

## **ANNUAL WORK PLAN FOR 2007 (AWP 2007)**

### **1.0 Introduction**

#### **1.1 Background**

The Road Development Agency (RDA) is responsible for the construction and maintenance of all public roads in Zambia. To carry out this mandate, the RDA works in conjunction with the National Road Fund Agency (NRFA), Road Transport and Safety Agency (RTSA), other Road Authorities and various stakeholders. This Annual Work Plan is prepared to further the goals of the second phase of the Road Sector Investment Programme (ROADSIP II) in order to systematically develop and maintain the road network to be able to effectively contribute to the development of the national economy, reduce poverty, generate employment, increase opportunities for the rural people etc.

In 2006, the approved Annual Work Plan was as presented in Table 1 below:

Table 1 – Approved AWP 2006

<b>No.</b>	<b>PROGRAMME</b>	<b>TOTAL</b>	<b>Works</b>	<b>Supervision</b>	<b>Km</b>
		<b>(ZK 'bn)</b>	<b>(ZK 'bn)</b>	<b>(ZK 'bn)</b>	
1.0	Separation packages	43.26	43.26	0.00	N/A
2.0	Periodic Maintenance	176.85	164.70	12.15	4,436
3.0	Routine Maintenance	77.86	73.35	4.52	11,833
4.0	Road Rehabilitation	253.31	240.23	13.08	1,096
5.0	Upgrading	73.08	69.60	3.48	87
6.0	Axle Load Control Programme	33.75	29.00	4.75	N/A
7.0	Bridge / Pontoon Programmes	33.05	31.11	1.94	N/A
8.0	Techno-Economic Feasibility Studies and Designs	22.58	0.00	22.58	N/A
9.0	Road Cycle Maintenance	3.00	2.86	0.14	N/A
10.0	Rural Development Programme and Road Rehab + Feeder roads +National Parks Roads	141.48	130.73	10.76	9,049
	<b>TOTAL</b>	<b>858.22</b>	<b>784.83</b>	<b>73.39</b>	<b>26,518</b>

The above activities were to be funded from various sources as shown in Table 2.

A good proportion of the fuel levy was released in the year 2006; this made it possible to commission some maintenance works and contracts achieved some good progress. It remains important therefore to observe that the entire fuel levy should be released to the National Road Fund Agency in full as collected.

Table 2 – Approved funding for 2006 AWP

	Funding Source	Amount, (ZK billion)			Comment
		Approved by RDA Board	Yellow book Amount	Amount released/ utilised	
1	Road Fund (Fuel Levy)	149.57	193.60	112	K112 billion released as at October 2006 and works are in progress
2	GRZ Treasury	243.06	243.06	42	K42 billion released as at October 2006
3	European Union (EU)	121.39	121.39	218.39	EU budget 1 <sup>st</sup> and 2 <sup>nd</sup> trench was released in 2005
4	World Bank	137.77	137.77	52.2	Works on-going on two major projects and park roads in KNP
5	DANIDA	70.34	70.34	55	Works and consultancy services for the Feeder Road Component (RSPS) in Western Province.
6	Nordic Development Fund (NDF)	29.07	29.07	1.2	Feasibility study for Spinal Road in Kafue National Park
7	OPEC Fund	27.09	27.09	7.8	Works on Luanshya-Kafulafuta Project
8	NORAD	20.59	20.59	1.1	Feasibility study on Kalomo-Dundumwezi-Itezhi-tezhi
9	BADEA/ Kuwait Fund	59.34	59.34	12.2	Works on Mongu-Kalabo road suspended awaiting installation of Bailey bridges.
	<b>TOTAL</b>	<b>858.22</b>	<b>902.25</b>	<b>501.89</b>	

The release of Capital funds from the Treasury was extremely poor in 2006; it is understandable that there was a special event during the year (the Tripartite National Elections) that is important for the furtherance of national democracy. As a result, only 17% of the approved works budget for GRZ was released as at 4<sup>th</sup> November 2006. This poor funding led to the failure to sign contracts for works procured under the AWP2006. Interest charges on some on-going contracts continued to accrue.

Funds from the EU for Sector Budget Support, were only released to the Government in November 2005 due to delays in meeting the agreed benchmarks (particularly the appointment of the Board of Directors for the NRFA) for the release of the first tranche of EURO25.4million, were applied to OPRC contracts during the year. IDA funded projects continued to be implemented as planned i.e Chingola – Kasumbalesa, Lusaka – Chirundu and Kafulafuta – Luanshya (1<sup>st</sup> Contract).

