End Review of Zambia Axle Load Control Programme

End Review

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Gicon AS, Norway in association with InfraAfrica (Pty) Ltd, Botswana

Commissioned by Norad and Ministry of Works and Supply, Zambia Road Development Agency

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Republic of Zambia
Ministry of Works and Supply
Zambia Road Development Agency

End Review of
Zambia Axle Load Control Programme

FINAL REPORT

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Contents

ABBREVIATIONS AND ACRONYMS

ALCP	Axle Load Control Programme
COMESA	Common Market for Eastern and Southern Africa
EDF	European Development Fund
EC	European Commission
ESA	Equivalent Standard Axle
EU	European Union
FEDHAUL	Federation of Hauliers (Zambia)
GVM	Gross Vehicle Mass
GRZ	Government of the Republic of Zambia
MCT	Ministry of Communications and Transport
MJ	Ministry of Justice
MLGH	Ministry of Local Government and Housing
MOFED	Ministry of Finance and Economic Development
MWS	Ministry of Works and Supply
NOK	Norwegian Kroner
NORAD	Norwegian Agency for Development Cooperation
NPRA	Norwegian Public Roads Administration
NFRA	National Road Fund Administration
RTSA	Road Transport Safety Agency
RMI	Road Maintenance Initiative
ROADSIP	Road Sector Investment Programme
PSRP	Public Sector Reform Programme
SADC	Southern African Development Community
SATCC	Southern African Transport and Communications Commission
SPSP	Sector Policy Support Programme
TA	Technical Assistance
RDA	Road Development Agency
TOR	Terms of Reference
USD	United States Dollar
ZMK	Zambian Kwacha

EXECUTIVE SUMMARY

Background

1. Overloading of commercial vehicles in Zambia is a serious problem that has received priority attention by both the Government, through the Ministry of Works and Supply (MWS), and its Development Partners including Norad and the European Commission. The need for urgently addressing this problem was recognized during the Joint Mid-Term Review of Zambia's Road Sector Investment Programme (ROADSIP) ROADSIP I in December 2000 when the Joint Mission's Aide Memoire stated that: *Axle load control: Immediate action can and should be taken under the present legal and institutional setting to improve performance.* This led to the undertaking of an Axle Load Control Programme (ALCP) in 2004 which was supported by Norad and the European Union.

2. Following the completion of its support to the ALCP in June 2008, Norad initiated an End Review of this programme to evaluate the outcome of the programme in relation to its key objectives. The quality assurance concepts applied in reviewing and evaluating the programme outputs included sustainability, relevance, impact, effectiveness, efficiency, risk management, financial management, anti-corruption measures and HIV/AIDS & women's participation. The evaluation process included a review of all available project documents, interviews with stakeholders in Zambia from both the public and private sectors, including donors (Norad and the EU), and a visit to one of the recently upgraded, operational weighbridges. The following are the main findings and conclusions arising from an End-review, carried out by GICON AS, in association with InfraAfrica (Pty) Ltd, Botswana:

Key Findings

3. The ALCP was launched in April 2004 and supported by NORAD (NOK 30 million) and the EU (Euro 2.5 million). One of the key features of the programme is its holistic and integrated nature which seeks to address the issue of overloading in a comprehensive manner. This approach avoids the pitfalls suffered in other countries which have attempted to address overload control in a piecemeal manner over an extended period of time.

4. The envisaged implementation period for the entire ALCP was approximately four years from its defined beginning on 19 April, 2004 to its dissolution on 30 June 2008. In the event, for various reasons discussed in Section 4 of this report, all components of the programme were not fully completed according to the programme document and the EU has agreed to take over responsibility for the project as a component of the ROADSIP II framework. As discussed under the heading Implementation Schedule and Budget for each component in Chapter 4, there has been an over-expenditure on some components and an under-expenditure on others. The Project was designed as a process related approach, and it was clear from the start that the budget had to be flexible between the components. Budgets and work plans were adjusted accordingly at the Annual Meetings.

5. The programme was structured into ten components. The overall assessment of each component was rated on a scale which ranged from 4=very satisfactory, 3=satisfactory, 2.5=just satisfactory, 2=unsatisfactory, 1=very unsatisfactory. One component (Weighbridge Equipment and Sites) was rated as "**very unsatisfactory**" due mainly to the delay and overrun on cost; one component (Project Monitoring) was rated as "**unsatisfactory**"; six components were rated as "**satisfactory**"; and one component (Improve Organization and Procedures) was rated as "**very satisfactory**". One component (Commercialization/privatization of Weighbridges) could not be rated as yet as it has not yet started.

6. Technical assistance to the programme was commissioned through an agreement between the Zambian Roads Department and NPRA was signed in December 2003. The agreement provides a framework for an institutional cooperation between the Road Development Agency (RDA) and the Norwegian Public Roads Administration (NPRA). The review found that the technical assistance from NPRA was an essential input to the ALCP. The input to the project from NPRA in the form of one long term advisor and 11 short term advisors represented in total about 529 person-weeks or about 12 person years over a period of five years and three months. The total cost to the Project for NPRA's services was about NOK 12.3 million, or about 25% of total project cost of NOK 50 million.

7. Based on the overall results achieved for the Project and the excellent working relations with the RDA, the institutional cooperation component has been judged as effective. There was a considerable over-expenditure compared to plans as the need for advisors increased. It has been rated as 3 out of 4, i.e. **satisfactory.**

8. Even before the full complement of weighbridges has been installed, a significant reduction in overloading has been achieved. Thus, it is recommended that careful consideration needs to be given to the costs and benefits from the planned substantial investment in fixed weighbridges.

9. It appears likely that future funding of weighbridge operations can be provided from the Road Fund on a sustainable basis. However, based on the government's somewhat erratic funding of weighbridge operations in the past, the issue of future finding for the programme must be an area of concern. It is recommended that RDA should work out a plan for future financing of weighbridge operations.

10. Anti-corruption measures are built into the Project and are continuous and of a general nature. Anecdotal evidence suggests that corruption has been reduced since the Project started in 2004. A general reduction in the overloading is at the same time a good indicator of less corruption at the weighbridges. The extent of overloading is monitored through the records from the fixed weighbridges and the mobile spot checks and appears to have been reduced considerably.

11. The issue of gender equality was not included as a separate component of the Project with its own budget. As a consequence the issue has not been reported on separately to the management or donors. The Project management has however recognized that employing women in the project, and especially at the weighbridges, may as a side-effect contribute to reducing corruption. The management reportedly is of the opinion that women might be less prone to corruption. And their experience from recent postings shows that women at the portable weighbridges have no particular problem in handling truck drivers.

12. The overall programme assessment is presented below and was based on a scale which ranged from 4=very satisfactory/very likely/very high, 3=satisfactory/likely/high, 2.5=just satisfactory/just likely/ just high, 2=unsatisfactory/unlikely/low, 1=very unsatisfactory/very unlikely/very low.

Programme Element	**Rating**	**Outcome**
Sustainability	3 out of 4	Likely
Relevance	4 out of 4	Very high
Impact	4 out of 4	Very high

Effectiveness	3 out of 4	Satisfactory
Efficiency	2.5 out of 4	Just satisfactory
Risk Management	2.5 out of 4	Just satisfactory
Accounts and Audits	3 out of 4	Satisfactory
Financial Management	3 out of 4	Satisfactory
Anti-corruption Measures	3 out of 4	Satisfactory
HIV/AIDS & Women's Participation	2.5 out of 4	Just satisfactory

Main Recommendations

13. **Fixed weighbridges**: The very successful execution of component 2, Organization and Procedures has revealed that, even before the full complement of weighbridges has been installed, a significant reduction in overloading has been achieved (ref. the results from the baseline and subsequent surveys discussed in Section 4.9). Thus, it is recommended that careful consideration needs to be given to the costs and benefits from the planned substantial investment in fixed weighbridges.

14. **Sustainability**: From discussions held with the NRFA, it appears likely that funding of future weighbridge operations can be provided from the Road Fund on a sustainable basis. However, based on the government's somewhat erratic funding of weighbridge operations in the past, the issue of future finding for the programme must be an area of concern. It is recommended that RDA should work out a plan for future financing of weighbridge operations.

15. **Financial management:** There have been long delays of unsettled payments to NPRA which pose a threat to good relations between NPRA and RDA. It is therefore recommended that RDA should pursue measures to ensure that NPRA is paid timeously, as per the agreement between the two organisations.

1. INTRODUCTION

Background

1.1 The problem of overloading and the urgent need for its effective control have been identified as key focus areas for action by all countries in the Southern Africa Development Community (SADC). Overloading not only significantly accelerates the rate of deterioration of road pavements but, when coupled with inadequate funding for road maintenance – so prevalent in many SADC countries – it contributes significantly to poor road conditions and high transport costs, typically of the order of four to five times that prevailing in developed countries.

1.2 The magnitude of high avoidable costs due to overloading underscores the importance of dealing effectively with this problem. Failure to do so may well be viewed as an act of disinvestment since past investments in road infrastructure, often supported by donors, are not protected. Clearly, there is a compelling and urgent need to take corrective action to avoid a situation in which poor roads and high transport costs become an insurmountable obstacle to economic growth and development in all countries of the SADC region, including Zambia.

1.3 So acute is the problem of overloading in Zambia – estimated in the early 2000's to be of the order of 20 to 40 per cent - that a number of developing partners have included axle load control as a conditionality for support in the roads sector. In this regard, the on-going, multi-donor funded Road Sector Investment Programme (ROADSIP II) that was launched in 2004 emphasised that "*unless the problem of overloaded axles and gross vehicle masses are tackled and reduced drastically by the introduction of appropriate and effective measures, the current initiative to improve the road network will to a large extent be in vain.*" (World Bank, 2004).

1.4 Against the above background, the Government of the Republic of Zambia, through the Roads Development Agency (RDA) of the Ministry of Works and Supply (MWS) and with the support of the Norwegian Agency for Development Cooperation (Norad) and the European Commission (EC), committed itself in March 2004 to undertake an Axle Load Control Programme (ALCP) with the objective of "*Establishing a robust and efficient control system with capacity to protect all the core road network against illegal overloading.*" (Annex 1 to Institutional Cooperation Agreement, November, 2003).

Purpose and Scope of Review

1.5 Following the completion of its support to the ALCP in June 2008, Norad initiated an End Review of the Axle Load Control Programme ZAM-3015 with the following purpose:

1 To identify the results of the programme and assess if they are in accordance with the agreement (including institutional agreement with addendum), plans and budgets;

2 To assess the implementation of the programme as well as whether conditions and responsibilities set out in the agreement (incl.institutional agreement with addendum) and the programme document are fulfilled. Special attention should be given to deviation that could have been foreseen and handled by the parties during the programme period and to lessons learned relevant for future development co-operation between Zambia and Norway or other Cooperating Partners.

3 To "take stock" of the programme, and assess which programme components, if any, could be regarded as fully completed and which ones would require future attention and follow up under ROADSIP II.

4 To provide recommendations for possible future cooperation in the sector.

1.6 The scope of the review included a number of wide-ranging issues to be addressed with the objective of assessing the following key outputs of the project in terms of the following:

1 Sustainability;
2 Relevance;
3 Impact;
4 Effectiveness and efficiency;
5 Risk management;
6 Accountancy and audits;
7 Financial management;
8 Lessons learned.

1.7 The above outputs were evaluated on the basis of a rating system in which the ratings varied from 4=very satisfactory/very likely/very high, 3=satisfactory/likely/high, 2.5=just satisfactory/just likely/just high, 2=unsatisfactory/unlikely/low, 1=very unsatisfactory/very unlikely/very low.

Approach to Undertaking Review

1.8 The approach adopted for undertaking the end-review of the ALCP was essentially as follows:

Phase 1: Preparatory Work

(a) Review all available background information including, if possible, all the documents listed in item 6 of the Terms of Reference, as a basis for obtaining a good appreciation of the project scope, manner of execution, achievements, challenges, etc.

(b) Based on the outcome of the above, formulate a strategy for undertaking the project, including the preparation of a preliminary programme of activities to be undertaken during the country visit.

Phase 2: Country Visit

(a) Undertake a series of meetings and consultations with stakeholders pertaining to all the issues to be reviewed as identified in Item 3 of the Terms of Reference. The list of persons interviewed is presented in Annex B.

(b) Undertake a visit to a typical weighbridge(s) in Lusaka in order to discuss operational issues with staff.

Phase 3: Reports

(a) Based on the outcome of Phases 1 and 2 as described above, prepare and submit a draft report covering all the issues raised in the Terms of Reference.

(b) Based on comments received from stakeholders, amend the draft report and produce a final report.

1.9 The Terms of Reference (ToR) for undertaking the end-review of the ALCP are presented in Annex A. In accordance with the ToR, to the extent possible, the review has drawn upon earlier reviews within ROADSIP II, and the outcome of programme seminars and donor missions' reports. In this regard, the list of documents reviewed is presented in Annex C.

Report Structure

1.10 Following on from the introduction to the ALCP presented above, the background context to the programme, in terms of the transport sector reforms and the Road Sector Investment Programme, is given in Section 2. Section 3 then presents the details of the ALCP when viewed from both a regional and national context, while Section 4 reviews the various components of the programme in terms of its goals and objectives, scope, progress, achievements and lessons learned. The outcome of the evaluation of the ALCP Programme is then presented in Section 6 followed by the main conclusions and recommendations arising from the end-review of the programme. This is followed by a list of reference documents.

