

Transport and Communication

13.1 Introduction

Transport and communications play a critical role in the growth and development of the Zambian economy. Over the period 1994 and 2001, its contribution to GDP growth has averaged 3.2 percent in real terms. It facilitates growth in value added of agriculture, trade and commerce, mining, tourism and in the delivery of social services such as education and health. In Zambia, transportation costs account for 60 to 70 percent of the cost of production of goods and commodities. This proportion is too high in comparison to sub-regional levels, and this has worked against the competitiveness of Zambian exports. Locally, this has contributed to high prices of goods and services and, in turn, has worsened the existing poverty levels. As an essential input, lower transport and communication costs literally translate into the competitiveness of all final goods produced in the country and, therefore, has a significant bearing on the welfare of the people.

Transport and communication are critical to poverty reduction but if inappropriately designed, transport strategies and programmes result in networks and services that worsen the conditions of the poor, harm the environment, ignore the changing needs of users, and exceed the capacity of public finances. Transport is capable of generating growth by facilitating trade both nationally and internationally, and by increasing access to social services like health and education. At the macroeconomic level, investment in transport raises growth by increasing the social return to private investment. Similarly, at the microeconomic level, improvements in transport often lower agricultural input prices and, hence, the costs of production. In addition, access to markets generally improves and, hence, facilitates the development of the non-agricultural rural economy and tourism. In urban areas, the quality of transport service influences the location of firms and individuals. The cost of labour and the efficiency of the labour market are also influenced by transport. Without an efficient transport and communication system, it is harder and more costly to move goods, resulting in loss of market competitiveness and lower economic growth. Further, Zambia can benefit from its central location by serving as a hub of economic development in the region as a transit route. In the rural areas where poverty is more widespread, inadequate transport is one of the factors that deepen the poor's deprivation.

13.2 Situation Analysis

The main modes of transport in Zambia are rail, road, air, and inland waterways. The rail network comprises the Zambia Railways, running from the Zimbabwean border in the south to the Congolese border in the north and branch line system, covering a total distance of 1,100 kilometres. The Tanzania Zambia Railways (TAZARA), jointly owned by Zambia and Tanzania, links the former at Kapiri Mposhi to the port of Dar es Salaam, covering a distance of 1,700 kilometres. A smaller rail line links Livingstone with Mulobezi covering a distance of 162 kilometres and was previously mainly used for ferrying timber. Both Zambia Railways and TAZARA serve the mining industry. As farming took root along the line of rail, haulage of agricultural produce, mostly livestock, created extra business. The decline of mining and agriculture has reduced the volume of business available to the railway lines. This has been compounded by lack of maintenance, resulting in poor state of the rail network and attendant inefficient services. Consequently, the road sub-sector has taken a larger share in the cargo haulage business, which has resulted in increased pressure on the roads, contributing to rapid deterioration of the road network.

At present, over 60 percent of cargo is hauled by road, whose extent covers the remotest areas of the country where other modes do not operate. Zambia has a gazetted road network of approximately 37,000 km of which 6,476 km are bituminous and surfaced to Class 1 standard. The gravel and earth roads account for 8,478 km and 21,967 km respectively. In addition, there are about 30,000 km of ungazetted community road network comprising tracks, trails, and footpaths. A large part of the main road network was constructed between 1965 and 1975. Over the years, the state of the road infrastructure in the country has deteriorated as a result of lack of maintenance. The main problems have been institutional and financial, which relate to inadequate and erratic flow of funding; the inadequacy of the institutional framework within which roads were managed; poor terms and conditions of employment; lack of clearly defined responsibilities among road management actors; and lack of managerial accountability.

The inadequate institutional framework to coordinate management and financing of roads, as well as overlapping responsibilities, are manifested in the present arrangement. The responsibilities for planning, preparing design standards, construction, and maintenance of roads are fragmented among the various government institutions. These are the Ministry of Communications and Transport; the Roads Department in the Ministry of Works and Supply; the Department of Infrastructure and Support Services in the Ministry of Local Government and Housing; Zambia Wildlife Authority in the Ministry of Tourism, Environment and Natural Resources and to some extent the Ministry of Agriculture and Cooperatives; and the Ministry of Finance and National Planning for the Zambia Social Investment Fund (dealing with rehabilitation of community roads).

