Community Initiated Cost Sharing Road Programme in Zambia

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9th Regional Conference, Maputo, Mozambique 19 –24 May 2002
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Executive Summary

Zambia is landlocked and is surrounded by eight countries. The population is about 10.5 million and 50% live in rural areas. A 10-year programme called “Road Sector Investment Programme (ROADSIP) was formulated to address maintenance issues. The first phase is from 1997-2002 (US$500 million) and phase II from 2003-2007 (US800 million). One of the objectives of the programme was to create employment opportunities in the road sector and alleviate poverty through creation of 30,000 new jobs in road maintenance. The core road network is 33,500 km. The programme aims to bring the condition of the road network to at least 50% good, 40% fair and about 10%.

In order to address poverty, backlog of maintenance, limited budget for maintenance and encourage ownership of roads by community, it was decided to come up with a programme called “Community Initiated Cost Sharing”. Community would contribute 50% either in cash or kind and National Roads Board would contribute another 50% in cash. Sensitisation and awareness of the programme were done through print and electronic media (TV and radio). Community had to select a Chairman, Secretary and Treasurer. These were the people who organised the community, provided a link with Road Agencies; who oversee the programmes and National Roads Board. Once a Committee is in place, they would then apply for funds and once their request has been approved, they are requested to open a Bank Account in the name of the community. Money from National Roads Board is disbursed as imprest by instalment. After exhausting each imprest, a progress report, receipts, copy of Bank statement and certification letter from supervisor that work has been done to standard are submitted to National Roads Board.

In 2001, there were 24 projects running at a cost of US$451,887.40, 200 km done and 1,500 people were employed.

The policy of National Roads Board is to put all rehabilitated roads on annual routine maintenance programme including roads done by communities.

Community projects are cheaper by about 50% as compared with Contract ones under the Road Fund and over 60% cheaper than World Bank projects. Each project is reviewed at the end by using performance indicators. The programme has an invaluable impact in the country as many areas have been opened up to market opportunities. The demand for the programme is very high.

The effect of road improvements by measuring traffic increase, purpose of trips, type and volume of products transported would be done in due course.

In conclusion, the programme has been successful and the public would like it to continue as it has addressed poverty issues and opened up areas.
Community initiated cost sharing Programme

1 Introduction

In 1999, National Roads Board introduced a parallel programme called “community Initiated Cost Sharing Road Programmes. Under this arrangement, a community would identify a road project, not exceeding 10km, form a committee, estimate the project and organise labour force. National Roads Board would pay 50% cash of cost estimate. The project must employ more than 50% women because they live in abject poverty. The idea was advertised and it received support. Communities agreed to share costs in kind or cash so that they could have access to opportunities, reduce vehicle operating costs and save time. In some areas, there was no transport because of impassable roads. The programme has opened up these areas and this attracted public transport. The approach is bottom up. Community should identify a road project. Then they approach the Road Agency responsible for the road for authority and assistance in costing and supervising the projects. Once the Road Agency endorses the project, then documents are forwarded to National Roads Board for screening. If the project is approved, then work commences. Workers are paid according to tasks completed and minimum Government daily wage is US$1.25.

After maintenance, the roads still remain under the jurisdiction of Road Agencies. Communities are represented in the Road Agencies through Councilors and Members of Parliament.

At the time of compiling this report, no routine maintenance has been funded as most roads were either under rehabilitation or have just been completed. Completed projects will be put on Annual Work Programme for 2003.

2 Rationale for this Programme

The underlining philosophy for introducing this concept was to try to address poverty, backlog of maintenance, limited budget for maintenance and encourage ownership of roads by community since they are the ones using them. Poverty is wide spread throughout Zambia. In 1998 about 83% of the rural population was classified as poor as compared to 56% in urban areas. The percentage of income or consumption of the lowest quintile of population is 4.2% and for the highest is 55%. Evidence available suggests that not only do women comprise more of the poor than men but also they are the most severely affected by poverty. A major cause of poverty is lack of opportunity for effective participation in economic and political life of Zambia. In 1998, 29% of women had no education as compared to 24% for men. In formal employment, 12% were women as compared to 88% men. 16% of the children in Zambia are orphans and HIV/AIDS has contributed to this figure.

The Zambia Government has committed itself to a strategy aimed at reducing the incidence of poverty to 50% by 2015. A final Poverty Reduction Strategy Paper is currently in preparation. All future projects are to address poverty and HIV/AIDS. Procedures need to be put in place whereby it can continually monitor the impact of transport on poverty. Poverty assessment must be built into the project cycle, and should be applied at all stages, but particularly when
projects are conceived and prioritised. To supplement the Government efforts, National Roads Board came up with the idea of Community Initiated cost sharing programme which has now become very popular. The policy of Government and National Roads Board is to undertake this programme through Labour based methods and employing local inhabitants along the project line, especially women.

