

# **INFRASTRUCTURE**

## **SECTOR PROFILE**



**ZAMBIA DEVELOPMENT AGENCY**



## 1.0 INTRODUCTION

Infrastructure serves a central delivery mechanism in achieving sustainable economic development and in the generation of quality social-economic development in the country. Infrastructure still remains a major challenge to growth, economic diversification and human development in Zambia. As such, Infrastructure development, is one of the Government's priority areas, and is upheld in both the Revised Sixth National Development Plan, and the National Vision 2030.

Infrastructure development will be the main anchor of development process of the R-SNDP in the key areas of focus whereas ICT and Science and Technology will help accelerate the development process. Infrastructure development will largely include both social and economic Infrastructure and is major expenditure item in the revised plan.

The major areas that will be undertaken during the plan period are in the following areas:

- Investment in infrastructure in health, education and water and sanitation;
- Increasing the power generation capacity through up-grading and construction of new hydro-power stations, and use of alternative energy sources;
- Improving and expanding the rail network to reduce the burden placed on road infrastructure; and
- Construct additional inter provincial and inter district roads to open up the country and facilitate accelerated economic growth in line with the link Zambia 8000 project. (RSNDP, 2013).

There is a huge infrastructure financing gap and Government is aware that resources from the public sector and development partners are limited and can only cover part of the financing needed. Government recognizes the need to mobilize private sector financing to support public infrastructure development through PPPs as alternative financing for infrastructure development.

To cover the infrastructure gap and to improve access to quality and affordable infrastructure service, Government is inviting the private sector to participate in the construction, rehabilitation and maintenance as well as financing of public infrastructure and services. Government intends to facilitate PPP projects across all areas of economic development and social service delivery for the benefit of the general population. More specifically, key projects to be procured under the PPP arrangement will transcend across sectors and include roads, railways, boarder support infrastructure, energy, estate and housing, agriculture services, health and airports.

To facilitate private sector participation in infrastructure projects and facilities; and the provision of social sector services, Government introduced the regulatory framework which comprises of the PPP Policy and Act No. 14 of 2009.

For the private sector, these partnerships present opportunities that will enable them take advantage of the underdeveloped and poorly managed utilities to enable them attain profit optimizing objectives and sharing of risks.

## **2.0 OVERVIEW OF THE STATE OF INFRASTRUCTURE IN ZAMBIA**

Infrastructure is an essential driver of competitiveness which is critical for ensuring the effective functioning of any economy and the country has basic reliable infrastructure in terms of; airports, road networks, railway lines, energy generation and transmission installations and telecommunication infrastructure.

### **2.1 Information and Communications Technology**

Information and Communications Technology (ICT) is increasingly advancing and stimulating socio-economic growth in all sectors of the economy. The media continues to play a vital role of information dissemination for socio-economic development. Meteorology safeguards life and property through provision of vital information on scientifically derived early warning systems, predictions and information in the provision on weather and climate conditions especially in hazard prone areas.

Research has shown that investment in broadband ICTs has a multiplier effect in terms of job creation such that one direct job creates between 1.4 and 3.6 indirect and induced jobs. This is because broadband brings high opportunities for self-employment and content development such as production of local films and ICT applications are enhanced.

The focus of the Government is to establish an environment that encourages networking of services and applications; promoting e-commerce, e-agriculture, e-health and e-education and trade promotion programmes for goods and services. Furthermore, promoting ICT access to exchange and access digital content; establishing e- government online services; promoting e-education, e-health. (RSNDP 2013)

## **2.2. Energy Infrastructure**

Zambia is endowed with a wide range of energy resources, particularly woodlands and forests, hydropower, coal and renewable sources of energy. Petroleum is the only energy source that is currently wholly imported. Hydro power is the most important energy source in the country after wood fuel contributing about 10 percent to the national energy supply and is generated by three major hydro-electric power stations. Other energy resources are petroleum, coal and wood.

The state-owned Zambia Electricity Supply Corporation (ZESCO) is the main producer and distributor of electricity in the country. The company's transmission system comprises a total of 4,638 kilometers (km) of transmission lines spread as follows: 2,008 km of 330 kilo Volt (kV) lines, 348 km of 220 kV, 85 km of 132 kV, 704 km of 88 kV, and 2,823 km of 66 kV lines. The total transformer installed capacity is about 3,000 Mega Volt Amps

However, there have not been any major additions to the country's generation capacity in the last 20-30 years despite the huge potential in hydro resources. It is estimated that Zambia possesses 40 percent of the water resources in the Southern African Development Community. Zambia has about 6,000 MW unexploited hydro power potential, while only about 2, 434.3 MW is the current installed capacity. On the other hand, the demand for power in the various sectors of the economy has grown rapidly over the years and continues to grow.

