Final Report

SOCIO ECONOMIC IMPACT STUDY

LABOUR-BASED ROAD MAINTENANCE DEMONSTRATION PROJECT

September 2002

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<td>Female Headed Household</td>
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<td>HH</td>
<td>Household head</td>
</tr>
<tr>
<td>JCSS</td>
<td>Junior Community Secondary School</td>
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<td>Kms</td>
<td>kilometers</td>
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<td>LBRM</td>
<td>Labour Based Routine Maintenance</td>
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Executive Summary

The Labour-Based Road Maintenance (LBRM) Demonstration Project was implemented between July 1999 and December 2001. The project was organised through the Institutional Cooperation Agreement between the Roads Department (Ministry of Works, Transport & Communication) and the Norwegian Public Roads Administration. The labour-based road maintenance strategy has been developed to contribute to the implementation of the Government of Botswana’s policies on poverty alleviation through employment creation, and increasing private sector involvement in the building of the economy.

The aim of the demonstration project was to develop experience and collect information on the application of labour-based methods to the maintenance of sealed roads, with a view to expanding the approach to 520 km of sealed primary and secondary roads. ILO/ASIST was engaged to carry out technical audits and special studies to highlight problems and constraints that need to be resolved for a large-scale application of labour-based methods using small-scale citizen contractors.

It was assumed that employment creation would directly benefit those households working on the project, and indirectly, through the disbursement of earnings from the working households, benefit households who were not working on the project. The aim of this impact assessment study is to assess the positive (and negative) impacts of the LBRM on the working households, the non-working households, and the participating communities as a whole. The terms of reference defined the scope of the study as follows:

i) Review the labour-based maintenance works carried out by the Roads Department in relation to the achievement of the development objectives, which include employment creation and poverty alleviation.

ii) Assess the socio-economic benefit realised through the implementation of the labour-based road maintenance project.

iii) Assess the effect of the labour-based maintenance project on women and men in relation to their status in community, total workload, family life, health and welfare. Assess how this affects the traditional way of living in the project areas.

The impact assessment study was focused on the communities of Dibete and Palla Road, who were involved in maintaining the 55 km stretch of road between Dibete and Mahalapye. The community of Artesia, located some 25 km south of Dibete on the same road, was used as the control community.

The study took place in July – August 2002, six months after the completion of the demonstration project. This allowed individual households, community leaders and local business owners to comment on any differences between their socio-economic situation during the project and in the post-project period.

Data was primarily collected through individual household interviews, discussions with community leaders, and interviews with business owners. In the data collection in Dibete and Palla Road a distinction was made between female headed households and male headed households, and between households that worked on the project and...
A total of 123 households were interviewed in the two communities. Fifty households were interviewed in the control community.

The data shows that the communities of Palla Road and Dibete, both as a whole and as individual households, feel that they have benefited from the project. Specifically:

- A significant number of households in each community derived cash earnings from the project. There is considerable variation in the amount of time households worked on a project, and therefore considerable variation in the total income individual households earned from the project.

- Households mainly used their earnings to meet basic needs – buying food, household items, and clothing. Female headed households (FHHs), and some male headed households (MHHs), used earnings to pay school fees (including arrears) and buy school uniforms.

- Nonetheless, earnings were sufficient to enable households, including households who only worked on the project for a short period, to ‘invest’ in resources that have a medium to long-term benefit.

- The majority of households that invested in medium to long-term resources spent money to upgrade their plot or house.

- There is ample evidence that injection of earnings into the community by LBRM households created casual employment opportunities for other people in the community.

- There is also ample evidence, particularly from the formal business sector, that the injection of cash into the community through the LBRM project assisted with business development, in some cases created additional jobs.

- Community leaders also reported that the project had a positive impact on the community. More households were able to pay school fees, and children attending school were better clothed and cared for. Patients in the HIV/AIDS home-based care programme were also better cared for because households had the cash to buy soap and more nutritional food. Community leaders reported that there was an all-round better atmosphere in the communities.