3 Background

Zambia is landlocked and is surrounded by eight countries, namely Zimbabwe, Botswana, Namibia, Angola, Democratic Republic of Congo, Tanzania, Malawi and Mozambique. The population is about 10.5 million and 50% live in rural areas. The population is concentrated along the line of rail from Livingstone in the south up to the Copperbelt. The density is about 15-35 people per Km2. The land area is 752,600 Km2 and comprises mostly a plateau with an elevation of between 1,000 and 1,4000 metres. The road network asset is estimated at US$3 billion. Zambia is a country of paradoxes. It has ample land and favourable climate. Average GNP per capita is US$320, which has fallen in recent years.

Road network is vital to the functioning and development of the country’s economy. The Road network is given below:

<table>
<thead>
<tr>
<th>Authority</th>
<th>Designation</th>
<th>Length (Km)</th>
<th>Core Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Roads Department</td>
<td>Trunk, Main and District roads</td>
<td>20,505</td>
<td>13,052</td>
</tr>
<tr>
<td>2. Local Authorities</td>
<td>Feeder roads</td>
<td>31,024</td>
<td>15,953</td>
</tr>
<tr>
<td>3. Local Authorities</td>
<td>Urban roads</td>
<td>5,500</td>
<td>1,500</td>
</tr>
<tr>
<td>4. Zambia Wildlife Authority</td>
<td>Community</td>
<td>7,200</td>
<td></td>
</tr>
<tr>
<td>5. None</td>
<td>Community</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>94,229</td>
<td>30,505</td>
</tr>
</tbody>
</table>

Source: ROADSIP II Baknable document 3rd draft, August 2001

This network is still under review as some people feel that it is too long and should be reduced to affordable length.

Below is a map of Zambia for ease of reference.

4 National Roads Board

4.1 Operations

National Roads Board is a consortium of all key players and stake holders in the road sector. It has seven members from the private sector and four from public sector. Public sector members have no voting rights. The Board reports to the committee of Ministers and committee of Permanent secretaries on Road Maintenance Initiative (RMI). Private sector members come from Zambia Association of Chambers of commerce and Industry, Zambia National Farmers Union, Transporters Association of Zambia, Engineering Institution of Zambia, Copperbelt University, Automobile Association of Zambia and the Chartered Institute of Transport, Zambia branch.
Public members come from Ministries of Transport and Communication, Works and Supply, Local Government and Housing and Finance and National Planning. These are ex-officio.

National Roads Board works with all stakeholders in the road sector and operates through Road Agencies, principally the Ministry of Works and Supply, Ministry of Local Government and Housing and Ministry of Finance and National Planning.

The over riding goal of the Government is to facilitate economic growth and diversification (e.g. agriculture) through appropriate investment in road infrastructure and through a sustainable system for the financing and management of the road network. In view of the above, the Government created National Roads Board through Statutory Instrument No.42 of 1994 to manage the Fuel Levy (Road Fund). The Board is non-executive and has a lean secretariat that consists of the Executive Secretary, two Accountants, two Engineers, one Procurement Specialist, two Secretaries one Driver, one Office Assistant and a Gardener

A 10-year programme called “Road Sector Investment Programme (ROADSIP) was formulated. The first phase is from 1997-2002 (US$500 million) and phase II from 2003-2007 (US$800 million).

### 4.2 Summary of Projects in phase I

<table>
<thead>
<tr>
<th>Projects</th>
<th>Expenditure (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) On-going</td>
<td>US$229</td>
</tr>
<tr>
<td>ii) New Projects</td>
<td>US$290</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>US$519</strong></td>
</tr>
</tbody>
</table>

*Table 1: 1997-2002 Expenditure*

### 4.3 Sources of funds

In Zambia, road works and services are undertaken through various funding sources as follows:

a) Road Fund managed by the National Roads Board
b) World Bank fund loan managed by National Roads Board
c) GRZ budgetary allocation managed by various ministries and agencies as they were funded directly by Ministry of Finance and Economic Development (MOFED)
d) Donor funds given directly to various ministries and agencies

Given below is a summary of 2001 and 2002 Annual Work Programmes

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>2001 (US$ m)</th>
<th>2002 (US$ m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. External Agencies</td>
<td>81.775</td>
<td>80.067</td>
</tr>
<tr>
<td>2. Government of Zambia</td>
<td>54.06</td>
<td>34.611</td>
</tr>
<tr>
<td>3. Road Fund</td>
<td>32.942</td>
<td>73.946</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168.777</strong></td>
<td><strong>188.624</strong></td>
</tr>
</tbody>
</table>
External Agencies include World Bank (IDA credit), Japanese International Co-operation Agency, European Union (EU), Kreditanstalt fur Wiederaufbau (KfW), KF/Badea and NORAD.