Demand for electricity is likely to increase to creating a deficit of more than 550MW in Zambia alone. The SADC region has been facing power deficit since 2007, 73 power generation projects are required to increase generation from the current 56,000 MW and surpass projected demand of 96,000MW by 2027.

Opportunities in the power sector include:

1. Electricity Generation and transmission
2. Refineries, storage facilities and pipelines for petroleum and gas
3. Renewable energy facilities.
4. Transport facilities for coal distribution and exports

## **2.3 Transport infrastructure**

The Zambian economy is forecast to grow between 7.5 and 8 percent annually over the next five years. To sustain this growth, Zambia needs to upgrade its transportation infrastructure. Zambia, being a landlocked country lies in the center of the Southern African Region and to this effect relies heavily on her neighbors for vital routes to various import and export destinations.

Transport infrastructure covers: roads and bridges, railways, airports and aerodromes and maritime and inland waterways. The state of transport infrastructure, however, remains inadequate to sustain and match the desired levels of growth due to weak structural and management capacity resulting in over commitments, high cost of construction and low investment.

Government seeks to strongly address these challenges and is focusing on construction, rehabilitation and maintenance of physical infrastructure.

### **2.3.1. Airports**

There are four international airports; five secondary airfields and five airstrips serving the international and domestic flights.

The Kenneth Kaunda International Airport is Zambia's main airport connecting the country with the rest of the world. This is complimented by three smaller airports at Ndola, Livingstone and Mfuwe, as well as secondary airfields at Chipata, Kitwe, Kasama, Mongu, Solwezi and Mansa.

Zambia has no national airline but is served by a number of airlines that connect to international routes via Johannesburg, Durban, Cape Town, Addis Ababa, Nairobi, and Dubai. Proflight Zambia is a privately run airline with proposed regional flights to Johannesburg and Congo DRC and local flights to various destinations within the country. The country recently adapted an “open sky policy” and is currently promoting the establishment of an air cargo hub for the Southern African region.

Government has embarked on a program to improve the infrastructure at all the international airports. This is being done in collaboration with private sector participation. The developments include the runways, terminals and auxiliary facilities in and around the airports such as hotels, shopping malls, Conference facilities etc. Scope for private sector participation in development of airports also exists in the identified airfield at Chipata, Kitwe, Kasama, Mongu, Solwezi and Mansa

### **2.3.2. Roads**

The Government of Zambia recently embarked on the *Link Zambia 8,000* project (Accelerated National Roads Construction Programme) aimed at rehabilitating and constructing the road network. The aim is to construct an efficient road network and international highways linking Zambia to South Africa, Zimbabwe, Mozambique, Malawi, Tanzania, the Democratic Republic of Congo and Namibia. This project also aims at contributing to the reduction of road user costs and transit times across Zambia. <sup>1</sup>

Government is reaching out and encouraging private sector engagement in the Zambia Road Sector. Specifically, the Government proposes that Private sector consider undertaking a large portion of Link Zambia 8000 Road Project. This priority government project envisions building 8000 km (5000 miles) of high quality single and dual lane roads throughout the landlocked country.

As the 2<sup>nd</sup> largest copper producer in Africa, Zambia relies heavily on its road network to ship mine inputs and exports overseas through its eight neighboring countries. Zambia’s neighbors also heavily use Zambian roads to provide a reliable and shorter path to African ports. The Link Zambia 8000 Project is expected to last at least five years and is estimated to cost over \$31 billion.

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<sup>1</sup> The Link Zambia 8000 Project- Road Development Agency  
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The government has proposed private sector companies consider undertaking the construction of key toll roads which will carry the bulk of commercial traffic and could be built and operate on a sustainable revenue model. These priority toll routes comprise the backbone of Zambia’s national road network (in bold on the map below), including: Solwezi to Kazungula (with a spur to Kasumbalesa); Kapiri Mposhi to Nakonde; and Lusaka to Mchinji via Chipata. Developed and managed properly, this project could make Zambia a transportation hub for Southern Africa.



