

ROAD MAINTENANCE PROGRAMME FY 2011/12

1.0 INTRODUCTION

This document contains the Road Maintenance Operational Plan for the Tanzania National Roads Agency (TANROADS) for FY 2011/12. The Operational Plan describes maintenance works programmes to be implemented based on the expected budget from the Roads Fund Board.

The agency is responsible for the management of 33,891 km of roads made up of 12,786 km of trunk roads and 21,105 km of regional roads according to Road Act 2007 and re-classified roads in 2009 and 2010. About 4,442.50 km of these roads have been re-classified into national roads. However, this network length is tentative until when verification exercise is completed.

Road maintenance is one of the agency responsibilities that are undertaken every financial year with the aim of preserving the investment made in roads and to provide the optimal riding quality to the road users thereby reducing road user costs.

The total budget for road maintenance in FY 2011/12 is TShs 197,432.859 million from the Roads Fund comprising components for regular maintenance works on the road network; PMMR project; works related activities; administration and supervision costs; and weighbridge operations costs.

The road maintenance budget for FY 2011/12 is further subdivided into various expenditure items as indicated in the Table 1 below

Table 1: Summary of Road Maintenance Estimates for FY 2011/12

S/NO	BUDGET COMPONENTS	BUDGET (TShs million)	ESTIMATED EXPENDITURE (TShs million)
		FY 2010/11	FY 2011/12
1	WORKS COMPONENTS	153,889.424	170,915.593
2	WORKS RELATED COMPONENTS	2,800.000	3,448.600
3	ADMINISTRATION	6,116.862	6,318.211
4	SUPERVISION COSTS	9,855.327	10,250.455
5	WEIGHBRIDGE OPERATIONS COSTS	4,800.000	6,500.000
	TOTAL	177,461.613	197,432.859

2.0 WORKS COMPONENT

The maintenance works programme for FY 2011/12 will consist of routine/recurrent maintenance; periodic maintenance; spot improvement; PMMR project; and repair of bridges and other drainage structures. The description of the programme for the main activities is as follows:

2.1 Routine and Recurrent Maintenance

During FY 2011/12, routine and recurrent maintenance for **paved roads** has been planned to cover 4,678.97 km of trunk roads and 807.78 km of regional roads. The corresponding budget allocations are TShs 9,504.683 million and TShs 1,249.060 million for the trunk and regional roads respectively.

Similarly during FY 2011/12, routine and recurrent maintenance for **unpaved roads** have been planned to cover 4,275.23 km on trunk roads and 17,582.67 km on regional roads. The

corresponding budget allocations are TShs 6,521.838 million and TShs 21,484.489 million from the Roads Fund respectively.

2.2 Periodic Maintenance

Periodic maintenance works planned on **paved roads** in FY 2011/12 will be 293.38 km for trunk roads and 76.44 km for regional roads. The Roads Fund will provide TShs 34,169.772 million for trunk and TShs 17,788.420 million for regional roads.

Periodic maintenance works for **unpaved roads** will cover 505.24 km of trunk roads and 1,693.69 km for regional roads. The corresponding budget allocations are TShs 9,761.202 million and TShs 29,051.721 million for trunk and regional roads respectively.

2.3 Spot Improvement

In FY 2011/12, 15.66 km of **paved trunk roads** and 9.5 km of paved regional roads have been planned to receive spot improvement. TShs 1,459.216 million and TShs 760.000 million will be used to carry out the programme on trunk and regional roads respectively.

Spot improvement of **unpaved roads** is planned to cover 80.11 km of trunk roads and 478.95 km on the regional roads. TShs 1,385.885 million is planned for unpaved trunk roads while TShs 8,885.849 million is planned for unpaved regional roads.

2.4 Bridge Maintenance

It is planned to carry out **preventive maintenance** on 1,058 bridges on trunk roads and on 1,092 bridges on regional roads. The estimated cost will be TShs 1,574.871 million and TShs 1,829.908 million for trunk and regional roads respectively.