The poor state of rural feeder roads inhibits mobility and accessibility. As a result, access to farm inputs and other social amenities and marketing of farm produce are also made very difficult and, thus, deepen poverty in rural areas where the only form of access is by road. Due to lack of transport, a considerable part of the rural population walks long distances to the health centres, schools, and other social amenities.

Zambia's air transport industry is currently in transition. With the liquidation of Zambia Airways Corporation Limited in 1994, the air transport industry has been predominantly private sector-driven. Several airlines have been established and some have collapsed. However, none of them has risen to the status of a national airline or flag carrier as that enjoyed by the defunct Zambia Airways. This has particularly adversely affected the development of the tourism industry. A number of local tourist destinations have experienced reduced numbers of tourists owing to lack of a national carrier that plies rural tourist destinations. Rural areas that are dependent on tourism have generally experienced higher levels of poverty than before, where no diversification has taken place.

There are 144 airports and aerodromes in the country, of which National Airports Corporation (NAC) manages the four major international airports, namely Lusaka, Livingstone, Ndola, and Mfuwe. Government or private individuals and organisations manage the rest. NAC is providing air navigation services throughout the country.

Water transport in Zambia is presently not significant although it is critical to some places in the Western, Northern, and Luapula Provinces where it is one of the main forms of transport. The country has abundant navigable lakes and rivers but the development of the sector has been inhibited by lack of technical expertise in the management of inland waterways. The situation has been exacerbated by lack of handling equipment at harbours and inadequate dredging facilities, particularly for canals and rivers. There is need to develop Zambia's lakes, rivers, ports, and harbours to increase alternative use of transport modes and improve trade with neighbouring countries. Development of harbours will lead to increased volume of exports.

Communication facilitates access to information through various forms of information communication technologies (ICT) and postal services. Low income households tend to have lower access to ICT than high income households and, therefore, access to information. Communications systems in Zambia still remain largely underdeveloped. With an installed capacity of 92,000 telephones on the Public Switched Telephone Network, and 90,000 mobile phone subscribers, Zambia's teledensity is only 0.18, implying that there are less than 2 phones per 100 population. Access to internet services still remains very low with only about 5,000 users at the end of 2001. Postal services, on the other hand, cover the entire country with a network of 134 Postal Offices and 98 sub-Post Offices, in addition to private courier services, which concentrate on the line of rail for delivery of time-sensitive mail items. The operational efficiency of the postal services requires to be propped up if it is to contribute effectively to economic growth and poverty reduction.

13.3 PRSP Interventions in Transport and Communications

13.3.1 Basic Principles

The primary goal for the PRSP interventions on transport are, first and foremost, to support the economy to grow, thereby enabling more resources to be generated for more public interventions in all areas, including transport. For sustainable national development, there is need for a national transport policy that requires the development of a comprehensive transport programme, divided into four priority categories:

- Preserving investment already made in infrastructure (e.g. roads) through maintenance.
- Establishing infrastructure which aids economic recovery and poverty reduction.
- Establishing infrastructure which brings environmental and social benefits.
- Instituting effective management systems.

These issues are looked at below under each transport mode.

13.3.2 Railways

A well functioning railway system is important for enhancing export competitiveness, economic growth, and poverty reduction since railway haulage tends to be cheaper than other modes where speed is not a major consideration. In this regard, the government will focus on the following issues:

- Ensuring the rehabilitation and preservation of investment and the continuous improvement of the rail infrastructure.
- Improving railway efficiency through concessioning to the private sector.
- Making arrangements for new railway connections to areas that will come into new economic production, especially large-scale mining.
- Levelling the playing field between roads and rail so that it is not economic for very heavy cargo to be transported by roads in order to reduce pressure on roads.
- Expanding and strengthening government capacity to develop supportive regulatory and investor-friendly legislation, and monitor compliance with policies and legislation.
- Evaluating and implementing extension of the railway network like the Chipata-Mchinji rail link and the Kasama-Mpulungu rail link as part of a railway network development strategy.