### 2.3.3. Railways

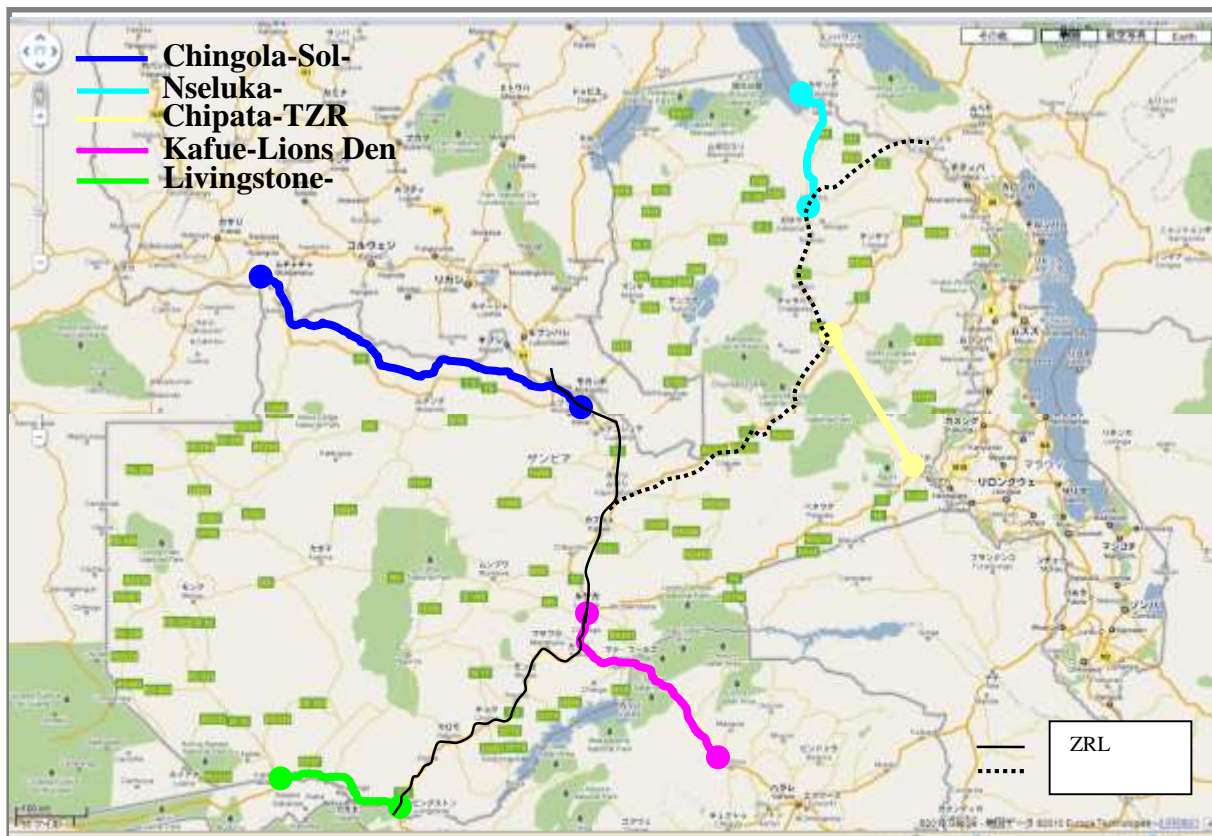
The Government intends to expand its railway network in the country to develop the surface transport sector. The development of rail routes linking important exit points is not only vital for facilitating smooth access to the outside world but also for the overall boosting of trade in the sub-region and making Zambia a competitive country for doing business.

The Zambian railways generally operate well below their original design capacity, yet they cannot increase their volumes because of poor track condition, lack of locomotive and wagon availability and low operating capital.

Rail network remains the dominant mode of transportation for goods on the local and international routes. However, the infrastructure requires urgent rehabilitation and new developments. The main railway lines are Zambia Railways which is owned by Government and the TARARA line which links

Zambia with Tanzania, is jointly owned by the Zambian and Tanzanian governments. The recent opening of the Chipata-Mchinji railway link provides connectivity into the Malawi railway network and further connects Zambia to the northern Mozambique railway network and opens up new and exciting opportunities for the private sector in Zambia, Malawi, and Mozambique.