- The positive impact of the project on households and businesses is highlighted by the post-LBRM situation. Since the end of the project households reported a lack of employment opportunities, and a reversal in their economic situation. Businesses in the communities have reported a decline in their turnover, as there are now fewer households with money to spend.

- The LBRM project was the main source of employment for households. Virtually all (83, 88.29%) of the 94 LBRM households said that they had no other form of cash income during the project period. Nineteen (63.3%) of the 29 non-LBRM households also said that they had no other source of cash income in the project period. Those that had another source of cash income were mainly employed on drought relief projects. Thus, for most households in
Dibete and Palla Road there was no other form of cash income during the project, and the project made a significant difference to the socio-economic situation of the two communities.

- These conclusions are supported by the findings from the control community, where there have been fewer employment opportunities and the jobs created through drought relief have not provided households with earnings comparable to the LBRM project. In fact, in the control community 50% of households interviewed said that they have had no regular form of cash income in the last two years.

The findings of the impact assessment demonstrate that when a significant number of households are earning a reasonable wage, the income flowing into a community through those employed households does have a spin-on effect. Although households were employed in blocks of time, rather than continuously, the level of earnings was sufficiently high to enable them to meet immediate basic needs and make other ‘investments’. These investments often created casual employment opportunities for other people in the community. This appears not to be the case with other labour intensive government projects such as drought relief. This difference is significant in terms of the impact on the socio-economic situation of individual households.

Whilst the communities and most households felt that the project was well organised, a number of organisational issues have emerged. There is a need to ensure that FHHs and other disadvantaged households are adequately represented at the recruitment and employment stages. Clear guidelines on this are needed for contractors.

The Village Development Committees expressed concern about their limited involvement. After the registration stage there appears to have been little contact between the Village Development Committee and contractors. They do, however, have a potential role to play in selection of households and workers, resolving disputes, and monitoring the impact on the community.

It should, however, be noted that the benefits that a project like LBRM brings, rapidly dissipate once the cash stops flowing. The impact assessment demonstrates that there are good socio-economic reasons for sustaining the LBRM approach.
1 Introduction

The Labour Based Routine Maintenance (LBRM) Demonstration Project took place between July 2000 and December 2001. It was implemented along 217 kms of sealed road, in three main sections, namely Lobatse – Ramatlhabane, Nokaneng – Sepopa, and Dibete – Mahalapye.

The application of the labour-based methods in road works has been organised through the Institutional Cooperation Agreement between the Roads Department (Ministry of Works, Transport & Communication) and the Norwegian Public Roads Administration. ILO/ASIST was engaged to carry out technical audits and special studies to highlight problems and constraints that need to be resolved for a large-scale application of labour-based methods using small-scale citizen contractors. This impact assessment study is part of the special studies.

In a policy statement contained in the National Development Plan 8, the Government of Botswana emphasises poverty alleviation through creation of meaningful employment and the application of labour-based methods. Government policy is also directed to increasing the involvement of the private sector in the building of the economy. The LBRM approach was designed to contribute to the implementation of these policies.

It was assumed that employment creation would directly benefit those households working on the project, and indirectly, through the disbursement of earnings from the working households, benefit households who were not working on the project. The aim of this study is to assess the positive (and negative) impacts of the LBRM on the working households, the non-working households, and the participating communities as a whole.

The terms of reference for the study are given in Annex A. Within the framework set out by the terms of reference, the study examines the extent to which:

- The project has targeted the most poverty-affected households.
- Participating households have been economically empowered by their earnings from the project.
- Indirect income earning opportunities have been created as a result of the project.
- The project has influenced social behaviour in the participating communities.

The overall purpose of the study is to assess to what extent the project’s development goal has been met, and whether the LBRM project had a positive social and economic impact on the households in the project area.

The Dibete – Mahalapye section was chosen by the Roads Department as the focus for the impact assessment study. Dibete and Palla Road were selected as the study...
communities. In addition, the village of Artesia was selected as a control community - a point of comparison.