1.11 The report contains four annexes. The Terms of Reference are attached as Annex A while a List of Institutions Met and People Interviewed during the review follows as Annex B. Annex C presents a List of Documents Reviewed while a Status Report on Weighbridge Construction is presented in Annex D.

2. BACKGROUND CONTEXT

Transport Sector Reforms

2.1 In the National Transport Policy that was launched on 20th May 2002, the Government of Zambia recognized the problems of fragmentation in the roads sector. There were many ministries of government as well as non-government institutions and donors involved in the construction, rehabilitation and maintenance of roads. In order to introduce a co-ordinated approach to development of roads, road transport and safety in the country, the Government in 2002 approved the Transport Policy and subsequently in December 2002 revised the Roads and Road Traffic Act Cap. 464 of the laws of Zambia.

2.2 The new National Transport Policy as well as the revised Acts provide for the establishment of three agencies with a view to clarifying the management and financing of the core road network. The three agencies, which became operational in 2005, and their main responsibilities are as follows:

(a) ***Road Development Agency (Road Infrastructure)*** (Established under the Public Roads Act No. 12 of 2002). This agency, under the policy direction of the Ministry of Works and Supply, is responsible for developing the entire road network in the country through implementation of programmes approved by the Committee of Ministers on the Road Maintenance Initiative (RMI).

(b) ***Road Transport and Safety Agency*** (Established under the Road Traffic Act No. 11 of 2002). This agency, under the policy direction of the Ministry of Communications and Transport, is responsible for implementation of policy on road transport and traffic management, road safety and enforcement of laws regulating road transport and safety in the country.

(c) ***National Road Fund Agency (Mobilization of road sector resources)*** (Established under the National Road Fund Act No. 13 of 2002). This agency, under the policy direction of the Ministry of Finance and National Planning, is responsible for collection, disbursement, management and accounting of the National Road Fund (NRF), reporting through the Ministry of Finance and National Planning to the Committee of Ministers on the RMI. All resources meant for the roads sector from Government, cooperating partners or the private sector are channeled to the NRF.

The Road Sector Investment Programme (ROADSIP)

2.3 In tandem with institutional reforms, substantial donor support has been granted to the Road Sector Investment Programme (ROADSIP I) since 1997 (World Bank, 1977). The programme was initially coordinated by the World Bank and supported by a number of bilateral donors and other multi-lateral institutions; it has the principal objective of supporting Zambia's economic recovery programme by reducing road transportation costs and improving access within economically productive areas.

2.4 Two of the key objectives of ROADSIP I which are related to the ALCP are:

1 Bringing the core road network to maintainable condition;
2 Improving traffic control (road safety and axle loads).

Achievement of the above objectives will not be realized unless the problem of overloaded vehicles, which causes a dramatic increase in road maintenance costs and road safety, can be effectively curbed through the introduction of effective measures.

2.5 Following completion of ROADSIP I in 2003 in which some US$ 530 million was disbursed, the government is currently undertaking the second phase of the programme, ROADSIP II (2004-2013), which is co-financed by a number of donors and represents spending totaling US$ 1.6 billion. One of the key objectives of ROADSIP II, which takes account of the Poverty Reduction Strategy, is to concentrate on roads that were identified in ROADSIP I, but had no funding sources and as such, they could not be maintained, as well as on other activities that were not in the first phase, such as pontoons and bridges.

Need for Overload Load Control

2.6 The need for immediate attention to effective overload load control in Zambia was recognized during the Joint Mid-Term Review of ROADSIP I in December 2000. The Joint Mission's Aide Memoire stated that: *Axle load control: Immediate action can and should be taken under the present legal and institutional setting to improve performance. An action plan should be developed and subsequently monitored by a small Task Force. The donors would be willing to provide financial and technical support to this Task Force and to the implementation of the action plan with well defined targets"*

2.7 The Norwegian Agency for Development Cooperation (Norad), through the Norwegian Embassy in Lusaka, indicated that it was willing to consider support to Zambia's efforts to improve its axle load control system which, at that time, was largely ineffectual. Thereafter, the Zambian Government appointed a Task Force on Axle Load Control in early 2001 which eventually led to the launching of a programme document for Zambia's ALCP that was subsequently approved for funding by NORAD and the European Union.

3. THE ZAMBIA AXLE LOAD CONTROL PROGRAMME

Regional Context

3.1 The issue of overloading and the urgent need for its more effective control has been a key item for consideration by both the Southern Africa Development Community (SADC) and the Common Market for East and Southern Africa for many years. Based on extensive consultations with both public and private sector stakeholders in the SADC/COMESA region, a reform strategy for the control of vehicle overloading was developed – ***Enabling Legal Reform: Vehicle Overloading Control*** *(SATCC, 1999)* - which comprises two instruments to be annexed to the SADC Protocol on Transport, Communications and Meteorology. These are:

1 a *Memorandum of Understanding (MoU) on Vehicle Loading*; and
2 *Model Legislative Provisions (MLP) on Management of Vehicle Loading*.

In addition, a *Model Agency Contract in respect of Facilitation and Operation of Weighing Stations* has also been prepared.

3.2 The above documents constitute important reforms in overload control which respond to the most glaring shortcomings of traditional approaches and which all countries in the SADC/COMESA regions, including Zambia, are expected to adhere to when formulating their national overload control programmes.

National Programme

3.3 In September 2001, Zambia embarked on a national Axle Load Control Programme (ALCP) which was originally based on a project document entitled "*A Process Related Axle Load Control Programme for Zambia*" (Roads Department, 2001). The document was subsequently adopted by the ROADSIP Committee of Permanent Secretaries as the Action Plan for Axle Load Control in Zambia.

3.4 The original ALCP was revised in accordance with comments made in an appraisal report of April, 2002 (TOI report 568/2002), the task force of May 2002 and from other stakeholders. Specific goals, objectives and outputs were identified, and added to the programme components to the extent that they were measurable. The programme was launched in April 2004 and supported by NORAD (NOK 30 million) and the EU (Euro 2.5 million).

Objective and Scope of ALCP

3.5 As stated in the Agreement between Norway and Zambia dated June 2004, the objective of the ALCP is to contribute to:

(a) A sustainable road sector in Zambia, by a substantial reduction in damage caused by overloaded vehicles;
(b) Reduced risk for traffic accidents caused by overloaded vehicles.

3.6 The objective of the programme as per the Agreement is "To establish a robust and efficient control system with capacity to protect the entire core road network against illegal overloading."

3.7 The scope of the programme comprises the following ten inter-related components:

1. Information and Awareness Campaigns
2. Improve Organization and Procedures
3. The Legal Initiative
4. Change of Present Procedures and Training
5. Weighbridge Equipment and Sites
6. Minimize Corrupt Practices
7. Establishing a Vehicle Overload Management Information System
8. Commercialization/Privatization of Weighbridges
9. Project Monitoring
10. Project Administration and Budgets

3.8 One of the key features of the programme is its holistic and integrated nature which seeks to address the issue of overloading in a comprehensive manner. This approach avoids the pitfalls suffered in other countries which have attempted to address overload control in a piecemeal manner over an extended period of time.

Programme outputs

3.9 Each programme component has been divided into sub-components or activities, each with its own unique identity and corresponding output parameters which are shown in the implementation plan with corresponding budget figures and time schedules for implementation. The overall programme output to be measured is as follows:

1 Overloading on vehicles should reduce from more than 20 per cent to less than 5 per cent;
2 Overloading on Gross Vehicle Mass (GVM).should reduce from more than 55 percent to less than 5 per cent on.

Programme budget

3.10 The programme budget is included in the bilateral agreement between Norway and Zambia that was signed on 7th April, 2004. The Agreement specifies a financial grant not exceeding NOK 30 million to be used exclusively to finance part of the overall Programme that was estimated at NOK 50 million. The remaining NOK 20 million (€ 2.5 million) was provided by the EU. The total budget indicated in the Agreement was US$ 7,149,000 of which US$ 6,558,000 was distributed on the 10 components and the contingency of US$ 591,000 distributed amongst the various components.

3.11 The original budget of US$ 7,149,000 was amended slightly after initiation of the project to a total of US$ 7,152,336 as indicated in Table 3.1.

Table 3.1 Budget (US$)

Item No.	Component	Agreement April 2004	Implementation Plan August 2004	Increase Per cent
1	Information & Awareness	178 000	197 042	10.7
2	Organisation & Procedures	290 000	321 831	11.0
3	Legislation	115 000	127 465	10.8
4	Operation and Training	274 000	301 408	10.0
5	Weighbridges	4 240 000	4 385 211	3.4
6	Corruption Prevention	53 000	68 944	30.1
7	Management Information System	79 000	89 437	13.2
8	Commercialisation	76 000	95 254	25.3
9	Project Monitoring	183 000	207 042	13.1
10	Project Management	1 070 000	1 358 732	27.0
	Contingency	591 000	-	-100.0
Total		7 149 000	7 152 366	0.0

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Programme implementation

3.12 The envisaged implementation period for the entire ALCP was approximately four years from its defined beginning on 19 April, 2004 to its dissolution on 30 June 2008. In the event, for various reasons discussed in Section 4 of this report, all components of the programme were not fully completed according to the programme document and the EU has agreed to take over responsibility for the project as a component of the ROADSIP II framework.

4. REVIEW OF PROGRAMME COMPONENTS

Introduction

4.1 This section of the report reviews the ten main components of the ALCP in terms of the following parameters:

1 Goals and objectives
2 Planned activities and achievements
3 Implementation schedule and budget
4 Overall assessment and lessons learned

As indicated in Section 1, para. 1.7, the overall assessment of each component is rated on a scale which varies from 4 = very satisfactory/very likely, 3 = satisfactory/likely, 2.5 = just satisfactory/just likely, 2 = unsatisfactory/unlikely, 1 = very unsatisfactory/very unlikely. The final section presents various issues of concern to the overall programme.

Component 1 – Information and Awareness

Objectives

4.2 The main goal of this component was to develop an appropriate information and awareness campaign to prepare stakeholder's for the introduction of a more stringent, approach to overload control in Zambia whilst the key objectives, which are to be achieved in two successive phases, are as follows:

Phase 1: to sensitize stakeholders to the prevailing regime on overload and the need for improved enforcement practice;

Phase 2: to sensitize stakeholders to the new legislation and vehicle operations pertaining to various aspects of the new regime for overload control.

Planned Activities and Achievements

4.3 The following activities have been planned under this component to be carried out in two phases as follows:

Phase 1

1. Development and awareness campaign
2. Presentation of the campaign in the radio and newspapers
3. Visit by the Minister of Works and Supply to Norway
4. A kick-off workshop presenting the new approach to government staff - Phase 1
5. Preparation of Winding up Report – Phase 1.

Phase 2

Development and awareness campaign

1. The scope of Phase 2 comprised the same type of activities as Phase 1 except for the visit by the Minister of Works and Supply to Norway.

4.4 All the activities planned under both the first and second phases of Component 1 have been achieved with some relatively minor changes from the original Implementation and Activity Plan as follows:

1. Instead of preparing pamphlets concerning the present axle load and GVM limits and vehicle dimensions, three separate leaflets were instead prepared covering the following topics:
    - *Overloading*: Explaining the importance of the new regulations and vehicle loading (axle load and GVM) and dimension limits, the adverse consequences of overloading and the penalties for so doing;
    - *Corruption*: Highlighting the serious problems of corruption and the measures proposed for dealing with it. This pamphlet was prepared in cooperation with the Anti-Corruption Commission.
    - *HIV/AIDS:* Highlighting the dangers of HIV/AIDS and measures that should be observed to minimize this serious problem. This pamphlet was prepared, financed and co-ordinated by the National HIV/AIDS Council and distributed by the Truck Drivers Association.
2. The erection of billboards at critical points on the road network depicting the impact of overloading on road pavements with the objective of sensitizing a broad section of the general public to the adverse consequences of overloading.
3. The printing of axle load awareness pamphlets for distribution to a wide range of stakeholders informing them of a variety of aspects of the new regime for overload control.

Implementation Schedule and Budget

4.5 Implementation of Phase 1 of this component started on schedule on 2nd June 2004 and was completed by the end of September 2004 as planned. However, the second phase of the campaign was significantly delayed due to slow progress in developing the new legislation which involved protracted deliberations with the Ministry of Justice.

4.6 The initial budget for this component as planned and approved was ZMK 702,00 million while the actual amount expended was ZMK 1,225.00 million indicating an over expenditure of 74.5%.

Overall Assessment and Lessons Learned

I*mpacts*

4.7 In the absence of a post-campaign survey amongst stakeholders to establish their awareness of the aims, objectives and measures for improving axle load control in Zambia and the neighbouring region, it is difficult to quantify the extent to which the component has achieved its goals and objectives. Nonetheless, from discussions held with a small number of public and private sector stakeholders during the field visit to Zambia, it is apparent that the campaign has generally achieved its goal and objectives.

4.8 The relatively small changes made to the original Implementation and Activity Plan as indicated in para. 4.6 are considered to be justified and have enhanced the impact of this component by reaching out to a larger number of stakeholders in a more relevant manner than hitherto. When viewed

in isolation of the overall programme, the additional costs which have been incurred, especially with regard to the erection of the billboards which was not in the original plan, have been significant (+74.5%). However, the impact of this over-run on the total project budget has not been significant.

