THE IMPACT OF TRANSPORT INVESTMENT ON INFRASTRUCTURE AND ECONOMIC DEVELOPMENT: THE DEBATE

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Extract

This paper examines the nature of the transport infrastructure inherited by SADC member states from apartheid and colonial driven governments of the past and concludes that the inherited infrastructure is no longer suitable. It calls for the debate on the role of investment in transport infrastructure development and urge that the debate should be wide ranging and inclusion of different people and professions. The advantages of investment in transport infrastructure development are explained and high returns of investors are also demonstrated and warn that empowerment should form part of the initiatives. The destructive nature of competition by SADC member states is discouraged and the proposal is made for the founding of a regional rail company which should own and operate rail transport in the region as a strategy to avoid harmful competition between SADC member states and to protect those countries in the region whose rail lines continue to experience heavy losses. Competition between rail and road can only be normalized by proper policies and the National Department of Transport is urged to intervene. The social aspect against the commercial motive of investment in infrastructure development is explained and for that reason the calculation of the return on investment will differ and also form the basis of the nature of the transport infrastructure.

The paper concludes by calling for the introduction of proper policy guidelines to ensure that transport infrastructure development is not divorced from the needs of people in the region such as empowerment and the transfer of skills.

The SADC region has only recently started to realise that power lies in the economy and that political emancipation is not necessarily a gate to economic empowerment.. Given the fact that it was only seven years ago that South Africa has rid itself of apartheid rule, the economic achievement thus far achieved has made South Africa a beacon of hope that shows that Africa's time of economic recovery has indeed arrived. Further given also the fact that though some of the SADC member states have recently emerged from the war, capital projects with the capacity to absorb thousand of the unemployed are starting to emerge. This paper is designed to trigger the debate on "The impact of transport investment on infrastructure and economic development". Indeed the debate should be on how the desired transport infrastructure can serve as a source of jobs, empowerment and sustainable growth and therefore lay the foundation for further economic development.

This debate about the ***"impact of transport investment on infrastructure and economic development"*** is taking place at the beginning of the millennium when the African continent is critically re-evaluating herself within the frameworks the African Millennium Recovery Plan and the African Renaissance. It is my contention that without investment in the transport infrastructure, and indeed without Africa gearing herself for real economic development both Map and the African renaissance will remain empty words, lose favour and become meaningless to the suffering masses.

It should be noted however that even at this beginning of the millennium the SADC region is still struggling to rescue itself from the past and the legacy left by apartheid and the successive colonial eras continue to haunt the present and thereby lay a hard solid foundation for the weak future.

There has been an increasing debate amongst economists, politicians and policy makers since the mid 1980's about the role transport infrastructure can play in improving the quality of life in third world developing countries. In South Africa this type of the debate has always been restricted to the road infrastructure network particularly the destructive impact of overloading on the road network.

This debate has also been dominated by the engineering fraternity with transport economists and politicians often pushed to stand on the peripheral edge of the debate. In other SADC member states, the cry has always been about the lack of Finance that could make investment in the development of the infrastructure a reality. What is though pleasing however is the fact that SADC member states have now become aware of the need to invest energy and resources in the development of the infrastructure.

What do we mean by "investing in infrastructure development?"

The history of infrastructure development in Southern Africa can safely be pigeon-holed into three phases, namely – the colonial developed infrastructure, the post independence developed infrastructure as well as the infrastructure developed when all Southern African states including South Africa had become free (and joined the SADC).

Investment in infrastructure in the region was for many years patterned to meet the needs of colonial and apartheid rulers. The road networks were designed to make it easy for military vehicles to be able to reach military camps to deliver military hard wares. On the other hand farmers had occupied a special strategic place in colonial and apartheid times and investments were directed into the development of infrastructures which could make their farm produce to be conveyed smoothly. Some of the infrastructures inherited from the past apartheid and colonial governments did not display an aura of permanence. It was such that if they had to live today it would be easy for them to pack up and go. In Zimbabwe, the road networks were narrow and designed to provide the transport infrastructure relevant to the war. The nature of roads revealed the isolation status imposed upon Rhodesia (Zimbabwe) as a price for declaring independence unilaterally. The rail lines infrastructure served the farming community well often at the expense of the rural masses who never had same infrastructure. Like in Mozambique, rural areas were without proper infrastructure.

