TANZANIA ASSISTANCE STRATEGY

THE ROADS SECTOR

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THE ROADS SECTOR

Economic importance.

1. The roads sector is one of the central sectors in the Tanzanian economy and is crucial for the sustainability of the country's economic development. Roads transport contributes about 5 percent to over all GDP while transport equipment, constitutes about 37 percent of gross fixed capital formation. Road transport equipment constitutes about 70 percent of internal freight traffic and 64 percent of Transit cargo to Uganda, Rwanda, Burundi, Congo (Zaire), Zambia and Malawi. Road transport is also a major mode of passenger transport; and dominates other modes of transport in terms of employment creation. The Vastness of the country, 945,000 square kilometers of surface area; and the dispersed settlements of the population, agricultural, and other economic activities, add to the strategic importance of the roads sector to the economy.

The Road Network in Tanzania.

2. **Table 2.1** shows the hierarchy, classification, length and government authority responsible for the net work.

Table 2.1: The Road Network in Tanzania.

Hierarchy	Classification	Length km	Responsibility
Primary	Trunk Roads	10,300	Ministry of Works
Secondary	Regional Roads	24,700	(35,000 km)
Tertiary	District Roads Feeder Roads Urban Roads	20,000 27,550 2,450	Local Authorities under MRALG (50,000 km)
	Total	85,000	
Sub-Tertiary	Unclassified	Not available (Estimated at > 16000 km)	Village/local Communities

3.3 The officially recognized road network in Tanzania consists of 85,000 km divided as follows:

(i) 10,300 km (12 percent) are trunk i.e. national and international roads, which link several regions and provide access to important border points. About 30% are paved.

(ii) 24,700km (29 percent) are regional i.e. roads connecting regional and district head quarters in a region or connecting important centres to a trunk road. This network is 99.6% unpaved.

(i) 2,450km are urban road within Townships and 12 Municipalities. About 25% are paved.

(iii) 20,000 km are district roads i.e. roads linking 92 district headquarters to higher class roads or connecting divisional centres and important locations in the districts, This network is mainly of earth roads.

(iii) 27,550 km are feeder roads, which access village centres to district/regional/trunk roads. Wholly earth roads and are important for evacuation of crops from farm gates to markets. Major travelling made are walking and non-motorised means of travel.

(iv) Paths and tracks of unknown length. They are maintained by villagers and used for walking or intermediate means of transport (bycle, mules, etc).

Network Condition.

4. Tarmac roads constitute only 5 percent, 10percent are gravel and 85 percent are earth roads. Of the unpaved roads, about 14 percent are in good condition and 25 percent are in fair condition while the remaining 61 percent are in poor condition. This condition of the unpaved roads implies that 39 percent require normal routine and periodic maintenance whereas the bulk of the network (61 percent) requires rehabilitation.

As for the paved roads 70 percent are in good or fair condition requiring normal routine and periodic maintenance. 30 % of the paved roads network require rehabilitation.

The condition of both the paved and unpaved network requires phenomenal investment for attaining a complete maintainable roads

network by eliminating a backlog of rehabilitation works while at the same time performing normal routine and periodic maintenance.

Government Vision for Roads Development.

5. The Tanzania development vision FY25 accords very high priority to investment in infrastructure. In particular the development of the road net work is perceived to be a prerequisite for promoting rural development which affects directly about 80 percent of the population which also have a majority of the poor. Specifically the vision of the government is to have a road sector that will have the following characteristics by year 2010:

