AN ANALYSIS OF IMPEDIMENTS TO DELIVER SUSTAINABLE TRANSPORT IN CITIES OF THE DEVELOPING COUNTRIES: THE CASE OF HARARE, ZIMBABWE

TATENDA MBARA & NOLEEN PISA

Department of Transport and Supply Chain Management, University of Johannesburg, South Africa

ABSTRACT

Africa is urbanizing at a rapid rate. The rapid rise in population coupled with constrained real economic growth has created unintended consequences impacting on the economy, social fabric and the environment. Ironically, as the urban population grows, the provision of services has declined. For instance, the formal public transport that was dominant in many African cities has disappeared. The twin factors of increasing population and the dearth of conventional public transport have stimulated the growth of informal public transport, which has become the major form of public transport in many countries. Harare, the capital city of Zimbabwe, exhibits these characteristics which are common in most cities. Public transport is the preserve of the informal sector. The informal public transport sector continues to grow and 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. The need to provide a sustainable urban transport system cannot be overemphasised. Sustainability creates and maintains conditions under which society can cope and viably support livelihood requirements. The key stakeholders in Zimbabwe have agreed on the need to craft a sustainable urban transport system in Harare. Notwithstanding this agreement, there is no indication of addressing the challenges and the transport system is deteriorating. The paper assesses the impediments to the realisation of a sustainable urban transport system which is vital for economic growth.

Key words: Urbanisation, developing country, sustainable urban transport, governance, skills capacity, enforcement

1. INTRODUCTION

The fast pace of globalisation and the drive for countries to achieve sustained economic growth puts pressure on policy makers to place more emphasis on reducing the adverse effects of economic activities on the environment. Transport plays an increasingly important role in facilitating trade, improving accessibility and mobility in a globalised world economy [1]. The positive association between economic growth and transport demand is further evident in both the positive and negative externalities experienced in cities, in particular, as a result of improvements in economic prosperity. Congestion, pollution and shorter infrastructure lifespans are amongst the main challenges experienced by cities and transport planners worldwide owing to increased transport demand [2].

The European Commission [3] estimated that in comparison to 1990 levels, the greenhouse gas emissions from transport will have to be reduced by 60% in 2050. In addition, infrastructure lifespan on average has reduced owing to excessive road capacity than what was planned for. These challenges are mainly attributed to increased car ownership ([3], [4], [5]. Mode choice and transport behaviour are influenced by various factors including safety, cost, reliability and convenience [6], [7].

Furthermore, the poor state of public transport places pressure on individuals to strive for private car ownership in developing countries [8]. Public transport in most developing countries is characterised by inefficiency, limited coverage especially in periphery suburbs

and no integration with other modes [9]. Owing to poor regulatory frameworks and poor enforcement the informal public transport sector has grown exponentially to take advantage of the market's unmet needs. The informal public transport sector mostly operates smaller vehicles such as mini-buses, motor cycles, tuk-tuks, and SUV vehicles that are often not registered and road worthy. This places increasing pressure on existing road infrastructure as the rate of increase in demand for road space outpaces investment to improve and maintain existing infrastructure. Furthermore, there is a mismatch in the investment decisions by government and the needs of the population. Agentur für clevere Städte [10], found that in Berlin, although 15% of all trips are made by bicycle, only 3% of the roads had bicycle lanes. Additionally, the authors found that despite the fact that only 33% of all trips are made by car, 58% of road space was dedicated to motorised transport (39% for roads and 19% for parking).

In most developing countries investments are mainly in roads, but are limited in terms of promoting none-motorised transport such as walk ways and cycling lanes. In Asia rapid motorisation was spurred at the expense of non-motorised transport in the 1990s by policies that improved roads and encouraged high car ownership [11]. In South Africa, for example 67% of the population relies on public transport/ do not own private cars but investments have mostly focused on improving roads [12]. This places further pressure on consumers to strive towards car ownership.