In Angola the transport infrastructure was also poor and also designed to enable military vehicles to be able to cross over to different parts of the country in pursuit of the war. It is an infrastructure designed for the war as against the needed infrastructure for development.

In South Africa, the road networks were also narrow but linked strategic military points favourably with the strategic areas within government and also to the farming communities and towns and very little was evident in the rural areas. Road networks that linked South Africa and neighbouring states were also narrow.

It is therefore evident that infrastructure development during the colonial and apartheid era was geared to facilitate the war than to enforce development.

The final blow to investment in infrastructure development was the wars which were fought and destroyed the infrastructure.

In general terms infrastructure is acknowledged as a pillar around which development is anchored. It includes the sectors of transport, water and sanitation, power, telecommunications and irrigation. Southern Africa Region like the rest of Africa needs a solid infrastructure on the basis of which developments will be spear headed. Infrastructure is a foundation on the basis of which different strategic points in the country or region between developed and the under developed areas could be brought closer to each other. In South Africa, the development of the infrastructure had served to link the underdeveloped parts of the country to the developed ones. Here reference can be made of cities and towns against underdeveloped rural areas.

South Africa has often been referred to as a shinning example of what the rest of Africa should be following. It is of course the quality of South Africa's roads network, ports and rail lines that have made it attractive. Over and above the uniqueness of such an infrastructure, it is also a contribution which such infrastructure has made to economic development that is of interest and therefore relevant to the needs of the citizens. Since this paper is about the impact of transport investment on infrastructure and economic development, it is also its objective of to trigger the debate and thereby attempting to rally policy makers, politicians, academics and community leaders to also focus on the promotion of investment in transport infrastructure. In addressing this subject various factors have to be considered some of which are within their historic context.

As it is already shown the region's infrastructure was tailored to address the needs which are no longer of importance today. There was no commitment to invest heavily in the infrastructure. Investment in transport infrastructure can be linked to investment in manufacturing, agricultural as well as to the general industrial development and to that extent the investment in transport infrastructure can be regarded as a form of response to economic progress. Imports and exports demands are facilitated by transport infrastructure and for that reason investments should be directed to infrastructure development to ensure that goods are delivered timeously.

The most fundamental outcome of an investment in transport infrastructure is the changes in the relative prices of accessibility of various locations. It follows that the network structure of transport systems also makes accessibility spatially non-uniform, an investment in a new facility, or the improvement of an existing one, necessarily alters the present equilibrium structure of accessibility prices. The price change implies changes in the relative advantage of spatially located activities and economic opportunities both for the production and consumption sectors. The simple term investment in transport infrastructure which impacts on accessibility to resources, accessibility to institutions or places of work and which bring the sources of supply closer to the sources of consumption will have an impact on the costs of labour, travelling time and other related issues. The Maputo Corridor initiative and the highway between Johannesburg and Pietersburg (in South Africa) have brought the cost of travelling times down. Maputo and Johannesburg have become a stone's throw away of each other just as Johannesburg and Pietersburg have also become a minute away from each other.

The question that arises therefore is how does an ordinary person benefit from the said type of investments. As already indicated Transport infrastructure development emits advantages to communities in different ways. Road networks between the underdeveloped rural parts within the SADC region and the cities and towns to be specific represent networks through which progress and development are exported and spread through to every part within the region. Alongside the road networks, the potential of developing industrial parks and even of declaring such areas as industrial processing zones remains unexploited. Border towns such as Messina (in the Northern Province of South Africa) Beitbridge (Zimbabwe) Ressano Garcia (Mozambique), Komatipoort (Mpumalanga Province of South Africa) and others both inside South Africa and on the borders within the neighbouring states should be developed and turned into economic development centers. Indeed such towns and cities are products and concrete manifestations of transport activities which represent opportunities that need to be exploited in the region.