OPEC Funds were utilized on the rehabilitation of the Kafulafuta – Luanshya road (2<sup>nd</sup> Contract) while NDF funds could not be used as planned because of delays in the procurement of services arising from delayed no-objections and late start of detailed engineering designs in the Kafue National Park arising from inaccessible site due to floods. The DANIDA funded projects continued to perform reasonably well and significant progress was achieved.

## **1.2 Lessons Learnt**

The lessons learnt from the 2006 AWP are that:

- (a) the neglect of maintenance still prevails due to lack of sustainable financing for road works. Government financing continues to be difficult and it is important to extend the revenue base for the sector and to make it self sustaining;
- (b) preparatory works (designs, tender documents etc) should be carried out in the years preceding the works budget. In this regard, designs, tender documents for the AWP2008 will have to be carried out in 2007;
- (c) Procurement of works was delayed due to lack of funds (a percentage of the works budget) to carryout preparatory works.
- (d) Tender procedures (in the procurement of routine maintenance contracts) also posed a serious challenge as tenders were required to be adjudicated by the Zambia National Tender who were overwhelmed by the number of tenders for maintenance and could hardly cope with the volume of work. The RDA Tender

Committee has been enhanced and this will greatly improve the procurement of small and medium tenders.

- (e) issuance of No-objections from donors particularly the Nordic Development Fund continued to be delayed. It is important therefore to prepare realistic Procurement Plans that provide sufficient time for Client and Donor Reviews.

## **2.0 Annual Work Plan 2007**

### **2.1 Objectives of the AWP 2007**

The principal objective of the Annual Work Plan for 2007 is to bring a part of the Core Road Network into maintainable condition and thereby lower the total transport costs in the country and contribute to poverty reduction through increased accessibility of rural communities. The discrete objectives of the AWP2007 are to:

- (a) reduce the backlog of maintenance through rehabilitation;
- (b) maintain the roads in good and fair condition;
- (c) upgrade strategic roads to bituminous and all-weather gravel standards;
- (d) improve accessibility of rural roads and contribute to poverty reduction, employment generation (through employment of Labour – Based methods), increased opportunities for the rural and urban people etc.
- (e) conducting road related studies in order to increase the efficiency of road management;
- (f) preserve the road asset through increased policing of the roads for the control of axle loads plying the roads;
- (g) equitably distribute resources for road works among the nine provinces of the country; and
- (h) provide adequate resources to the stalled major upgrading road projects;
- (i) provide resources for management of gender and HIV/AIDS on road projects as well as environmental and social management.

## 2.2 Summary of AWP 2007

The AWP 2007 was prepared up to a total of K 1,461.43 billion broken down as shown in Table 3.

Table 3 – Summarised Breakdown of AWP 2007

No.	PROGRAMME	Amount (ZK Billion)			Length, Km
		TOTAL	Works	Supervision	
1.0	Routine Maintenance	101.75	95.09	6.66	23,573.25
2.0	Periodic Maintenance	242.96	226.51	16.45	2,696.19
3.0	Road Rehabilitation	248.48	228.13	20.35	1,503.40
4.0	Upgrading	354.54	331.40	23.14	843.00
5.0	Axle Load Control Program	28.93	25.68	3.25	N/A
6.0	Bridge/Pontoon Programs	213.38	203.16	10.22	N/A
7.0	Feasibility & Design Studies	35.81	-	35.81	N/A
8.0	Road Cycle Maintenance	18.00	18.00	-	N/A
9.0	Rural Development Prog and Road Rehabilitation	139.90	131.33	8.57	6,317.60
10.0	Park Roads	24.11	22.98	1.13	1,146.40
11.0	Urban & Feeder Roads	53.01	41.82	11.18	940.78
	<b>TOTAL</b>	<b>1,461.43</b>	<b>1,324.64</b>	<b>136.57</b>	<b>37,021</b>

The budget for the AWP2007 is considerably larger than (almost double) that for 2006. This is due to the following:

- (i) Works procured in 2006 could not be implemented in that year as contracts could not be signed because there was no assurance of release of funds. Those projects had to be included in the AWP2007;
- (ii) More roads that are in good and fair condition have to be included in the programme for routine maintenance hence the longer road length to be maintained in 2007;
- (iii) One of the objectives of the AWP2007 is to provide adequate resources to the stalled major upgrading road projects and consequently, it is expected that more work (on approximately 843km) will be undertaken compared to the programmed upgrading works (approximately 87km) for 2006;
- (iv) The huge backlog of maintenance requires serious funding to eliminate.