Lessons learned

4.9 The reporting of this component in terms of changes to the Implementation and Activity Plan has not been consistent. For example, in neither the Annual Report nor the RDA Preliminary Final Report (March 2009) is it stated what changes have been made compared to the planned activities and initial budgets and why actual costs differ from the budget figures.

4.10 The measurement of the impact of this component would have been facilitated by the carrying out of an appropriate post-campaign survey to establish the extent to which the goals and objectives have been achieved.

Overall assessment

4.11 The scope of work included under this component has been carried out generally as planned, with some amendments to the Implementation and Activity Plan that have enhanced its value but increased its cost significantly. Implementation of Phase 2 of the plan was delayed due to the longer than anticipated time required to draft and obtain approval for the enactment of the new legislation. The reporting of the component in terms of changes to the plan was incomplete in some respects. The manner of quantifying the achievements of the component would have been facilitated by a post campaign survey.

4.12 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 3 out of 4, i.e. as ***satisfactory***.

Component 2 – Organisation and Procedures

Objectives

4.13 The main purpose of this component was to institute improvements in the organization and execution of the ALCP as well as to improve coordination amongst stakeholder organizations whilst the goals were:

1. To involve the present weighbridge management in the introduction of a stronger commitment to following up the instituted regulations and routines and to developing a stronger commitment between the various stakeholder organizations;

2. To institute stricter enforcement practice in a harmonized manner;

3. To establish a monitoring system and defined procedures for inspecting weighbridges and evaluating their performance;

4. To train all staff involved in weighbridge operations to ensure their familiarity with the legislation and procedures.

Planned Activities and Achievements

4.14 The following activities that have been planned under this component are as follows:

1. Strengthening the organization
2. Enforcing current procedures
3. Instituting quality issues and benchmarking
4. Undertaking theoretical training

4.15 All the activities planned under this component have been achieved. In this regard, all the members of the project staff, including the weighbridge operators, were formally incorporated and fully integrated into RDA's organizational setup in 2006-2007. The Head of the Axle Load Control Unit at RDA headquarters reports to the Director of the Technical and Commercial Department. The Unit includes 1 Engineer Planning; 1 Engineer Operations; 1 Statistician and 96 Operators. The Unit has been relocated to new, fully refurbished offices in the industrial area of Lusaka in 2006. The offices are adequate for the Unit.

4.16 The Axle Load Control Unit has 96 weighbridge operators, of which 25 are women. The Unit has approved a plan to ensure that at least 30% of the weighbridge operators are women, among others by allowing women with no technical education to apply for the position.

4.17 Follow up routines, including training of staff in weighbridge operations, have been instituted for all weighbridge operators. Training is an ongoing activity. The senior operational engineer has been trained in project management at an international training facility in Dar es Salaam, Tanzania, while two weighbridge operators received their training in database design and maintenance in South Africa. Routines have also been instituted to cooperate with the Anti-Corruption Commission, the police and customs officials whenever weighbridge operations are carried out. Quality procedures have reportedly been developed and used when carrying out inspection routines for the fixed weighbridges. All weighbridges currently being used by RDA in Zambia have been assized by the Zambia Weights and Measure Agency.

4.18 An important result of activities under this component appears to be the issuing of weighbridge certificates to every loaded vehicle being weighed at the weighbridges. This certificate seems to be an effective measure for reducing overloading, making the drivers understanding the loading process and giving the Project the opportunity to countercheck weighbridge results.

Implementation Schedule and Budget

4.19 The component was scheduled for completion in April 2005. However, delays were experienced in the training of the weighbridge staff in the Northern and Eastern provinces and, as a result, the activities had to be extended to the end of June 2005.

4.20 The initial budget for this component as planned and approved was ZMK 1,143.00 million while the actual amount expended was ZMK 429.00 million indicating an under expenditure of 62.5%.

Overall Assessment and Lessons Learned

Impacts

4.21 The impact of this component has been significant, bearing in mind the situation on the ground when the project started in 2004. At that time, the Roads Department was responsible for enforcing the current axle load regulations. However, the capacity of its staff had deteriorated and the capacity to enforce axle load control was almost non-existent. The fact that all Zambian weighbridge operators were sacked shortly before the Project started had exacerbated the problem. Moreover, the ALCP started when the road management organization was in a transition from the former Roads Department to the Road Development Agency (RDA). Since then, the Project organization has been built up basically to develop regulations and an enforcement organization, which was gradually integrated into the RDA as a separate unit

Lessons learned

4.22 The very successful execution of this component of the ALCP has revealed that, even before the full complement of weighbridges has been installed, a significant reduction in overloading has been achieved (ref. the results from the baseline and subsequent surveys discussed in Section 4.9). Thus, careful consideration needs to be given to the costs and benefits from the planned substantial investment in fixed weighbridges.

Overall assessment

4.23 All activities under this component have been carried out as planned and with very good results. Capable staff have been recruited and trained into a motivated unit that is now well incorporated into the RDA and, even before the installation of the full complement of weighbridges, a significant reduction on overloading has been achieved on some of the main corridors of the road network.

4.24 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 4 out of 4, i.e. as ***very satisfactory.***

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Component 3 – The Legal Initiative

Objectives

4.25 The main purpose of this component is to amend the existing Public Roads Act - Part V for Zambia including the inclusion of the necessary legislation, regulations and statutory instruments to the Act whilst the goals are:

1. To facilitate a more efficient regulation of overloading;
2. To provide a modern and more efficient legal framework in accordance with SADC and COMESA recommendations.

Planned Activities and Achievements

4.26 The following activities have been planned under this component:

1. Examining the legislative and organisational framework for more effective and efficient weighbridge operations including giving statutory powers to the weighbridge operators;
2. Considering the possibility of legally adopting new, more appropriate vehicle configurations,

3. Drafting changes to the regulations for weighbridge operations by requiring overloaded vehicles to pay the fee and redistribute and/or off-load onto another vehicle;

4 Evaluating the existing legal framework for the operation of weighbridges in light of the recommendations from SADC for putting specific legislation into place.

4.27 All activities under this component have been substantially achieved. Parliament approved the amendments to Part V of the Public Roads Act in April 2006, and based on the amended Act, the project management team and councilors from the Ministry of Justice have prepared the subsidiary regulations to the Act which were subsequently discussed with the main stakeholders and enacted on 13 May 2007. Thus, Zambia now has in place comprehensive legislation that is a vast improvement on the previous Act. This new legislation takes account of the SADC MoU on Vehicle Loading and includes a number of trend-setting initiatives that represent a fundamental shift in approach to overload control.

Implementation Schedule and Budget

4.28 Implementation of the component commenced in 2004 and was scheduled for completion by the second half of 2005 but has been delayed for nearly two years due to the protracted length of time taken to get the new legislation approved by the Ministry of Justice. This has had a knock-on effect on the implementation of other vital components of the programme.

4.29 The initial budget for this component as planned and approved was ZMK 453.0 million while the actual amount expended was ZMK 442.0 million indicating an under expenditure of 2.5%.

Overall Assessment and Lessons Learned

Impacts

4.30 The impact of this component on the overall goal of the project is too early to determine as the amended Act has not been in place for very long. Nonetheless, the new legislation, which is the backbone of the project, can be expected to complement effectively the various other measures being put in place to achieve the overall goal of the project. .

4.31 Notwithstanding the above attributes of the new legislation, there is one issue that was not included in the revised legislation which warrants attention. This is with regard to the development of a Bridge Formula for abnormal loads which is required to protect bridges on the road network. Development of this formula requires knowledge of the capacity rating of bridges which is not yet available in Zambia and was not intended to be part of the original project framework. However, this issue is receiving the attention of the project team which hopes to develop such a formula and related guidelines based on a model from South Africa which is being produced for the SADC region.

Lessons learned

4.32 One of the main lessons learned from implementation of this component is that the process of amending any existing legislation tends to be notoriously time consuming and dependent on other parties. In hindsight, the time allowed for amending the existing Public Roads Act was too short and this impacted adversely on other vital programme components.

Overall assessment

4.33 Most of the activities under this component have been carried out as planned but there are a few aspects that, although not included in the original project framework, still require attention, including the inclusion of a Bridge Formula and the development of guidelines for dealing with abnormal loads. Once these aspects are included in the next revision of the Act, Zambia will have "state-of-the-art" legislation that is a vast improvement on the previous Act.

4.34 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 3 out of 4, i.e. as ***satisfactory.***

Component 4 – Change of Present Procedures and Training

Objectives

4.35 The main purpose of this component was to harmonies the institutional procedures with the revised legislation while installing new technical equipment whilst the goal was to increase the effectiveness of the operational procedures with the minimum of resources.

Planned Activities and Achievements

4.36 The following activities have been planned under this component:

1. Developing new weighbridge procedures for new equipment;
2. Preparing organizational adjustments for changing from fines to fees;
3. Preparing new reporting routines corresponding to the new legislation;
4. Revising the quality management system to comprise the new routines;
5. Preparing a manual for weighbridge operators covering the new legislation;
6. Preparing a training programme with a syllabus incorporating the new legislation
7. Conducting staff training;
8. Preparing and completing a new awareness campaign (see Section 4.2).

4.37 All planned activities under this component have been achieved. In this regard, the development of new weighbridge procedures for the mobile weighbridge operations was completed in 2005. The Statutory Instruments to the amended Act now contains most of the changes needed for the imposition of fees rather than fine. In addition, a syllabus for training has been prepared on which basis a new training manual incorporating the new legislation has been developed and printed as a code book. Finally, the central management team and all weighbridge operators were trained in 2007 as part of the second phase of the awareness campaign with seminars held in Livingstone, Lusaka and Ndola.

Implementation Schedule and Budget

4.38 Implementation of the component commenced in 2004 and was completed by the scheduled date of end of June 2008.

4.39 The initial budget for this component as planned and approved was ZMK 1,070.0 million while the actual amount expended was ZMK 693.0 million indicating an under expenditure of 35.2%.

Overall Assessment and Lessons Learned

Impacts

4.40 Based on a visit to one of the new weighbridges located at Kapiri/Mposhi, and assuming that the operational procedures are being carried out as effectively at other weighbridges, then it appears that the impact of this component has been positive. Not only were the weighbridge operational procedures carried out efficiently, but the operators were also knowledgeable as regards various aspects of overload control including dealing with such issues of off-loading, etc.

Lessons learned

4.41 The implementation of this component is dependent on the completion of new legislation which, because it was delayed, also had a knock-on delay effect on the efficiency with which this component could be executed.

Overall assessment

4.42 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 3 out of 4, i.e. ***satisfactory.***

Component 5 – Weighbridge Equipment and Sites

Objectives

4.43 The main purpose of this component was to replace the current mechanical scales with new electronic equipment and to install weighbridges on new sites whilst the goals were to define and develop weighbridge sites for fixed weighbridges and to procure and install both the fixed and portable weighbridges

4.44 The component comprised three different sub-component described as:

1. fixed weighbridge equipment;
2. fixed weighbridge sites;
3. portable weighbridge equipment and lay-bys.

4.45 The point of the departure when the Project was launched in 2004 was that eight fixed weighbridges were installed in the trunk road network All of these used mechanical scales, some of them between ten and twenty years of age. They would all require considerable rehabilitation and modernization to be fully operational.

4.46 The component was basically the investment part of the Project. The initial budget as established in the implementation and activity plan was ZMK 15 567 million (US$ 4,385,211) inclusive of contingencies, and accounted for 60% of the total Project budget. The nine other project components, accounting for 40% of the total Project budget, all represented the “soft” part of the Project including all technical assistance.

Planned Activities and Achievements

4.47 The following activities have been planned under this component:

1. Developing standards and specifications for new platform weighbridges;
2. Preparing tender documents for procurement of 8 fixed weighbridges, vehicles and office equipment;

3. Preparing standard layouts and plans for weighbridge sites;
4. Procurement of 8 fixed weighbridges and equipment;
5. Preparing specifications and standards for new portable weighbridges;
6. Preparation of tender documents and procurement of 8 sets of portable weighbridges.

4.48 All standards required for the new fixed weighbridges have been developed during the Project. Eight new vehicles have been procured as per the investment plan, and are situated at the fixed weighbridges and to be used for the mobile teams to accommodate traffic safety. Six sets of computerized portable weighbridges and vehicles have been procured, and the portable weighbridges are fully operational. Special designed software has been developed for the purpose of storing records. The stored information can be downloaded on the server at the RDA - HQ. This has provided a useful check on operations of the portable weighbridges.

4.49 Out of the eight weighbridges included in the Project presently only two, namely Kapiri Mposhi and Kazungula are fully operational while one weighbridge under improvements, namely Livingstone weighbridge, is substantially complete and is fully operational. An updated overview of the current status of weighbridge construction in Zambia is included in Annex D.

Implementation Schedule and Budget

4.50 Implementation of the component commenced in 2004. Implementation of this investment component of the Project met with considerable problems, both serious delays and cost overruns. It was planned that all 8 fixed weigh bridges should have been rehabilitated and staffed by the end of 2006. At the end of the Project in June 2008 only two new weighbridges had been constructed, Kapiri Mposhi and Kazungula. Renovation and rehabilitation of four weighbridges of the old mechanical type has started; Livingstone, Kafue, Solvezi and Mpika. The new weighbrides have the latest satellite computer systems that automatically transmit axle loading data to head office thus making malpractice much more difficult.