The report briefly discusses the methodology employed for the impact study (Section 2), details the findings of the study (Section 3), and discusses the significance of those findings (Section 4).
2 Methodology

2.1 Introduction

The socio-economic impact assessment study set out to examine the extent to which:

☑ The project has targeted the most poverty-affected households. Implicit in the development goals of the project is that specific attention will be given to those households most in need. Various studies in Botswana (for example, BIDPA, 1996) have demonstrated that female-headed households (FHHs) are generally poorer than male-headed households (MHHs).

☑ Participating households have been economically empowered by their earnings from the project. An underpinning expectation of the project is that the cash a household earns through the project will not only help that household improve its quality of life in the short term, but will also assist it to improve its social and economic status in the longer term through the acquisition of skills and/or ‘investment’ of the wage earnings in resources that will have a longer term benefit.

☑ Indirect income earning opportunities have been created as a result of the project. The expectation is that the injection of cash into a community by creating employment for some households will have a spin-on effect for other households. The expectation is that expenditure by employed households will strengthen existing income generating opportunities and create new ones for other households. Furthermore, local businesses would benefit from increased disposable income in the community.

☑ The project has influenced social behaviour in the participating communities. Economic empowerment of a community will have an impact on the social dimensions of a community that will be expressed through different forms of social behaviour.

An impact assessment should ideally be based on a before and after socio-economic survey. In the case of the LBRM project a survey of 30 employment seekers was conducted prior to the start of the project in the three LBRM areas¹. However, it provides a limited point of comparison. The details of the survey data do not appear to have been recorded for each of the specific project areas, and the Draft Final Report on the demonstration project provides only limited information on this aspect.²

In the absence of pre-project data, the impact assessment study has been based on a number of variables. They include:

- Community member’s perceptions about the project and how it has affected them.

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¹ The LBRM project was carried out on the Lobatse – Ramatlahabane, Nokaneng – Sepopa, and Dibete – Mahalapye road sections.
² Draft Final Report. Training and Establishment of Small Scale Labour-Based contractors in Routine Maintenance, Roads Department, Gaborone, February 2002
• Impact on business activities
• Households’ utilisation of the cash earnings and their investment in longer-term resources that will help improve their socio-economic situation.
• Household and community perceptions about their social situation during the LBRM project and in the post-LBRM period.

Data on these variables was collected from five sources. First, data was collected through household interviews. Second, data was collected through interviews with business owners and managers. Third, from meetings with focus groups. Fourth, from information provided by key informants, such as headteachers, nurses, and social workers. Finally, from secondary data sources, and in particular project reports.

Information from these different sources is compared and contrasted to draw a cohesive picture of the impact of the LBRM project.

2.2 ‘Investment' Variables

Thus, the overall assessment of the impact of the project has been based on the communities’ and individual households’ perceptions of the project. A key focus of the study’s methodology is, what might be called, investment variables. These investment variables, and the source of funding for them, are used as indicators to assess whether:

☐ the project has had an impact on a household’s economic resources, and in particular resources that might contribute to a household’s longer term social and economic welfare; and

☐ the investment in these resources has created other income earning employment opportunities for people in the community

Eight investment variables were selected to measure whether the project has enabled households to use earnings from the project to create future income earning / wealth creation opportunities. They are:

- purchase of agricultural equipment
- development of the household land areas
- purchase of livestock
- development of the cattle post\(^3\)
- purchase of transport
- investment in a new or existing business

Three other variables were defined in relation to investing in the welfare of a household. They are:

- upgrading of their plot or house
- purchase of household furniture and equipment
- hire of domestic labour

\(^3\) A ‘cattle post’ or *moraka* is the area where households with significant herds of cattle keep their livestock.
2.3 Household Survey
In this regard the data collection focused on households, rather than on individual workers. A household acts as a unit, and an individual contributes socially and economically to that unit.

The project documentation only provides information on the number of individuals participating in the project; it does not provide an analysis of participants by number and type of households. Records at the village level are rudimentary and not readily available. Consequently, data on which to base a household sample was sparse. Census data from 1991 shows that the percentages of FHHs and MHHs in the two selected communities are:

- Dibete: Total HHs = 142; FHHs = 89 (62.7%); MHHs = 53 (37.3%).
- Palla Road: Total HHs = 109; FHHs = 64 (58.7%); MHHs = 45 (41.3%).