The debate on the impact of transport investment on infrastructure and economic development has not been as robust and wide ranging as politics and democratic issues are in the region and yet infrastructure development is suppose to be the seedbed of regional development. There are accordingly two schools of thoughts that triggered the debate on transport infrastructure development. There is a school which propagates that if you want development, invest in transport infrastructure. This is the school which regards transport infrastructure as constituting both the engine and the wheels of the economy. It therefore flows from the tenets of this school that in order to kick-start development in the country lay your eggs in the transport infrastructure and the rest will follow on their own. Another school of thought argues that where there are profits transport will follow. According to this school, profits are a precursor to development including transport. Further this school concludes that transport is simply the outcome of a race in pursuit of profits. The debate itself is not relevant and may be academic if it does not end up empowering the ordinary man in the street.

The importance of investments in transport infrastructure has been recognised in the SADC region and the entire continent for many years now. There are many rail lines in the SADC region some of which were developed during the colonial era and are still useful even today. In some SADC member states new rail lines were developed after independence to meet the rising demands in terms of goods and passengers. Notwithstanding the above however the problem with rail transport infrastructure has been the lack of proper maintenance which seems to have been the case in most of the SADC member states. The deteriorating rail lines and the danger they pose to human life have become a common sight. Most of the rail signals are no longer maintained and in some of the cities and towns traffic control signals in so far as road transport infrastructure is concerned have been out of order for many years either because of the unavailability of spare parts or because of lack of finance to pay for the required repair work if undertaken. There are tarred roads which have been allowed to gradually deteriorate and turned into dusty roads because of lack of maintenance. Potholes have made themselves acceptable in the region and warning boards accordingly erected to warn the motoring public to drive with care. Indeed most of the drivers in the region have developed specialized skills of navigating their vehicles even under such different conditions.

Despite the above propagation by the said two schools of thoughts, it is my belief that the answer lies somewhere in between and accordingly this paper will also seek to promote the debate on investment in transport infrastructure without necessarily making reference to either of their tenets.

It is said that although infrastructure development is necessary, although not a sufficient precondition for growth, adequate complements of other resources must be present as well. It follows that the growth impact of infrastructure investments also depends on the timing, and location of additions to capacity as well as on the existing imbalance between supply and demand. Because most of the infrastructure consists of networks its capacity of relieving bottlenecks at certain points of the system can produce very high returns. The following table therefore illustrates the 'Average economic rates of return on World Bank supported Projects between 1974 and 1992 in China.

SECTOR	1974-82	1983-92
Irrigation and drainage	17	13
Telecommunications	20	19
Transport	18	21
Airports	17	13
Highways	20	29
Ports	19	20
Railways	16	12
Power	12	11
Urban development	,,	23
Water & sanitation	7	9
Water supply	8	6
Sewerage	12	8
Infrastructure projects	18	16
All Bank operations	17	15

The above table shows the returns of the various sectors within the growing economy of China. It is notable that between 1974 to 1982 the returns in transport amounted to 18% but rose to 21% between 1983-1992. It is also notable that transport infrastructure such as Airports, Highways, Ports and Railways also enjoyed the highest returns and thereby attracted investors in those sub-sectors within the general transport infrastructure.

For the transport infrastructure to be enabling to economic development adequate quantity and reliability are also key factors and for that reasons countries are also enabled to compete in international trade. In part because of infrastructure problems, shipping costs of certain goods from landlocked countries in the region such as Botswana, Zimbabwe and Zambia cannot always be the same as those from South Africa and Mozambique. The competition for new export markets is dependent on high quality infrastructure. Increased globalization of world trade has arisen not only from the liberalization of trade policies in many countries, but also from major advances in transport infrastructure. The said advances are centred on the management of logistics to achieve cost savings in inventory and working capital and to respond more rapidly to customer demands.

The nature of an economy's infrastructure is central to its ability to respond to changes in demand and prices or to take advantage of other resources. Public spending on infrastructure construction and maintenance can be a valuable policy tool to provide economic stimulus during recessions. For as long as quality and cost-effectiveness are not compromised, labour-based approaches to infrastructure development can be an important instrument that could also lay the basis for economic growth. It follows that investment in transport infrastructure if made with a view to job creation can result in the empowerment of thousands of the unemployed people in the region.