Regarding **major repairs**, 71 and 104 number of bridges will receive attention on trunk and regional roads respectively. The corresponding estimates are TShs 4,040.643 million for trunk roads and TShs 8,900.645 million for regional roads.

2.5 Performance Based Maintenance and Management of Roads (PMMR)

The scope of PMMR project is to execute six pilot contracts covering a total of 1,076 km of unpaved roads located in the Tanga, Mwanza and Rukwa regions through Performance-based Management and Maintenance of Roads (PMMR) contracts for a period of five years. The corresponding budget estimate will be TShs 6,000.000 million.

2.6 Emergency Repairs/Contingencies/Urgent Works

Emergency repairs include all activities which are carried out in order to open or repair roads or bridges after a natural disaster or other extra-ordinary causes.

Urgent works are all necessary works which are required to be done over the network but could not be foreseen in advance and planned in the budget. Such works arise later in the financial year after the budget approval.

Contingencies are just an allowance in the budget to cater for any eventuality which does not fall under the category of emergency or urgent works.

During FY 2011/12, a budget TShs. 3,353.542 million has been allocated for emergency works, urgent repairs and contingencies on both trunk and regional roads.

3.0 WORKS RELATED COMPONENT

The works related component includes activities which support planning, road safety and road reserve management. These activities are coordinated from Headquarter. They include operation of Road Maintenance Management System, Bridge Management System, Road Data Collection, Road Safety and Road Reserve Management/Planning Services. Descriptions of these activities are as follows:

3.1 Road Maintenance Management Systems (RMMS)

TANROADS is operating RMMS which is a computer based system that stores road network data can carry annual maintenance programming, in conjunction with HDM4 can carry programming, strategic, and project analysis. It is also applied by regions in contracts management. The system has to be kept functioning by carrying out necessary updates. The activities involved will include calibration of the system, establish a local software support; conduct more training in application of system; and purchase of the required equipments and accessories.

It is estimated that TShs 400 million will be required from the Roads Fund to keep the system operational.

3.2 Road Data Collection

During FY 2011/12, Road Data collection will be stepped up to capture more information for planning and performance evaluation purpose. Road condition will be conducted twice during wet and dry season. Other data which will be collected annually over the network will include Traffic, Road Inventory, Pavement evaluation of paved roads, and HDM4 calibration, configuration and input data. It is estimated that the Road Data Collection would cost TShs 600 million from the Roads Fund.

3.3 Bridge Maintenance Management System

The BMMS main activities planned for FY 2011/12 include the following:

- a) Bridge inspection and data collection over the road network.
- b) Training will be conducted regarding various aspects in application of the bridge system like Handbook for Bridge Design etc.
- c) Data collected for all bridges will be entered in the system.
- d) Development of Standard Specifications for bridge works will be finalised and rolled out to end users in the agency.

The total budget for the BMMS activities will be TShs. 222.600 million from the Roads Fund

3.4 Road Safety

In FY2011/12, TANROADS will continue to implement the various road safety activities which include the following:-

- (i) Road Safety Audits to selected road sections with view of designing and implementing of countermeasures which will minimise risk of accidents on both new roads and existing roads.
- (ii) Carry the countermeasures at black-spot locations as earmarked in the National Road Safety Master Plan document. However, few priority areas will be covered according to the budget allocated, such as erecting of speed calming measures/speed humps to reduce traffic speed on approaching villages/centres and installation of missing road signs and markings.
- (iii) Normal repair and maintenance of traffic lights and road marking for major cities particularly DSM, Arusha and Mwanza; and other accident prone areas.
- (iv) Participation in the Road safety awareness campaigns and training
- (v) Procurement of appropriate safety manuals and soft wares.

In FY 2011/12, a budget of TShs 1,558.200 million is allocated for implementing the above outlined road safety activities.