It was estimated that 60 interviews, based on three-person working day period, could be completed in both Dibete and in Palla Road villages. This target included 20 households that did not work on the project, i.e. non-LBRM households. The targeted number of FHHs and MHHs that worked on the LBRM project, i.e. LBRM households, was as follows: FHHs = 24 (60%); MHHs = 16 (40%) = 40 interviews.

In practice, 59 interviews were completed in Dibete and 64 in Palla Road. This included 16 households in Dibete and 13 households in Palla Road who had not worked on the LBRM project. It proved difficult to reach the target of 20 non-LBRM households per village because of the large number of households in each community that had worked on the project. The non-LBRM households were targeted as a point of comparison and as a source of data on the spin-on impact of the project.

2.4 Business Survey
Another measure of whether the project has had any indirect effect on a community is the level of business activity. In the absence of any baseline data, business owners / managers were asked about perceived trends in their business growth during and after the LBRM project.

A total of seven formal business interviews were conducted; four in Dibete and three in Palla Road. These included general dealers, a petrol station, general dealer and bat / bottle store complex, a builder, a brick making business, and a hardware store.

In addition, information was collected from three households in Dibete and five households in Palla Road that had some kind of informal business activity. Generally, the activities were beer selling and / or tuck shop.

In the control community of Artesia, information was collected from eight formal businesses and seven households that had some kind of informal business activity.

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4 The latest census was conducted in 2001. However, detailed data, such as the number of female and male headed households in a community has not yet been released. Basic demographic trends in Botswana have not significantly changed over time, and it is unlikely that the ratio of FHH to MHH will have significantly altered in the targeted communities.
2.5 Focus Group Discussions

A focus group discussion was held with the Village Development Committee\(^5\) (VDC) in each of the communities in the study. Discussions with the VDCs in Dibete and Palla Road focused on:

- **General comments about the project.** Opinions about the ‘Successes’ and ‘Limitations’ of the project.

- **Benefits.** Specific discussion on how the community as a whole has benefited, and how households have benefited.

- **Gender relations.** Discussion on what impact women’s involvement in the project has had on gender relations in the household.

- **Selection Process.** Assessment of how participating households and individuals were recruited, the attention that was given to the involvement of FHHs, and the guidelines that were provided. A discussion of what improvements, if any, should be made to the recruitment process and why.

- **Task allocation.** Assessment of how tasks were divided between women and men, and the process that was followed to decide who should not be hired when the numbers of workers were reduced.

- **Health status.** The impact of the project on the social and environmental health of the community.

- **Alternative employment.** Discussion on the alternative employment opportunities that might have been available if LBRM had not been implemented.

In Artesia, the control community, the focus was on the economic changes that have taken place over the last two years, the social and environmental health of the community, and alternative employment opportunities.

Although there was a structured approach to each of the discussions, issues of interest were pursued as they arose.

2.6 Key Informant Interviews

Interviews were held with nurses and clinic staff, and head teachers in each of the three communities. In Artesia there is a resident social worker and a resident community development officer and discussions were also held with them. These discussions focused on key informants observations about the community during and after the LBRM project, and the impact that the project had on schools and health care in the community.

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\(^{5}\) A Village Development Committee is an elected village committee that is responsible for overseeing the development of a community.
Discussions were also held with the consulting engineers and one of the citizen contractors, Gops & Son. Attempts to contact Shumba and I & S Construction were not successful.

2.7 Control Community

Artesia was chosen as the control community for comparison purposes. The basic issue was how have households in Artesia performed in terms of the impact variables, and what employment opportunities have existed over the past two years. A separate but similar household questionnaire was designed for the control group. As a point of comparison, business interviews were also conducted in Artesia, again focusing on the trend in business growth in the LBRM period.

The assumption behind having a control group or community is that the two situations being compared are the same or similar. Whilst Artesia, Dibete and Palla Road are all rural communities, adjacent to the main road, and some distance from an urban centre of any note, there are differences that need to be recognised.