Sustainable urban transport is no longer a nice to have but has become a must for governments in both developing and developed countries. Sustainable urban transport takes into account inclusion and promotion of non-motorised transportation, reducing the adverse effects of the current users and planning to incorporate future demand urban economic development, transport demand, environment quality and energy consumption. Sustainable urban transport encompasses a holistic view of transport demand in relation to other factors that influence transport demand such as economic development, environmental impact, and energy consumption. Furthermore, sustainable urban transport systems involve demand management and land-use planning, aims to reduce traffic volumes through the promotion of non-motorised transport such as walking and cycling. The European Commission [4] as well as Newman and Kenworthy [6] highlighted that this requires redesigned existing infrastructure and re-allocating resources to support the developments that make these shifts feasible.

The existing urban transport challenges are in part as a result of poor planning or lack of implementation of strategies that can mitigate the urban transport challenges. The political vision of existing leadership is another challenge experienced in developing and achieving sustainable urban transport systems. Different leaders have different visions and as a result this creates discontinuity [2]. Developed countries have the resources and are implementing strategies to reduce the current urban transport challenges. Examples include London's legislation to reduce diesel cars by 2020, Hamburg to ban diesel cars in order to reduce pollution. On the contrary developing countries' budgets are smaller in proportion and policy makers often do not prioritise the implementation of sustainable solutions. Africa is urbanizing at a rapid rate. The rapid rise in population coupled with constrained real economic growth has created unintended consequences impacting on the economy, social fabric and the environment. Ironically, as urban population grew, the provision of services has declined. For instance, formal public transport that was dominant in many African cities has disappeared. The twin factors of increasing population and the dearth of conventional public transport stimulated the growth of the informal public transport, which has become the major form of public transport in many countries.

Harare, the capital city of Zimbabwe, exhibits these characteristics which are common in most cities. Public transport is the preserve of the informal sector. The informal public transport sector continues to grow and 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. The need to provide a sustainable urban transport system cannot be overemphasised. Sustainability creates and maintains conditions under which society can cope and viably support livelihood requirements [13]. The key stakeholders in Zimbabwe are agreed on the need to craft a sustainable urban transport system in Harare. Notwithstanding this agreement which dates back to more than a decade ago, there is no indication of addressing the challenges and the transport system is deteriorating. The paper assesses the impediments to the realisation of a sustainable urban transport system which is vital for economic growth.

2. BACKGROUND TO THE CITY OF HARARE

2.1 Trends in urban growth

According to the UN [14], in 2008, for the first time in history, more than half of the world's population were living in towns and cities and the number of the world's urban population is expected to increase to about 66% by 2050. Much of this growth will occur in cities of the developing countries, particularly in Africa and Asia [14]. According to AfDB [15], more than 90% of future population growth will be accounted for by the large cities in the developing countries. The United Nations [16] placed the annual growth of urban population in African cities at 2.55%.

Urbanisation in Zimbabwe, exhibits these worldwide trends discussed above. The population of Zimbabwe is approximately 12.9 million [17]. Urban population is 38.6% of total population with a growth rate of 3.4% [18]. Harare, which is the subject of this paper has a current population of 1.9 million people, a city size of 872 km^2 equating to 2 179 persons per km^2 [17]. However, Greater Harare, including the contiguous settlements has a population of 2.1 people, which is approximately 16% of total country population.

2.2 Challenges experienced in the City

In the last few years Harare has been affected by the country's weakening macro-economic environment which has curtailed economic growth and drastically reduced formal employment. The once glamorous streets are now characterised by congestion, potholes and litter.

Harare once prided itself with a 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, the number of vehicles in the country increased by approximately 6% from 522 682 in 1999 to 973188 by 2009 (Figures given in writing). Albeit the non-availability of broken down figures by city, it is estimated that about 70% of these vehicles are in Harare. The city experiences high levels of congestion which can be protracted for several hours. Congestion is compounded by small vehicles which are used as modes of public transport.