4.3.1 Road Fund road works carried out in 2001

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of Road Works</th>
<th>No. of Contracts</th>
<th>Amount in US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Paved Off-carriageway Maintenance</td>
<td>117</td>
<td>467,500.00</td>
</tr>
<tr>
<td>2.</td>
<td>Paved On-carriageway Maintenance</td>
<td>24</td>
<td>740,000.00</td>
</tr>
<tr>
<td>3.</td>
<td>Routine - Unpaved Maintenance</td>
<td>1</td>
<td>55,000.00</td>
</tr>
<tr>
<td>4.</td>
<td>Periodic - Paved</td>
<td>18</td>
<td>6,810,000.00</td>
</tr>
<tr>
<td>5.</td>
<td>Periodic - Unpaved</td>
<td>29</td>
<td>275,000.00</td>
</tr>
<tr>
<td>6.</td>
<td>Rehabilitation - Unpaved</td>
<td>11</td>
<td>950,000.00</td>
</tr>
<tr>
<td>7.</td>
<td>Emergency works</td>
<td>10</td>
<td>60,000.00</td>
</tr>
<tr>
<td>8.</td>
<td>Structures</td>
<td>2</td>
<td>80,000.00</td>
</tr>
<tr>
<td>9.</td>
<td>Design/Supervision</td>
<td>9</td>
<td>192,500.00</td>
</tr>
<tr>
<td>10.</td>
<td>Community Projects</td>
<td>24</td>
<td>452,500.00</td>
</tr>
<tr>
<td>11.</td>
<td>TOTAL</td>
<td>245</td>
<td>10,082,500.00</td>
</tr>
</tbody>
</table>

*Table 2: Expenditure in 2001*

From table 2 above, community projects rank 5th in terms of funding and 3rd in terms of number of contracts commissioned.

The work was on structure maintenance and not new construction. New construction is done directly by Government. First priority is given to routine maintenance followed by emergency, periodic and rehabilitation. Rehabilitation using Road Fund has been done where there was extreme political input (pressure). Most Rehabilitation works are funded externally.

5 Objective of the Road Sector Investment Programme (ROADSIP)

The main objectives of this programme were:

a) Bring a core network of 33,500 km into a maintainable condition.
b) Bring the condition of the road network to at least 50% good, 40% fair and about 10% poor for all types of road.
c) Strengthen the technical and managerial capacity of road authorities
d) Create employment opportunities in the road sector and alleviate poverty through creation of 30,000 new jobs in road maintenance
e) Improve road safety and reducing road accident by at least 20%
f) Improve environmental management in the road sector through establishment of procedures and Guideline
g) Improve road transport services in rural areas
h) Develop a framework for the management of community roads and promoting community participation in road management

5.2 Condition of Paved Road Network

<table>
<thead>
<tr>
<th>Year</th>
<th>% Good</th>
<th>% Fair</th>
<th>% Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>20</td>
<td>29</td>
<td>51</td>
</tr>
<tr>
<td>1998</td>
<td>31</td>
<td>36</td>
<td>33</td>
</tr>
<tr>
<td>1999</td>
<td>35</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>2000</td>
<td>43</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>2001</td>
<td>45</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 3: Road Condition in Zambia

The road condition has been improving. Road Fund is meant for routine and periodic maintenance while government and donor funds are for rehabilitation of roads.

6 Community Initiated Cost Sharing Road Project

6.1 Objectives of this Approach

a) Address backlog of maintenance and limited funds  
b) Create employment as a way of wealth creation  
c) Awareness of HIV/AIDS  
d) Promote mobility and access to markets  
e) To enhance ownership awareness  
f) Promote community participation and togetherness for self development

6.2 Eligible Communities

a) Churches  
b) Schools  
c) Groups of farmers  
d) Groups of residents  
e) Groups of commercial entities  
f) Cooperatives

6.3 Eligible Roads

Trunk, main, District, Urban, Feeder, Rurla and community roads considered to be of high importance by the community.

6.4 Role of Road Agencies (Provincial Engineers and Councils)

a) Assisting communities in project preparation  
b) Submission of project proposal to National Roads Board  
c) Enter into contracts with communities  
d) Supervise the works  
e) Certify the works  
f) Signatory to Bank account
g) Oversee, monitor and evaluate works

6.5 Procedures/ Guidelines

National Roads Board prepared guideline to help applicants and a sample is in annex I. Communities come together and elect a Chairman, Secretary and Treasurer. These projects are initiated by area Members of Parliament with support from their respective Road Agencies. Thereafter, a request for funding is sent to NRB secretariat who scrutinise them.