4.51 The construction of the first new weighbridge was scheduled to start in July 2005, but due to a delay in the process of land acquisition and compensation, the work fell behind schedule. Generally the process of land acquisition in Lusaka is slow, and thus the process of planning and construction of new fixed weighbridges in the Lusaka area was delayed. Also lack of competence and capacity of the local contractors has contributed to the slow progress. The Kapiri Mposhi weighbridge was commissioned on 6 February 2007. The planning and construction of the other weighbridges will continue to be carried out during the defined project extension period, assuming that funds are available.

4.52 The initial budget for this component as planned and approved was ZMK 15 567 million (US$ 4,385,211). The workshop in connection with the mid-term review in 2006 was informed by RDA that using more exact price information now available from recent tenders, the total investment budget for eight fixed weighbridges was US$ 9,930,599. It was explained by RDA as resulting from increased prices of construction materials and the fluctuations of the Zambian currency. RDA has reported that there is a short fall of more than ZMK 20 billion for the project to construct the planned weighbridge stations nationwide.

Overall Assessment and Lessons Learned

Lessons learned

RDA has explained the large difference between budget and the current estimates on three main parameters:

1. Uncertain basis for estimates at the time of budgeting (2004)
2. Fluctuation in the exchange rates ZMK/USD/NOK
3. Increase in construction prices

4.54 It has also been pointed out by the Project that the uncertain estimates of investment cost was brought up early during Project implementation. However, the review is of the opinion that the risk of an under-funding of this magnitude should have been brought more clearly to the attention of the donors at an earlier stage.

4.55 With the benefit of hindsight, it is clear that a more careful approach, involving a quality check on estimates and an assessment of the contracting industry before Project start, would have been warranted.

Impacts

4.56 Use of the portable weighbridges has provided a reliable check on the operations of the fixed weighbridges. Although not possible to quantify, it is safe to assume that the added control has resulted in less corruption.

4.57 Installation of fixed weighbridges has allowed overload control on a 24 hour basis. It has facilitated the use of Weighbridge Certificates, which is generally assumed to be a key factor in the reported reduction of overloading.

Overall assessment

4.58 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component is rated 1 out of 4, i.e. ***very unsatisfactory*** (due mainly to delays and cost overruns).

Component 6 – Corruption Prevention

Objectives

4.59 The main purpose of this component was to restore respect for vehicle overload regulations in general and to limit corruption to the extent possible in respect to axle load control However, the Agreement also includes certain obligations in terms of procurement of goods and services that have to be observed by the Project. An assessment of the procurement aspect is therefore also included in this chapter.

4.60 The importance of this component is exemplified by the fact that corruption in connection with axle load enforcement has been a continuous problem in many countries, and not only in Zambia. To avoid being checked at weighbridges drivers tend to use any and all means possible to bribe the weighbridge control authorities. There have also been cases reported where drivers of trucks have been willing to use force and violence to escape the axle load control.

Programmed Activities and Achievements

4.61 The following activities have been planned under this component to be carried out in two phases as follows:

1. Awareness campaigns directed towards the transporters, the public and Project staff, which have included three seminars, distribution of information to the press and radio, distribution of brochures, stickers and erection of highway billboards, awareness notes to weighbridge personnel and visible information at the weighbridges about permitted loads, danger of overloading, etc.

2. Staff training and awareness raising, strengthening of the central weighbridge personnel, improvement of routines, better staffing of weighbridges which now operate 24 hours 7 days a week,

3. Issuance of a weighbridge certificate at the first weighing of each loaded vehicle on a trip. This certificate has to be checked and countersigned at subsequent weighbridges,

4. Axle load controls using mobile weighbridges,

5. Involvement of the Anti-Corruption Commission, the Police and Customs in operations, control and enforcements,

6. Axle loads surveys for monitoring of overload and progress of the activities.

4.62 The Unit seems to have instituted a good working relationship with the Anti-Corruption Commission (ACC). Several meeting were held with ACC to work out the strategies to curb corruption. ACC officers are part of the team carrying out selected weighbridge operations. The mobile team that is based at the axle load control offices in Lusaka has taken over operations of a given fixed weighbridge for a period of up to 10 days to monitor the effectiveness and operation of the bridge, thus helping to reduce corruption. ACC officers throughout Zambia have trained with the new weighbridge staff, and are able to understand all the procedures in the new legislation. ACC officers were also trained in the use of the Axloop software being used at the Kapiri Mposhi weighbridge and various portable weighbridges. Several meetings have been held with ACC to work out the strategies to curb overloading.

4.63 Weighbridge operators issue weighbridge certificates to monitor the performance of their fellow operators, and the endorsement of these certificates at all weighbridges in route supports transparency and work as a deterrent to corruption. The weighbridge certificate form is contained in a paginated book, which has one original and two copies. When filled in, the original is given to the driver and the two copies are kept by the weighbridge. Key information from the weighbridge certificate is also entered into separate summary sheets. Copies of the weighbridge certificate and the summary sheets are sent to the Project Office in Lusaka for control and processing.

4.64 >From annual reports it was learned that several incidents over the past few years have been reported to ACC, and were followed up by both ACC and RDA. It was noted from the annual reports that random checks at Livingstone and Solwezi weighbridges had been carried out to ascertain the effectiveness of the weighbridge operators at these fixed installations. It was also mentioned that the mobile team had taken turns to go to various weighbridges and taking over operations for a period of

up to 10 days to monitor the effectiveness of the fixed weighbridge. It was reported that this had helped to reduce corruption at the fixed weighbridges at Solwezi, Kapiri Mposhi, Mpika and Livingstone. Joint operations with the Anti Corruption Commission were carried out. RDA prepared a report after each takeover for ACC to follow up on possible irregularities.

4.65 The new regulations allow for reporting of habitual offenders. The publishing of the names of habitual offenders has yet to begin, as it awaits the further development and testing of the vehicle overloading management system. When operational reportedly later this year, it is also an important part of the overall system that will increase enforcement and reduce corruption.

4.66 *Procurement*: The Project has made substantial procurements, mainly in connection with Component 5 Weighbridge Equipment and Sites. Such procurements are always exposed to the danger of corruption. This danger has been reduced through the use of a procurement agent. The Project has prepared the tender documents, based on which the agent has invited tenders and made recommendations based on an evaluation of these. The final commissioning was done by the Tender Board(s).

4.67 The Agreement includes in Article V Procurement a paragraph in regard to corruption. It states that all procurement shall be performed in accordance with generally accepted principles and good procurement practices, and in accordance with Zambia's procurement regulations. It states specifically that invitations to tender or to make offer as well as procurement contracts shall include a clause stating that the tender or offer will be rejected and the contract cancelled , in case any illegal or corrupt practices have been connected with the award or the execution of the contract.

4.68 In paragraph V (1) is mentioned that contracts exceeding NOK 500,000 shall be submitted to Norway for approval before entering into force. The review team was informed that procurement of contracts for weighbridges had been handled by a local consultant and that contracts exceeding NOK 0,5 million had been approved by Norway.

Implementation Schedule and Budget

4.69 Implementation of the component was scheduled to start in May 2005. However, corruption prevention is an ongoing activity and relies on the overall performance of the Project.

4.70 The initial budget for this component as planned and approved was ZMK 245 million while the actual amount expended was ZMK 466 million.

Overall Assessment and Lessons Learned

Impacts

4.71 The effect of these inbuilt anti-corruption measures, which are continuous and of a general nature, are of course difficult to assess. However, anecdotal evidence suggests that corruption has been reduced. The extent of overloading is monitored through the records from the fixed weighbridges and the mobile spot checks. A general reduction in the overloading is at the same time a good indicator of less corruption at the weighbridges. Similarly less corruption will lead to less overloading since the offenders will be caught and punished harder than what a bribe will do.

Lessons learned

4.72 As expected the main lesson learned is that strict enforcement of axle load control has a pronounced impact on corruption. And also as expected is the lesson that it is not possible to wipe out corruption once and for all. Trained staff and alert management is a prerequisite for sustained corruption prevention.

Overall assessment

4.73 The anti-corruption measures taken by the Project are in accordance with the Implementation and Activity Plan. The issuing of weighbridge certificates and the controls done by the Anti-Corruption Commission are indicators that this component has been effective. But maybe the best indicator of reduced corruption is that presently all heavy vehicles have to pass the fixed weighbridges. The operating routines built into the system, which reduce the possible interactions between operators and drivers, seem to be the most effective measure to reduce corruption. As such the weighbridge certificate appears to be a valuable measure to counter bribery since it often will be checked at more than one weighbridge, thus requiring cooperation between the weighbridges if a vehicle with a destination beyond the next weighbridge should be allowed through unlawfully.

4.74 Based on consideration of the various factors discussed above, particularly with regard to the attainment of its objectives, this component has been rated as 3 out of 4, i.e. ***satisfactory.***

Component 7 – Management Information System

Objectives

4.75 The main purpose of this component is to establish a national database system on overload control whilst the goal is to compile a nation-wide information system to back-up policy decisions and to follow-up on day-to-day activities.

Planned Activities and Achievements

4.76 The following activities have been planned under this component:

1. Develop and design a Vehicle Overload Management System (VOMS); or
2. Alternatively procure and adjust the system from the Republic of South Africa;
3. Procure and install equipment for VOMS;
4. Train staff in the use of the vehicle overload management system.

4.77 Only some activities planned under this component have been completed. These include the specification of the software for the system for the portable weighbridges for which the first version has been in operation since 2005 to date. A contract for further development and installation of the system was awarded in 2006. The development and testing of the system, which uses satellite and internet data transfer between the portable and fixed weighbridges and the central management unit database, has taken place at the first new weighbridge at Kapiro Mphoshi and has also been installed at the Kazungula weighbridge. Some training of personnel at the portable and fixed weighbridges has been carried out.

4.78 Whilst the system is working satisfactorily some changes still need to be made before the software is fully compatible with the new legislation and there is still a need to establish the necessary security precautions and reliable data exchange processes. In addition, the development of graphical formats for display of the statistics on various aspects overloading is still outstanding.

Implementation Schedule and Budget

4.79 Implementation of the component commenced in 2005 and the basic elements were completed during 2006 in accordance with planned activities of that component of the programme. However, during the verification testing of the system, new demands emerged which required the generation of new reports which incurred additional expenditure. Such refinements will in future be an on-going feature of such dynamic system that will continue to evolve if it is to meet the developing requirements of the RDA.

4.80 The initial budget for this component as planned and approved was ZMK 317.0 million while the actual amount expended was ZMK 656.0 million indicating an over expenditure of 106.9%. The reasons for the over expenditure have been explained above and the additional funds required were obtained by re-allocations within the budget frames part of the process-related approach adopted for executing the programme.

Overall Assessment and Lessons Learned

Impacts

4.81 The full impacts of the VOMS will only be realized once the scope of work is fully completed. Nonetheless, the potential impacts are likely to be significant as the system offers a number of attributes including the identification of habitual offenders and the production of various types of reports for different stakeholders such as senior management and policy makers.

Lessons learned

4.82 There has been limited experience with the use of the partially completed system as a result of which it is too early to pronounce on any lessons learned. It should also be appreciated that the VOMS is dynamic system that will continue to be fine tuned to met the requirements of the RDA for which the requisite funding will be required.

Overall assessment

4.83 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 3 out of 4, i.e. ***satisfactory.***

Component 8 - Commercialization/privatization of Weighbridges

Objectives

4.84 The main purpose of this component is to establish a new enterprise on a trial basis to carry out the overload control function at one or more weighbridges whilst the goal is to gain experience of alternative operational bodies within control and enforcement.

Planned Activities and Achievements

4.85 The following activities have been planned under this component:

1. Develop a pilot scheme for outsourcing weighbridge operations;
2. Prepare for political decisions on the principle of commercialization/privatization;
3. Prepare tender documents for outsourcing weighbridge operations;
4. Undertake annual evaluation of contract performance.

4.86 Very few of the planned activities have taken place so far implementation of this component is contingent upon the completion of other related activities such as the planned upgrading of most of weighbridges which will compete with the commercialized/privatized ones as well as the legal amendments required to introduce privatized weighbridge operations. It has been decided that the first pilot project to be tendered will be at the new Kazungula weighbridge.

Implementation Schedule and Budget

4.87 Implementation of the component should have commenced in 2005 but, for various reasons related to delays in other related activities, as described above, its completion has been included in the approved extension of the programme in 2008.

4.88 The initial budget for this component as planned and approved was ZMK 327.0 million while no expenditure has been incurred so far on this component.

Overall Assessment and Lessons Learned

Impacts

4.89 The full impact of the operation of weighbridges on a commercialized/privatized basis will only be realized after the pilot project has been underway for a few years. Nonetheless, the principle of such an operation is encouraged in the SADC Protocol on Transport, Communications and Meteorology to which Zambia is a signatory.

Lessons learned

4.90 No lessons have yet been learned from the implementation of this component.

Overall assessment

4.91 No assessment can yet be made on this component which is still to start.

Component 9 – Project Monitoring

Objectives

4.92 The main purpose of this component is to establish a bench marking system to evaluate the rate of overloading on Zambian roads whilst the goal is to determine if the axle load control programme has the assumed effect on overloading of axles and GVM in the project period.

Planned Activities and Achievements

4.93 The following activities have been planned under this component:

1 Establish an axle load baseline determination prior to main project implementation;
2 Establish yearly axle load surveys during the project period;
3 A Mid-term review to be accomplished.

4.94 The first two of the three planned activities were carried out as planned, i.e. the benchmark survey during the period 2002-2004, a benchmark test in October-November 2006 and an impact assessment survey in October 2008.