Dibete, according to the 1991 Census, has approximately 142 households, 53 male and 89 female-headed households. Historically Dibete was a Basarwa settlement. Statistical data suggests that the level of economic activity is low. Land areas are not widely possessed by residents (*pers comm. Kgosi Mosarwa*), and in 1991 only 42 households were reported as owning cattle. Approximately one third (33) of the FHHs had one or more cash-earning members, compared to about two-fifths (20) of the MHHs. Only 40 households (22 male and 18 female headed) were receiving remittances.

In contrast, just over two thirds (46) of the 64 FHHs in Palla Road had one or more cash earning members. However, only 11 of the 45 MHHs had one or more cash-earning members. Households in Palla Road have land areas and 44 households – almost half of the settlement - own cattle. Almost half (59) of the households (16 male and 43 female) were receiving remittances. In 1991 the community had a population of 693, and there were 109 households, 45 male headed and 64 female headed.

In 1991 Artesia had a population of 885. There were 174 households in the village, 78 male and 96 female-headed households (1991 Census). Approximately one third (39) of the FHHs had one or more cash-earning members, compared to about two-thirds (57) of the MHHs. Almost half of the households (27 male and 57 female) were receiving remittances, and approximately half (88) of the households own cattle.

Artesia can be considered to be a wealthier community. Furthermore, the village serves as an economic and administrative centre for surrounding settlements and cattle posts. It is a designated sub-district centre and has a Junior Community Secondary School.

Whist these variations do not override the control situation, they do need to be taken into consideration in terms of data analysis.
3 THE SOCIO-ECONOMIC IMPACT

3.1 Introduction
The impact of the LBRM on individual households and community is discussed in this section. The data presented is drawn from the focus group discussions, key informant interviews, and household interviews. ‘Impact’ is primarily discussed in terms of what contribution the project has made towards the alleviation of poverty in the communities, and particularly in the households that worked on the project. The discussion also looks at the possible negative impact of the project on the communities and households.

3.2 Community Participation
The use of labour based methods in road construction in Botswana is not new. It dates back to the 1970’s. The Labour Intensive Rural Roads Programme was started as a pilot project in 1980. The main objectives of the labour based strategy in Botswana are employment creation and poverty alleviation. Government policy stipulates that “each Ministry should identify budgeted and planned maintenance and other recurrent activities as well as development projects that should be implemented using labour based approaches”. The policy further states that “Labour based components of the social safety net should take the form of permanent programme to be specifically targeted to the poor.” (GOB 1998) The importance and need for the participation of an expanded citizen private sector in the economy was also recognised, and that labour based approaches to road maintenance might afford such opportunities.

Thus, an underlying premise of the LBRM is that it is also a community-based approach. Community involvement and ownership of infrastructure’ is singled out as one of the benefits by ILO/ASIST.

Consultations with the communities were held before the start of the project. The purpose of the consultation was to:

\[\text{Raise awareness of the LBRM programme among villages and communities adjacent to the project roads.}\]

\[\text{Identify the availability of available contractors and labour.}\]

\[\text{Engender project ownership and seek suggestions, collaboration, and participation of Headmen, Chiefs, and the community. (Roughton, 2002)}\]

Discussions with the community decision-making bodies suggest that their involvement did not go much beyond this initial consultation. The recruitment of workers was done at the kgotla\(^7\), but both VDCs feel that it was the contractors that

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\(^6\) The original focus of the consultant, Roughton International, was on identifying or forming contracting groups within the communities. This was subsequently changed and contractors were selected, on a tendering basis, from companies already registered with the tender board.

\(^7\) ‘Kgotla’ is the traditional meeting place in a village for consultation and collective decision-making.
mainly managed the recruitment process, and that they were largely by-standers. Although they did have some influence over the selection process, which is discussed in Section 3.3, the VDCs’ perception is that they had a very limited role. Furthermore, both VDCs said that after the initial recruitment of workers there was little or no contact between themselves and the contractors. Only in one instance does it appear that a contractor reported back to the kgotla at the end of the project period.