Due to low population densities and urbanisation, an assessment that is used for these projects takes into account both social and economic benefits deriving from road development. Applicants are asked some questions when they submit their applications and informal interviews are based on the followings:

a) Network considerations
   i) The road must link with another all-weather feeder or Trunk, Main and District roads
   ii) It should form a “loop” to facilitate efficient movement of goods transport
   iii) Road should form the main access to centres of large population, e.g. schools, hospitals/clinics
   iv) Roads leading to agricultural/ mining areas
   v) There is no duplication or conflict with other road projects

b) Social factors
   i) Presence and intensity of social infrastructure (health, education)
   ii) Potential increase in traffic volume and mobility of people
   iii) Employment creation potential

c) Economic factors
   i) Current/ historical agricultural surplus
   ii) Potential agricultural production
   iii) Planned development activities/projects

Since it is bottom up approach, engineers from Road Agencies assist communities in estimating the cost of works and to draw up Bill of Quantities which are attached to each application. The application (annex II) is then submitted to the Board for approval. Lead time between application and approval ranges from 1-30 days. The Board Chairman could approve smaller projects (US$10,000) within a day. Above this figure, Board has to approve within 30 days.

6.6 Banking and Accounting

a) After approval of project, community must open an account in the community name

b) There must be two signatories to the account. One from the community, normally the chairman and one from Road Agency
6.7 Internal Control

To ensure that work is done to desired standard, council or Provincial Engineers are involved in the supervision. The Board normally pays in installment e.g. total cost divided by the duration of the project. Once the work has commenced, NRB carries out random inspections to ensure that work conforms to standards and to check on labour and plant in use. After each imprest has been exhausted, it is retired with receipts, progress report that includes number of workers, paysheet, plant used, Bank statements and all necessary documents to support the expenditure. If this is not done, then no further funding to the project. Check list (annex III) is used to guide them on what is needed when retiring the imprest. All projects are further monitored using computers. Progress report should also state problems encountered, feelings of the people and their recommendations. This information helps in our future planning and monitoring the projects.

6.8 Types of Community Initiated Projects

Community contributing 50% of cost in different permutations as given below:

i) Community contributing labour only
ii) Community meeting 50% of cost in cash
iii) Road Agency providing supervision and community providing labour to meet 50%
iv) Road Agency providing labour and machinery and community providing labour
v) Community providing labour, machinery and materials
vi) Community engaging a contractor at reduced price
vii) Contractor and community providing 50% of cost
viii) Government or other agencies providing 50% of cost.

6.9 Interventions

i) Road rehabilitation – Lusaka South (Urban road), Tongo Tongo in Northern Province (Feeder road), Chipata in Eastern Province (urban roads), etc

ii) Culvert construction – Ngwerere Farms in Central Province (District road, Rural)

iii) Timber bridges – Kitwe City Council on the Copperbelt (urban)

iv) Deepening of canals – Mongu District Council in Western Province (Rural) and Chilubi Island in Northern Province (Rural)

v) Spot improvement – Mandevu in Lusaka (urban roads), Ngombe in Lusaka (urban roads)

vi) Pothole patching – Chingola on the Copperbelt (urban roads), ZAMIM road (urban roads in Lusaka) Lilayi road (urban road in Lusaka), etc

vii) Road surfacing – Lake lane road (urban road in Lusaka) and Chingola Municipal Council roads (urban)
viii) Combination of the above – Tongo Tongo (rural), Chipata Municipal Council, Lundazi, Mazabuka etc

6.10 Overview of Projects Launched

Sensitisation and awareness of the programme was done through print and electronic media (TV and radio). Tongo Tongo community applied first through their Member of Parliament who was a Deputy Minister by then. This was followed by Lake lane community, which is composed of staff from various embassies. Thereafter, TV crew and Pressmen were asked to inspect the projects and tell the public what they saw. This attracted the attention of politicians and the public and the findings were shown on TV, newspapers and broadcast on radio.

6.11 HIV/AIDS Awareness

Communities are encouraged to discuss about HIV/AIDS. This is so because Zambia is one of the countries affected by AIDS pandemic in the region. The prevalence rate is in the 15-49 years old and is estimated to be 19.5%, a small decrease from a peak of 20% reached in 1995. The prevalence rate is higher among females than males and generally higher in urban than rural areas. It is estimated that the figure will reduce to 18% by 2010.

6.12 Gender Issues

Inequality exists between men and women. This starts from basic education. Women constitute 65% of the illiterate population, 60% of the working age population in rural areas and 30% of heads of rural households. They contribute 80% of household food crops and more than 50% of the labour in cash crop production. However, they constitute only 8% of wage earners.

Due to the need to support the increased participation of women in development, the Government established a Women’s Unit in the National Commission for Development Planning in 1984. The mandate of this division is to coordinate gender mainstreaming in national development. Therefore, the programme encourages employment of at least 50% of workforce to be women.