- Neighboring countries and all regional centres are connected with a paved road network while district centres are accessible by road transport on a daily basis throughout the year;
- Number of killed and injured persons due to road traffic accidents are declining;
- Negative environmental and impact and aids infection aids infection due to road transport related activities are declining;
- All actors within the road sector, governmental as well as private, are highly acknowledged for their effort in providing high-quality roadworks and consutancy services according to agreed specification, cost and time of delivery;
- The public at large is confident that allocated funds of the road sector are being utilised according to road user needs, approved budgets and in a cost-effective, transparent and accountable manner.
- The Government provides sufficient and predictable funding for maintenance of trunk and regional roads and administrative expenditures;
- The road sector contributes to reduced dependency on foreign currency and increased rate of local employment due to a significant increase in the use of domestic resources and labour-based technology for roadwork;
- The domestic industry executes almost the total workload within the road sector;
- The staff within the road sector are well qualified, committed and motivated; and
- The number of women within the road sector is increasing, not only within manual labour, but also in key staff positions.
- Data on the status of the Road Network is annually updated through road surveys.

6. Strategies for the roads sector.

In order to support the vision, the following strategies will be adopted

6.1 Physical

Prioritise maintenance activities over rehabilitation and new construction, and fund adequately maintenance activities through cost recovery principle,

- First priority will be given to roadwork on trunk and rural road corridors that are essential for evacuation of agricultural products, in particular routine maintenance of roads in good and fair condition and to periodic maintenance, spot improvements, rehabilitation and upgrading rather than construction of new roads.

- A large scale spot improvement programme should be developed and implemented on the entire network, in particular, where this is more cost-effective to de-bottleneck entire routes, compared to full rehabilitation or upgrading.

6.2 Road Safety.

- Establish a Roads Safety Fund to enhance funding of road safety activities being implemented within all Government bodies.
- Reorganise and co-ordinate road safety activities carried out by various Government bodies.
- Improve road design with respect to road safety,
- implement physical countermeasure based upon analysis of computerised accident records.
- Improve legislation and the enforcement of vehicle weight control,
- Improve legislation and establish mandatory and road side vehicle inspection
- Improve training, testing and licensing of drivers.
- Establish road safety education in primary -, secondary schools and in teacher training colleges.
- Enhance road safety awareness through media and special campaigns.
- Improve road safety legislation and its enforcement by the Traffic Police.
- Enhance research on road safety issues.

6.3 **Environment.**

- Develop a manual on sound environmental practises within the road sector and incorporate environmental protection measures into planning, design implementation and maintenance of roads.
- Reduce emissions from vehicles through legislation and mandatory vehicle inspection.
- Encourage the introduction of unleaded fuel and gradually phasing out the use of leaded fuel.

6.4 **Institutional.**

- Separate policy making and regulatory functions from those of implementation by establishing an executive roads agency.
- improve management framework, procedures and skills through a special programme over 3-4 years containing on the job training and local workshops/seminars and short course.
- Widen the Road Fund's revenue base, strengthen its administration and transform the fund into a dedicated fund for road maintenance, spot improvements, rehabilitation and related administrative expenditure for the entire road network.
- Develop management systems and quality assurance documents for improved financial and technical planning and monitoring and for procurement of contractors, consultants and supplies.
- Promote the optimum use of domestic resources and labour-based road technology through technical planning and monitoring and for procurement of contractors consultants and supplies.
- Provide well-focused and cost-effective training for roads staff through tailor made in-house courses.
- Introduce assignment of key staff through a competitive system based upon job applications.
- Roadwork's will be carried out mainly by private contractors and a small force account brigade will be maintained only for training, emergencies and for works that do not interest private contractors.
- Increase the participation of local consultants and contractors in design and implementation of road works through appropriate training and packaging of works and by increasing the amount of contracts to be tendered by the local industry only.
- Create a competitive market for plant and equipment hire services to reduce the cost of roadworks. This will be achieved by encouraging

the establishment of private plant pools to operate and hire out equipment.

7. Priorities.

From 1999/2000 the programme for the Trunk and Regional roads network is prioritised as follows:

(i) Full maintenance for all bitumen roads
(ii) Full maintenance for all roads rehabilitated recently
(iii) Adequate maintenance to ensure possibility of all gravel roads
(iv) Spot/emergency maintenance
(v) Payments of outstanding claim by contractors.
(vi) Completion of on-going projects
(vii) Upgrading and new construction

As for the network under local governments. The priority is to:

(i) Carry out District and urban road network inventory and condition survey.