The VDCs feel that they should be informed about the role of all the stakeholders, and in particular the contractor and the VDC so that they can assist the contractors with any difficulties that may arise vis a vis the community. They noted that the lack of communication between the contractor and the VDC had, in some instances, caused difficulty. Palla Road noted that one VDC member was employed in the contractor’s office. She was not allowed time-off to attend VDC meetings, “and this nearly cost me my seat on the VDC”.

It should be noted that in the contract agreement with contractors there is no mention of the VDC, or of any required interaction between the two bodies. There were no written guidelines on recruitment of workers.

It is, in fact, debatable whether VDCs fully understood the social dimensions of the project. The focus group discussions suggest that the significance of focusing on FHHs was not fully realised. In Dibete the VDC said, “We did not realise that focusing on FHH and other poor households was important in respect of this project. We focused on gender equity and did not fully think about the need to make arrangements to specifically target the very poor households.” Palla Road VDC said, “If we had been more involved and more aware of the intended social and community benefits of the project we would have taken steps to talk to those community members who were spending all their earnings on drinking.”

### 3.3 Recruitment of workers

Given the projects focus on poverty alleviation, a key aspect of the project is to what extent did the LBRM target households most in need. Studies on poverty in Botswana highlight that FHHs are amongst the poorest. Therefore, this study has given attention to the extent to which this category of households was targeted.

This issue of worker selection and the variations in male – female employment ratios was discussed with the VDCs. There is some variation between Dibete and Palla Road in terms of how the selection was done, but in both cases contractors used a ‘Yes/No’ ballot method. In each case the jobs were divided equally between men and women. In Palla Road, I & S Construction sought to give priority to women, but this was overruled by the community who wanted jobs divided equally between men and women. Palla Road community also insisted that jobs be divided between different age groups.

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8 The ‘Yes/No’ ballot method seems to be common to communities in this area in terms of selecting people for participation in employment creation projects. ‘Yes’ is written on small piece of papers according to the number of jobs available. The ‘Yes’ papers are divided equally between men and women and put in two separate boxes. A large number of ‘no’ papers are added to each box. Men and women form two lines and select from their respective boxes. Those drawing a ‘Yes’ paper are selected for employment.
However, the majority of people employed in both communities were in the 18 – 45 age range.

What is evident is that communities in this area have a common approach to selecting households for work on public projects. In the control community of Artesia interested households have to line up. Only one person per household is allowed. Male and female-headed households are not separated. Jobs are allocated to those first in the line.

Although the project did not have specific guidelines on targeting FHHs or the poorer households, communities did take this into consideration. In Dibete it appears that where a household was felt to be in particular need, the representative was given more than one chance to pick a ‘Yes’ paper. In Dibete households were limited to having one representative (either male or female) in the ballot. In Palla Road this was not taken into consideration. In Artesia, on drought relief projects, special consideration is given to those households that are very poor. This is done in consultation with the local social work official.

The comments from households on the recruitment process were more or less evenly divided between those who considered the Yes/No process to be fair, and those who did not. Inevitably the majority of households who thought the process was unfair were not selected for work on the project. However, some households who did get employed also thought the process was unfair. In Dibete for example, one such household said, “To some it was fair but to those households who really needed a job but got a NO it was unfair”. Another household, also employed on the project, said, “I think they should have firstly looked at those who are in poverty and employed them first.” In Palla Road, respondents generally thought the selection process was fair in so far as it was done at the kgotla, open to all, and people of all age categories had an opportunity to get a job.

Despite the fact that the inclusion of FHHs was not specifically addressed in the selection process they appear to be well represented at the registration stage. The Draft Final Report notes “it became apparent at this stage [i.e. the community consultation stage] that there was a large reservoir of available labour in the villages and that there were more women than men seeking work.” (pp2-3) The report gives a breakdown of the number of people registered for work. In Palla Road 133 people were registered, 45 men and 88 women. Seventy-nine (79) of the women were unmarried with children. In Dibete 46 people were registered, 22 men and 24 women. Twenty-one (21) of the women were unmarried with children. (pp 3-3).

This balance in favour of FHHs is probably a reflection of the demographic structure of the communities and the fact that women in FHHs are more in need, and, therefore, more keen to register. It is, however, evident that communities have their devices for ensuring that the interests of households most in need are taken care of.