13.3.3 Road Transport

13.3.3.1 Road Infrastructure

Being a large but poor country, Zambia will continue to depend on road transport. There are two major challenges associated with this, however. Firstly, the country's extensive road infrastructure is in need of rehabilitation and maintenance. A stagnant economy and heavy debt burden have contributed to road deterioration. The second challenge is linking this important transport mode with increased overall productivity for the economy. Over the next three years of the PRSP, Zambia intends to continue putting greatest priority on rehabilitating

and maintaining its entire road network from feeder to trunk roads. This is important for the following reasons:

- Delay in maintenance and rehabilitation increases costs eventually.
- Economic growth and poverty reduction require that the roads and other transport systems are efficient and cost-effective.
- Efficient delivery of services including emergency relief requires good roads.
- Road rehabilitation creates jobs and business opportunities, often at the lower end of the labour market and this has direct impact on reducing income poverty.

Zambia has been undertaking road repairs under Road Sector Investment Programme (RoadSIP), which is a partnership between road users, the government, and donors to promote development through roads. The first phase was launched in 1998. RoadSIP's objective has been to bring a core network of the road to maintainable condition, and already positive impact has been registered with the percentage of paved roads in good condition having risen from 20 in 1995 to 44 in 1999, and the paved roads in poor conditions falling from 51 percent in 1995 to 29 percent in 1999. Over the first PRSP period, RoadSIP II will be launched and it will continue with the objectives set out in Phase I.

For the size of her economy and the population parameters, Zambia's paved road network is quite extensive, exceeding that of the average for Sub-Saharan Africa and even that for Zimbabwe and South Africa. This partly explains the difficulty in keeping abreast with maintenance and rehabilitation requirements. The implication is that Zambia will minimise construction of new paved roads and pay more attention to looking after what she already has, including rural feeder roads. Further, economic and social rates of return will be applied for trunk, main, urban, and feeder roads in the selection of roads for improvement.

Many of Zambia's paved and other roads were not necessarily constructed as part of an organised package to enhance national productivity or capitalise on her central location for trade. With the emphasis now being placed on growth, the roads must be integrated into the overall plan to make this happen. This will be done as follows:

- Rehabilitation and maintenance of all roads to enhance efficiency.
- Where new mining areas are to be opened up as anticipated in the Lumwana area in the Northwestern Province, appropriate road connections will be made to complement the railway connection.
- In agriculture, new farming blocks will be established in rural Zambia to take advantage of the land and water resources to produce high value products. Farm blocks must be near existing roads but where this is not feasible, new roads, not necessarily paved, will be constructed.
- A similar approach will be taken for tourism. In all tourist zones, the minimum intervention will be to ensure continued accessibility through good roads.

13.3.3.2 Rural Travel and Transport

Poverty is said to be highest in most of the Zambian rural areas because of the lack of access to market for agricultural produce as well as productive inputs. This has been worsened by the poor transport systems that exist in rural areas. Therefore, if the poverty situation in rural areas is to be addressed, the issue of transport has to be of paramount importance. In order to improve rural travel and transport, the following measures have been proposed:

- Establish an institutional framework for the development and management of rural transport and travel in the country.
- Improve the planning, management, and financing of rural road transport as well as upgrading the road infrastructure such as community roads, paths, tracks, trails, and footbridges through community participation.
- Facilitate the rural communities with the establishment of sustainable approaches to the construction and maintenance of rural transport infrastructure.

- Facilitate the introduction and promotion of appropriate motorised and non-motorised means of transport aimed at improved mobility in rural areas.
- Encourage the development of industries for the design, manufacture, repair, and maintenance of intermediate motorised and non-motorised means of transport for rural areas.
- Ensure that gender issues and the interests of the differently abled persons are considered in rural travel and transport.

13.3.3.3 Institutional and Management Issues in Roads

For the goals outlined above to be realised, the government is aware that a number of institutional and management issues will need to be dealt with. The key issues are as follows:

- The multiplicity of authorities in the management of roads causes difficulties.
- Within a rationalised framework for management of roads, government's role will primarily be to plan, facilitate, coordinate, implement, regulate, and monitor developments in the infrastructure and industry. The private sector will do the rest.
- Create a more credible and sustainable domestic system for financing and managing the road network to gradually reduce dependence on external financing.
- Institutional reform and human resources development will be undertaken.
- Promote road transport growth in the region, by levelling the playing field with other countries and improving traffic handling at border points.