Congestion in Harare has increased accidents. As one respondent remarked, most accidents occur as a result of frustration when motorists spend prolonged time in traffic jams. According to statistics provided by the Traffic Safety Council of Zimbabwe (TSCZ) total vehicle accidents in Harare increased from 20 676 in 2007 to 25 404 in 2010 (Figures given in writing) and the number of people killed increased from 540 to 604 during the same period. Although the authors were not able to access current accident and fatality statistics, 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. An accident that killed 10 passengers in Harare when a minibus hit a tree exposed the uncaring behaviour of operators and drivers [19]. The driver was speeding and had no licence. These practices are perceived to be common in this industry.

2.3 Public transport developments

Significant changes have occurred to public transport. Mbara and Maunder [20] observed three phases that took place to the development of public transport in Harare. Before Zimbabwe was democratised (gained independence) in 1980 (first phase), public transport in Harare was solely operated by a private British company, then known as the United Transport Overseas Services (UTOS). The bus-operating company had an agreement (Franchise) which gave the company, the sole right to operate within a 26 kilometre radius of the city. Fares were agreed between the operator and the Local Authority and the operating company was subsidised and guaranteed a 20% return on capital employed.

The second phase occurred between 1980 and 1988. Following the attainment of independence, the new political dispensation was faced with the challenge to deliver services to the majority of citizens. As expected, decisions taken were influenced by the desire to address past colonial imbalances. In respect of public transport, Government took three decisions that impacted on how public transport was operated in Harare. Firstly, subsidies were cancelled; secondly, fares determination became the responsibility of Central Government and no longer of the Local Authority and thirdly, private vehicles (invariable Peugeot station wagon) were for the first time legally licenced to operate and compete with the bus company in Harare. Mbara, Dumba and Mukwashi [21] remarked that these decisions were a watershed that marked the decline of conventional bus public transport in Harare. Revenues for the conventional bus operator started to drop and consequently the company found itself without adequate revenue to maintain its fleet, let alone buying buses for expansion [20]. In response to the deteriorating situation, in 1988 the Zimbabwean Government acquired 51% shares in the conventional bus company, followed by an outright ownership a few years later when the private company pulled out. However, Government takeover of the company was unsuccessful in arresting the decline, as the service could not keep abreast with demand. The post bus acquisition phase by Government marked the third phase which saw an increase in the public transport demand-supply gap. This encouraged the emergence of pirate taxis, 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. The thrust of the ESAP was focussed towards the liberalisation of the economy [22]. This led to the deregulation of urban passenger transport in 1993, when for the first time privately operated public transport vehicles were legally permitted to operate in urban areas. Currently, urban public transport is wholly provided by privately operated minibuses and the 'mushikashikas' the latter being a small sedan vehicle.

The developments of public transport in Harare outlined above are consistent with the regulatory cycle observed in cities of the developing countries by Gwilliam [23] who observed that many formerly British or French colonies until the late 40's inherited urban bus sectors which were privately operated, typically by a company from the original colonial power, but subject to substantial control as a private monopoly. On realising independence "some governments immediately nationalized the expatriate companies, while others simply reasserted and strengthened the regulatory powers" [23]. The controls exerted on the companies especially the inability to adjust fares, drove most of these traditional large companies to bankruptcy. Conventional bus services were replaced by the informal sector which was able to survive due to lower operating costs and not subjected to the strict controls of the traditional formal sector enterprises. Increasingly, many countries have realised the inability of the informal sector to offer a sustainable urban public transport service and are either in the process of investing in larger capacity buses, or contemplating to do so and thus the regulatory wheel has turned a full circle. Examples of such cities include Lagos, Accra, Dakar and Dar es Saalam among others.

3. METHODOLOGY

The authors employed a qualitative research method. The research is mainly based on an in-depth literature review and document analysis. Information was sought from Government and Local Authority policy documents and other literature comprising research reports and studies conducted and media. The authors found out there was very limited literature published related to urban transport in the country.

Information was also sought from 8 key respondents (also described as stakeholders due to their interest in the issue under discussion) who are knowledgeable and/or experienced in urban transport issues in Zimbabwe. These were informal interviews conducted by the authors with selected people. The eight people were from government (2), City of Harare (2), Chartered Institute of Transport (1), Academia (2), and a representative of the commuter transport association (1). For this type of study, unstructured questions were found to be the most suitable. Participants were not confined to a set of answers and could therefore express their views without any limitation. Questions revolved around the participants' understanding of sustainable urban transport and their insights on the impediments for achieving sustainable transport in the city of Harare.