Investment in transport infrastructure can be used as a strategy for the transfer of skills. Most of big Civil Construction Engineering Companies though of SADCorigin do not have black involvement in their ownership. It follows that the majority of blacks are not yet empowered and plans for their empowerment not even evidently in place. To avoid the continuous marginalisation of black civil contractors appropriate policies should be set in place to ensure that the proper strategy on skills transfer are pursued. The Maputo Corridor as well as other road network development projects have not been encouraging in so far as the transfer of skills is concerned. The majority of black participants in Joint Ventures particularly the SMMES are subjected to frustration by big Civil Engineering Construction Companies without any form of protection by the government with the result that they are easily thrown out from projects through which they should be empowered. The Maputo Corridor project cannot be referred to as an example of the desired empowerment for both South African and Mozambiquen 'SMMES'. Because of lack of proper and caring supervision often high numbers of trained people are quoted in the reports on statistics only to please government policy makers whereas on the ground no helpful transfer of skills took place.

Investment in Transport infrastructure can only promote regional economic development if there is a common regional transport development approach. The current approach to rail infrastructure development as demonstrated by both Botswana and Zimbabwe does not represent a good example of regional infrastructure development initiative. Instead of agreeing on the reasonable tariffs to be charged by both there is such a vast difference between what Botswana rail charges against what Zimbabwe railway lines charges. Botswana Rail charges 2U-S cents per ton kilometre whereas Zimbabwe Rail charges 8 U-s cents per ton kilometre. Whilst Botswana Rail is making profits because of the volumes of goods the Zimbabwe Rail is running at a loss despite charging four times higher than the price charged by Botswana.

The said approach can only serve to undermine the efficacy of joint regional approach to investment in transport infrastructure. In order for rail transport to be profitable therefore SADC member states should accept the fact that there are certain transport initiatives which by their nature lend themselves to regional ownership than being an individual country responsibility. There are certain countries within the region whose rail lines will never be profitable because they lack the numbers and volumes and therefore such countries should rather have their rail infrastructure placed in the hands of a collective structure owned by participating stakeholders or all SADC member countries. What is being propagated here is that certain rail lines in the SADC region should be owned by a company in which all SADC member states should hold shares the size of which can be determined on the basis of the value of the assets each participating country has contributed into the company. In this way suitable investors can be attracted and the required skills availed to the management and maintenance of the infrastructure in the region. The economies of scale can enable even countries without the numbers and volumes to survive and therefore modern technology can be profitably injected as a regional initiative.

Whilst this proposal sounds radical, it has the potential of preventing the destructive competition between some SADC member states in the name of competition.

The above proposal can be introduced gradually or can even be restricted to long distance cross-border rail freight transport before it is introduced into long distance rail passenger transport. Both domestic freight and passenger rail transport can be left outside the plan at the initial stage or never be made part of the proposed company depending on the support this proposal may gain from member states.

The investment in Transport Act which is propagated by the SATC is an attempt to harness investment initiatives and provides legislative guidelines which if followed may change the face of the SADC region in so far as development in infrastructure is concerned. It main objectives therefore include:

- The maximization of investment opportunities for the private sector;
- Getting Government to free investment opportunities which are locked up in existing assets and mobility services provided by Government or parastatals;
- Restructure parastatals to become commercially-viable;
- Refocusing Government of its core functions of planning strategically, facilitating investment and protecting the public interest in fundamental areas such as market access, competition, safety etc.

Investment in road transport infrastructure should take into consideration the role which both rail and road transport should play in economic development. The current competition between the road hauliers and rail in South Africa has already undermined the efficacy of rail freight in the name of deregulation. The above is the result of South Africa's freight transport policy which calls for a serious review. As long as rail transport remains negatively affected in the name of deregulation and competition, the would-be investors will avoid investing in rail transport infrastructure projects. To avoid the complete destruction of rail transport as a mode, the National department of Transport (NDOT) is therefore urged to initiate the transport policy strategy that will ensure that both the roles of rail freight and road hauliers are not only balanced but are also protected.