The Study on the 10-year trunk, Main and District (T,M,D) Road Network Improvement Programme concluded that funding less than US\$120million (or K480 billion) will not eliminate the backlog for maintenance of the paved T,M,D roads.

Figure 2 shows how the budget of \$75 million (K300billion) per annum will decrease the percentage of Very Poor and Poor sections on the paved T,M,D road network to approximately 11% while a budget of \$120 million per annum is necessary to totally eliminate the backlog for paved T,M,D roads. The results for a budget of \$75 million (K300billion) per annum for each year of the 10-year analysis period are shown in Figure 3.

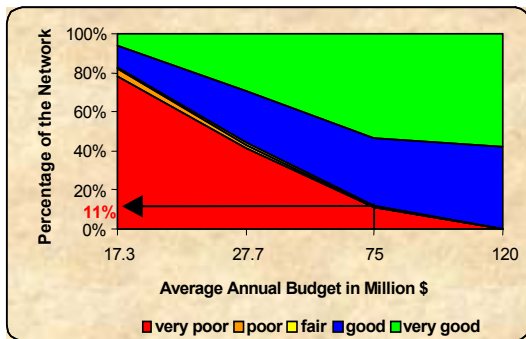


FIGURE 2: PAVED ROAD CONDITION FOR DIFFERENT BUDGET SCENARIOS (10-YEAR ANALYSIS)

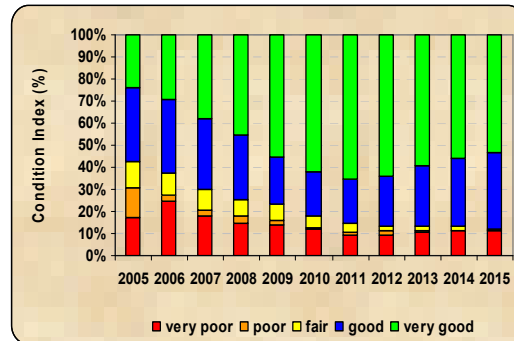


FIGURE 3: PAVED ROAD CONDITION FOR US\$120MILLION/YEAR BUDGET

It is evident that the US\$120million/year budget keeps the condition of the paved T,M,D road network at a high level of approximately 85%. The US\$75 million budget keeps the condition index constant between 60% and 80%.

## 2.6 Sources of funding

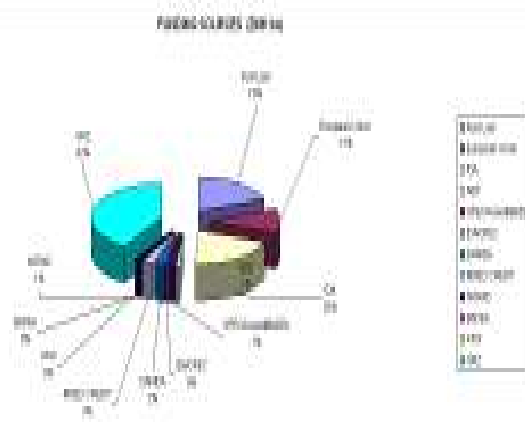
### 2.6.1 Established sources of funding

The AWP 2007 will be financed from the GRZ Treasury, the fuel levy and by the cooperating partners. Figure 1 below shows the proportions of funds among the

various sources along with the distribution of funds among the provinces while the detailed breakdown of the AWP 2007 is presented as Appendix I.

