



## **MARKET ACCESS IMPROVEMENT IN ZAMBIA**

**By**

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### **1. Introduction**

A highly innovative programme for delivering improved market access roads in Zambia was carried out between 2002 and 2007 called SHEMP (Smallholder Enterprise Development and Marketing Programme – access road component). The key features of the programme were:

- Designed to improve food security and reduce poverty through private sector means
- Farmers groups selected routes using technical advice provided
- Novel management structure where a hybrid consultant/management contractor supervised/executed the work with supervision assistance from District Councils
- 47 labour based contractors built 700km of gravel access roads very cheaply at around \$7,000/km.

The project was financed by the International Fund for Agricultural Development (IFAD) through the Ministry of Agriculture & Cooperatives of the Government of Zambia (GRZ). SHEMP covered 18 districts in four provinces as shown in the map in annex 1.

## **2. Programme Design**

### **2.1 Selection of Roads**

The Program's immediate objective was to improve linkage to markets for smallholders' products as well as input supplies and to alleviate poverty. The selection of roads took into account the following four factors:

- Preference of Focal Area Road User Groups. This involved a consultative process with local farmers;
- Vehicle Operating Costs (including Non Motorized Vehicle) Savings. This took into account consumption of spares, tyres and fuel;
- User Road Travel Time Cost;
- Producer Surplus Transport Savings.

### **2.2 Selection of Contractors**

During the month of February 2003, by a press advertisement in the "Times of Zambia", Expressions of Interest were requested from Small Scale Labour Based Contractors who wished to take part in the Road Works. There was tremendous response from the small contractors who were short-listed for works under specific Focal Areas. Contractors were then short listed based on the following criteria:

- Company Registration
- Vat Registration
- MoW & Supply Registration
- RTS Training
- Firm's exp in Labour Based Road Works
- Ownership of Equipment or ability to Hire
- Residence

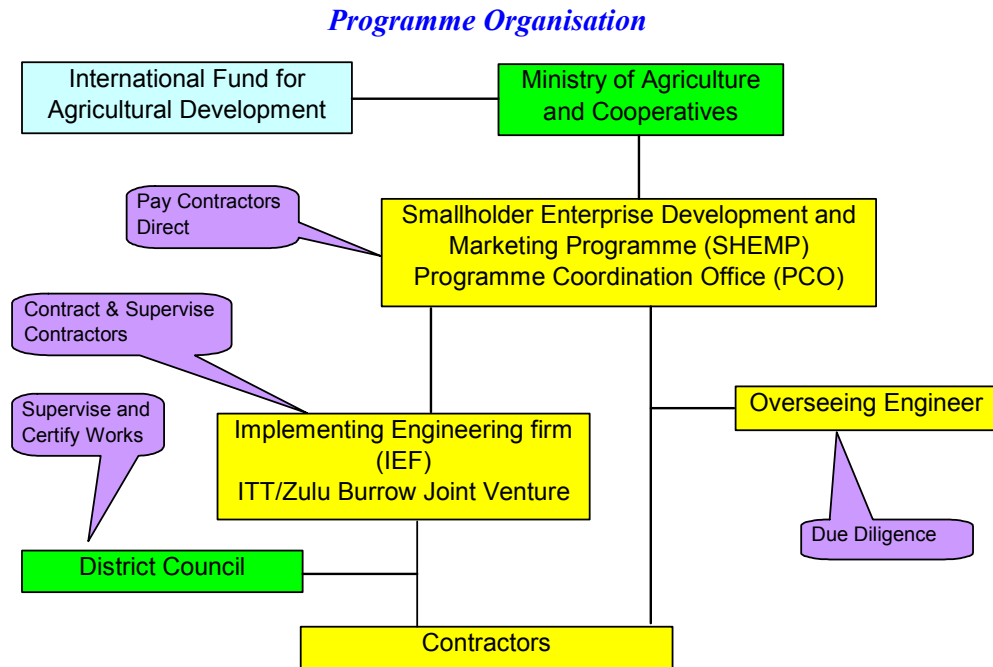
Shortlisted contractors were then invited to bid and evaluated on a financial basis.

### **2.3 Management**

The activities of the component are undertaken by private teams as Project Coordination Office (PCO), Oversight Civil Engineer, Implementing Engineering Firm, contractors and local labour all on contract basis. The PCO is hired by MASDA, a management consultancy firm, while the Ministry of Agriculture hired BICON Zambia as Oversight Civil Engineer and IT Transport/Zulu Burrow Joint Venture as Implementing Engineering Firm (IEF). The IEF contracted labour based contractors who in turn hired labour from the local communities. The District Works Officer from the District Council supervised works weekly and signed contractors certificates for works.