(ii) Make the network passable throughout the year.

(iii) Expand the network

(iv) Promote use of appropriate technologies

(v) Promote local ownership

8. Performance indicators.

Performance indicators (Pis) can be used to give an objective measure of the overall development of the road sector. This is important as to allow various management levels to monitor the impact of allocated resources and the performance of the implementing bodies as to facilitate discussion on adjustment of strategies and objective and the need for institutional changes.

The following performance indicators can be used:

8.1 Road Condition.

- Number of district centre with a reliable road connection to its regional centre during the rainy seasons.
- Number of regional centres with a reliable road connection to Dar es Salaam and neighbouring regional centres during the rainy seasons.
- Number of 5 km road sections that can be blocked for more than 12 hours due to rain.
- Travelling speed between the regional centres and Dar es Salaam.
- Distribution of networks in bad, fair and good condition.
- Distribution of bridges in bad, fair and good condition.
- Percentage of the network with good drainage.
- Percentage of the network with road signs and markings according to standards
- Percentage of the network being maintained according to standards.
- Percentage of the paved network that has received periodic maintenance over the last 8 years.
- Percentage of the unpaved network that has received periodic maintenance over the last 5 years.
- Ratio of overloaded vehicles to the total number controlled.
- Average overload.

8.2 Road safety

- Number of road accidents
- Number of fatalities and injuries in road accidents
- Average number of fatalities and injuries per accident
- Average number of fatalities and injuries per licensed vehicle
- Number of accidents involving trucks and buses.
- Number of accidents with pedestrians being killed or injured
- Number of accidents with pedestrians being killed or injured.

8.3 Institutional

- Ratio of actual to required maintenance expenditures
- Ratio of grants/credits to total funding
- Average time to procure contractors and consultants
- Average time spent on processing payments of contractors and consultants
- Number of contracts completed on time and within budget
- Number of domestic consultants and contractors

- Ratio of contract done by domestic contractors to the total number of contracts
- Ratio of consultancies done by domestic consultants to the total number of consultancies
- Ratio of the value of labour based roadwork's to the total value of roadwork's
- Unit cost for some major types of road works
- ratio of some key roadwork equipment to what is required
- Skilled unskilled staff ratio

8.4 **Women participation**

- Ratio of men to women in manual labour and in key staff positions within the road sector

8.5 Poverty reduction impact

- km of feeder roads passable throughout the year
- Increase in tonnage of food and export crops production
- Km increase of feeder roads to farms and small scale mines
- Growth of per capita income.

Administration and Management.

9. In terms of the administration of the road network, Trunk and Regional roads (35,000km) are under the Ministry of Works (MOW) while District, Urban and Feeder roads fall under the Jurisdiction of local Authorities which are under the Ministry of Regional Administration and Local Governments (MRALG). The MOW is currently (1999/2000) responsible for programming, budgeting and implementing the construction ,

rehabilitation and maintenance of Trunk and Regional roads. MOW is also responsible for formulation of sectoral policies, strategic planning & management. However as a result of ongoing institutional reforms, TanRoads, a government executive agency, will take over fully the maintenance of the Trunk and Regional roads network with effect from FY2000/2001.

The role of MRALG includes co-ordination of the preparation of budgets and mobilisation of funds for maintenance, rehabilitation and construction

of the district, urban and feeder roads which are under the responsibility of local governments. The total length of that network is about 55,000 km of earth roads and about 500 km of paved roads in urban areas.

At all levels of the sector donors participate in financing of upgrading, rehabilitation and maintenance of roads. For the Trunk and Regional roads network donors are the main financiers. Donors/Expatriates participate extensively in feasibility studies, designs, appraisal, tendering, implimentation reviews and post - evaluation of road projects/programmes,

Private sector participates in road works as contractors.
In the districts local communities maintain and upgrade the unclassified roads in their areas.

