

**REPORT OF THE ORDINARY GENERAL ASSEMBLY  
AND WORKSHOP OF THE AFRICAN ROAD  
MAINTENANCE FUNDS ASSOCIATION (ARMFA)  
NAIROBI, KENYA  
10 TO 12 NOVEMBER 2004**

**EXECUTIVE SUMMARY**

The 2<sup>nd</sup> regular African Road Maintenance Funds Association General assembly and Workshop organized by the Kenya Roads Board under the patronage of the Ministry of Roads and Public Works (Kenya) in collaboration with the Sub-Saharan Africa Transport Policy Program (SSATP) was held in Nairobi, Kenya from the 10<sup>th</sup> to the 12<sup>th</sup> of November 2004.

The following nineteen countries were represented:

Benin, Burundi, Cameroon, Central Africa Republic, Chad, Ghana, Kenya, Lesotho, Malawi, Senegal, Tanzania, Togo, Uganda, Zambia, Zimbabwe, Ethiopia, Guinea, DRC, Namibia and Madagascar.

Guinea, DRC, Ethiopia, Uganda and Namibia attended as observers but Guinea was admitted as a full member during the general assembly.

The objectives of the General Assembly and the Workshop were inter alia:

- Presentation of the Activity Report of the Executive Bureau (EB) of ARMFA,
- Consideration and adoption of the draft Internal Regulations of ARMFA (Prepared by the Executive Bureau).
- Deliberations on other routine ARMFA matters e.g.
  - Admission of new members
  - Review of membership contributions
  - Selection of venue of the 2005 General Assembly
- Sharing experiences in a Workshop for Road Fund managers, selected Road Authority managers and other road sub-sector stakeholders. The theme of Workshop was “*Performance Criteria, Monitoring and Evaluation of execution of Road Maintenance Works*”.

The programme for the General assembly and workshop is included in the annex

**OPENING CEREMONY**

The opening ceremony was graced by Kenya’s Minister for Roads and Public Works, Hon. Eng. Raila A. Odinga. In his keynote speech, the Minister stressed the importance of reforms in the roads sector and the relevance of the four RM1 building blocks. The Minister informed the gathering that Kenya had decided to embrace Public Private Partnership (PPP) and had made progress towards concessions one of its road links, i.e. the Machakos Turn-off to Rironi road which includes the Nairobi

Southern by-pass and is part of the Northern Corridor road between Mombassa to Lagos.

Before the Hon. Minister's keynote address, the CEO of KRB (Eng. I.K.W. Mutonyi), the Chairman (Eng. S.N. Otonolo), the President of ARMFA (Mr. Assiba Amoussou Guenou) and the PS, MOR&PW (represented by Eng. C.F. Kiranga [E-I-C]) made brief welcoming remarks.

## **THE TECHNICAL WORKSHOP**

The technical workshop was held on the first day in three sessions chaired by Prof. F.J. Gichaga (University of Nairobi, Kenya), Mrs. Rose Mang'anya (Chairperson, Tanzania Road Fund) and Eng. P. Ssebanakitta (Road Agency Formation Unit, Uganda) respectively.

The following eight themes were covered in the presentations and debated/discussed during the plenary sessions:

- i) Performance Based Management
- ii) Monitoring and Evaluation of Works
- iii) Operations of Kenya Roads Board
- iv) Corruption and the Roads sector
- v) Internal Control Procedures; the Road Works Inspectorate
- vi) Technical and Financial Audits
- vii) Axle Load Monitoring and Control
- viii) Cross-Border Overloading

A brief summary of the presentations and the debates/ discussions is captured here below:

### **SESSION 1**

#### **1. Performance Based Management** (presented by Mr. Stephen J. Brushett, Thematic Leader for Road Management and Finance, SSATP)

In the presentation, Mr. Brushett highlighted the following:

- Performance Based Contracting (PBC) facilitate the efficient management of road networks through timely intervention for asset preservation, focus on outputs, transfer of risks to private sector etc.
- Many countries have tried PBC with varying degrees of success. Example include Canada, Argentina, Australia and New Zealand
- PBC have resulted in cost savings and sustained service level in most cases
- PBC fit well with network approach to managing roads and to the programme lending approach which is increasingly being adopted by Development partners. Payments based on outputs i.e. agreed service levels
- Case Study of Chad, 440 km of unpaved roads put under a 4 year PB maintenance contract since April 2001. Contract includes Management and Maintenance, reconstruction of drainage and emergency works.