This social dimension was not carried over in terms of actual employment. The Monthly Progress Reports prepared by Roughton International do not give data on the number of female-headed households and male-headed households employed.

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9 Census data shows that in each of these two communities FHH comprise about 60% of all households.
INSERT TABLE 1
However, the Monthly Progress Reports do provide information on the number of workers employed by each contractor, and broken down by sex. This data is summarised in Table 1.

The figures in Table 1 are visually presented in Chart 1. It shows that Gops and Shumba contractors consistently hired a greater number of men than women, although the number of women and men registered for employment was almost equal. A comparison of the number of females and males registered with the actual employment situation shows that more men than women were employed.

![Chart 1: % of Male / Female work days by contractor](chart1.png)

The reverse is true in the case of I & S Construction for the first 12 months of the project. Thereafter, I & S Construction hired a greater number of men each month. Over the project period, I & S Construction hired almost as many women as men. However, it should also be noted that at the recruitment stage a much higher percentage of women than men were registered. Again this is not reflected in the actual allocation of workdays.

At the labour registration stage that more women than men were interested in getting work, but this is not reflected in the actual employment. This is highlighted in the figures provided by the Roads Department\(^\text{10}\) for all the LBRM pilot project areas in Table 2.

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<td>Employment Data and Wages Distribution for the LBRM June 2000 to December 2001</td>
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<th>Wages in % of Total Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Dibete Mmanabula</td>
<td>248</td>
<td>165</td>
</tr>
<tr>
<td>Mmanabula – Palla Road</td>
<td>222</td>
<td>28</td>
</tr>
<tr>
<td>Palla Road – Mahalapye</td>
<td>314</td>
<td>337</td>
</tr>
<tr>
<td>Lobatse – Ramatlabama</td>
<td>347</td>
<td>324</td>
</tr>
<tr>
<td>Nokaneng - Sepopa</td>
<td>539</td>
<td>351</td>
</tr>
</tbody>
</table>

Source: Roads Department, 2002

\(^{10}\) There are some variations in the figures. For example, data compiled from the Monthly Reports are not entirely the same as those compiled by the Roads Department. However, both sets of figures reflect the same trends.
INSERT pictures
INSERT pictures
Table 2 shows that for the Dibete – Mahalapye section, with the exception of Palla Road, fewer women were employed, and their percentage of the total wage payment was less than that of men.

The project did not provide specific guidelines on targeting needy households, and ensuring that female-headed households were included in the allocation of work. This was confirmed by both the communities and the consulting engineer (pers comm Ramsay Neseyif, Roughton International). The Draft Final Report notes that “future work [needs to] examines ways to ensure that proportionally higher numbers of females are employed.”

### 3.4 Task Allocation

It is evident from the figures provided in Table 1 that the number of workers employed increased in the grass cutting seasons and thereafter reduced sharply. The de-selection of workers at these times appears to have been done, at least partially, on merit. The foreman in Palla Road explained that attendance records were used to decide who would and would not be laid off.

However, it is also apparent that gender perceptions were an influence. It was again noted that the heavier work of repairing potholes was mainly given to men. This is shown in Charts 2 and 3. Based on the responses from the participants, women were mainly given the task of grass cutting, whilst men had a more even spread of work over all the tasks.

Nonetheless, the focus groups, and many of the individual respondents, stated that work was fairly allocated and that women and men were employed on all tasks. Typical comments from both female and male household respondents in Dibete were:

- Jobs were allocated fairly. They did not look at sex when we were given jobs.
- No, it was fair. Some jobs we women did not do simply because we were women,
but even men were doing the same jobs as women.

- Job allocation was fair and allocated regardless of sex and age.

Data from the household survey on task allocation by sex and age is given in Table 3. It primarily shows that some tasks, such as cattle chasing and road repairs, were mainly assigned to men.