4.95 Unfortunately, the results obtained from the three surveys are not directly comparable as the type of equipment used, the number of axles measured, the number of sites surveyed, the number of

vehicles weighed, the methods used for analysis of the data and the reference load limits and allowances on both axles and GVM all differed in some questionable respect or another. Attempts were made to rationalize the results from the three surveys by the introduction of various "adjustment" factors. However, the results reported are likely, at best, to be only broadly indicative of the true situation on the ground. Nonetheless, should it be deemed necessary by the RDA management, it would still be possible to re-analyze the baseline survey data to make it comparable with subsequent surveys.

4.96 The results reported from the last, and probably best executed, survey that was carried out in 2008 at nine sites were combined to generate average statistics which indicated that the GVM limit was exceeded by 8% of all vehicles weighed whilst that for axles within the limit plus the 5% weighing tolerance was exceeded by only 3.3% of all vehicles. These figures compare with the much higher, but not directly comparable, figures reported for the baseline survey. However, it is too early to say whether such figures reported and conclusions drawn are representative of the entire country.

4.97 The manner of reporting the results (combined averages over a number of sites) tends to mask the large range of values obtained. Thus, it would be more meaningful to produce 90th percentile rather than 50th percentile (average) values for reporting on the overall incidence of overloading in the country.

Implementation Schedule and Budget

4.98 Implementation of the component should have commenced in 2004 and was substantially completed as planned by 2008.

4.99 The initial budget for this component as planned and approved was ZMK 735.0 million while the actual amount expended was ZMK 1190.0 million indicating an over expenditure of 61.9%.

Overall Assessment and Lessons Learned

Impacts

4.100 Notwithstanding the short-comings of the manner in which the various surveys were carried out and the uncertainty regarding the reliability of the results reported, it is nonetheless clear that there has been a significant reduction in the rate of overloading on the Zambian road network with just four weighbridge sites operational. In fact, the main output of the programme was achieved for axles for which the rate of overloading was reduced from more than 20% to less than 5% but not for GVM for which the rate of overloading was reduced from more than 55% to about 8% in contrast to the targeted figure of less than 5%.

Lessons learned

4.101 The key lesson to be learned from the implementation of this component is the importance of designing a project monitoring system that will produce statistically significant results in a consistent and reliable manner. This has certainly not been the case with the monitoring system employed initially on the project and more attention should have been paid to the planning of this component.

Overall assessment

4.102 Based on consideration of the various issues discussed above, particularly with regard to the attainment of its objectives, this component has been rated 2 out of 4, i.e. ***unsatisfactory.***

Component 10 - Project Administration and Budget

Objectives

4.103 The purpose of this component was to establish a project management for the entire axle load control programme capable of supervising the process. The project management was at the start of the programme responsible to the Director of Roads. When the Road Development Agency was established in 2005, the project management became responsible to the Director. All the members of the project staff, including the weighbridge operators, were formally incorporated and fully integrated into RDA's organizational setup in 2006-2007. Since then the Head of the Axle Load Control Unit at RDA headquarters has reported to the Director of the Technical and Commercial Department. The Advisor from NPRA has all the time been a counterpart to the Project Manager in a staff position.

Programmed Activities and Achievements

4.104 The following activities have been planned under this component:

1. Design Project management organization
2. Allocate financing
3. Transfer weighbridge operations to the Project
4. Training of the Project Team
5. Meetings with donors
6. Transfer project organization to RDA.

4.105 The position of Project Manager is critical for the overall success of the Project. The Project Manager was recruited from the former Roads Department. He is a civil engineer and has demonstrated the necessary qualifications for managing the Project with the technical assistance provided under the cooperation agreement with NPRA.

4.106 The Head of the Axle Load Control Unit at RDA headquarters reports to the Director of the Technical and Commercial Department. The Unit includes 1 Engineer Planning; 1 Engineer Operations; 1 Statistician and 96 Operators. The Unit has been relocated to new, fully refurbished offices in the industrial area of Lusaka in 2006. The offices are adequate for the Unit.

4.107 The project organization was established as planned. All members of the project staff, including the weighbridge operators, were formally incorporated and fully integrated into RDA's organizational setup in 2006-2007.

4.108 *Financial Management*; Findings from the aborted mid-term review carried out in 2005 included what seemed to be some justified critical comments about lack of proper Project Accounts, as called for in the Agreement. The review had observed that 18 months after Project start no proper project accounts had been prepared. The review further referred to the Agreement which states among others that the semi-annual requests for payment shall (except for the first one), "be accompanied by certified statement of accounts showing incomes and expenditures for the foregoing period, and a cash flow budget for the coming period."

4.109 When the mid-term review workshop was held in April 2006, it was learned that the Project by then had installed a computerized accounting system, which was capable of presenting up to date statements of accounts. The reasons for the unsatisfactory accounting at the beginning of the project were explained by RDA, and were mainly due to inadequate systems of accounting within RDA. The project has later purchased and developed an accounting system, Pastel Accounting, which is being used for project accounts. The staff' necessary to operate the system has been trained and the system is operational. The RDA's chief of accounting has taken responsibility to follow up the system.

Implementation Schedule and Budget

4.110 The component is a continuous part of all project activities with really no defined output, as observed by the Embassy in the Appropriation document

4.111 The initial budget for this component as planned and approved was ZMK 4 878 million while the actual amount expended was ZMK 10 507 million indicating an over expenditure of 115%. As deduced from the project budget, the main activities in this component relate to financing of the Advisor, which accounts for 78 per cent of budget. The component further includes running expenses for office, office equipment, satellite communication, staff hours at NPRA eligible to the Project and house rentals for NPRA staff. The over-expenditure is mainly attributed to the need for more assistance from NPRA than originally planned, among others for preparation of a cost accounting system.

Overall Assessment and Lessons Learned

Overall assessment

4.112 The impression gained from the review is that the Project managed to recruit competent staff that were able to implement the four year Project successfully. It is almost remarkable that the Project staff now have been integrated into a permanent establishment, the Axle Load Control Unit, within the RDA.

4.113 The accounting systems provided at the beginning of the Project up to end 2005 were not adequate. However, a computerized accounting system was installed in the beginning of 2006, which was capable of presenting up to date statements of accounts. a computerized accounting system, which was capable of presenting up to date statements of accounts. The late allocation of the government contribution to the Project has been a serious concern for the Project operation and staff, who are not paid timely. Norway has raised this issue with the government to secure that at least a part allocation is made at the beginning of each year.

4.114 Based on consideration of the above issues, particularly with regard to the attainment of its objectives, this component has been rated as 3 out of 4, i.e**. *satisfactory***.

5. REVIEW OF INSTITUTIONAL CO-OPERATION

Objectives

5.1 An agreement between the Zambian Roads Department and NPRA was signed in December 2003. The agreement provides a framework for an institutional cooperation between the Ministry of Works and Supply (MWS), Roads Department and NPRA. The objective of this agreement was to outline the areas of cooperation between MWS and NPRA and the mode of cooperation and funding, with a view to support and supplement Zambia's development efforts in the road sector, including institutional reforms. The basic goal in the cooperation was to contribute to the sustainable management of the Zambian road network. Later the RDA was established to take over the responsibilities previously under the jurisdiction of the Roads Department of MWS.

5.2 In June 2004 an addendum to the agreement was signed which states: Zambia will apply the services and capacity of the NPRA in the implementation of the Axle Load Control Programme. It was agreed to assign one full-time NPRA adviser in Lusaka to support RDA. The programme document proposes the use of other NPRA advisers within different fields of the programme. In the addendum to the agreement sub-consultancy is an option when NPRA cannot provide the expertise from within its own organization. Technical assistance to the Project provided through the NPRA cover four components:

1 Permanent Technical Advisor (TA) to the Project for all programme components
2 Information and awareness campaign
3 Enforcing present procedures and training
4 Weighbridge equipment and sites

5.3 The agreement has specific clauses regarding mode of co-operation. It is for example clearly stated that Terms of Reference for each assignment shall be prepared by the Ministry and agreed upon by NPRA. After each assignment and visit, NPRA shall prepare a report describing the activities carried out. Both ToR and visit reports have been prepared accordingly.

Overall Achievements

5.4 The technical assistance from NPRA was an essential input to the ALCP. The basic concept of an integrated approach to axle load enforcement as well as the initial planning and Project documentation for financing by Norway were to a large extent carried out by NPRA advisers. The input to the project from NPRA in the form of one long term advisor and 11 short term advisors represented in total about 529 person-weeks or about 12 person years over a period of five years and three months. They carried out a total of 34 visits during the five-year period from 2004-2008. The total cost to the Project for NPRA's services was about NOK 12.3 million, or about 25% of total project cost of NOK 50 million. The services covered all ten components. However, as expected component 10; Project Administration, represents the major part with an input of about 7 person years.

5.5 A full-time technical adviser from NPRA started his assignment in Lusaka in May 2004, and worked on the project during the entire period. He is due to end his services by the end of this year. As part of the agreement between RDA and NPRA, annual meetings (technical forums) have been held for the four-year period 2005-2008 in Lusaka, with the exception of 2007 when the meeting was held in Oslo. Monitoring the cooperation and implementation of the programme has been the main topic, but not only topic of the TF meetings.

5.6 The institutional cooperation has been strengthened by mutual visits to learn more about each other's working environment and challenges. In September 2004 and May 2006 the Director General and the Deputy Director General of NPRA, respectively, visited the project, and in February 2007 the Minister of Transport and Communications, together with the Deputy Minister and staff from the ministry and NPRA, visited Zambia and the project.

5.7 In April 2004 the Zambian Minister of Works and Supply visited Norway, together with staff from RDA. The technical forum meeting in 2007 in Oslo was combined with a study tour in Norway for staff from RDA. In August 2007 the Zambian Minister of Works and Supply, visited Norway, together with staff from RDA. In 2007-2008 an RDA employee from the axle load control unit stayed at NPRA as a Peace Corps volunteer for one year. He worked part time for the project during this period.

5.8 The aborted mid-term review had some critical observations of the institutional cooperation. However, they were based to a large extent on the assumption that NPRA was de facto responsible for project management. That was not the case, although NPRA would carry some responsibility for successes or failures as the more experienced and resourceful partner in the cooperation. It was noted that NPRA had acted on one of the recommendations from the mid-term review to strengthen the project organization at Headquarters. One engineer from NPRA was attached to the Project from mid 2006 on part time as backstopping for the long term adviser.

5.9 It was noted that in the Minutes from the Annual Meeting in 2006, paragraph 5.0 (ii) that the institutional agreement between NPRA and RDA should be revised as recommended by GICON in the report from the work shop held on 24th May 2006. However, this did not happen, apparently because a separate agreement between Norway and EU was not considered necessary.

Overall Assessment and Lessons Learned

5.10 A mid-term review workshop was held in April 2006. The workshop had a total of 17 participants representing RDA, NORAD, EU, NPRA and a local consultant. One topic for discussion was the technical assistance provided by NPRA. The workshop expressed satisfaction with the technical assistance and found that TA would still be required and should continue up to 2008 in following areas;

1 Design and supervision of weighbridges construction
2 Further development of software
3 Financial management {until RDA fully established}
4 Training and development

5.11 The workshop also expressed the view that TA should preferably be identified through direct sourcing rather than tendering process since the area of focus requires specialized knowledge and that this will lead to getting more value for money. However, a somewhat more critical view on the organizational relationship between RDA; the Project and NPRA may seem warranted. Some comments in this respect are given in the following.

5.12 The institutional co-operation agreement between RDA and NPRA is of a long term nature. It is meant to provide a framework for a long term cooperation in a number of fields. In the agreement NPRA/RDA are identified four areas; road traffic safety, management and organizational

development, road engineering and management and other consultancy support. The Axle Load Control Programme is mentioned as one topic that may be included. A Technical Forum, with representatives of RDA and NPRA is established among others to monitor the cooperation.

5.13 The long term institutional cooperation may be well suited for ad hoc assistance by Norwegian advisors, who can be drawn upon as and when required and requested. However, the author concurs with the basic views of the mid-term review that it is not suitable for a project the size and nature such as the Axle Load Control Programme. Even though the responsibility for the Project clearly lies with the RDA, the TA component is considerable. NPRA will inevitably be drawn into project decisions and will as the more experienced partner in the cooperation have to take on a considerable responsibility for the success of the Project. It was suggested following the mid-term review therefore that a separate Project Agreement should have been established between RDA and NPRA. This would also have made relations clearer vis-a-vis the main Agreement.

5.14 The Addendum of 20th June 2004 is drafted in some ways as a separate project agreement but lacks essential clauses to provide clarity on responsibility in the project. Project responsibilities could be made clearer internally in NPRA as well as in relation to RDA and ZAM-3015. For example in paragraph 5 "Subconsultant" is said that "NPRA will engage sub-consultant when NPRA cannot provide the expertise from their own organization but will need the approval from the RDA". This leaves an impression that it is up to NPRA to evaluate its own expertise. The onus for selection of expertise should be more clearly on RDA.

5.15 Comments by RDA on the aborted mid-term review also indicated satisfaction with the institutional cooperation with NPRA. It was said that it was entirely RDA's own decision to choose NPRA as the counterpart for implementing the ALCP. RDA has been pleased with the exchange of practical knowledge between the two institutions and it has been pointed to the impression that cooperation between two equal institutions would provide an environment more conducive for learning than if the TA was procured on a competitive basis and regulated in a commercial contract.