6.13 Chingola Community (Urban Project)

The project started in 1999 and was spearheaded by His Worship the Mayor who was also a Civil Engineer and businessman. He provided a bond of US$8,000.00. He also organised labour and provided technical support. Intervention was pothole patching and slurry seal and these were done by Labour Based Methods and women were very active in the project. It was done under the supervision of the council, who were also certifying works done and recommend for further funding. Community contributed drums of bitumen, 10 mm crushed stone, labour and supervision. Phase I of the work came to an end in 2001. Summary is given below:

- Table 4: Chingola Community Initiative

<table>
<thead>
<tr>
<th>Km of roads</th>
<th>Area (m2) done</th>
<th>No. of roads</th>
<th>Man - hours</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.10</td>
<td>184,600.00</td>
<td>11</td>
<td>4,740</td>
<td>US$193,014.00</td>
</tr>
</tbody>
</table>
6.14 **Tongo Tongo Community Project in Northern Province (Feeder Road project)**

The project started in August 2000 and was spearheaded by the area Member of Parliament, who was by then Deputy Minister. The economic justification was that the road lead to agricultural areas, Mission hospital and a basic school and there were 18,000 local inhabitants living along the road. The community contributed 100 hoes, 100 shovels, 50 axes and 50 picks. A total of 202 people (606 man-months) were engaged. They were given tasks to complete each day. Scope of work was vegetation clearing, tree and stump removal, major reshaping, mitre/side drains, embankment construction, construction of 600 mm and 900 mm diameter culverts. Work was done by Labour Based Method and was supervised by an engineer from Chinsali District Council. The road was completed in December 2001. More requests have been received from the same area to do other roads.

The minimum wage in Zambia is US$1.25 but this Community was paid US$0.63 each per day. Payment was made at month ends. A total of 20 km was rehabilitated.

Other Projects followed a similar approach. Given below is a summary of projects carried out countrywide.

<table>
<thead>
<tr>
<th>Province</th>
<th>Km done</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lusaka</td>
<td>22.00</td>
<td>215,604.33</td>
</tr>
<tr>
<td>2. Eastern</td>
<td>74.90</td>
<td>116,121.07</td>
</tr>
<tr>
<td>3. Copperbelt</td>
<td>30</td>
<td>47,118.75</td>
</tr>
<tr>
<td>4. Luapula</td>
<td>17</td>
<td>22,623.25</td>
</tr>
<tr>
<td>5. Northern</td>
<td>48</td>
<td>46,350.00</td>
</tr>
<tr>
<td>6. Southern</td>
<td>7</td>
<td>4,070.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>198.90</strong></td>
<td><strong>451,887.40</strong></td>
</tr>
</tbody>
</table>

*Table 5: Summary of Countrywide community projects*

6.15 **Analysis of few Projects**

The comparison of rates is based on very similar projects that were within vicinity. In this case, they were based on projects in Northern Province where we had Tongo Tongo — Kasanta Kalinda road (20km) which was rehabilitated from a track to 6.1m wide gravel road by community and World Bank full and accessibility feeder road works. There were five projects within the same area which were funded by World Bank. In the case of pothole patching, the
comparison was in Chingola and Lusaka where there were projects being done by contractors and communities. The rates in table below are random samples from Feeder roads apart from rates for pothole patching which came from Chingola urban roads project.

<table>
<thead>
<tr>
<th>Description</th>
<th>World Bank contracts (US$)</th>
<th>Road Fund Contracts (US$)</th>
<th>Community Concept (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cost/ Km (Full rehabilitation, 6.1m wide)</td>
<td>7,600.00</td>
<td>6,200.00</td>
<td>2,272.00</td>
</tr>
<tr>
<td>2. Light bush clearing (ha)</td>
<td>375.00</td>
<td>350.00</td>
<td>215.00</td>
</tr>
<tr>
<td>3. Reshape foot track to road (m)</td>
<td>1.50</td>
<td>1.20</td>
<td>0.65</td>
</tr>
<tr>
<td>4. Gravelling 150 mm thick 4m wide (m3)</td>
<td>4.00</td>
<td>3.00</td>
<td>1.25</td>
</tr>
<tr>
<td>5. Provision of 800 mm concrete culvert (m)</td>
<td>240</td>
<td>60.00</td>
<td>32.50</td>
</tr>
<tr>
<td>6. Mitre drain (m)</td>
<td>1.00</td>
<td>1.00</td>
<td>0.63</td>
</tr>
<tr>
<td>7. Pothole patching (m2)</td>
<td>6.31</td>
<td>8.50</td>
<td>3.13</td>
</tr>
<tr>
<td>8. Unskilled Labour per day</td>
<td>5.60</td>
<td>4.00</td>
<td>1.10</td>
</tr>
</tbody>
</table>

*Table 6: Community Project Analysis*

It is evident that community projects are cheaper than those done by contracts. In case of Road Fund, they are cheaper by more than 60% as compared with World Bank projects. However, some roads did not have proper compaction, gravel and supervision were free as most gravel pits belong to Government and supervising engineers were on salaries. As regards, transport, only fuel was provided as vehicles belonged to councils or Roads Department. A rate of US$1.10 for labour was used for costing the project.

