

**Workshop on Rural Access and Mobility
Arusha
22 – 24 November 2012**

**Alternative Approaches to District
Road Maintenance**

By Abdul Awadh
IT Transport Ltd

The Issue

- Previously district roads underfunded and maintenance typically ad-hoc
- Road Funds have established more adequate and reliable funding
- Need to ensure effective use of funds
- **BUT: Which systems of maintenance contracting are appropriate for district roads?**

Constraints

- Most district roads are unpaved
- Many are earth surfaced
- Few have been built to a fully engineered standard
- Very low traffic – little justification to invest in full improvement
- Weak capacity for planning and supervision

Photos of typical district roads



Challenge

- How to devise systems of maintenance that work effectively on these roads within these constraints?

Four Systems to be Considered

1. Area Based Long Term Framework Contracts
2. Area Based Long Term Small Scale Framework Contracts using Petty Contractors
3. Area Based Long Term Performance Contracts (PMMR)
4. Community Contracting – 2 options

Area Based Long Term Framework Contracts

- Works to be done throughout a year are estimated based on condition of roads (spot improvements, periodic and routine maintenance)
- An area equal to half or one third of district to be covered under one contract (lengths >100km)
- Open tendering (limited to certain class of contractors)
- Works orders to be issued by DE periodically on needs basis
- Payments to be done on measurement basis after inspection by DE

Use of Petty (Small Scale) Contractors on Long Term Framework Contracts

- Works (routine and minor spot improvements) to be done throughout the year are estimated based on condition of roads
- Contracts be awarded on competitive basis by inviting quotations (less time than tendering)
- Contractors who have received training on LBT be included
- Lengths of between 30-40 kms of roads be assigned for a period of up to one year
- Works orders to be issued by DE periodically on needs basis and payments to be done after inspection by DE

Area Based Long Term Performance Contracts (PMMR)

- An area equal to half or one third of district to be covered under one contract
- Necessary spot improvements or periodic maintenance works are estimated and a BoQ prepared for these works. These works are executed and paid for on measurement basis
- The service/performance levels of the road network under contract are set (openness of drains/culverts, vegetation/bush control, comfortable road speeds, etc.). The contractor is paid on monthly basis after inspection by DE.
- Open tendering (limited to certain class of contractors)

Examples of Performance/Service Levels

- Road usability
 - Road open to traffic and free of interruptions at all times (exceptions are mentioned)
- Road user comfort
 - Maximum depth of potholes/depressions - 100mm
 - A vehicle of certain type to be able to travel at a safe speed of 40 km/hr
- Road durability
 - All drainage elements and structures are without obstructions that will impede the free flow of water
 - Vegetation within the right of way / road reserve to be controlled to set heights (300mm)
 - Head walls/wing walls repaired as necessary

Community Contracting

1st Option

- Communities/villagers to be mobilised to form CBOs (registered at district level)
- Basic training on essentials of good roads to be offered to the CBOs and working tools provided but cost thereof recovered from the CBOs'
- Performance/service levels agreed upon
- Pre-established rates to be used to pay the CBOs
- Sections of between 10 to 20kms be assigned for periods of one year
- Payments to be on monthly basis after the DE has inspected the works

Community Contracting

2nd Option

- The work contracts shall be between the DE and the village governments
- The villagers will receive basic training on routine maintenance of roads and working tools provided but cost thereof recovered from the village
- Pre-established rates to be used to pay the village
- Sections of between 10 to 20kms be assigned for periods of one year
- Payments to be on monthly basis after the DE has inspected the works

Progress on Testing the 4 Systems

- Three districts in one region in Tanzania have been chosen for testing the systems
- The Area Based Long Term Framework contracts will be tested in 1st district. Roads earmarked for maintenance have been grouped in three lots (approx 120km of roads each) and each lot will be under one contract
- The PMMR will be tested in the 2nd district. A network of roads has been set aside for one PMMR contract
- The Small Scale Long Term Framework contracts (app 50km each) and community based contracts (4 roads of between 15 to 25km) will be tested in the 3rd district.

Progress on Testing the 4 Systems (Cont)

- Tender documents for the different systems have been prepared and are being used in the 3 districts
- The unit rates to be applied to community contracts have been worked out
- The model of contract to be concluded between the District Engineer and the CBO/Villages has been prepared.

Progress on Testing the 4 Systems (Cont.)

- In f/y 2010/11 the test on PMMR contract was suspended due to high quotes from the contractors for the maintenance part of the contract (low understanding of the concept). A seminar was organised to sensitise the potential contractors and the district staff and it is planned to test the system in f/y 2011/12
- The Area Based Long Term Framework contracts were tested in one district but some difficulties were encountered in procurement of the contractors and flow of funds. However the system worked and the district has decided to have another test of the system in f/y 2011/12

Testing the 4 Systems (Progress to date)

- Due to internal administration problems in one district, the Community Contracts and Small Scale Framework contracts could not be tested. The problems have been resolved and the systems will be tested in f/y 2011/12.

Expected Results

- Systems will be tested (and refined) over at least 2 years
- Monitoring of effectiveness, strengths and weaknesses of each system:
 - Cost
 - Increased time passable during rains
 - Ease of supervision, ease of procurement, etc.
- Maintenance Systems Manual for District Roads (2012)

END

Asante