### SOURCES OF FUNDING

	Source	Amount (ZMK bn)
1	Fuel Levy	281.00
2	European Union	164.40
3	IDA	295.46
4	NDF	13.82
5	OPEC/Kuwait/BADEA	21.10
6	IDA/OPEC	3.00
7	DANIDA	26.19
8	MIXED CREDIT	37.54
9	NORAD	9.23
10	BADEA	6.84
11	KFW	2.00
12	GRZ	600.29
	<b>TOTAL</b>	<b>1,461.43</b>



### DISTRIBUTION OF FUNDS PER PROVINCE

	PROVINCE	FUNDS (ZMK bn)
1	Lusaka	173.37
2	Copperbelt	196.82
3	Central	114.65
4	Eastern	132.04
5	Luapula	157.71
6	Northern	167.82
7	N/Western	149.48
8	Western	219.47
9	Southern	150.07
	<b>TOTAL</b>	<b>1,461.43</b>

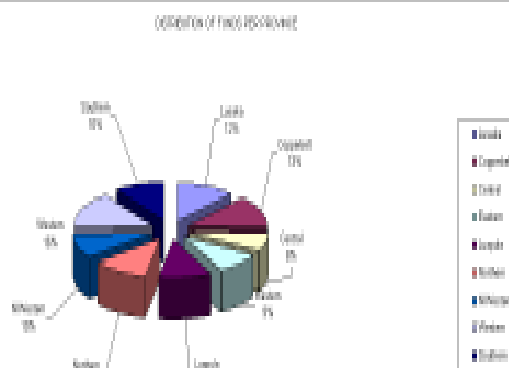


Figure 1 – Sources of funds and funding distribution by province

### 2.6.2 Distribution of funds

Equitable distribution of road development and maintenance funds is important for Zambia and care was taken to achieve this aspiration as much as possible as can be seen from the distribution of funds in Figure 1. Some provinces have received more funds than others because of some national projects such as works on Trunk and National roads which for convenience have been shown in the particular provinces they are located and also due to the concentration of donor activities in some provinces.

Western province, which according to Central Statistical Office (CSO) is the poorest province, has a higher allocation at 16% of total budget, than the other provinces mainly because of the Donor financed programmes such as for Mongu – Senanga road under the DANIDA financed Road Sector Programme Support (RSPS II), the Mongu – Kalabo road and the Kalabo – Sikoongo road.

### **2.6.3 New programmes/sources of funds**

During the year, the following donor financed programmes will commence:

- (a) Rural Transport Programme: the German Ministry of Development Cooperation (BMZ) through KfW will finance the RTP which is estimated at a total amount of €15.18 million (K73.2billion) for the improvement and maintenance of feeder and community roads in the Southern Province over a period of three years.
- (b) Agricultural Development Support Programme (ADSP): In line with the development objectives of this World Bank–funded ADSP, three Project Components have been defined. One of which is the Support to Farmers and Agribusiness Enterprises and provides a Feeder Roads Improvement Facility of US\$15 million (K60billion). The Feeder Roads Improvement Facility will be cover approximately 1000km in districts of Katete, Chipata, Lundazi, Chongwe and Choma.

### **3.0 Rationale for Selection of Roads**

The roads on the AWP for 2007 were selected on the basis of:

- 3.1 the on-going works: applies to GRZ-funded major projects must be continued, feasibility studies, urban road projects and Poverty Reduction Programme (PRP) projects;
- 3.2 the 10-year Prioritised Plan is based on economic analysis of proposed work interventions through the Highway Management System (HMS). Prioritisation based on traffic levels and economic analysis is only applied on Trunk, Main and District roads. For the lower order rural roads, prioritisation is carried out using multi-criteria analysis as provided for in the ROADSIP II Bankable document;
- 3.3 ensuring that roads are **not developed in isolation** without any connectivity to other road sections in good or fair condition. Further, advice from political leaders, as stakeholders, is essential for the acceptability of the AWP and the works therein. Such invaluable advice coming in from Parliamentarians and other civic leaders through established organs like the District Development Coordinating Committees and the Provincial Development Coordinating Committees has been considered;
- 3.4 Opening up new areas particularly through feeder roads and tourist roads is increasingly becoming important and is in line with other government strategies such as opening up of agricultural farming blocks;
- 3.5 It is the strategy of ROADSIP II to place all newly rehabilitated/improved roads and all roads in good and fair condition on routine maintenance and periodic maintenance programmes so as to maximise the benefits of improved roads and that such roads do not slide back into poor condition;

- 3.6 Projects funded by cooperating partners are selected on the basis of high economic return or social benefits established through comprehensive techno-economic feasibility studies;
- 3.7 Works procured in 2006 but could be implemented, have been included in the AWP2007.