Generally, cost of road maintenance vary from place to place but average cost for each intervention (6.1 m wide) is given below:

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Cost/ Km (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Routine – Off Carriage way</td>
<td>358.00</td>
</tr>
<tr>
<td>2. Periodic - Paved</td>
<td>46,800.00</td>
</tr>
<tr>
<td>3. Emergency - Paved</td>
<td>1,1327.00</td>
</tr>
<tr>
<td>4. Grading a gravel road</td>
<td>200.00</td>
</tr>
<tr>
<td>5. Maintaining a gravel road using labour</td>
<td>120.00</td>
</tr>
<tr>
<td>4. Rehabilitation of feeder roads</td>
<td>7,6000.00</td>
</tr>
</tbody>
</table>
The following criteria and indicators are used in reviewing projects:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project purposes - have the poor increased accessibility to market economy and essential services?</td>
<td>- Number of road projects approved&lt;br&gt;- Number of road projects completed&lt;br&gt;- Km completed&lt;br&gt;- Type of structures improved</td>
</tr>
<tr>
<td>1. Coverage</td>
<td></td>
</tr>
<tr>
<td>2. Sustainable structures for maintenance in place</td>
<td></td>
</tr>
<tr>
<td>3. Condition/ Quality of the road/structure</td>
<td></td>
</tr>
<tr>
<td>4. Reduction of poverty</td>
<td>Evidence of employment generation</td>
</tr>
<tr>
<td>5. Financial grants disbursed</td>
<td>Actual disbursement compared to targets</td>
</tr>
</tbody>
</table>

Table 7: Criteria and indicators for reviewing projects. Source: (ROADSIP Mid Term Review)

7 Sustainability of the Programme

The policy of National Roads Board is to put all rehabilitated roads on routine maintenance. Therefore, each community in the project area is asked to submit annual budget through Road Agencies. The Agencies then submit a consolidated programme for funding. This means that there will be jobs for local inhabitants each year. One of the indicators of the sustainability of the programme is evidence that the communities have active maintenance committees who are always pushing for work. Road Agencies are responsible for maintenance and funds come from the Road Fund. Community is an interested party as they consider the project to be a source of livelihood. It is difficult to give a cost/Km for each type of road because of so many variables. However, given below is a plan of expenditure (US$ m).

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Routine</td>
<td>10.5</td>
<td>13.6</td>
<td>16.9</td>
<td>21.6</td>
<td>26.6</td>
<td>89.1</td>
</tr>
<tr>
<td>2. Periodic</td>
<td>5.0</td>
<td>6.4</td>
<td>7.3</td>
<td>7.0</td>
<td>6.4</td>
<td>32.3</td>
</tr>
<tr>
<td>3. Rahab, upgrading &amp;</td>
<td>0</td>
<td>0</td>
<td>0.7</td>
<td>1.4</td>
<td>0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Access improvements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Running costs</td>
<td>0.8</td>
<td>1.1</td>
<td>1.3</td>
<td>1.6</td>
<td>1.8</td>
<td>6.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16.3</td>
<td>21.1</td>
<td>26.2</td>
<td>31.6</td>
<td>35.4</td>
<td>130.6</td>
</tr>
</tbody>
</table>

Table 8: Source: World Bank ROADSIP Staff Appraisal Report, September 1997
7.1 Impact of the project on community

i) 200Km of road works have been done. This has increased the length of road network in good condition.

ii) Poverty alleviation has been addressed in the affected areas by paying the local inhabitants directly. According to area Members of Parliament, most women managed to buy farm inputs and school uniforms for their children.

iii) Over 1,500 local inhabitants (99,000 mandays) were employed and US$451,887.40 was spent on works done by Labour Based Methods. About 35 people managed to buy bicycles.

iv) According to reports from project areas, accessibility to clinics, schools, churches and markets is easy throughout the year and non-motorised transport is on the increase.

v) Farming areas were opened up and communities have access to inputs and markets for agricultural products.

vi) Roads have been put on annual maintenance programme. This means that funding is assured each year.

vii) Culverts across impassable crossings have shortened distances to markets, leading to increased marketing activities.

viii) Multiplier effects like communication have been enhanced.