CURRENT MAJOR TRUNK & REGIONAL ROADS PROGRAMME: THE INTEGRATED ROADS PROJECT (IRP) 1999 - 2002

10.1: **IRP Objectives**:-

Integrated Roads Project was a 10 year program prepared during 1989/90 financial year with assistance from several donors with a primary objective of improving road transport by conducting road rehabilitation, upgrading and maintenance of the trunk and regional road network which has become an obstacle to the sustainability of the economic recovery programme; and to develop the Ministry's institutional capacity so as to properly manage the road networks.

10.2. Implementation of IRP Programme

Policy objectives related to the Integrated Roads Project (IRP) were originally presented by the Government at the Transport Sector Donor's conference at Arusha in December, 1997. The policies were refined during preparation of IRP and finally presented to the consultive meeting at Paris in December 1998. The first Phase (IRP I) was launched in March 1991, review of its implementation was undertaken in November, 1992 and revised proposal was prepared, then named as the Second Phase of IRP (IRP II) was presented to the donor community in October 1993. IRP II was officially launched in May 1995. A comprehensive review of Integrated Roads Project was carried out from 1996 to 1997.

Phase I (IRP I) was completed in 1999 and Phase II (IRP II) was expected to be completed in year 2002 but it is foreseen that for some donors it might be completed in year 2004.

Rehabilitation program under IRP was severely disrupted by the ELNINO weather phenomena of 1997/98 whereby the road network (and the rail network also) were damaged extensively.

The IRP target after the year 2000 was to have the road network condition stabilized at a level that can be sustainably maintained with local resources.

10.3 IRP Financing.

- The Planned Investment under the Phase 1 (IRP I) which commenced in 1990 was US$ 871.13 million and GOT contribution being US$ 80.5 million including taxes and duties. A total of 17 Donor agencies/countries were expected to contribute towards the project. (Attachment II – Costs).

- The Planned Investment under Second Phase (IRP II) which commenced in mid 1995 was US$ 650.3 million. While GOT contribution was to be about US$ 67.9 million including duties and taxes.

- The actual Investments put under IRP I was about US$ 864.78 million and as of todate, IRP II actual investment is about US$ 100 millions only as majority of planned civil works has not yet started.

Actual project cost under IRP I for many Donors were above (except FINNIDA and IDA World Bank) the planned investment.

Delays in procurement, implementation and changes in priority for some Donors FINNIDA and IDA) attributed to the actual financing being below the planned investment estimates as put forward in the preparation of the project (Staff Appraisal Reports of IRP).

Majority of the civil works contracts under the project ended with higher (than 30% above contract amounts) than contract prices in Tanzania Shilling due to inflation hence increase in costs and change in exchange rates from say Tshs. 195 = 1 US$ at 1990 to Tshs 430 = 1 US$ in 1994and Tshs. 800 = 1 US$ in 1998.

However, the actual cost in Dollar terms did not change much from the anticipated contingencies of 15% above contract amounts.

IRP Achievements and Benefits from the Project

10.4.1 **Achievement of IRP on the Road Network**:

On trunk paved roads: The total target of IRP I for upgrading and rehabilitation of Paved trunk roads was 1,526 Km. A total of 1,454 km was achieved, equal to 95%. Above that 500 km of TANZAM which were to be resealed under IRP I were initially not carried out fully due to financing shortfalls. Additionally, about 247km were upgraded/rehabilitated under IRP II against targeted of 1,435km.

On gravel trunk roads: the target under IRP I was to rehabilitate a total of 2,546 km, only 1,129Km or 44% were completed. It was also targeted to rehabilitate 204Km, to spot improve by gravel 1,284 Km and to conduct Periodic Maintenance to of 518 Km. Todate less than 20% has been achieved on gravel trunk roads under IRP II.