After 2½ years, Road users, Road administration and Road fund are happier than without the PBC

- PBC is working well in many parts of the world and can work in Africa. There are some prerequisites for success.

## **2. Monitoring and Evaluation of Works (Eng. H.B. Njuguna, ESAMI)**

The highlights of the presentation were:

- Monitoring and Evaluation is, but one of the components of the road maintenance cycle process
- Monitoring and Evaluation framework for Performance Based Road Management and Maintenance (PBRM&M)
- Roles of Contractor and Employer in PBRM&M Contracts were clarified. Contractor ensures agreed service levels are maintained while Employer verifies that the service levels are indeed maintained
- There are six important pre-requisites for successful introduction of PBRM&M system including secured finances, proper definition of geographic scope, a complete Road Inventory and Condition database etc
- An example of a step by step methodology of undertaking Monitoring and Evaluation was discussed
- Brief description of World Bank sample Bidding Documents for procurement of PBRM&M contracts

## **3. Operations of the Kenya Roads Board (Eng. I K W Mutonyi, CEO, KRB)**

In his presentation, Eng. Mutonyi highlighted the following:

- Kenya's population is 32 million in an area of 592,909 sq. km
- main foreign exchange earners : Tea, Tourism, Coffee and Horticulture
- KRB established by Act of Parliament in 1999. Has 13 directors, 8 from Private and 5 from public sector
- KRB's Mandate is to oversee the road network and thereby coordinate its development, rehabilitation and maintenance
- KRB delivers road works through 3 Road Agencies and 6 Road Sub-Agencies
- Total available funding for both development and maintenance approximately KShs 22 billion annually, equivalent to 275 million US\$
- Road Network length approximately 180,000 km
- Road Sector faces many challenges including a huge backlog of maintenance budget, incomplete reforms and overloading.
- Way forward includes identification of alternative sources of funding, completion of reforms and development of appropriate Performance Indicators.

### **Discussion on Session 1 presentations**

The following points emerged from the discussion:

- Stronger contract management knowledge in contractor organisations than in employers' (ministries') organizations
  - Employer's staff must be thoroughly familiar with contract documents
  - Need to manage special loads (extra wide, high and heavy goods)
  - Role of contractor in Axle Load Control Vs statutory requirements
  - Handling of escalation of prices in PBC dependent of risk sharing regime in the contract
  - What performance indicators can be used and what method will be used to monitor and evaluate performance
  - Although there is weak capacity in many roads' ministries in Africa, this should not stop PBC.
  - Axle Load Control Regime needs to be in place for PBC to succeed
  - Need to set achievable targets
  - TORs for key players must be very clear
  - Procurement process must be able to deliver the best contractor available in the market
- KRB is very strong going by the KRB Act. There is a potential for conflict with the parent ministry.
  - Each of the organizations that nominate candidates for appointment to KRB Board nominates three in a priority order. The Minister normally appoints the highest ranked candidate to the Board.
  - MOR&PW deals with policy, KRB with funding and auditing, while the Road Agencies deal with the delivery of road works.
  - The broad ceilings for allocation of funds are stated in the KRB Act.
  - Toll gates were introduced in Kenya in the 1980's but were withdrawn due to management and equity problems. Only transit toll gates were retained when the RMLF was introduced.

## SESSION 2

### 4. **Corruption and the Roads Sector** (Laila Macharia, Senior Regional Advisor, USAID, REDSO)

The main highlights of the presentation were:

- Roads as exemplified by the Northern Corridor are the engine of growth for the economy
- Corruption adds an extra unnecessary "tax" on transport costs and therefore increases the cost of doing business
- Areas where corruption can occur in the roads sector include the selection of new roads, contractors and consultants, management of Road Funds and actual construction process
- There is a proposed forum on corruption scheduled for March 2005 in Rwanda. The forum will facilitate consultations on the best practices to fight corruption.
- All road sector players from the region are invited to the forum.
- Transparency International has developed a tool called Integrity Pact (IP) aimed at preventing corruption in public procurement

**5. Internal Control Procedures; Road Works Inspectorate** (Eng. C.F. Kiranga, E-I-C, MOR&PW, Kenya)

The presentation covered the operations of the Road Works Inspectorate (RWI) unit in Kenya's MOR&PW. The highlights were:

- Formed in 1997 at the height of corruption allegations against the Ministry
- Main objective is to ensure that road construction and maintenance resources are consistently applied for the intended purpose and in an efficient and transparent manner
- Mandate of the RWI includes providing top management with advice and unbiased information on all roads related activities
- Audit types covered include Technical, Financial, Performance, Road safety and environmental Audits
- Typical Findings include poor documentation of projects, inappropriate delivery methods and poor contract administration
- Recommendations include training at all levels and the adoption of modern IT systems for road management (Road Management Systems)

**6. Technical and Financial Audits** (Mr. Joseph O. Haule, CEO, Tanzania Road Fund)

The paper covered the experience of Tanzania's Road Fund Board in Technical and financial Audits. The highlights:

- Tanzania is the largest country in East Africa and has a population of about 34 million in an area of 945,087 sq. km.
- Its economy is based on agriculture although tourism plays a big role. Has a GDP of US\$ 9,447 million.
- Total road network is 85,000 km
- The Road Fund Board (RFB) has 9 members from both public and private sectors
- RFB required to monitor use of fund by law
- Monitoring done through progress reporting, visiting Road agencies offices and project sites and through Technical & Financial audits undertaken by private consultants
- RFB is required by law to enter into performance agreements with Road Agencies and has done so with TANROADS, Ministry of works (MOW) and the office of the President, Regional Administration and Local Government (PORALG)
- Financial audits carried out by the National Audit Office (NAO) on 100% of funds used by RFB, MOW, PORALG and TANROADS
- Technical Audits are done by engineering consulting firms under delegated powers from the NAO. A 20% sample is covered by the Technical Audits which currently cover only maintenance works

**7. Axle Load Monitoring and Control** (Eng. F.G. Ngachu, Ag. Chief Engineer, Roads, MOR&PW, Kenya)

Eng. Ngachu highlighted the following.

- Axle Load Controls necessary because roads are designed to carry a certain maximum load
- Although overloading has short term benefits for transporters, it causes rapid deterioration of roads thus increasing Vehicle Operating Costs (VOCs). In the long run, transporters pay more in terms of VOCs, while the Government pays dearly in terms of huge repair bills.
- In the long run, Axle Load Controls beneficial to both Government and Transporters
- Axle Load Controls in Kenya started in the 1970's but with minimal impact. Amendments in the Traffic Act supported by more weighbridge equipment in the 80's failed to reduce overloading
- Significant impact was only achieved in the late 90's due to dialogue with transporters and to deployment of mobile weighbridges
- There are 5 static and 7 mobile weighbridges in Kenya. These cover about 60% of the tarmacked road network
- Axle Load limits and Vehicle dimensions conform to the COMESA Axle Load regime
- Many challenges encountered in Axle Load Control including congestion at weigh stations, lack of specialized cargo handling equipment, long court process and obsolete equipment
- Way forward includes amendment to Traffic Act, upwards revision of penalties and replacing the court process with an administrative one

## **8. Cross Border Overloading (Mr. Kingsford Amoah, CEO, Ghana Road Fund)**

Key points were:

- Ghana's location on the West African coast results in a lot of transit traffic which contributes to overloading problem
- Overloading is prevalent in Ghana
- Ghana seeks to be the gateway to the landlocked countries in West Africa
- The relationship between overloading and the damage caused is exponential as demonstrated by Liddle's formula  $\{Fe = (P_1/P_2)^n\}$
- Ghana's roads are designed on the basis of a 13 ton Standard Axle
- Legal Axle Load Limit in Ghana (10 tons) differs with limit of neighbouring countries (11.5 tons)
- There are 6 permanent weighbridge stations in Ghana. Another 16 are planned for. The long term goal is to have a total of 28 weighbridges in the country
- A three pronged approach to improvement has been adopted covering education, enforcement and harmonization with ECOWAS limits
- A very memorable series of photographs showing overloaded vehicles on Ghana's roads concluded the presentation

## **Discussion on Session 2 presentations**

Some of the issues that emerged are:

- There were concerns on whether Africa was winning the war against overloading
- The overloading fines in Ghana are not punitive enough to be a deterrent
- Overloading fines have been reviewed in Zimbabwe to make them more deterrent
- Overloading fines should be tied to the distance travelled by the offending vehicle
- The relationship between overloading and damage to the road is exponential. The curvature of the exponential (the value of “n” in liddle’s formula) varies between 1 and 6 depending on the road pavement status. Most countries adopt “n” values between 4 and 4.5.
- Some members felt that the technical presentations were not suitable for Road Fund meetings
- The need for harmonization of Axle Load Limits in the East African Community was recognised almost 20 years ago.
- Lessons on how to deal with professional misconduct can be learnt from Tanzania

## **SESSION 3**

During this main plenary session, Mr. Lawrence Kiggundu made a presentation on Axle Load Limits in Namibia. This was followed by more discussion on the papers presented during the day.