The innovation here was that the IEF was considered the main contractor and won the contract on the basis of carrying out both the works and supervision. The IEF managed the procurement of small local contractors and signed the contracts. This enabled the Central Tender Board to consider the procurement of the IEF as one contractor managing a series of subcontractors and hence only one approval was required rather than 47 separate approvals.

However the IEF was not strictly speaking a management contractor since the PCO paid the small labour based contractors certificates direct and the IEF was paid a fee for its services. Thus the IEF was a hybrid consultant/contractor. This arrangement is illustrated in the diagram below.



### 3 Programme Results

#### 3.1 Works & Contracting

The main result was 700km of gravel road built 4.5m wide with various drainage structures costing around \$4.5m. Out of the 47 contracts there were 6 terminations in the 5 years implementation period. This meant that SHEMP labour based contracts average of \$6,400/km for full rehabilitation compared favourably to around \$15,000/km in many countries.

According to the school authorities, the crossing at Kaweluwelu on the Haanjaliika road used to affect 100 out of the 530 pupils at Mweemba Basic School, which has become an occurrence of the past with construction of the bridge under the SHEMP. There are two crossings without proper bridges on the southern part of the school, which continue to affect about 200 pupils each time there are rains, leading to loss of up to 3 days of class time whenever it rains.



Contractors Capacity Increased:

- **Marklev** had contracts for K330m and K350m and have bought compactor, water bowser and tractor.
- **Continental Labour Based** had contracts worth K419m and K670m and have purchased 2 cars, 2 tractors, generator, 3 water tanks and 2 water pumps
- **Plough Africa** had contracts for K398m, K718m, K457m and have purchased 1 car, 2 trucks, roller, water bowser and 2 pipe moulds



**Typical Contractor Equipment**

### 3.2 Benefits

Road improvements have directly led to **improved accessibility, reduced transport costs and greater access to social and economic services**. The average 1st year rate of return was estimated at 30%.

Community participation in the Market Access Improvement Component of SHEMA had been in the planning process through sub-FARGs and contributing paid labour in the road works. These are the two areas clearly spelled out in the project design, and they are the areas where community participation has been most felt.

The members of the sub-FARGS representing the smallholders are elected by the farmer associations in the various zones of the district. These representatives get submissions from their associations on the priority roads for rehabilitation. District officials have rated planning under SHEMP as even more community driven than under ZAMSIF – Zambia Social Infrastructure Fund, and that ZAMSIF projects could be driven by few individuals.

A 45 year old widow with 5 children (2 married and 3 at school), summarised the experience as follows, “the company (the labour contractor) came at a right time. **There wasn’t enough food last season and the money assisted especially for us widows.**” From the same income she had to pay for those working in her fields while she was on the road works.

Considerable employment was generated by the programme. In 2005, 296,381 worker days was provided of which 25% were female and K1.058 billion (\$320,000) paid in wages.

On average, transporters experienced a **50 per cent** reduction in **replacements of spare parts** across a range of vehicle types and roads. The distance related operating costs have reduced ranging from 60 % for the heavy vehicles (2 and 3 axles), to 49 % and 36 % for the cars/light goods vehicles and 4 WD and related vehicles respectively.

Not only did the number of traders double, but the entry of FRA is significant, as it has come to be the major buyer and offering a premium price. The bigger buyers of maize offering premium prices have pulled the average price upwards from K 20,000 to K 30,000. Volumes of maize purchases have gone up considerably as shown in the table below.



Maize Stockpiled at end of project road

*Maize Purchases by Traders along (Kasosolo Road Chibombo District) for the Period 2002/2003 to 2007*

|                                    | Maize Purchases (50 Kg bags) |              |              |               |                      |
|------------------------------------|------------------------------|--------------|--------------|---------------|----------------------|
|                                    | 2002/2003                    | 2003/2004    | 2004/2005    | 2005/2006     | 2006/2007(projected) |
| Olympic Milling                    |                              | 3,000        | 6,000        | 8,000         | 10,000               |
| Lukanga Agric marketing Enterprise | 600                          | 600          | 650          | 650           | 680                  |
| Food Reserve Agency                | N/A                          | N/A          | N/A          | 26,740        | 40,000               |
| FVG Kabwe Milling                  | N/A                          | 6,000        | 10,000       | 17,000        | 20,000               |
| Wirewell Simwinga                  | N/A                          | N/A          | N/A          | 100           | 200                  |
| Avon Agric Marketing Company       | N/A                          | N/A          | N/A          | 10,000        | 5,200                |
| <b>Total</b>                       | <b>600</b>                   | <b>9,600</b> | <b>6,650</b> | <b>62,490</b> | <b>76,080</b>        |

Source: Field Survey, 2007