4. IMPEDIMENTS TO DELIVERING SUSTAINABLE URBAN TRANSPORT

4.1 Appreciation of what sustainable urban transport entails

Before examining the impediments to the delivery of sustainable transport in the City of Harare, it is necessary to start by ascertaining stakeholders understanding of what sustainable urban transport entails. Without even mentioning the words *sustainable transport*, the policy statements made by both Government and the City of Harare point towards the achievement of sustainable urban transport. For instance, the first National Transport Policy [24], noted: *"without an efficient urban transport system, the performance of the productive and manufacturing sectors, which are vital for economic growth and development will be adversely affected"*. The policy also called for an investment in mass transport systems and *"promote the use of high capacity buses, which are economic and an efficient user of road space"* [24]. Other objectives enunciated in the National Transport Policy are promotion of environmental protection, energy conservation and promotion of investment growth in the

transport sector. In 2012, the Harare City Council announced an intention to expand the city's public transport services by introducing a fleet of 500 buses in partnership with a private company [25]. Although the intention to introduce bigger buses has not come to fruition, the thinking points to the hallmarks of achieving sustainable transport.

By and large, the key respondents had a fairly clear view on what sustainable urban transport entails. For instance, one respondent from Government defined sustainable urban transport as: "*A system of transport which, by being consistently efficient, reliable, safe and adaptable to the ever changing socio-environment, effectively reduces costs and negative externalities and enhances business confidence*" [26]. An academic defined sustainable transport as "*a system which must meet the present and future urban mobility and socio-economic needs in terms of energy efficiency, safety and security, accessibility, affordability an, inclusivity*" [27]. Interestingly, this definition resonates with the well-known sustainable development definition popularised in Our Common Future [28], 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 City of Harare and transport commuter association respondents' expressed divergent views on the meaning of sustainable transport. The former equated sustainable urban transport with mass transit (big buses) which would make a significant contribution to the decongestion of the city. The transport commuter association, who operate minibus services view sustainable transport as a public transport system anchored on minibuses. The transport commuter association's argument was based on the income generated by informal public transport system which sustains the livelihoods of the urban poor.

A common view of sustainability expressed by respondents was on the reduction of transport costs and making cities productive. An efficient urban public transport system was considered to be a necessary ingredient to economic growth.

Finally, another view of transport sustainability that was expressed across the board entailed the provision of transport infrastructure as well as managing and maintaining it well. Reference was invariably made to the "crumpling" road and termini infrastructure in the city, which were in a state of dilapidation.

4.2 Macro-economic environment

The economic environment was cited as a significant impediment to the achievement of sustainable urban transport in Harare. Most respondents 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. Desired 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 creation of an enabling environment for investment. The current economic state is a direct result of bad governance. Examples of cases that have adversely affected the economy and threatened prospective investors include the poorly managed fast tracked land reform programme and mandatory 51% shareholding by indigenous people among others.

4.3 Governance

From the responses of 8 key participants, a major impediment to the delivery of sustainable urban transport in Harare revolves around the issue of *governance.* It is therefore proper to define *governance* and *good governance* before examining the various issues that were cited

as impediments to achieving sustainable urban transport in the city. The United Nations Economic and Social Commission for Asia and the Pacific [29] defined governance as "the process of decision-making and the process by which decisions are implemented". Governance can either be "good" or "bad". Good governance is envisaged as being participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law and assures that corruption is minimised [30], [31]. Thus, the concept of good governance becomes important in assessing the relationship between the 'governors' and the 'governed'.