- On paved rural roads (Dar es Salaam Roads) a total of 148km of paved roads has been rehabilitated against 139 km targeted under IRP II.

- On Rural gravel roads, the target was 1,800 km for IRP I and about 2,800km of IRP II and the achievement was about 1,200 km and 200 Km resptively.

10.4.2. **On Maintenance of the Roads** the IRP target was to enhance road maintenance capacity through:

- Rehabilitation of Road Maintenance Equipment
- Introduction of equipment hire company
- Increase of maintenance funding from GOT sources.
- Domestic private contractors to undertake an increasing share of the road rehabilitation and maintenance works, including development of labour base technology.

The performance on this aspect under the IRP can be summarised as follows:

- Introduction of a Road Fund in 1991 which was dedicated for funding of road maintenance activities under the Ministry of Works and Local Governments.

- The major Plant & Equipment were rehabilitated.

- The Ministry established PEHCOL so as to manage the road maintenance equipments.

- Funding of road maintenance increased steadily from FY 1991/92 to FY 1994/95, decreased slightly in 1995/96 due to budget deficit and a further decrease in 1996/97 (only 76.2% of IRP target).

- On commercialization for road equipment the intention under IRP I on establishing a central pool for hire of equipment (PEHCOL) and operated on commercial basis, has not been achieved, and the availability of equipment particularly for gravel roads rehabilitation and maintenance was not reliable to some regions. However, during IRP II there has been an increase in local contractors (private companies) who have acquired imported Equipment and Plant.

10.4.2 **Achievement on Institutional Reform**:

- The Government under IRP has strengthered its capacity to administer policy formulation, coordination, regulation, control and monitor the functions under its jurisdiction so as to create conduve environment for fair competition by all operators in the road sector.

- The Ministry is in the process of hiving off its national role of administering Government building, maintenance of Government vehicles, as well as management and supply of goods under Government Stores. These functions will in future be run by independent executing agencies and/or commercial entities.

- Greater responsibility has been given to Regional Engineer's Offices (REOs) and Regional & Local Authorities in preparing and implementing road rehabilitation and maintenance programmes: Furthermore, Regional Road Board which were established in 1993 are providing stronger coordination between

road users and those responsible for upkeep of the Road Network in the Regions.

- To strengthen the road sector management and funding, the Government in November 1998 strengthened the Road Fund through a Parliamentary Act so as to ring fence the fund for road maintenance at 90% of the Road Fund and 10% for development of road activities, and the establishment of the Road Fund Board which was inaugurated on 27.8.99 to manage the Road Fund has further cemented the management of Road Fund. Furthermore, the Road operations department of the Ministry of Works will be transformed into an independent Executive Agency called TANROADS. TANROADS will deal with implementation of road maintenance and development whereas MOW will in future deal with policy issues. This institutional change is expected to have better road network. Chief Executive of the TANROADS has been selected. He will be in office in January 2000. TANROADS is planned to be operational in July 2000 and launching is expected in July 2002.

- Strengthening of the local contractors and the road construction industry took place also under IRP. Support was in the form of training of personnel of local firms in conducting and managing maintenance contracts and in award of road maintenance contracts to local contractors. This enabled the private sector participation in road construction industry thereby improving the economy.

Other IRP Programs:

10.5. **Freight, Passenger and Air Transportation Program**

The IRP Program strengthened Government institutions National Construction Council, (NCC), National Institute of Transport, National Transport Company, Contractors Registration Board, Engineers Registration Board, etc and private enterprises involved in the transport sector by providing focused training, equipment etc. so as to operate and manage their institutions, hence enhancing transport services.

11. **Shortfalls during implementation of IRP**

11.1. Intitial Start up and Operational Problems:

11 - Government frequent changes of the MOW structure or (MWCT) and inadequate funds committed to the road works.

12 - Government institutions like Insurance which were not tailored for providing insurance of road works contract and the banks which were not operating foreign currency accounts, guarantees etc caused local contractors awarded road project to fail to obtain bonds and guarantees.