Government is seeking private sector participation in the development and rehabilitation of the railway infrastructure. Some of the opportunities as indicated in the map below include



1. Chingola to Jimbe (Border with Angolan) - The railway line involves linking the existing line in Chingola through Solwezi to the boarder town of Jimbe to enhance the transportation of freight and passenger traffic and other products using Lobito Bay port in Angola
2. Kafue (Zambia) – Zawi in Zimbabwe -The railway line will link Zambia Railway line to Ziwa Zimbabwe the way to the Beira Port as the shortest route to the port of Baira in Mozambique



3. TAZARA Nseluka – Mpulungu port - The railway lines involves linking Mpulungu Port to TAZARA line at Nseluka to facilitate the imports and exports from the Great Lakes region to the sea ports on the Indian Ocean
4. Extension of the Mchinji/Chipata Railway line to TAZARA - The railway line involves linking the Chipata–Mchinji line through Petauke District to the port of Nacala in Mozambique.
5. Railway link with Zambia and Namibia (Livingstone –Sesheke)- The construction of this line involves the partial rehabilitation of the Mulobezi line and feasibility studies for construction of a spur between Livingstone and Katima Mulilo via Kazungula and connect to the Nambian Railway System at (Border) as part of the Walvis Bay – Livingstone – Lusaka – Ndola – Lubumbashi Corridor.

### **3.0 Housing and Estate infrastructure**

Zambia has been facing a very critical shortage of housing since independence. There is a definite shortage of housing supply in many urban centers, but particularly in rapidly growing towns and districts. The Copperbelt and North Western province where mining activities have resurged are also experiencing serious housing shortages. The creation of new Provinces and districts also increase the housing demand in these areas to meet the standards at district and provincial level, especially for civil servants.

Government estimates suggests a backlog of 2 million units across the country, and recommends an annual delivery rate of 200 000 units to meet demand in the next 10 years. However, the housing sector in Zambia is largely driven by individual and private sector initiatives, and has to a large extent influenced growth in the economy. In order to address the current housing deficit, Government has created an enabling environment to provide affordable, quality and adequate housing to the majority of Zambians. Government is also encouraging Public-Private Partnerships (PPPs) in the housing development and construction of ancillary facilities.

There is also an enormous potential for modern cluster –style homes, commercial and social facilities. Demands for commercial properties include business parks, shopping malls, office blocks etc. Demands for social infrastructure include construction and development of schools, health facilities and other public infrastructure services.

Further developments with demand for infrastructure facilities include the development of Multi-Facility Economic Zones and industrial parks. The government also recently embarked on the establishment of Multi Facility Economic Zones (MFEZ) and Industrial Parks to boost manufacturing activities in the country. These will be industrial areas for both export orientated and domestic orientated industries, with the necessary infrastructure provided. So far four (4) zones – the Chambeshi MFEZ in Kitwe district, the Lumwana MFEZ in Solwezi district, the Lusaka East MFEZ and the Lusaka South MFEZ, and 2 industrial parks – the Roma Industrial Park and the Ndola Gemstone Exchange Park, have been declared by the government and are being developed. Private sector is engaged to develop and manage these zones and parks.

Opportunities in the housing and estate development sector include

### ***1. Zambia International Trade Fair – Exhibition Infrastructure***

In the provincial city of Ndola on the Copperbelt, there is a 60 hectare grounds which accommodate the Zambia International Trade Fair and a 52 room hotel. This is the home of Zambia’s premier international trade fair. Only 30 hectares has been developed in the grounds. Government through the Ministry of Commerce, Trade and Industry is seeking development partners to joint finance, re-design and re-develop the trade fair grounds into a **modern exhibition, entertainment and business center** which can be used as Zambia’s main business exhibition and trade center.

#### 4.0. INCENTIVES FOR INFRASTRUCTURE DEVELOPMENT

##### 1. MANUFACTURING

Manufacturing activities located in a Multi-facility Economic Zone, an Industrial Park or a rural area.

##### 2. CONSTRUCTION AND ESTABLISHMENT OF INFRASTRUCTURE, EXCLUDING RENOVATION, EXPANSION AND REFURBISHMENT

- a) **Education:** Construction of education and skills training institutions
- b) **Health:** Construction of health centers' as defined under the Health Professions Act 2009.
- c) **Tourism:**
  - (i) Construction and establishment of hotels
  - (ii) Construction and establishment of convention centers
  - (iii) Construction and establishment of exhibition centers
  - (iv) Construction and establishment of museums
  - (v) Construction and establishment of Theme parks
  - (vi) Construction and establishment of art galleries
  - (vii) Construction and establishment of theatres;
  - (viii) Construction and establishment of a large retail complex containing a variety of ten or more stores, restaurants or other business establishments housed in a series of connected or adjacent buildings or in a single large building.
- d) **Housing:**