4.4 Financial governance

According to UKAID [32], "*A fundamental problem facing infrastructure development within Zimbabwe is its lack of capital for infrastructure investment*". Finance is one of the key pillars for sustainable urban transport. Akin all local authorities, the City of Harare raise its revenue from charging a range of user fees and rates to cover service delivery costs. One of the challenges facing the City of Harare, is the shortage of funds and inability to raise same in order to finance critical transport projects, let alone maintaining existing infrastructure. In an act of bad governance, in 2013, the then Minister of Local Government, Rural and Urban Development directed all local authorities to write off debts owed to local authorities by individuals. Using ministerial powers provided for in the Urban Councils Act (Chapter 29:15) the Minister directed Councils to: "*……write off debts in respect of rentals, unit tax, development levy, refuse charges and water and sewer fees as at June 30, 2013*"[33]. Interestingly the directive was announced 8 days before a crucial general election and was interpreted in some quarters as a way of buying votes. 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. Debt cancellation had a significant disruption to the City of Harare finances. The Minister's move which clearly was meant to curry favour with the electorate, adversely affected the immediate and long term revenue in flows of the City Council. In addition the precedency, created long term expectations of similar debt cancellations and reduced compliance of ratepayers to pay their debts. The inability to raise revenue has in turn constrained the city to maintain the run down transport infrastructure, let alone investing in new infrastructure. Political interference can become an obstacle to the attainment of sustainable transport.

4.5 Institutional governance

Institutional governance was repeatedly cited by respondents as an impediment to deliver sustainable urban transport in Harare. There are a multiplicity of actors involved in urban transport matters. These include Government Ministries (Local Government and Transport), Local Authority (City of Harare), Zimbabwe Republic Police (ZRP), Traffic Safety Council of Zimbabwe (TSCZ), Zimbabwe National Roads Administration (ZINARA), and others. The situation is deemed to be disjointed as a coherent and systematic approach is missing. 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. The creation of ZINARA, a national road agency (parastatal), added another dimension to the institutional governance. ZINARA is responsible for collecting all road user charges including vehicle registration and licensing

fees (previously collected by the city), and disbursing these funds to the road authorities of which the City of Harare is one of them. The ability of the City to develop and maintain transport infrastructure is depended on the amount of disbursements from ZINARA. Since 2009, the disbursements to the city of Harare have been reduced as illustrated by figure 2 below.
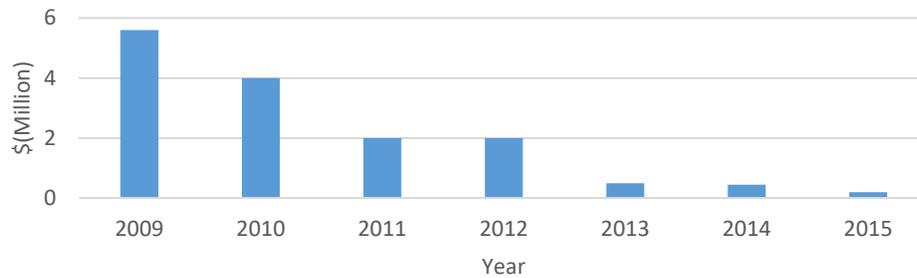

Figure 2: Disbursements to the City of Harare [32]

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 is it is given space to perform its functions without external interference.

4.6 Governance – Political expediency

The decline of the Zimbabwean economy has significantly reduced employment opportunities in the formal economic sector. Unemployment in the country is considerably high and has been quoted at 80% [34], 85% [35]. The failure of the formal economy to create jobs has forced many people to go into the informal sector selling all sorts of goods at designated and undesignated markets. Vendors have invaded the streets by occupying any open space they find virtually reducing some streets into a flea market.

In terms of the City of Harare by-laws, the sale of goods on the streets is illegal but the activity has been allowed for political expediency. In December, 2014, the country's first lady in a series of 'meet the people' rallies had berated the police from arresting street vendors. Street vendors capitalised on that support and continued to trade on the streets, rendering the city officials powerless.

While street vending generates the income needed to improve the livelihoods of the people, vending compounds congestion by disrupting the smooth flow of traffic. Secondly, it affects the sales of formal businesses that contribute to the development of the economy by paying taxes. Thirdly, street vending affects the aesthetics of the city and discourages potential investors. These negative effects of street vending do not argue well with the objectives of sustainable urban transport expressed by the European Council of Ministers of Transport (ECMT) as "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….. ".[36] United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) defined sustainable urban transport as a "system with a low impact on the environment, encourages transit oriented development ……… encourages non-motorize transit oriented development modes of transportation such as

walking and biking". [37] Street vending impedes the smooth flow of both human and vehicle traffic and thus, the activity does not promote accessibility and transit oriented development.