14 - Inexperience of local contractors in scheduling and project Management effected the smooth commencement of all project awarded to local contractors.

11.2. Implementation Problems

15 - Devaluation of shilling greatly affected the IRP programs.
16 Construction equipment shortage

- ELNINO effects – the 1997/98 rains caused flooding to almost a third of Tanzania, thereby resulting in washout of many roads, hence affecting the performance of IRP

- Delays in start up of project resulting in late completion of projects due to inadequate design, preparation of contract documents.

17 - Delays in payment to contractors resulted in suspension/slowdown of works (eg. Mweanza – Magogo River and Magogo River – Shinyanga Border Project, hence delay in completion of the projects and increased costs.
18
19 - Donors countries and Agencies (IDA, ADB etc.) Changing priorities thereby cancelling some of the projects which were committed under IRP. The most notable projects being Dodoma - Singida under EEU, Mahenge – Ilula under ADB, Masasi – Namtumbo (IDA).

20
21 - Increase in contract prices due to delays etc.

Measures adopted to address the Shortfalls under IRP

11.3.1. To address the initial operational problems mentioned on 11.1. and 11:2, the Government introduced policy changes, namely:

- liberalize the foreign currency regime
  introduce Tanzania Revenue Authority with streamlined Taxation policies introduce revised Road Fund Act for ringfencing the Road Fund for financing maintenance activitied at 90% of the Fund.
  22 Privitize Insurance and Banking services

11.3.2 Measures adopted to address the Implementation short falls,

23 introduction of Road Fund Board to manage properly the Road Fund and the Tan Road Agency

24 Introduction of TANROAD Agency for management of the Trunk and Regional Roads Network. It is expected that such an independent Agency will have a more streamlined operation, hence efficiency.

26 A major review of the project was conducted in 1997 and came up with recommendations which were adopted by the Donors and GOT.

27 The Ministry with the assistance from Donors started the Emergency Program to repair and restore the trunk and major rural roads to its condition prior to the ELNINO. This program is progressing well and was not in IRP I program.

- To improve the design standard and contract documentation, the Ministry has now published and distributed the revised Materials design Manual for use of the Engineers in the Ministry and the Road Construction Industry.

CURRENT ROAD PROGRAMMES UNDER DISTRICT AND URBAN AUTHORITIES

11.4.1 The major task facing the district roads is rehabilitation. Due to the El Nino rains, this will also involve the restoration of drainage structures and opening up damaged sections to serve areas rendered inaccessible.

For the 8 percent of rural roads in good condition only routine maintenance is required. However, the 19.5 percent, which us in fair condition require routine and periodic maintenance while the 72.5% which are in poor condition resulting from lack of necessary regular maintenance, require development expenditure to be rehabilitated.

11.4.2 The resources for road maintenance are typically in form of Roads Fund allocations to local authorities through PMO/MRALG. Local authorities themselves typically spare only negligible amounts out of own resources for road works. During FY97 and FY98 the Government allocated to the PMO shillings 3.5 billion and 2.6. billion respectively for the purposes of maintaining the district roads network. This was equivalent to only 14 and 8 percent of the total Roads Fund collected for the two years respectively. These allocations were below the intended share of 20 percent. Road funds allocated to PMO catered mostly for the roads recurrent budget. Over the past three years PMO received no funds from the Treasury for the development budget of district roads.

11.4.3 Beginning FY99, the Government decided to raise the share of Roads Fund revenue that goes to the districts to 30 percent, so as to increase the capacity of the local authorities to carry out maintenance work and rehabilitation/upgrading of district roads. Effective the first quarter of FY99 an allocation formula has been used to disburse Roads Fund resources. The formula has three main factors: *equity* (as benchmark), *population* (level of activity) and *road length* (scope of work). There are also districts that benefit from donor funding.

