference to TDM.

Demand Management is a technique that uses various strategies to increase transportation system efficiency (Victoria Transport Policy Institute, 2011). In essence, TDM measures are concerned with the alteration of travel behaviour in order to enhance the efficient use of the existing road infrastructure and facilities. The City of Harare would greatly benefit by employing TDM as the Local Authority has no funds to build new roads that are required to accommodate growth in traffic. Even assuming that the City has the requisite funds, any attempts to match the demand for road space with supply are untenable, as more traffic would be generated clogging the new road space provided and compounding the congestion and pollution problems.
Traffic flow can be improved by shifting the trip in terms of the use of alternative times through measures such as staggered working hours. It would be more effective to encourage the corporate world to promote these schemes voluntarily rather than making them mandatory.

A reduction on car dependence trips is necessary in order to minimise congestion in urban areas. This can be achieved by encouraging people to share their cars. A significant shift to public transport would also reduce trips but this has to be concomitantly undertaken with the improvement of public transport in terms of adequacy, efficiency and reliability.

Transport land use integration is another TDM tool that the City can implement to achieve urban transport sustainability. The local authority needs to implement land use planning policies that integrate residential and employment areas. Effective transport land use integration minimises travel costs and reduces congestion as the number of vehicles travelling to the Central Business District (CBD) are reduced.

Another TDM measure that the Local Authority can implement with minimal financial injection is parking supply restrictions. This can be achieved either by limiting the physical supply of parking space in the central area or charging parking space to discourage private vehicles entering the central business district. Again this measure (a stick) should be balanced by the provision of a good quality public transport (a carrot).

In order to decongest the CBD and rein in on the traffic lawlessness propagated by minibus drivers and touts, the City Council constructed a huge minibus holding bay on the outskirts of the CBD. Minibuses are required to drop passengers in the CBD and then proceed to park at the holding bay. Radio systems would be used to control the movement of kombis (minibuses) between the holding bay and the rank in the CBD. This innovative scheme falls within the realm of TDM. Its success is depended on the level of compliance by minibus drivers as well as enforcement by the local authority. The Local Authority and other stakeholders see this intervention as the panacea to the traffic congestion problem. “We are really worried about the state of affairs in the CBD and we have plans to establish a holding area far away from town to reduce the chaos,” remarked the Executive Secretary of the Rural Urban Councils Association.

The project was launched on 4 August 2014. At the time of writing this paper, only five days had passed after the holding bay project was launched. It is therefore too early to make any conclusions on the success or otherwise on this intervention. However, very few vehicles were seen using the holding bay in the first three days. Concerns are being raised on the capacity of the local authority to manage the system. Some minibus drivers see the holding bay as “a threat to their source of livelihood” (Newsday, 9 August 2014) and may not comply. Minibuses that are not legally registered will shun the holding bay and may continue to use undesignated ranks.
Council’s traffic enforcers are on numerous occasions involved in cat and mouse chases with non-compliant kombis that use undesignated ranks.

The minibus holding bay project is a litmus test for the City of Harare to demonstrate its commitment to decongest the CBD. It needs to enforce compliance, prove that the system works and is beneficial to minibus operators and other stakeholders.

4.2 CONCLUSIONS

Urban transport in Harare is in need of transformation. Transport infrastructure is crumbling and the road network is characterised by potholes. Congestion has reached gridlock levels, in turn increasing business and community costs. Small vehicles which solely provide public transport are inadequate, inefficient and unreliable. As the number of vehicles continue to increase, the problem is bound to worsen if interventions are not forthcoming.

The need to move towards sustainable urban transport in Harare cannot be overemphasised. For sustainable transport to be achieved, the following measures are critical to reach the milestone:

- Investing in mass transit systems which are efficient users of road space due to their high carrying capacities,
- Urgent transport infrastructure improvements to repair potholes, traffic signals and public transport termini is required,
- Building capacity and retain skills
- Improvements in transport infrastructure
- Implement Travel Demand Management projects which are less costly and capable of early implementation.

In order to implement the above, the bottom line is good governance. Government, the municipality, industry, commerce and residents must all have a common goal and see the same target. As for Government, there is need for the country to improve its image and create a congenial environment for infrastructure investment.

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