4.7 Skills Capacity and its impacts

Skills capacity is an essential ingredient for a sustainable urban transport in the city of Harare. Currently, there is a serious lack of human skills to address urban transport challenges. A report by the Swedish Institute for Public Administration (SIPU) quoted in [32] described the local government capacity situation that was characterised by a severe 'brain drain''. The adverse economic situation has forced skilled manpower to emigrate in search of greener pastures. The Traffic and Transport Department at the City of Harare has been affected and currently manned by inexperienced staff. In order to plan and implement appropriate transport projects that would contribute to a sustainable city, the City of Harare is in dire need of transportation planning skills. 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.

The skills gap is evident in the failure of the Local Authority to formulate appropriate transport policies and strategies to respond to the rapid urbanization taking place. For instance, the 1992 Harare Combination Master Plan which provides a forward looking response to the sprawling and infrastructure needs of the City has not been revised due to lack of skills capacity. The current master plan is no longer relevant to the contemporary socio-economic environment and cannot be used as a framework to promote development and growth for the city.

Lack of transportation planning skills has also resulted in the City introducing projects that were not well conceived leading to their abandonment. A case in point is the scheme to ban minibuses from entering the central Business District (CBD) that was implemented on 21 February 2018 to decongest the CBD. The scheme entailed minibuses dropping passengers at three designated points on the outskirts of the city and shuttle buses ferrying them into the CBD. The scheme was unpopular for a number of reasons: Passengers had to pay twice as the fares were not integrated, the introduction of an interchange increased journey time and all minibus routes were channeled to the three designated points which also lengthened journey time. More importantly, the scheme was not marketed to the relevant stakeholders for buy in. It was therefore evident that the lack of skills capacity resulted in the implementation of a scheme that was not planned and well thought out. In less than a week after implementation, the Minister of Local Government had to intervene and reverse the decision.

Most respondents cited lack of funding as a major obstacle to deliver sustainable transport in Harare. Therefore, there is a perception that the solution to the transport problems revolves around finance. This is where skills capacity become important in initiating innovative schemes such as travel demand management (TDM) measures. 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 at a minimal cost.Interestingly travel demand management was never mentioned by respondents. Even assuming that the City has the necessary 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.

4.8 Indecisiveness and lack of enforcement

The current public transport system is fragmented and uncoordinated. As stated in the background section, Central Government, the Local Authority and stakeholders are all agreed on the need to change the status quo. The National Transport Policy [24] states one of the objectives of urban transport as to *"minimise transport costs and ensure the provision of an affordable urban transport to the entire population by promoting the use of high capacity buses, which are economic and an efficient user of road space"*. Mass transit vehicles, due to their ability to carry passengers' en mass, have lower operating cost (cost per passenger kilometre) are affordable to users and ultimately contribute to the decongestion of the city. The impacts of larger vehicles unto the external environment is lower compared to small vehicles and thus providing solutions to the economic, social, energy and environmental challenges of the city.

Notwithstanding the benefits of mass transit, there has been reluctance by Authorities to act decisively and start the process to phase out minibuses. There is also a need to curb on all unregistered vehicles which are a significant proportion of the minibus population. Minibuses are considered part of the indigenisation programme, and supporting the livelihoods of the poor. One respondent remarked that minibuses *"have become a sacred cow and it is believed that the biggest number of these belong to political elites or highly influential people, some in the police and security sector"* [27]. At a Parliamentary Transport Portfolio Committee held on 28 January 2014, it was reported that members of the police force owned a sizeable number of minibuses. Clearly, there is no commitment by influential people in decision making positions to implement a policy that directly threatens their interests. Equally, members of the police force cannot enforce the law on vehicle roadworthiness as they are an interested party. Therefore, ownership of minibuses by influential people and members of the police, presents a direct conflict of interest and an impediment to the delivery of sustainable urban transport.