11.4.4 Based on the condition of the district road network and the scope of work defined in terms of keeping roads that are in good condition in a maintainable status and improving those in poor condition, the current allocation levels are grossly inadequate. There is need, therefore, to work out a mechanism to determine a reasonable scope of work, given the resources at hand, as alternative financing sources are explored to cover the gap.

11.4.5 For effectiveness in the development and up-keep of the district road network it is essential that the following three offices perform their functions effectively: District Engineer (DE), District Planning Officer (DPO) and District Treasurer (DT). The three offices have to work interdependently to facilitate effective road network management. The DE Office may need to have in addition, a planning engineer.

11.4.6 The office of the District Engineer is key in the process of developing and keeping district roads in good condition. The capacity of this office is, however, inadequate. Local Government Service Commission (LGSC) records show that there is a wide range of differing backgrounds for the district engineers. There are those with primary education with technical college certificates, technicians with secondary education, university graduates and a few with a second degree, but most have not been in the field long enough to master required road works. Their experiences also differ.

11.4.7 Records show that out of 113 Districts, 43 districts did not have an engineer. This has implications on performance. Only two thirds (66 percent) of the districts have district engineers with degrees, 8 have engineers with second degrees but only one is in the area of civil engineering. A total of fifty-five districts have engineers with first degree, but only 32 are in the area of civil engineering. So out of those with degrees, only 33 (45.8 percent) have a civil engineering orientation. The remaining districts have engineers with no qualifications at all.

11.4.8 Another dimension relates to the use of allocated funds. Based on allocation effected in FY98, each district was allocated an average of TShs. 12 million. Thus a total of Tshs. 456 million was disbursed to districts without qualified engineers. The figure is even more staggering if we use FY99 first quarter allocations whereby districts received an average of Tshs. 50 million. Disbursements to these districts amounted to Tshs. 1.9 billion, about 32 percent of total allocations.

11.4.9 Future policy directions should aim at reinforcing the office of the District Engineer. They should also ensure that disbursed funds go directly to the districts and are effectively utilized. There should also be established an unequivocal line of technical consultations between the district engineer's office and the technical ministry, the Ministry of Works. An institutional mechanism needs to be put in place to ensure that district roads receive a weight commensurate with its strategic importance in terms of establishing an executive agency for the district road network.

Recommended Budget Strategy for the Road Sector

12.1. Stabilize Resources from Road Fund: The Road Sector depends crucially on resources from the Road Fund and Expenditure Plans have been developed under the Road Fund projections provided in the Budget Guidelines. Road Fund outturns for the first eight months of the FY99

indicate that Road Fund Revenue might be considerable below target, mainly as a result of rampant tax evasion and fuel smuggling. In order to provide adequate resources for the road sector, measures need to be taken to stop tax evasion and thus achieve the revenue targets. If that is not feasible, increasing the road toll levy to Tshs. 80/litre should be considered.

12.2. Ensure Adequate Counterpart Funds for Foreign Assistance: the current situation where 10 percent of the road funds accruing to the MOW are available as counter part funds for IRP - II funds is not sustainable. Consequently, foreign financed upgrading and rehabilitation work will have to be reduced substantially or the Treasury will have to provide additional Development Funds to the MOW in order to be able to provide required counterpart funds for external assistance funds to the sector.

12.3. Increase Efficiency in Maintenance: the greatest part of funds of the Ministry of Works is used for maintenance of roads. The principal issue in this area is to increase efficiency of operations and to arrive at an adequate mix of inputs between expenditures on labor, capital equipment, and materials.

12.4. Ensure a smooth transition from current administrative arrangement to the reformed arrangements at both the central and district level.

12.5. Monitor the Status of the Road Network: financial inputs towards road maintenance have increased significantly over the past few years. However, in the absence of current information on the status of the road network it is impossible to evaluate the efficiency and effectiveness of road maintenance activities. In order to be able to justify the large share of public resources spent on road maintenance, it is imperative to monitor closely the status of the road network. Normally, annual road surveys should be undertaken by an outside evaluator, in order to firmly establish that money uses for road maintenance are well spent. It is therefore recommended that an annual road survey be conducted as a first priority.