No poverty audit has been done yet but road improvement interventions affect the general welfare of the poor, both directly and indirectly. Farmers make trips to the field and to the market, Intermediate Means of Transport like bicycles could be used, schools and clinics become accessible, vehicle operating costs reduced, thus leading to affordable fares. In undertaking the linkages between transport and poverty, it is helpful to track the effects of transport on the personal welfare of the poor in terms of three fundamental aspects: economic opportunity – recommended indicators point to the availability and accessibility of the public transport services, security – indicators point to the safety of using public transport and empowerment – the indicator is demonstrating the involvement of the poor in the design and planning process. According to C.Gannon and Z.Liu, (World Bank) lack of affordable means of transportation to important locations (immobility) is a symptom of chronic poverty and it is highly correlated with geographic isolation.

8 Problems with the Programme

i) Some communities did not know how to estimate projects – We insisted on technical staff to produce project proposals.

ii) Some did not know how to retire the imprest – Basic training was given when collecting cheques.
iii) Inspection of outlining areas was difficult – We insisted on photographs of work done when retiring imprest

iv) Demand exceeded supply – We asked Road Agencies to prioritise the projects and stopped accepting new applications until backlog of work was addressed.

9 Way Forward

Community Initiated cost sharing concept has proved to be cost effective and has tried to address poverty. It should continue but with modifications so that communities could maintain their roads on a continuous basis. Each district should come up with yearly budget which should be factored into the main ROADSIP budget. On the job training should of key staff in communities should be supported so that input from Road Agencies could be reduced.

It would be useful to monitor the effect of the road improvements, by measuring traffic increase, purpose of trips and type and volume of products transported. These indicators would provide more objective indicators on the real effect of road improvements.

Poverty audit should be undertaken at all stages of project development. At present a poverty audit has no special status in project design.

10 Conclusion

National Roads Board has come up with various innovations and community Initiated projects is one of them. The programme has made a very big impact in project areas and this has put pressure on National Roads Board to expand the budget for community projects so as to cover every district and open villages to district centres.
NATIONAL ROADS BOARD

COMMUNITY INITIATED COST-SHARING

1. INTRODUCTION
The National Roads Board (NRB) has initiated a scheme under which road maintenance works shall be carried out through community participation. This scheme has been launched in view of the following reasons:

(i) inadequacy of funding
(ii) urgency to carry out road works by communities in order to reduce vehicle operating costs and promote their own development
(iii) increased involvement of the private sector in taking ownership of managing and financing of roads as a forerunner and an essential input to development

2. DEFINITION
Community is defined as a group of people working together to achieve a common goal. In this respect, the goal is to improve the conditions of the road network affecting development of a community. A community for this purpose could be facilitated or organised through the following local institutions or groups which are common in our country namely:

♦ Church
♦ Schools
♦ Group of farmers
♦ Group of residents
♦ Group of commercial entities, and
♦ NGOs

3. ELIGIBLE ROADS
Roads that are eligible to be considered under the scheme shall be only gazetted or designated roads. This could be in the category of trunk, main, district, feeder or rural roads. Roads other than those gazetted shall not be considered under the scheme. However, in the case of community roads that are not gazetted, there is a project under the Social Recovery Project (SRP) which is responsible for similar initiative.

4. IMPLEMENTING AGENCIES
The NRB is not a road agency but a financing agency mandated to administer and manage the road and oversee the implementation of the road sector investment programme. The NRB therefore, does not directly finance or enter into a contract with any community. Under the current laws, Roads Department under Ministry of Works and Supply (MWS) is responsible for trunk, main and district roads. Roads Department operates through Provincial Road Engineers (PREs) under the Provincial Permanent Secretaries of respective provinces.
Similarly, the seventy-two (72) Councils under the Ministry of Local Government and Housing (MLGH) are responsible for urban, feeder and rural roads in the country.

It is therefore necessary that any community initiative to improve the condition of the road network through cost sharing should work with and through the respective road agencies namely the Councils/PREs as the case may be. Any application under this scheme should therefore be addressed to the respective PREs or councils with copies to the respective Ministry and the National Roads Board.

5. **SELECTION CRITERIA**

(1) Roads selected should be either trunk, main, district, urban or feeder roads that are designated.
(2) Preference will be given to roads, which serve large number of residents.
(3) Higher economic and social activity such as presence of agricultural farms, industries or roads leading to social amenities such as administrative centres, clinics and schools
(4) Organisation structure of the community.
(5) Social, political and strategic factors

6. **SELECTION OF ROADS FOR FUNDING**

As the amount of funds available is limited, selection of roads for funding will depend on:

(i) amount of funds required. Preference will be given to funding up to US$13,000.00 (K50 million). Large scale projects are discouraged as it is proposed to cover as many roads as possible to serve a wider range of communities with limited funding;
(ii) Sustainability of the project to be treated as part of the whole ROADSIP.