13.3.3.4 Road Safety

Zambia loses an average of 1,000 lives through road accidents per year and it is estimated that road accidents cost the country about 2.3 percent of the GDP annually. Costs include direct costs such as damage to vehicles, policing and administration costs, medical expenses and insurance costs. In order to reverse this trend, government will focus on the development of appropriate legislation to ensure satisfactory safety levels, and the implementation of efficient and effective law enforcement procedures in line with regional norms. These issues will be tackled through pursuance of the goal of protecting the lives of road users and property through the introduction of appropriate road safety measures and enforcement of regulations. To achieve this goal government will put in place the following policy actions:

- Make road safety engineering aspects compulsory in the construction, rehabilitation, and maintenance of roads.
- Improve the awareness of the need for better road safety behaviour among road users through publicity and training.
- Improve the enforcement of traffic laws and regulations.

Based on the above, the government will do the following:

- Institute safety engineering within the present and future institutional arrangements in the road sector.
- Collaborate with relevant agencies in the management of road transport for motor vehicle examination and testing in accordance with regionally accepted standards.
- Integrate the National Road Safety Council into a national road transport authority for efficient management of road safety.
- Improve the reporting and analysis of road accident data in order to better target actions towards priority road safety measures.
- Ensure that the lives of all road users are protected through the introduction of appropriate road safety measures with strict enforcement of road traffic laws and regulations.
- Improve the coordination between institutions involved in road safety activities at national and regional level.
- Institute arrangements for a more efficient and effective enforcement of traffic regulations.
- Introduce an insurance safety levy to finance road safety programmes.

13.3.4 Civil Aviation

Liberalisation of air transport since 1991 has resulted in the formation of private local airlines. The reasons behind the slow growth in the industry can be attributed to factors such as unattractiveness of the Zambian market caused by small passenger loads, and lack of properly managed tourist destinations. Expansion in the mining and tourism industries should revive air transport demand and the government will ensure safe and efficient air navigation services in accordance with international civil aviation standards. It will also create a competitive environment so that private companies continue to provide transport services. Further, Zambia will ensure that those airports that are critical for commerce and tourism (e.g. the Lusaka, Ndola, Livingstone, and Mfuwe Airports) are always in good serviceable condition. In the efforts to achieve this, the government will address the following issues:

- Developing and upgrading selected airstrips and aerodromes in selected areas with economic growth potential into airports of regional and internationally acceptable standards.
- Pursuing legal and institutional reforms aimed at revamping the industry to meet the challenges of a liberalised environment.
- Promoting civil aviation in accordance with the Convention on International Civil Aviation.
- Educating, training, and professionally developing human resources in the aviation industry.
- Attracting international carriers to stimulate tourism and trade.

13.3.5 Maritime and Inland Waterways

Inland waterways are needed especially in areas that are inaccessible by other modes of transport but are accessible by water transport. Water transport has the inherent advantage that the services can be operated wherever navigable waters are available without requiring huge investments. Sustainable investments would be required for the improvement and maintenance of navigable rivers, canals, and channels and development of terminal facilities at harbours. The government will ensure that water transport operators adhere to communications regulations on lakes and rivers. In order to achieve these goals, the government will do the following during the PRSP implementation period:

- Prepare a comprehensive plan for ensuring proper navigability on all designated waterways in the country, including canals.
- Improve the safety and efficiency of inland water transport system and shipping, including promotion of regional cooperation.
- Promote a safe and clean marine and inland waterways environment.
- Encourage private sector participation in the operation of water transport services.
- Develop and improve the infrastructure at the existing ports to the standards of regional ports.

13.3.6 Communications

Government efforts in reducing poverty will focus on improving operational efficiency in the provision of ICT and postal services and putting in place the requisite incentives and infrastructure where needed. Specifically, the following policy actions will be pursued:

- Facilitating the setting up of communication facilities in tourist attraction areas.
- Improving access to communications in rural areas through the rural telephony project.
- Encouraging private sector participation in the provision of postal and courier services in rural areas.