5. CONCLUSION

The rise in urban population, decrease in conventional public transport systems and increase in car ownership have created unintended consequences impacting on the economy, social fabric and the environment in cities of the developing world, including the case study city of Harare. Such cities are in need of developing sustainable urban transport systems. In Harare, sustainable transport has been threatened by an inefficient transport system which has created delays and bottlenecks for users, commerce and industry.

In as much as there is a consensus on the need to achieve sustainable urban transport in the City of Harare, there are some impediments that hinder the attainment of this goal. These obstacles include: an unpalatable economic environment, bad governance and the shortage of human skills.

In the short term, given the country's economic challenges, sustainable transport can be achieved by prioritising inexpensive measures. These include the creation of an environment conducive to investment, raising awareness, employing appropriate land use planning strategies to curb urban sprawl and implementing travel demand management schemes to improve traffic flow.

In the long term, sustainable transport in the city can be achieved through investment in mass transit systems, improvements in road infrastructure and building, attracting and retaining the requite skills capacity to drive the sustainable transport agenda. The success of both these short and long term measures are depended on the commitment from decision makers who need to avoid a conflict of interest and take decisive decisions in the interest of citizens.

REFERENCES

[1] Pacheco , R. R., & Fernandes, E., *International air passenger traffic, trade openness and exchange rate in Brazil: A Granger causality test. Transportation Research Part A, 101*, 22-29, 2017.

[2] Gösslinga, S., Schröderc, M., Spät, P., & Freytag, T., *Urban Space Distribution and Sustainable Transport. Transport reviews*, *36*(5), 659–679, 2016.

[3] European Commission., White paper 2011: *Roadmap to a single European transport area-towards a competitive and resource efficient transport system*, www.ec.europa.eu/transport/themes/strategies/2011_white_paper_en.htm, 2011.

[4] World Economic Forum a., *Global traffic scorecard.* www.weforum.org/agenda/2017/10/these-are-the-most-congested-cities-in-the-world-80316f1b-afe2-41ae-9811-cd01027c7a65, 2018.

[5] World Economic Forum b., *These are the world's most polluted cities*. www.weforum.org/agenda/2018/05/these-are-the-worlds-most-polluted-cities, 2018.

[6] Newman, P., Kenworthy , J., & Vintila, P., *Can we overcome automobile dependence?: Physical in an age of urban cynism. Cities, 12*(1), 53–65, 1995.

[7] Pucher, J., & Buehler, R., *City cycling.* Cambridge: MIT Press, 2012.

[8] Grengs, J., *Job accessibility and the modal mismatch in Detroit. Journal of Transport Geography, 18*(1), 332-345., 2009.

[9] Richard, I., *Public transport in developing countries.* Amsterdam: Elsevier, 2005.

[10] Agentur für clevere Städte., *Wem gehört die Stadt? Der Flächen-Gerechtigkeits-Report [Whose city? The space justice report].* www.clevere-staedte.de/sites/default/files/2014-08-05_Flaechen-Gerechtigkeits-Report.pdf, 2014.

[11] Hook, W., & Replogle, M., Motorization and non-motorized transport in Asia: Transport system evolution in China, Japan and Indonesia. *Land Use Policy, 13*(1), 69–84, 1996.

[12] Statistics South Africa, *National household travel survey 2013.* Pretoria: Statistics South Africa 2014.

[13] Pomeroy, R. S., Sustainable livelihoods and an ecosystem approach to fisheries management, Coral Triangle Initiative, USAID/ASIA, https://eos.ucs.uri.edu/EOS_Linked_Documents/conn/Sustainable%20Livelihoods%20.pdf, 2013

[14] United Nations, *World's population increasingly urban with more than half living in urban areas*, Department of Economic Affairs, 2014.

[15] AfDB, *Urbanisation in Africa,* www.afdb.org/en/blogs/afdb-championing-inclusive-growth-across-africa/post/urbanization, 2012.