In so far as investments in transport infrastructure such as toll roads are concerned, the beneficiaries of the yields have not been properly considered. The Witbank-Maputo road (N4Toll road) built as an BOT project goes through the province of Mpumalanga just as there are national roads that also pass through the Northern Province, KwaZulu-Natal, Free State and North West provinces. The question that arises therefore is how such provinces are made to benefit from such projects.

Notwithstanding all what has so far been said in this paper, it is the general performance of the economy that serves as a stimulus to investment in the transport infrastructure. Sustainable growth and strong individual mobility needs will of course bring a strong demand for public transport systems and therefore of transport infrastructure.

Transport infrastructure, as an enabling link infrastructure should link junctions of the railway infrastructure with road networks so as to provide an infrastructural framework for intermodal transport. It should amongst others be an embodiment of transport policies reduced into structural form. The infrastructure determines the nature of the investment in the form of motor vehicles (commercial and luxury) and the rolling stock. On the other hand economic growth which is job creation driven creates job opportunities and therefore better the income earning capacities of various people.

The development of transport infrastructure should be guided by policies if it is to respond to the needs of people. In so far as the SADC region is concerned, the problem of massive unemployment can partly be addressed through the labour based infrastructure development projects. Investors in such projects should be provided with guidelines otherwise the needs of the region can easily be ignored.

The development of transport corridors is another way through which economic development in the region could be triggered and therefore policy guide lines should be in place to guide development of such projects to enhance their advantages in the interest of people of the region and also to ensure that harmful competition between them does not arise.

The competition between rail and road transport infrastructure projects should be regulated through policy instruments. Failure to regulate may result in rail infrastructure negatively affecting road network infrastructure or vice versa. Rail and road transport compete for the same goods and passengers and therefore investors in the development of a new rail will be keen to know plans in so far as the road infrastructure is concerned so that they can develop a suitable financial model. It may happen that given a specific geographic area, it may not be wise to develop both rail and road infrastructure at the same time or within a period of five years of the development of the first project. However where there is a proof of potential ridership, it may be proper to have both projects developed in order to give choice to consumers of services.

The financing of infrastructure projects has been a source of concern because governments do not necessarily have enough money for projects which however desirable are also financially unaffordable. The fact that investment in transport infrastructure development may not yield desired returns to investors has also been problematic. This concern has led to governments in the SADC region to finally accept the role of the private sector in the financing of capital projects through what is now commonly known as “Public Private Partnership” (PPP)”.

The debate on investment in infrastructure development should never overlook the fact that underpinning the infrastructure development projects is the motive for which such development is made. The motive may either be a social or a commercial one. Where the motive behind the project is a social one, the basis for calculating the returns on investment will be different from the infrastructure projects in which such investment was made with a commercial motive. It follows that in so far as the road network is concerned, care should be taken that there are roads which are geared to serve a social purpose and those that serve a commercial one and it is therefore the purpose of such road networks that will determine whether such an infrastructure should be supported by government funding in which case there are no financial returns expected or by the private sector finance in which case commercial considerations will take precedent. This factor is also important in the development of toll roads for in poverty stricken areas, the introduction of toll roads may aggravate the plight of the locals. However where the toll road is situated in the Industrial Area payment of toll fee may not be a problem.

The need for investment in transport infrastructure should be promoted and supported by the top leadership of SADC member states. The Maputo Corridor development project had the support of both the South African and Mozambiquen political leaders. On the other hand the Gauteng Province in South Africa has started embarking on the strategic project known as Gautrain Rapid rail which has the potential of changing the ethos of investment in transport infrastructure in the SADC region. It is the political will of the Gauteng Province’s political leaders that serve as the strongest pillars and support for activities around the project.

In conclusion, the SADC region is in dire need of investment in transport infrastructure development project. The sign of economic development is visible through the nature and quality of infrastructure. The region should therefore make it possible for investors to invest in transport infrastructure projects and this can be done through proper investment policies. On the other hand investors should be forced through the same policies to transfer skills and empower the indigenous people.