PROJECT TITLE: ***Minimising the cost of sustainable basic rural roads***

PROJECT PURPOSE: *To reduce the costs of basic rural road access provision (very low volume, unsealed roads) by introducing appropriate engineering tools, procedures and practice manuals for district engineers*

1. BACKGROUND

In many of the countries of sub-saharan Africa, the main road network carries 80-90% of passenger and freight transport and is a key contributor to a countries growth and stability. The vast majority of the maintenance budget is received by the main road network due to economic prioritisation. Due to the low volumes of motorised traffic that travel the majority of rural roads, the resources made available for rehabilitation and maintenance of these roads is extremely restricted. District engineers are allocated limited resources to maintain large networks which often service a high proportion of the population. It is therefore essential that the limited resources available are targeted correctly to maximise the benefits of the road for the community by minimising instances of road closure and impassability. Current methods of identifying sections of road in need of maintenance, which will have greatest benefit to road dependants, are at best subjective, but in general do not exist at all. Simple manuals and tools that are designed to prioritise the road are required to help local engineers target areas where resources are best spent.

Provision of basic access is central to improving the livelihoods of the poor in rural communities. Research carried out by TRL, IBRD and others has echoed the demands from RDC's, NGO's and local communities, that methods need to be developed whereby access can be maintained at reasonable cost. Within very restricted resources and on very substantial networks this objective is impossible to achieve using current maintenance strategies. There is general recognition that targeting specific areas or "spots" along the route is a logical way forward. Prioritisation procedures, working practices, tools and contract guidance for works are urgently needed by RDC's and communities. The project intends to identify areas of the road network in disrepair that, following appropriate spot improvements will directly benefit the poor communities living in rural areas.

2. RESEARCH APPROACH

Links established through the project design stage of the project will continue to be developed during implementation. Local collaboration and support will be extended to international collaboration between country team members with a range of disciplines and responsibilities. This is a central aim of the project and funds have been allocated to support this by the project and its collaborators.

Liaison meetings will incorporate key stakeholders in the project areas, representatives of government organisations, civil society groups, donors and regional/international interest groups e.g. RTTP, SSATP, IFRTD etc. Interaction between key stakeholders will be encouraged and strong partnerships will be built during the project and beyond.

The research team will need support from engineers, development planners and management specialists in the central and district roads departments. Academic institutions will be encouraged to second academic staff (engineering and social development), graduate and post graduate research students and technical staff to the project. It is expected that the team will be further supported by social development advisors and gender specialists working on rural development projects in Ghana, Uganda and Zambia. The SDA's and Gender Specialists assigned to the RTTP impact assessment project in northern Zambia will address the issues

concerning impacts of spot improvement technologies on the poor ,and the likely consequences of improved access to services. Further collaborators wishing to affiliate with the project will be encouraged so extending the knowledge and experience base.

3. RESEARCH METHODS

The project aims to develop tools and assessment procedures to enable Ministry and District engineers and small contractors to successfully implement spot improvement strategies on extensive networks of low volume rural roads. Knowledge exchange by collaborating institutions, and multi-disciplinary participation at all levels and stages in the research developments will promote ownership and rapid implementation. The project will draw on and adapt existing techniques, practices, experience and methods as well as knowledge already available to collaborating Institutions. This will be used as a basis on which to build the spot improvement approach as an accepted engineering practice.

A key objective of the project is to enhance the research capacity of the participating countries. As such local research institutions including universities, play an important role in the project both locally through participation in research activities and as core members of the liaison group. Opportunities may also be available for collaborators to visit outside research establishments and institutions.

4. ENVIRONMENTAL CONSIDERATIONS

Adoption of spot improvement strategies will prevent wastage of energy and non-renewable natural resources. Recommendations will specifically address the impact on the environment and mitigation measures will be provided.

5. DISSEMINATION/IMPLEMENTATION

Liaison meetings used to exchange experience, identify user needs, present findings, collate information and agree effective dissemination/implementation strategy. Publications will be produced in two languages and will include a manual on cost minimisation (including spot improvement) techniques.

These will be published and disseminated using the existing TRL/DFID information systems and the Internet. Conference papers, technical notes, workshop reports and journal papers will also be produced. Collaboration with other information exchange groups including ILO, PIARC, IFRTD will ensure wider distribution of results and research uptake. Workshops will be conducted to launch the project results, manuals and guidelines. Opportunities will be sought for early implementation of research on new projects, e.g.; DFID Ghana and Vietnam Feeder Roads projects, possibly RTTP project in Northern Zambia and possibly also NORAD funded projects in northern Mozambique.