5.16 In accordance with the agreement between NPRA and RDA, invoices should be paid within 30 days. However, it was learned that at the time of the end review about NOK 3 million was not settled. The sum covered ten invoices from April 2007 up to March 2009. The NPRA found that the long delays of unsettled payments were a serious threat to the good cooperation between the two parties. The review found that unsettled payments had been followed up by NPRA in accordance with the agreed procedures and that invoices remained unpaid in spite of repeated formal reminders and informal contracts.

5.17 It is not possible for the review to assess the input by individual advisors provided by NPRA. However, based on the results achieved for the Project and the excellent working relations with RDA, the institutional cooperation component seems overall to have been very effective. The need for advisory services increased more than planned which, as a consequence, resulted in an over-expenditure of the institutional cooperation component. Based on the above it has been rated as 3 out of 4, i.e. ***satisfactory*****.**

6. OVERALL PROGRAMME ASSESSMENT

Introduction

6.1 This section of the report presents an overall assessment of the programme in terms of the following parameters:

1. Sustainability;
2. Relevance;
3. Impact;
4. Effectiveness;
5. Efficiency;
6. Risk Management;
7. Accountancy and Audits;
8. Financial Management;
9. Anti-corruption Aspects
10. HIV/AIDS and Women's' Participation

6.2 The overall assessment of the key outcomes of the of the programme was based on a scale in which the ratings vary from 4=very satisfactory/likely/high, 3=satisfactory/likely/high, 2.5=just satisfactory/likely/high, 2=unsatisfactory/unlikely/low, 1=very unsatisfactory/likely/low.

Sustainability

6.3 The sustainability of the programme will be dependent on the extent to which there will be a continuation of the benefits from the programme after the NORAD/EU development assistance has been completed as well as on the probability of continued long-term benefits.

6.4 None of the project reports reviewed address the issue of sustainability in a specific manner. In this regard, the following are some of the important sustainability issues that need to be carefully considered:

1 Is there full ownership of the programme within the RDA?;
2 Is there sufficient capability within the RDA to manage the programme after the cessation of the technical assistance?
3 Are the financial resources required to sustain the programme likely to be forthcoming from the Government?

6.5 On the issue of ownership, a number of senior staff have been intimately involved with the programme since its commencement in 2004 and, in fact, have been directly responsible for implementation of some programme components such as the annual axle load surveys. Moreover, targeted training of key staff has been carried out including training in project management for the senior operational engineer at an international training facility in Tanzania and training of weighbridge operators in database design and maintenance in South Africa.

6.6 As regards the financial resources required for sustaining the programme, it is estimated that approximately US$ 10 million will be required annually to operate and maintain the full complement

of planned weighbridges. From discussions held with the NRFA, it appears likely that such funding can be provided from the Road Fund on a sustainable basis. However, based on the government's somewhat erratic funding of weighbridge operations in the past, the issue of future finding for the programme must be an area of concern.

6.7 Based on consideration of the above issues, the sustainability of the programme has been assessed as 3 out of 4 and rated as ***likely*** on a scale which ranges from 4 = very likely, 3 = likely, 2 = unlikely, 1 = very unlikely.

Relevance

6.8 The relevance of the programme will be dependent on the extent to which the objectives of the programme are consistent with the RDA's requirements, the country's needs, regional priorities and the donors' priorities.

6.9 Based on the importance attached to overload control in Zambia's ROADSIP, there can be no doubt that the axle load programme is highly relevant from a ministerial, national and international (SADC/COMESA) perspective as well as being a priority for donor's such as Norad and EU. In fact, a reduction in road maintenance costs, an improvement in road conditions and reduction in damage to bridges and culverts, is largely dependent on the extent to which axle and GVM overloading can be controlled to the legal limits – all of which emphasize the relevance of the ALCP. .

6.10 Based on consideration of the above issues, the relevance of the of the programme has been assessed as 4 out of 4 and rated as ***very high*** on a scale which ranges from 4 = very high, 3 = high, 2 = low, 1 = very low.

Impact

6.11 The impact of the programme may manifest itself in of any of the following ways:

1 In a positive or negative manner;
2 In a primary or secondary way;
3 Directly or indirectly
4 Intended or unintended;
5 In terms of the long-term effects produced by the programme.

6.12 Because a number of components of the programme have still not been completed, it would be premature to assess the full impact of its implementation. Nonetheless, based on the results of the axle load and GVM surveys, it is apparent that a significant reduction in overloading has been achieved and is likely to be improved upon in future. This reduction in overloading may be attributable to a number of factors, including a reduction in corrupt practice. Thus, even before completion of the progarmme, it has had a significant impact of which has been achieved in a positive, primary, direct and intended manner.

6.13 Based on consideration of the above issues, the impact of the programme has been assessed as 4 out of 4 and rated as ***very high*** on a scale which ranges from 4 = very high, 3 = high, 2 = low, 1 = very low.

Effectiveness

6.14 The effectiveness of the programme is dependent on the extent to which its purpose has been achieved or is expected to be achieved. Although the programme has not been fully completed, the components that have been implemented have resulted in the partial achievement of its purpose – the reduction in axle overloading from more than 20% to less than 5%. The effectiveness of the programme can be expected to increase upon its completion

6.15 It is noteworthy that a mid-term review of the Sector Policy Support Program that was carried out by Parsons Brinckerhoff Consortium in July 2008 found that the technical assistance to the ALCP had been very effective in developing the strategic axle load control legislation, policies and systems and has very good relations with counterpart staff.

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6.16 Based on consideration of the above issues, the effectiveness of the programme has been assessed so far as 3 out of 4 and rated as ***satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

Efficiency

6.17 The efficiency of the programme is a measure of how economically the resources/inputs (funds, expertise, time, etc.) are converted to outputs. This can be assessed by examination of a number of factors including the planned budgets and expenditures for the project period from April 2004 to end June 2008 which shows that the total Project expenditure was ZMK 29 406 billion, as compared to the budget of ZMK 25 437 billion, even though expenditure on Component 5 – Weighbridge Equipment and Sites – is only partly completed. .

6.18 As described under chapter 4, and as shown in Annex D, only two of the eight weighbridges earmarked for the Project, namely Kapiri Mposhi and Kazungula are fully operational while one weighbridge under improvements, namely Livingstone weighbridge is substantially complete and is fully operational. The initial budget for this component was ZMK 15,567,500,000 or USD 4,385,211 which represented about 60 per cent of the total Project cost. The current estimate of the whole component is about USD 10, 8 million or more than double the budgeted amount.

6.19 One reason for increased cost has been identified by RDA as lack of competent contractors and lack of competition for this kind of work – factors that would be expected to form part of the risk assessment of the project. The increased cost of future weighbridge installations has had a negative impact on efficiency.

6.20 It was also noted that component 10 Project Administration and Budgets, has gone up from the budgeted ZMK 4878 bn (19% of total) to ZMK 10 507 bn (36% of total). Of this amount, about NOK 7,5 million represents cost of institutional cooperation with NPRA. The mid-term review argued that the technical assistance could have been commissioned on competitive basis. The impression of the end review, although to some extent in agreement with the mid-term review on some principal aspects of technical assistance, is that the technical assistance appears to have been efficient, although this is not easy to quantify.

6.21 Based on consideration of the above issues, the efficiency of the programme has been assessed so far as 2.5 out of 4 and rated as ***just satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

Risk Management

6.22 There are two types of risk factors mentioned in the appropriation document:

(1) *External;* (which are conditions outside the programme's control; such as war, political change, pandemics, HIV/AIDS; but which still are necessary for reaching the objectives) and include:.

1 Lack of political backup to all program components, especially anti-corruption measures;

2 Lack of government contributions and budget funding for the daily ongoing weighbridge operations;

3 Salaries not competitive with the private sector and too low to prevent corrupt practices.

(2) *Internal*; (aspects within the programme design and execution that constitute a risk and include:

1 Shortfall in establishing the project organization with competitive project management;

2 Shortfall in establishing reliable relations to the weighbridge organization, considering the traditional low level of confidence.

3 Shortfall in establishing a new, practical legal framework.

The above factors are reviewed below.

External:

6.23 Political back-up to programme components has been good, especially in regard to the cooperation with the anti-corruption authority. The fact that new legislation now is in place is proof of political backing. Other countries in Africa and elsewhere have failed to establish effective axle load enforcement as they have failed to implement an updated legal framework. There have been cases of corruption, but actions taken against the accused has been backed on political level.

6.24 Government contribution and budget funding for the daily on-going weighbridge operations has generally been forthcoming but often late in the financial year, thereby leading to problems for the Project. The possible shortfalls of financing the rehabilitation and construction of new fixed weighbridges were not mentioned among the risks in the programme document. However, the serious underfunding of investment components due partly to slow procurement procedures and the lack of capacity and capability of local contractors have had serious repercussions on the Project progress and cost. Moreover, the government contributions and funding for the weighbridge operations has been erratic. The expenditures have only temporarily covered the costs of the project,

6.25 Salaries for all RDA staff have been raised to what is considered to be a competitive level, which is in line with the current cost of living

Internal

6.26 The project organization has been established as planned. It principle, it appears that this model for organizing the axle load control programme was good. The management has been well qualified and stabile during the length of the project with the necessary authority for implementing the project.

6.27 Reliable relations within the weighbridge organization considering a traditional low level of confidence have hardly been fully tested as yet. Previously all fixed weighbridges were staffed with military personnel. These operators have been replaced. Regular visits from the central management have been carried out to monitor and train new employees, thus raising the confidence among the staff.

6.28 New practicable legal instruments have been created, though two years behind schedule. The cooperation with the Ministry of Justice has been excellent, but creating a new framework requires a lot of time and the funding needed is often underestimated – possible risk factors which, together with the problems and slow progress experienced with land acquisition for weighbridges, compensation and lack of competence of local contractors, appear to not have received adequate attention in the planning of the project.

6.29 Based on consideration of the above issues, the risk management aspect of the programme has been assessed so far as 2.5 out of 4 and rated as ***just satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

Accountancy and Audits

6.30 The mid-term review workshop in 2006 discussed some critical comments that had been issued in respect of the financial management of the project and about apparent lack of proper Project Accounts, as called for in the Agreement.

6.31 It was learned that the Project identified the shortcomings of RDA's accounting system at the start of the project in May 2004. Hence it was decided to develop a computerized accounting system tailored to the project structure with components and sub-components. The procurement process started early 2005 to develop and install a computerized accounting system capable of presenting up to date statements of accounts. A separate financial management system, 'Sage Pastel Evolution', was installed which also facilitated the inclusion of counterpart funds from the government in the established system. The installed system would eventually be adopted by RDA to cater for the whole organisation. The staff necessary to operate the system has been trained and the system is operational, though the system needs monitoring. RDA's chief of accounting has taken the responsibility to follow up the accounting system.

6.32 In accordance with the Agreement, Article VII (3), Zambia should submit to Norway an audited opinion the programme accounts not later than nine months after each financial year. It was confirmed by RDA that the audited accounts for 2008 would be submitted by end of September 2009.

6.33 Based on consideration of the above issues, the accountancy and audits aspects of the programme have been assessed so far as 3 out of 4 and rated as ***satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

Financial Management

6.34 Erratic release of funds from GRZ was of great concern during the Project. For example it was found that the Zambia contribution for 2005 was made available for the project as late as October 2005, which was of serious concern for the project and led to operational staff not being paid on time. RDA's Final Report states that the government contributions and funding for the weighbridge operations is lacking for 2007. The expenditures have only temporarily covered the costs of the project, and the Norwegian Embassy has requested an explanation. RDA has requested the National Road Fund Agency (NRFA) release ZMK 5 billion that was provided for the programme in 2007. This

matter will be addressed with the Ministry of Finance and National Planning. For the other years of the project the Zambian contributions for the weighbridge operations have been released as intended.

6.35 The Sage Pastel/BCZ system was delivered and installed by the end of October 2005. All data from day one in the Project was entered into the system. The system gives the project management an updated total summary of the detailed expenses at activity level as well as total expenses at component (section) level. The system is also used to register un-paid invoices, sorted by due date for payments in the suppliers' list.

6.36 The Norwegian contribution of NOK 30 million was disbursed over a period of three and a half years as shown in the table below. The last disbursement was made on 15th October 2007.

Table 6.1 - Disbursement of funds from the Norwegian grant:

Date	NOK
20.04.2004	14 328
20.04.2004	107 859
28.06.2004	6 950 000
03.02.2005	8 312 500
18.10.2005	4 187 500
14.12.2006	7 000 000
30.07.2007	1 750 000
15.10.2007	1 677 812
TOTAL	**29 999 999**

6.37 The project has purchased and developed an accounting system, Pastel Accounting, which is being used for project accounts. The staff's necessary to operate the system has been trained and the system is operational, though the system needs monitoring, and RDA's chief of accounting has taken the responsibility to follow up the accounting system.

6.38 The weighbridge operations and fees from permits on abnormal loads have generated an income of ZMK 8 billion (US$ 1.8 million) per year after the implementation of the new legislation. The funds have been transmitted to the National Road Fund Agency.

6.39 As reported under chapter 5 Institutional Cooperation, NPRA has not been paid in time as stated in their agreement with RDA. A backlog of more than 3 million NOK has been reported by NPRA.