Development of fifty (50) or more houses erected or maintained under one management or control on land developed specifically for the citing of such houses in accordance with a comprehensive plan which provides for the laying out of roads and the furnishing and availability of services essential or ancillary to the use of such building as houses;
- e) **Agriculture:** construction of crop and grain storage facilities and

##### 3. ENERGY AND WATER DEVELOPMENT

- a) **Power:** building, installation of power stations
- b) **Fuel:**

- I. Building and installation of processing and refinery plants for bio-fuel;
- II. Construction of petroleum refineries
- III. Construction of pipelines
- IV. Construction of rural filling stations

**c) Water Supply**

- (i) Construction of Depots;
- (ii) Construction of Dams
- (iii) Construction of irrigation canals; and
- (iv) Construction of water and sewerage treatment plants

## **2.0 Fiscal Incentives and Qualifying Thresholds**

The Act provides for investment thresholds that have to be met to qualify for fiscal and non-fiscal incentives. Projects that qualify may be new or existing ones undergoing expansion or modernization. These are the categories of investors who can be considered under the ZDA Act.

1. Investors who invest not less than **US\$500,000** in the **Multi Facility Economic Zone, an Industrial Park, a Priority Sector** and in invest in a Rural Enterprise under the ZDA Act, are entitled to the following fiscal incentives:

- (i) Zero percent tax rate on dividends for 5 years from year of first declaration of dividends.
- (ii) Zero percent tax on profits for 5 years from the first year of operation.
- (iii) Zero percent import duty rate on capital goods, machinery including specialized motor vehicles for five years.

In addition to fiscal incentives, the above category of investors is entitled to the following

**Non- Fiscal incentives;**

- (i) Investment guarantees and protection against state nationalization;
  - (ii) Free facilitation for application of immigration permits, secondary licenses, land acquisition and utilities
2. Investors who invest an amount not less than US\$250,000 in any sector or product not provided for as a priority sector or product under the Act. This category of investors is entitled to non-fiscal incentives as follows;
- (i) Investment guarantees and protection against state nationalization;
  - (ii) Free facilitation for application of immigration permits, secondary licences, land acquisition and utilities

#### 4.0. USEFUL CONTACTS

NAME	ADDRESS	TELEPHONE	FAX	EMAIL / WEBSITE
1. Zambia Development Agency (ZDA)	P.O. Box 30819, Lusaka	260-211-220177	260-211-293223	<a href="mailto:info@zda.org.zm">info@zda.org.zm</a> <a href="http://www.zda.org.zm">www.zda.org.zm</a>
2. Ministry of Finance	P.O. Box 50062, Lusaka	260-211-256115	260-211-250886	<a href="mailto:info@mof.gov.zm">info@mof.gov.zm</a> <a href="http://www.mof.gov.zm">www.mof.gov.zm</a>
3. Patents and Companies Registration Agency (PACRA)	P.O. Box 32020, Lusaka	260-211-255127	260-211-255426	<a href="mailto:pacra@zamnet.zm">pacra@zamnet.zm</a> <a href="http://www.pacra.org.zm">www.pacra.org.zm</a>
4. Ministry of Works and Supply (MWS)	P.O. Box 50236, Lusaka	260-211- 252366	260-211-254108	<a href="mailto:info@mws.gov.zm">info@mws.gov.zm</a> <a href="http://www.mws.gov.zm">www.mws.gov.zm</a>
5. Zambia Revenue Authority(ZRA)	P.O. Box 35710, Lusaka	260-211-223754	260-211-222717	<a href="mailto:advice@zra.org.zm">advice@zra.org.zm</a> <a href="http://www.zra.org.zm">www.zra.org.zm</a>
6. Environmental Council of Zambia (ECZ)	P.O. Box 35131, Lusaka	260-211-254130	260-211-254164	<a href="mailto:ecz@necz.org.zm">ecz@necz.org.zm</a> <a href="http://www.necz.org.zm">www.necz.org.zm</a>
7. National Construction Council	P.O. Box 39548, Lusaka	260-211- 247185 /240386	260-211-243115	<a href="mailto:info@ncc.org.zm">info@ncc.org.zm</a> <a href="http://www.ncc.org.zm">www.ncc.org.zm</a>