7. **COMMUNITY CONTRIBUTION**

Communities will be expected to contribute not less than 50% of the total cost of the Project. This contribution could be in the form of:

(i) cash
(ii) construction materials i.e. bitumen, stones, gravel, cement, etc
(iii) Plant and equipment i.e. graders, compactors, tractors, trucks and trailers, wheelbarrows, picks and shovels, etc.
(iv) Labour i.e. community may mobilise themselves to undertake the work by providing labour under labour based methods as well as supervision.

The higher the contribution by the community, the greater the chances of being rated a priority project.

8. **NRB’S CONTRIBUTION**

NRB shall contribute to a maximum of 50% of the full cost of the project as an upper limit. In a case where a lesser percentage is being requested to be contributed by NRB, this may have preference in ranking priority.

NRB contribution shall be by way of imprest of 20% of the contribution to be advanced provided a bond is made available. In case it is difficult to provide a bond, NRB will pay
certificates on carried out road works at each stage of the project. The road works should be certified at each stage of the project as to its quantity, quality, cost and time by a qualified Engineer approved by NRB before reimbursement can be made. In case the project has a qualified Engineer, the respective Councils or PRE being the mandated road agency should confirm the certificate before reimbursement is made.

9. **BANKING AND ACCOUNTING**

A special account will be opened in the name of the community. The signatories to the account shall be from the Council or PRE as the case may be and the Chairman or Secretary of the community under Panel A and B.

(i) Panel A

Chairman/Secretary of the Community

(ii) Panel B

Town Clerk/Council Engineer or PRE/Deputy as the case may be

One from each Panel should sign the cheque to enable the bank to make the payment. Progress reports should accompany retirement of imprest on a monthly basis.

10. **SUPERVISION**

Supervision of these works shall be in consultation with the implementing agency. All road works shall confirm to the scope of works and Bill of Quantities.

11. **SECURITY**

For a large project, a bond shall be submitted to cover the funds advanced not exceeding 20% of NRB’s contribution. The bond may be obtained from any reputable bank or Zambia State Insurance (ZSIC).

12. **DISCLAIMER**

NRB shall use its discretion to assess and consider each case in order to minimise risk of the scheme being misused. The decision of NRB shall be final.
Annex 2: Application Form

NATIONAL ROADS BOARD
COMMUNITY INITIATED COST SHARING ROAD PROJECT
APPLICATION FORM

1. Name of Project …………………………………………………………………………………………………………

2. Project Location
   2.1 Province ……………………………………………………………………………………………………………
   2.2 District ……………………………………………………………………………………………………………

3. Name of Community …………………………………………………………………………………………………

4. Community Description ……………………………………………(Estimated number of beneficiaries from works)

5. Name of Road: ……………………………………………………………………………………………………………
   5.1 ……………………………………………………………………………………………………………………………
   5.2 Distance (Km) ……………………………………………………………………………………………………………

6. Community Leaders:
   (i) Chairman ……………………………………………………………………………………………………………
   (iii) Secretary ……………………………………………………………………………………………………………
   (iv) Treasurer ……………………………………………………………………………………………………………

7. Road Agency Representatives:
   (i) PRE ………………………………………………………………………………………………………………………
   (ii) Council Secretary ………………………………………………………………………………………………………
   (iii) Director of Works ………………………………………………………………………………………………………

8. Form of Community Contribution:
   (i) Labour (Qty) K…………………………………………………………………………………………………………
   (ii) Equipment (Qty) K……………………………………………………………………………………………………
(iii) Material (Qty) K .................................................................

Total Contribution by Community K ..................................................

9. Estimated total cost of works ............................................................

9.1 % contributed by Community ........................................................

10. Economic justification ..................................................................

11. Number of users ...........................................................................

12. Road proximity to school, clinic, church, etc ....................................
Check List for retiring imprest
Community Cost Sharing Initiative

Project Name: ……………………………………………………………………………………………………………

<table>
<thead>
<tr>
<th>Details</th>
<th>Yes (Tick)</th>
<th>No (Tick)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Progress Report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Bill of Quantities (BOQ)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Community Contributions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Copy of Bank Statement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Pay Sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Vehicle Registration numbers where fuel was used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Receipts for all expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Certification of work by a supervising Engineer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Photographs where possible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. BOQ for the proposed new works</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Programme of work to show start and end dates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Any other supporting documents</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of work done (ZMK)

<table>
<thead>
<tr>
<th>Plant</th>
<th>Labour</th>
<th>Material</th>
<th>Km done</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of new work (ZMK)

<table>
<thead>
<tr>
<th>Plant (Hire and Fuel)</th>
<th>Labour</th>
<th>Material</th>
<th>Km to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>