6.40 Based on consideration of the above issues, the financial management aspects of the programme have been assessed as 3 out of 4 and rated as ***satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

Anti-corruption Measures

6.41 Corruption has long been recognized as a deep-rooted problem of society. Statistics prepared by Transparency International indicate that corruption is a serious problem also in Zambia. The specific problem of corruption in connection with axle load enforcement has hampered attempts of axle load enforcement in many countries, and not only in Zambia. To avoid being checked at weighbridges drivers tend to use any and all means possible to bribe the weighbridge control authorities. There have also been cases reported where drivers of trucks have been willing to use force and violence to escape

the axle load control. Component 4.6 Corruption Prevention was therefore obviously focused on this aspect of corruption. The main objective of the Project was to restore general respect for legal vehicle loading and to limit corruption to the extent possible in respect to axle load control.

6.42 In many respects, anti-corruption is a cross-cutting issue in the Project and is inculcated in many of the defined activities. In addition to the main focus, that of reducing corruption in connection with axle load enforcement, the Agreement includes certain obligations in terms of procurement of goods and services that have to be observed by the Project.

6.43 The mid-term review proposed that additional anti-corruption activities should be carried out by the Project, and suggested that a special pilot project should be implemented. It was understood that these suggestions had been reviewed by the project management, but had not been adhered to. The Project management was of the opinion that a more direct action in the anti-corruption work, as suggested by the mid-term review, could be contrary to the legal framework of Zambia.

6.44 It was found that the anti-corruption measures taken by the Project were in accordance with the Implementation and Activity Plan. The review found that the most effective anti-corruption measure would be a successful implementation of the new legislation and axle load control. The issuing of weighbridge certificates and the controls done by the Anti-Corruption Commission are indicators of effective ant-corruption work. The operating routines built into the system, which reduce the possible interactions between operators and drivers, seem to be the most effective measure to reduce corruption. As such the weighbridge certificate appears to be a valuable measure to counter bribery since it often will be checked at more than one weighbridge, thus requiring cooperation between the weighbridges if a vehicle with a destination beyond the next weighbridge should be allowed through unlawfully.

6.45 The effect of these inbuilt anti-corruption measures, which are continuous and of a general nature, are of course difficult to assess. However, anecdotal evidence suggests that corruption has been reduced since the Project started in 2004. A general reduction in the overloading is at the same time a good indicator of less corruption at the weighbridges. The extent of overloading is monitored through the records from the fixed weighbridges and the mobile spot checks and appears to have been reduced considerably.

6.46 Based on consideration of the above issues, the anti-corruption measures adopted for the programme have been assessed so far as 3 out of 4 and rated as ***satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

HIV/AIDS and Women's Participation

HIV/AIDS

6.47 HIV/AIDS is a serious problem in Zambia. Measures to meet this problem was integrated in ROADSIP I in Zambia and will be fully implemented during ROADSIP II (2004-2013). The EU mid-term review reported that the prevalence rate is now in gradual decline from around 20% of the population in 2001 to around 16% being infected in 2006. The report further concluded that there are a number of characteristics of the road sector which is of particular concern with regard to HIV/AIDS: transport service providers frequently travel for days, which is likely to result in interaction with

commercial sex workers; road workers frequently spend long periods in camps away from their families, improved and increased traffic implies more contacts between urban centers (with a high prevalence rate) and rural areas.

6.48 Following comments raised at various occasions, which pointed to a number of possible actions to enforce a better policy on HIV/AIDS, RDA has recognized the importance of integrating the overall national policy even though it is not a specific HIV/AIDS or gender project.

6.49 The Appropriation Document, approved by the Director of Norad on the 23rd February 2004 states that two issues not covered by the programme document would be taken up with MWS as soon as possible during implementation:

1 An increased participation of women at all levels, which would require specific efforts to design a gender policy and implement; and

2 HIV/AIDS awareness and education, information programmes, courses and campaigns, should as far as practicable be incorporated in all programme components

6.50 The review did not find any documents on the communication between the Embassy and the Ministry on these issues. Nevertheless, as there have been some activities in the programme on both HIV/AIDS and women's participation, it is assumed that the incorporation of these issues has been recognized both by the Ministry and the Project,

6.51 RDA has their own "HIV/AIDS workplace programme" financed by the Global Fund. Apparently all the ministries in Zambia have their own HIV/AIDS workplace programme which target all the employees in the ministries. The target group in RDA, are thus all staff included in the Project Management.

6.52 The programme will also target the weighbridge staff. The program comprises among others sensitation (provide information), peer educators, distributing of condoms and volunteer counseling. Persons responsible for the programme in RDA are also trained in testing, but the programme has not yet got resources for this from the Global Fund.

6.53 The pamphlets on HIV/Aids target the truck drivers. The Ministry of Communications and Transport coordinates the governmental, World Bank and Private Sector work on HIV/Aids issues that targets professional drivers (truck drivers, long distance drivers, minibus drivers, taxi drivers and railway personnel). The Truck Drivers Association is strongly involved in the implementation of this work. It includes a wide range of activities that more actively target the truck drivers than that of spread of information by pamphlets, such as:

1 Go to places where truck drivers spend a lot of time, such as truck drivers' camps. At the bars in these camps they talk to the bartenders and distribute condoms and information on HIV/Aids.

2 One-to-one conversations and group conversation led by old truck drivers or peer educators. These are people the truck drivers can identify themselves with and thus can make the truck drivers talk

3 Family oriented activities, such as conversations with the wives and children to the truck drivers

4 Peer educations. At the current moment there are peer educators for long distance drivers and us drivers. Peer educators for truck drivers will soon be trained as well

5 Go to remote places to get to the truck drivers that are difficult to reach

6 Truck Drivers Warning Centers. This is a shelter at border areas where drivers spend a lot of time. While waiting, they are exposed to pear educators and information and materials on HIV/Aids. In addition, condoms are distributed at these centers.

Women's Participation;

6.54 The Project management has recognized that employing women in the project, and especially at the weighbridges, may as a side-effect contribute to reducing corruption. The management reportedly is of the opinion that women might be less prone to corruption. And their experience from recent postings shows that women at the portable weighbridges have no particular problem in handling truck drivers.

6.55 The issue of HIV/AIDS and Women's Participation was not included as a separate component of the Project with its own budget. As a consequence the issue has not been reported on separately to the management or donors. In view of the clear intention in the Appropriation document, as mentioned above, it is the opinion of the review that the issue should have been lifted out of the general reporting and accounted for specifically.

6.56 Despite the many good intentions the EU mid-term review of ROADSIP II found that cross-cutting issues (like HIV/AIDS and Women's Participation) have not been adequately handled. It was said that they are not accounted for in terms of reporting and they do not appear to be part of the general management procedures for road interventions in RDA, with the exception of the general clauses in the works contract. The EU review recommended that mainstreaming of the cross cutting issues needs to have greater emphasis in both ongoing and future strategic sector support.

6.57 Based on consideration of the above issues, the HIV/AIDS and Women's Participation aspects of the programme have been assessed as 2.5 out of 4 and rated as ***just satisfactory*** on a scale which ranges from 4 = very satisfactory, 3 = satisfactory, 2.5 = just satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory.

7. MAIN CONCLUSIONS AND RECOMMENDATIONS

Main Conclusions

Relevance

7.1 The significance of the programme can not be over emphasized. There is no doubt that it will contribute significantly to the improvement of the road network in Zambia. The legislation will provide the legal backing necessary to control overloading in a firm but reasonable manner. It will also reduce the unfortunate practice that negates the enforcement process and unfair competition against those who do not practice it as a matter of policy.

Approach

7.2 The process-related axle load control programme followed by Zambia is a holistic and integrated one which has been implemented substantially over a four year period. The new approach to overload control is based on a radical overhaul of the old approach and is largely in accordance with the SADC MoU on Vehicle Loading and the Model Legislative Provisions on Management of Vehicle Loading. Zambia is expected to start reaping the benefits of its process-related axle load control programme in terms of a significant reduction in overloading in the future.

Achievements at Component Level

7.3 The overall assessment of each of the ten components was rated on a scale which varies from 4 = very satisfactory, 3 = satisfactory, 2 = unsatisfactory, 1 = very unsatisfactory. One component (Weighbridge Equipment and Sites) was rated as "**very unsatisfactory**" due mainly to the delay and overrun on cost; one component (Project Monitoring) was rated as "**unsatisfactory**"; seven components were rated as "**satisfactory**"; and one component (Improve Organization and Procedures) was rated as "**very satisfactory**". One component (Commercialization/privatization of Weighbridges) could not be rated as yet.

Institutional Cooperation

7.4 The technical assistance from NPRA was an essential input to the ALCP. The basic concept of an integrated approach to axle load enforcement as well as the initial planning and Project documentation for financing by Norway were to a large extent carried out by NPRA long term and short term advisers. RDA has commented favorably on the institutional cooperation with NPRA. RDA has been pleased with the exchange of practical knowledge between the two institutions, and would prefer direct commissioning of NPRA rather than through international competitive tendering. The review is of the opinion that it is questionable if single source commissioning could have been used today considering the current strict procurement regulations.

Cross-cutting Issues

7.5 Before the start of the ALCP the Embassy highlighted two issues not covered by the programme document; an increased participation of women at all levels, and HIV/AIDS awareness and education, information programmes, courses and campaigns, to be incorporated in all programme components. The review found that RDA has their own "HIV/AIDS workplace programme" financed by the Global Fund. The ALCP management has recognized that employing women in the ALCP, and especially at the weighbridges, may as a side-effect contribute to reducing corruption. The issue of HIV/AIDS and Women's Participation was not included as a separate component of the ALCP with its

own budget. As a consequence the issue has not been reported on separately to the management or donors. In view of the clear intention of the Embassy at the start of the ALCP it is the opinion of the review that the issue should have been lifted out of the general reporting and accounted for specifically.

Main Recommendations

Fixed Weighbridges

7.6 The very successful execution of component 2, Organization and Procedures has revealed that, even before the full complement of weighbridges has been installed, a significant reduction in overloading has been achieved (ref. the results from the baseline and subsequent surveys discussed in Section 4.9). Thus, it is recommended that careful consideration needs to be given to the costs and benefits from the planned substantial investment in fixed weighbridges.

Sustainability

7.7 From discussions held with the NRFA, it appears likely that such funding can be provided from the Road Fund on a sustainable basis. However, based on the government's somewhat erratic funding of weighbridge operations in the past, the issue of future finding for the programme must be an area of concern. It is recommended that RDA should work out a plan for future financing of weighbridge operations.

Financial management

7.8 There have been long delays of unsettled payments to NPRA which pose a threat to good relations between NPRA and RDA. It is therefore recommended that RDA should pursue measures to ensure that NPRA is paid timeously, as per the agreement between the two organisations.

REFERENCES

Lauridsen, H. and Bishanga, H.K.S. (2002): ***Zambia Axle Load Control Programme – An Appraisal***. Oslo. Institute of Transport Economics, TOI Report 568/2002.

Roads Department (2001): ***A Process Related Axle Load Control Document. Final Document***. Lusaka. Roads Department, October 2001.

SATCC (1999): ***Enabling Legal Reform: Control of Vehicle Loading.*** Third Draft, March 1999.

SATCC (1999): ***Model Legislative Provisions on Management of Vehicle Loading***. Third Draft, March 1999.

World Bank (1997): ***Staff Appraisal Report – Republic of Zambia Project to support a Road Sector Investment Program.*** Washington, D.C., World Bank, September 1997.

World Bank (2004): ***Project Appraisal Document – Republic of Zambia. Road Rehabilitation and Maintenance Project in support of the First Phase of the ROADSIP II Program.*** Washington, D.C., World Bank, 13 February 2004.

ANNEXES

Annex A – Terms of Reference

End Review of the Axle Load Control Programme ZAM-3015

1. **Background**

The Axle Load Control Programme for Zambia was launched in April 2004, with a budget of NOK 50 million (USD 7.2 mill). The financial plan consisted of a grant amount of NOK 30 mill from Norway, according to the Agreement between Norway and Zambia regarding Assistance to Axle Load Control Programme. In addition, the European Commission (EC) supported the programme with € 2.5 mill (approx. NOK 20 mill). The programme budget consisted of an investment component of USD 4.3 mill and a Technical Assistance (TA) component budgeted to USD 2.9 mill. The Norwegian TA is regulated through the Agreement between the Ministry of Works and Supply and the Norwegian Public Roads Administration of November 2003, with an Addendum of June 2004.

The Government of Zambia adopted a National Transport Policy in 2002, which has a strong impact on the management of the road sector with the setting up of three road agencies, including the National Road Fund Agency (NRFA), the National Road Development Agency (RDA) and the Road Traffic and Safety Agency (RTSA). At the same time the Government also launched the second phase of the Road Sector Investment Programme (ROADSIP II) covering the period from 2004-2013. The ROADSIP II constitutes the overarching framework of all interventions in the road sector by combining a comprehensive approach to investment for rehabilitation and maintenance with policy and institutional reforms.

The Axle Load Control Programme became an integral part of ROADSIP II during 2007. The ROADSIP II Steering Committee adopted the overall steering and supervisory function for the programme. Cooperating Partners were invited to quarterly Steering Committee meetings. The agenda for these meetings was the quarterly ROADSIP II progress reports submitted to the Cooperating Partners by the NRFA.

Through letter of 17 October 2007 from the Embassy to the European Commission in Lusaka (the EC), Norway requests the EC to assess relevant reports required under the programme and give its opinion to the Embassy. By the end of 2007 the Norwegian financial component of the programme was finalized, with the last disbursement in December 2007.The last annual meeting on the Axel Load Control Programme between the Norwegian Embassy in Lusaka ("the Embassy") and the Government of Zambia was held in May 2008.