[16] United Nations, *Population: Our growing population*, www.un.org/en/sections/issues-depth/population/, undated

[17] Zimbabwe National Statistics Agency (ZimStat), Census 2012, Preliminary Report, 2012.

[18] Zimbabwe Demographics Profile, www.indexmundi.com/zimbabwe/demographics_profile, 2013.

[19] The Herald, *Commuter omnibus disaster matrix: the operator driver, traffic cop*, 26 May 2014.

[20] Mbara, T. C. & Maunder, D. A. C., *The initial effects of introducing commuter omnibus services in Harare, Zimbabwe*, TRL, ODA, PA 3107/95, www.citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.547.5699&rep=rep1&type=pdf pp 2-3, 1996.

[21] Mbara, T. C., Dumba, S. & Mukwashi, T., *Multi-stakeholder dialogue on formal and informal forms of public transport in Harare, Zimbabwe*: Convergence or divergence perspective, , Journal of Transport and Supply Chain Management, pp 51-59, Vol 8, No 1, 2014.

[22] ESAP

[23] Gwilliam, K., *Bus transport; is there a regulatory cycle*?, www.//www.thredbo-conference-series.org/downloads/thredbo10_papers/thredbo10-themeC-Gwilliam.pdf, pp4-6, 2008

[24] Government of Zimbabwe, National Transport Policy, Ministry of Transport and Communications, pp: 27-29, 2012.

[25] The Herald, *Harare acquires 500 buses*, www.herald.co.zw/harare-acquires-500-buses/, 15 August, 2015.

[26] Senior Male Government Respondent, Interview, 6 April 2018.

[27] Male academic, Interview, University of Zimbabwe, 5 April, 2018

[28] World Commission on Environment and Development, *Our Common Future*. Oxford: Oxford University Press. www.vtpi.org/tdm/tdm67.htm, 1987.

[29] United Nations Economic and Social Commission for Asia and the Pacific, *What is good governance?*, www.unescap.org/sites/default/files/good-governance.pdf, undated.

[30] Birner, R., *Improving governance to eradicate hunger and poverty*, International Food Policy Research Institute, www.ifpri.org/.../improving-governance-eradicate-hunger-and-poverty, 2007.

[31] Graham, J., Amos, B. & Plumptre, T., *Governance principles for protected areas in the 21st century,* Institute on governance, Prepared for The Fifth World Parks Congress Durban, South Africa, www.iog.ca/docs/2003_June_pa_governance2.pdf, 2003

[32] UKAID, *Urban infrastructure in Sub-Saharan Africa – harnessing land values, housing and transport*, Report on Harare Case Study, Report no 1.9, 31 July 2015, www.africancentreforcities.net/wp-content/uploads/2015/09/DfID-Harnessing-Land-Values-Report-1.9-Harare-case-study-20150731.pdf

[33] The Herald, *Municipalities write off water bills*, https://www.herald.co.zw/municipalities-write-off-water-bills/, 21 July, 2013.

[34] Luebker, M., *Employment, unemployment and informality in Zimbabwe: Concepts and data for coherent policy-making,* Issues Paper No. 32 ILO Sub-Regional Office for Southern Africa (SRO-Harare) Harare, Zimbabwe, www.digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1687&context=globaldocs, July, 2008.

[35] Rusvingo, S. l., *The Zimbabwe Soaring Unemployment Rate of 85%: A Ticking Time Bomb not Only for Zimbabwe but the Entire SADC Region*, Global Journal of Management and Business Research: B Economics and Commerce Volume 14 Issue 9 Version www.globaljournals.org/GJMBR_Volume14/1-The-Zimbabwe-Soaring-nemployment.pdf, 2014.

[36] European Union Council of Ministers of Transport (EUCMT), Cited in Litman, T., All Measured Indicators for Sustainable and livable Transport Planning Victoria Transport Policy Institute, www.vtpi.org/wellmeas.pdf, 4 June 2014.

[37] UNESCAP, Sustainable Urban Transportation Systems: An overview www.uncclearn.org/sites/default/files/inventory/unescap20_0.pdf, 2012