Key points:

- Namibia’s national road network is 46,000 km long, 5,500 are paved to bitumen standard
- Average age of bitumen roads is 25.8 years and the network is, on average, serving beyond the design life
- In 2001, average rate of overloading was 28% equivalent to an annual cost of US\$ 5.2 million
- Namibia therefore developed an overload Control strategy
- Southern Africa Development Community (SADC) has also identified overloading as a priority area requiring urgent attention
- Namibia has 3 overload control zones on the trunk road network within which 12 strategic weighbridge sites have been selected.
- Currently, 3 Weighbridges are operational
- Weighing statistics (April 2002-January 2003) show a reducing trend in overloading
- Inspections required in Kenya delay payments for work done leading to claims
- Language barrier a stumbling block in Ghana’s Axle Load enforcement efforts
- There is need for harmonisation of Axle Load Limits and to anchor the controls in Government policies

## **THE GENERAL ASSEMBLY**

The second day was dedicated to 2nd regular General Assembly (GA).

Mr. Assiba AMOUSSOU GUENOU chaired the GA in his capacity as the ARMFA President.

ARMFA has made major strides considering that it only came into existence in December 2003. The meeting – the third in its short history – was well attended by over 20 countries, including a number of first time observers (DRC, Ethiopia, Namibia and Uganda). The large majority of participants paid their own way, with the host country covering the accommodation and subsistence costs of delegation leaders. With the accession of Guinea during the meeting, membership has now climbed to 21 countries, 15 of whom attended the Nairobi meeting. 10 countries have paid their membership subscription in full. The procedures for the formal registration of ARMFA as a foreign association under Cameroon law have been completed. The Executive Committee is functioning well, although the effective participation of the second vice president from Cote d'Ivoire has been disrupted by recent events in that country. The recruitment of an interim coordinator (based in Togo the country of the Committee Chairman) has improved communications which are frequent and timely in both English and French. The recruitment of a coordinator under an international selection process and funded by SSATP is quite advanced.

The annual meeting largely met its objectives in that:

The GA discussed and ruled on the items on the agenda including the following:

- The ARMFA President's report was adopted
- A sub-committee was appointed to review the language in the English version of the Internal Regulations. The sub-committee members were: Mr. Raphael Mabenga (Zambia), Mr. Diallo (Guinea), Mr. Kingsford Amoah (Ghana) and Mr. Henry Chipewo (Zambia). All other ARMFA member countries were required to send comments on the regulations to the sub-committee.
- The ARMFA Vice President's report on the 2004-2007 programme was adopted
- ARMFA budget was adopted after a long discussion
- Guinea's application for membership in ARMFA was accepted by acclamation
- Ten (10) countries out of nineteen (19) had paid 2004 subscription. In addition, Guinea promised to pay the subscription before the end of the GA. Other member countries were urged to pay up.
- The people's republic of Tanzania was unanimously selected as the host of the next GA in November 2005
- The GA was officially closed by the ARMFA president who gave a very succinct summary of the event

## **FIELD TRIP**

The delegates were taken on a tour of two Nairobi city roads and one rural road that were under repair. These roads were:

- Kigwe / Ridgeways Road in Nairobi where delegates saw Contracted works in an urban setting. Hand Packed Stone was being used to patch potholes. Merits/demerits of the Hand Packed Stone vis-à-vis Graded Crushed Stone were discussed.
- Temple Road, also in Nairobi for Force Account (Direct Labour) works in an urban setting. Nairobi City Council workers were repairing the road. Merits/demerits of using direct labour vis-à-vis using contractors were discussed.
- Murang'a – Sagana – Marua Road for Contracted works in a rural setting. Delegates saw a pavement recycling machine at work and a bitumen premix plant. Delegates raised concern that the work was behind schedule.