2. Purpose of the review

The purpose of the end review is:

- To identify the results of the programme and assess if they are in accordance with the agreement (including institutional agreement with addendum), plans and budgets

- To assess the implementation of the programme as well as whether conditions and responsibilities set out in the agreement (incl. institutional agreement with addendum) and the programme document are fulfilled. Special attention should be given to deviation that could have been foreseen and handled by the parties during the programme period and to lessons learned relevant for future development co-operation between Zambia and Norway or other Cooperating Partners

- To "take stock" of the programme, and assess which programme components, if any, could be regarded as fully completed and which ones would require future attention and follow up under ROADSIP II

3. Scope of the review

The following issues are to be addressed by the consultant(s):

- Sustainability; Identify and assess major factors that would have an impact on the sustainability of the future axle load control in Zambia, including *inter alia* financing of operations and organization
- Relevance;
  - i. Assess if the Programme has been relevant to the development of the Zambian road sector
  - ii. Assess if the programme objectives have been fulfilled
  - iii. Assess if the planned outcomes have been achieved
- Impact;
  - i. Assess the likely short term and the long term effects of the activities carried out
  - ii. Assess the impact of transferred knowledge to the concerned Zambian personnel
  - iii. Assess to what extent environmental and cross-cutting issues like gender issues have been addressed
- Effectiveness and efficiency;
  - i. Assess effectiveness and efficiency of the Norwegian support
  - ii. Identify and define reasons for delays, budget overruns or any unforeseen constraints in the implementation of the Programme
- Risk Management; Identify future risks to the axle load control activities in Zambia, including lack of personnel and funds
- Accountancy and Audits; Assess the accounting and audits that have been carried out for the Programme
- Financial Management, including anti-corruption measures; Assess to what extent such measures have been in place, and the possible outcome of those
- Identify Lessons Learned

To the extent possible the review should draw upon earlier reviews within ROADSIP II, and outcome of programme seminars and donor mission's reports.

4. **Implementation of the review**

The end review should be undertaken June 2009. The consultant is assumed to spend maximum two weeks in Zambia in addition to preparatory work and finalization of the report. The review shall be undertaken by a review team or a consultant with broad international experience and preferably with know how within the field of overloading control. The Embassy and the RDA shall have 'no objection' to the selected Consultant. The consultant(s) will have access to all relevant documents at the Embassy and in the Government and the road agencies. A draft report shall be delivered within 10 days after the work undertaken in Zambia. The Embassy, the RDA, and other parties shall provide comments to the consultant(s) within 10 days thereafter, and the final report shall be presented no later than 7 days thereafter.

Qualification of Staff

The Consultant shall be an international expert in the field, have knowledge of the road sector and local context in Zambia, and experience from similar assignments.

5. **Budget**

Budget post	No.	Rate, NOK	Total, NOK
Air tickets international and national:	1	15,000	15,000
Travel allowance, compensation	14 days	850	11,900
Hotel	14 days, max	2100	29,400
Fee travel	2 weeks	*	
Fee home office	3 weeks	*	
TOTAL			

*To be filled in: Weekly rate in NOK
Above numbers of weeks are estimates.
Final budget is to be proposed by the Consultant in the proposal.

6. Reporting

The consultant is assumed to spend maximum two weeks in Zambia in addition to preparatory work and finalization of the report. A draft report shall be delivered within 10 days after the work undertaken in Zambia. The Embassy, the RDA, and other parties shall provide comments to the consultant(s) within 10 days thereafter, and the final report shall be presented no later than 7 days after receiving comments.

A summary with main findings and lessons learned shall be included in the final report.
The final report to shall be sent to Norad and the Embassy in electronic format, in English language.

7. Some Background documents

Project Document
Zambia National Transport Policy in 2002
Appropriation Document
Agreement Norway and Zambia of April 2004
Agreement NPRA and MoW&S of November 2003, with Addendum of June 2004
Mid Term Review 2006
EC's Programme review 2007

Annex B – List of Institutions and People Met

Ministry of Works and Supply
Lt. Col. Bizwayo N. Nkunika, Permanent Secretary

Norwegian Embassy
Ms Tori Hoven , Deputy Head of Mission
Mr. Gilbert Chinyama Kalyandu, Financial Quality Controller

National Road Fund Agency
Mr. Raphael Mabenga, Director and CEO
Mr. Stephen N. Mwale, Accountant – Road Fund

Road Development Agency
Mr. Nason Balashi, Assistant Director (Operations)
Mr. Jairos C. Mhango, Project Manager, Axle Load Control Project
Mr. Cosmas Lungu, Senior Operations Engineer, Axle Load Control Project
Mr. William Phiri, Human Resources Officer
Mr. Derrick Lubasi, Officer in Charge, Kapiri Mposhi Weighbridge
Ms. Peggy Mwande, Opeator, Kapiri Mposhi Weighbridge

Mr. Jan Tore Odd, Technical Adviser, Axle Load Control Project

Federation of Road Hauliers (FEDHAUL)
Mr. Roland Norton, Chairman

European Union, Delegation of the European Commission in Zambia
Mr. Juergen Kettner, Head of Infrastructure

Norwegian Public Roads Administration (NPRA)
Ms. Marit Due Langaas, Director International Affairs
Ms. Sigrun Sørensen, Desk Officer Zambia, International Affairs

ANNEX C: List of Documents Reviewed

1. The Public Roads Act, 2002. (An Unofficial Consolidation)
2. Statutory Instrument: Public Roads (Maximum Weight of Vehicles) Regulations, 2007
3. Documentation from the Project Period 2004-2008; Milestones for Extension of the Axle Load Control Programme for Zambia 2008-2010 (RDA)
4. Quarterly Reports 2008, Annual Report 2008 (RDA/NPRA)
5. Technical Forum Meetings 2005, 2006,2007
6. ALCP Implementation and Activity Plan Limited Version (2004 -2008) (RDA/NPRA)
7. ALCP Preparations for and contributions to the Mid TERM Review Workshop on 25th April 2006
8. Appraisal of the Zambia Axle Load Programme; Lauridsen/Bishanga, 2002
9. ALCP Final Project Report; RDA/NPRA, March 2009
10. Agreement between Norway and Zambia; 7th April 2004
11. Agreement between MWS (Roads Department) and NPRA on Institutional Cooperation; November 2003
12. Addendum to Agreement between MWS (Roads Department) and NPRA; June 2004
13. ALCP Implementation and Activity Plan extended Version; 19th April 2004 -30th June 2008
14. ALCP Status Report on Information and Awareness Campaign, I.L. Sagmo, August 2006
15. ALCP Annual Reports 2004 - 2008
16. ALCP Training Programme; RDA
17. The legal initiative; PP Presentations by J.T.Odd, 2nd April 2007
18. The Economic Impact of Enforcing Axle Load Regulations; Møreforskning /NPRA, September 2008
19. Financial Reports 2004-2008; RDA
20. Axle Load Baseline Study 2002-2004; Benchmark Test Oct-Nov 2006; Impact Assessment Survey October 2008; NPRA/RDA
21. Operating Instructions for HAENI Wheel Load Scales WL 101
22. Mid Term Review of SPSP by A. Andreski (Parson Brinckerhoff Consortium) et al., July 2008
23. Zambia Transport Policy, MCT,

ANNEX D: Status Report Weighbridge Construction By RDA

ROAD DEVELOPMENT AGENCY

AXLE LOAD CONTROL PROGRAMME

STATUS REPORT WEIGHBRIDGE CONSTRUCTION

1.0 INTRODUCTION

The weighbridges that have been earmarked for construction and improvement ara as shown below;

Construction

i. Kapiri Mposhi

ii. Kazungula

iii. Masangano

iv. Great East Road

v. Chingola Kasumbalesa

vi. Mumbwa

Improvements

I. Kafue

II. Livingstone

III. Solwezi

IV. Mpika

All in all ten weighbridges have been earmarked for construction and improvements on the entire road network. Out of the ten weighbridges two of the weighbridges namely Kapiri Mposhi and Kazungula are fully operational while one weighbridge under improvements, namely Livingstone weighbridge is substantially complete and is full operational.

The details of the status of the weighbridge construction and improvement are as shown in the table 1, 2, 3 and 4;

Table 1. **WEIGHBRIDGE CONSTRUCTION FUNDED BY NORAD/EU**

Item	Contractor / Consultant	Nature of Works	Contract Amount	Progress
a	**KAPIRI MPOSHI WEIGHBRIDGE**			
	Contractor: Turner Construction	Construction of new weighbridge station	3,398,111,576.16	
	Consultant: Bicon Zambia Limited	Design Review and technical and financial supervision	295,150,000.00	
	Total Amount(ZK)		**3,693,261,576.16**	
b	**KAZUNGULA WEIGHBRIDGE**			
	Contractor: Turner Construction	Construction of new weighbridge station	3,689,025,181.00	
	Consultant: Bicon Zambia Limited	Design Review and technical and financial supervision	309,983,800.00	
	Total Amount(ZK)		**3,999,008,981.00**	

C	MASANGANO WEIGHBRIDGE			
	RDA/NPRA	Preliminary Design	103,000,000.00	
	Total Amount(ZK)		**103,000,000.00**	
c	**NEW KAFUE WEIGHBRIDGE**			
	RDA/NPRA	Detailed design		
	Total Amount(ZK)			

Table 2: WEIGHBRIDGE IMPROVEMENTS- FUNDED BY NATIONAL ROAD FUND AGENCY

Item	Contractor / Consultant	Nature of Works	Contract Amount	Progress
a	**LIVINGSTONE WEIGHBRIDGE**			
	Contractor: Mango Tree Construction Ltd	weighbridge construction	2,073,865,101.00	
	Consultant: Zulu Burrow Limited	Technical and financial supervision	233,624,000.00	
	Total Amount(ZK)		**2,307,489,101.88**	
b	**MPIKA WEIGHBRIDGE**			
	Contractor: Mango Tree Construction Ltd	weighbridge construction	3,748,593,256.33	
	Consultant: East Consult/BNC	Technical and financial supervision	451,435,000.00	
	Total Amount(ZK)		**4,200,028,256.33**	
c	**SOLWEZI WEIGHBRIDGE**			
	Contractor: Mango Tree Construction Ltd	weighbridge construction	3,226,440,194.00	Works are in progress. The installation of the weighbridge will be carried out in first week of October 2009
	Consultant: Ng'andu UWP	Technical and financial supervision	595,764,400.00	
	Total Amount(ZK)		**3,822,204,594.00**	
d	**KAFUE WEIGHBRIDGE**			
	Contractor**:** Gabmans Z Ltd	Weighbridge construction	2,196,163,024.00	Contract terminated. The process to engage a new contractor in progress.
	Consultant: E.G.Petit	Technical and financial supervision	125,727,467.50	
			2,321,890,492.00	

Table 3: WEIGHBRIDGE CONSTRUCTION FUNDED BY DANIDA

Item	Contractor / Consultant	Nature of Works	Contract Amount	Progress
a	**MUMBWA WEIGHBRIDGE**			
	Contractor: Mango Tree Construction Ltd	Weighbridge construction on Lusaka Mongu	Awaits tendering process	
	Consultant: Zulu Burrow Limited	Detailed design and financial and Technical Supervision of the works.	872,900,215.00	
	Total Amount(ZK)		**872,900,215.00**	

Table 4: WEIGHBRIDGE CONSTRUCTION FUNDED BY WORLD BANK

Item	Contractor / Consultant	Nature of Works	Contract Amount	Progress
a	**GREAT EAST ROAD WEIGHBRIDGE**			
	Contractor:	Weighbridge Contsruction	Awaits tender process	
	Consultant:	Detailed design and technical and financial supervision	Awaits award of contract	
	Total Amount(ZK)		**2,307,489,101.88**	
b	**CHINGOLA KASUMBALESA WEIGHBRIDGE**			
	Contractor:	Weighbridge Construction	Awaits tender process	The technical evaluation for the short listed consultants has been carried and awaits authority to open financial proposals so that the combined technical and financial evaluation can be carried out. ZWK 4,000,000,000.00 has been provided in the 2009 Annual Work Plan.
	Consultant:	Detailed design and technical and financial supervision	Awaits award of contract	
	Total Amount(ZK)			

		COST	FUDING
1	KAPIRI MPOSHI WEIGHBRIDGE	3 693 261 576	Norad/EU
2	KAZUNGULA WEIGHBRIDGE	3 999 008 981	Norad/EU
3	MASANGANO WEIGHBRIDGE	103 000 000	Norad/EU
4	NEW KAFUE WEIGHBRIDGE		Norad/EU
5	LIVINGSTONE WEIGHBRIDGE	2 307 489 101	
6	MPIKA WEIGHBRIDGE	4 200 028 256	Norad/EU
7	SOLWEZI WEIGHBRIDGE	3 822 204 594	Norad/EU
8	KAFUE WEIGHBRIDGE	2 321 890 492	Norad/EU
		20 446 883 000	**Norad/EU**
9	MUMBWA WEIGHBRIDGE	872 900 215	Danida
10	GREAT EAST ROAD WEIGHBRIDGE	2 307 489 101	WB
11	CHINGOLA KASUMBALESA WEIGHBRIDGE	4 000 000 000	WB
		6 307 489 101	**WB**
	TOTAL	27 627 272 316	