12.6. Promote Build - Operate - Transfer (BOT) Projects in the road sector in order to increase foreign private investment in the sector.
Proposals for BOT projects in Tanzania include:

Dodoma - Manyoni - Itingi - Tabora - Nzega and Tabora - Kigoma via Ipole and Mpanda roads in the central corridor.

I. Mtwara - Masasi Songea - Mbaamba Bay road road in the Southern Corridor.
II. Kigamboni Bridge in Dar es salaam
III. Makuyuni- Ngorongoro road in Arusha

For successful adoption of the BOT model the GOT has to establish BOT policy and legal framework to guide and protect all stakeholders including the investors, the government and users of BOT projects.

13. The Urgent Roads Rehabilitation Programme – A proposed Medium Term for Trunk And Regional Roads Network

13.1. The Urgent Roads Rehabilitaiton Programme include an Emergency Rehabilitation/Maintenance programme phase which is aimed at eliminating accumulated rehabilitation maintenance works. This phase which is planned for immediate implementation in the first three years covers all paved roads and high ranking trunk and regional roads.

13.2. In the context of this document "Urgent Roads Rehabilitation Programme" includes accumulated rehabilitation/maintenance works which could not be undertaken under IRP I and II and worsened by the effects of El Nino rains, as well as other rehabilitation/maintenance works necessary for restoring the network into maintainable standard. The programme covers resealing, reconstruction, upgrading, rehabilitation and regravelling on roads. It also includes works on ferries, drainage structures and facilitate Axle load Control programme.

13.3. The Urgent Roads Rehabilitation Programme which has been scheduled to be implemented over a period of six years (2000/01 – 2005/06) is estimated to cost about USD 535.0 million. The annual investment for the programme ranges between USD 61.96 and USD 110.48 million. The annual investment for the programme ranges between USD 61.96 and USD 110.48 million. The emergency part of the programme which covers a period of three years (2000/2001 –2002/2003), is estimated to cost US$ 176.32 million. The GOT local contribution for the above implementation period amounts to USD 55.0 millions and it ranges from USD 6.22 million to 11.35 millions per annum. The GOT contribution for ongoing projects during the first two years of the URRP period (2000/01 – 2001/2 is estimated to about USD 33.4 millions out of which USD 9.49 million will be raised from Road Fund allocated to MOW and the rest (USD 23.91 Million), is expected to be covered through the General Government

revenue. Thus the total local contribution required to be raised by GOT during the FY 2000/01 – FY 2005/06 amounts to USD 88.42 million. Refer the financial investment summary for URRP shown in Table 3 – 2and Table 3 – 3 shows the financial summary for Emergency Programme.

14. **CONCLUSION.**

The TAS process recognizes the following characteristics of the roads sector:

(i) Roads projects are financially big scale and capital intensive and given the technological status of the Tanzania economy of necessity are forex and imports intensive.
(ii) The classified roads network has a backlog of roads requiring rehabilitation due to past negligence of maintenance norms and natural hazards from EL-NINO.
(iii) The net-work is under - developed and therefore requiring upgrading.
(iv) Similarly the construction industry is underdeveloped necessitating dependence on expensive foreign contractor.

Consequently the sector is highly dependant on external donors/investors and will continue to be so in the short and medium term.

15. Current policies and strategies, however, are aiming out reducing donors dependency by:

(i) Ensuring that the network under good condition and that which will be rehabilitated are fully maintained based on local funds.
(ii) Increasing local counterpart funds for development roads projects but not at the detriment of local maintenance funds.
(iii) Promote Build - Operate - Transfer roads projects . And
(iv) Improve efficiency of delivery of road - works by making the necessary institutional changes.

16. Finally appendix 1 is a general matrix showing in synopsis the proposed roads sector development strategy under TAS process.