3.5 Road Act Enforcement

The government effort to institute a proper management of the right way for all trunk and regional roads will be continued in FY 2011/12. In this regard, activities to be carried out will include awareness campaigns, management of users of road reserve, construction of boundary stones and actions to enforce Road Act. A total of TShs 567.800 million is proposed for implementing these activities.

3.6 Road Maintenance Impact Assessment

Road Maintenance Impact Assessment will be conducted on selected sites. These include necessary studies on baseline data, impact assessments, and social economic data. In addition, HIV/AIDS awareness and environment issues will be addressed on the selected sites. A total of TShs 100 million is proposed for implementing these activities.

4.0 ADMINISTRATION AND SUPERVISION COSTS

The requirement of funds for the administration and supervision costs is estimated at TShs 23,923.900 million. But in FY 2011/12, the allocation of roads funds to this budget component is as follows:

- a) Administration: TShs 6,318.211 million
- b) Supervision: TShs 10,250.455 million.

The total budget for Administration and Supervision costs would therefore be TShs. 16,568.666 million.

5.0 WEIGHBRIDGE OPERATIONS

TANROADS is currently managing 25 fixed weighbridges and 17 mobile scales. The total requirement of running axle load control operations is estimated at TShs 17.716 billion, of which TShs 9.216 billion is for regular weighbridge operations and TShs 8.500 billion is for weighbridge improvement and repairs during FY 2011/12.

5.1 Weighbridge Operations

Due to financial constraints, a total of TShs 4.8 billion has been set aside in FY 2011/12 for day to day operations of weighbridge scales. This fund is to cater for salaries, allowances for weighbridge staff, stationery and other office consumables.

5.2 Weighbridge Improvement and Repairs

During FY 2011/12 a total of TShs 1.7 billion has been set aside for carrying out weighbridge repairs and improvements. This amount is earmarked for the improvement of approach lane to Mikumi and Chimala weighbridge station, Design review of the Kibaha design to fit at Vigwaza, establishment of minimum infrastructure to enable control of ever increasing problem of overloading of trunk and regional roads network in the city of Dar es Salaam and other interventions deemed necessary for smooth operation of weighbridge activities.

6.0 BUDGET COMPARISON

Comparison of FY 2010/11 and FY 2011/12 budgets shows generally an increase of TShs 19.971 billion. The table below shows the comparison among the various components of the budget.

Table 2: Budget Comparison

Activity	FY 2010/11	FY 2011/12	Difference
Routine Maintenance	34,635.931	39,060.070	4,424.139
Periodic Maintenance	83,078.535	90,771.115	7,692.580
Spot Improvement	7,636.890	12,640.950	5,004.060
Bridge Maintenance	14,207.656	16,346.067	2,138.411
PMMR Project	10,267.464	6,000.000	(4,267.464)
Emergency/Urgent/Contingencies	4,062.948	3,353.542	(709.406)
HQ Based Maintenance Activities	2,800.000	3,448.600	648.600
Administration & Supervision	15,972.189	16,568.666	596.477
Weighbridge Operations	4,800.000	6,500.000	1,700.00
Budget Deficit FY 2008/09		2,743.849	2,743.849
TOTAL	177,461.613	197,432.859	19,971.246

The budget for each item has increased due the increase in budget ceiling from TShs 177,461.613 million in FY 2010/11 to TShs 197,432.859 million in FY 2011/12.

7.0 BUDGET ADEQUACY

The budget for FY 2011/12 is Tshs 197.433 billion while the estimated maintenance needs (Feb 2011) are TShs 283 billion. Therefore this budget is adequate by about 69.8% of the maintenance needs.

7.0 RECOMMENDATIONS

The annual maintenance budget should continue to be increased every financial year in order to match with the maintenance needs. A rise in maintenance budget would sustain the road condition already attained and bring to road users the inherent benefits of well maintained roads.