#### **4.0 Planned Activities**

The following are the activities planned for AWP2007:

- (i) Routine maintenance: works carried out routinely on yearly basis and comprise pothole patching, vegetation control, line marking, drainage works etc.;
- (ii) Periodic maintenance: works carried out periodically such as re-gravelling, resealing etc.
- (iii) Rehabilitation: works carried out to renew the road and comprise limited amounts of reconstruction, re-working of the base and sub-base, application of heavy overlays etc.;
- (iv) Upgrading: upgrading the surfacing material of the road from earth to all-weather gravel standard or from gravel standard to bituminous surfacing;
- (v) Feasibility Studies are carried out to determine the required level of investment needs and compare this with the anticipated benefits to be generated through the investment and to determine further the optimum timing for the investment. They are also useful for the RDA to know the level of public resources that are being committed to particular projects and are required in sourcing financing for the projects from cooperating partners.;
- (vi) Axle Load Control for the preservation of roads and bridges;

- (vii) Reacting to Emergencies occurring on the road network arising from whatever source and particularly in the rainy season when culverts are at greater risk of being damaged by heavy floods; and
- (viii) Cycle maintenance: comprise cyclic works carried out periodically; this provision is intended for a block amount of funds to be distributed to the regional engineers to meet particular needs on roads not included in the AWP2006 but for which there's urgent need for interventions such as spot gravelling, pothole patching for which there's maximum impact in increasing traffic flow.

## 5.0 ROADSIP II Annual Works Targets (Indicators)

Annual targets for performance of works and institutional reforms are provided in the Bankable document for ROADSIP II and are as shown in Table 5 below. The achievement of the agreed targets is essential in order to qualify for a second or possibly third tranche of EU grant.

Table 5 – ROADSIP II Performance Indicators for 2007

No.	Intervention	Unit	Target
1	Rehabilitation (Paved)	Km	152
2	Maintenance (Paved)	Km	6,337
3	Rehabilitation (Unpaved)	Km	2,431
4	Maintenance (Unpaved)	Km	18,272

## 6.0 Axle Load Control Programme

The programme to monitor and control vehicle overloading in Zambia is co-financed by the Norwegian Government, European Union and the Zambian Government over a four-year period (2004 – 2005). The objective is to reduce significantly the overloading situation on Zambian roads using an efficient control system.

The output parameters for the programme is measured as the rate of overloaded

vehicles, which should reduce from greater than 20% to less than 5% for axles and from greater than 55% to less than 5% for gross vehicle mass (GVM) at the end of the 4 years.

## **7.0 Road Authorities**

The Public Roads Act provides that *'The Minister may, on the recommendation of the Agency, by statutory order, appoint any person or institution as a road authority in respect of any public road' to 'be responsible for the construction, care and maintenance of the roads specified in the statutory order' and 'all expenses incurred in the construction, care and maintenance of roads, for which the road authority is responsible, shall be paid for from the Fund'.*

These Road Authorities will be responsible for establishing prioritised Development and Maintenance Plans for roads under their jurisdiction. Provision for their operational costs has been made as shown under Programme 11 of this AWP 2007 for Urban and Feeder Road rehabilitation.

## **8.0 Limitation/Threats to the AWP 2007**

The following are threats that could hinder the full attainment of performance of the AWP 2006:

- 8.1 Erratic release of funds: results in delayed implementation of projects, delayed payment for certified works and the associated interest charges, failure to timely prepare projects and procure works etc.;
- 8.2 The non-attainment of the minimum targets as agreed with cooperating partners particularly the EU, will result in a reduced third tranche;
- 8.3 Delays in the procurement of works results in delayed implementation of works. The procurement process will be tied to the approved cash-flow projections as contracts can only be signed when there's confirmation of

availability of funds so as to avoid accumulation of debt and associated interest charges.

## **9.0 CONCLUSION**

The challenges to the implementation of the AWP 2007 remain real and pose a threat to the improvement of the road network in Zambia. Poor funding from GRZ remains the single most significant threat in spite of the strong road management capacity in the Agency.

It has been established that there's need to complete the on-going upgrading projects while ensuring that those roads in good and fair condition are maintained adequately. Also, the feeder roads will receive more funding than has been the case hitherto in order to improve that component of the network and increase the accessibility to rural areas and reduce the cost of operating motor vehicles there.

With the road sector reforms nearing completion with the expected improvement in the road sector management capacity, the direct involvement of Central government is expected to reduce. This will allow sufficient latitude for the introduction of professional private-sector driven commercial practices in road management including the placing of roads on a fee-for-service basis.