<table>
<thead>
<tr>
<th>Task</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>16 - 30</td>
<td>31 - 50</td>
<td>51+</td>
</tr>
<tr>
<td>Grass cutting</td>
<td>18</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>Bush clearing</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Litter picking</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Drainage &amp; culvert cleaning</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cattle chasing</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Road repairs</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data from the household survey

As noted above, participating households did not feel that there was any gender bias in terms of the allocation of work. In Palla Road virtually all of the LBRM respondents observed that “men and women did the same job”. ‘Fairness’ in this regard was, for example, based on the view that it is not appropriate for women to be out chasing cattle at night. There was also thought to be ‘fairness’ in terms of men and women being paid the same for the same work, and people being allocated work according to their capability. One respondent observed, “Allocation of jobs was done equally between men and women, and those who worked hard got more money at the end of the month.”

Respondents stated that workers were divided into groups and groups were allocated tasks. At Palla Road there does appear to have been some rotation of tasks amongst groups. The foreman interviewed\(^\text{11}\) said that all groups were given the chance to work on the more physically demanding work of road repairs. However, it does appear that some jobs were ‘reserved’ for men. There was a consensus amongst those interviewed that cattle chasing at night was not considered to be suitable work for women. Road repair, and handling of the heavy equipment, was also seen as too demanding for women.

### 3.5 Impact on Households

#### 3.5.1 The respondents

In the communities of Dibete and Palla Road a total of 123 interviews were conducted. Of these interviews, 94 were conducted in households that had a member(s) working on the LBRM project, and 29 were with households where no one had worked on the

\(^{11}\) Each group elected its own foreman
LBRM project. An analysis of the household head status of respondents is given in Table 4.

### Table 4
Status of HH Respondents  
(numerical analysis)

<table>
<thead>
<tr>
<th>HH Type</th>
<th>Dibete</th>
<th>Palla Road</th>
<th>Artesia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LBRM HH</td>
<td>Non LBRM HH</td>
<td>LBRM HH</td>
</tr>
<tr>
<td>Female headed</td>
<td>20</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td>Male headed</td>
<td>23</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Total Number</td>
<td>43</td>
<td>16</td>
<td>51</td>
</tr>
</tbody>
</table>

Table 5 gives an overview of the household head age and education status of the LBRM households interviewed in Palla Road. The majority of both MHHs and FHHs were under 50 years of age. MHH tended to be better educated, although a higher percentage of FHH had attended JCSS.12

### Table 5
Palla Road: LBRM HH Age and Education Status

<table>
<thead>
<tr>
<th>HH Status</th>
<th>16 - 30</th>
<th>31 - 50</th>
<th>50+</th>
<th>None</th>
<th>Primary</th>
<th>JCSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
</tr>
<tr>
<td>MHH (16)</td>
<td>5 34.3</td>
<td>7 43.7</td>
<td>4 2.5</td>
<td>2 12.5</td>
<td>13 81.3</td>
<td>1 6.2</td>
</tr>
<tr>
<td>FHH (35)</td>
<td>10 28.6</td>
<td>24 68.5</td>
<td>1 2.9</td>
<td>11 31.4</td>
<td>18 51.4</td>
<td>6 17.1</td>
</tr>
</tbody>
</table>

There was no significant difference between the respondents in the LBRM group and the control group. Households in the non-LBRM group were spread across the three age ranges. Two of the FHHs and one of the MHHs were in the 16 – 30 age groups, 4 FHHs and 4 MHHs were in the 31 – 50 age group, and one FHH and one MHH were in the 51+ age group. Four of the FHHs had completed primary school and one junior secondary school. Two of the FHHs and 5 of the MHHs had no formal education.

In Dibete, the age and education status of LBRM HH is similar to that of Palla Road. There were only 4 MHHs in the 50+-age category. A higher percentage of both MHHs and FHHs in Dibete had a JCSS education than in Palla Road, but this is not considered to be of significance in terms of the road project and its recruitment procedures.

### Table 6
Dibete: LBRM HH Age and Education Status

<table>
<thead>
<tr>
<th>HH Status</th>
<th>16 - 30</th>
<th>31 - 50</th>
<th>50+</th>
<th>None</th>
<th>Primary</th>
<th>JCSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
</tr>
<tr>
<td>MHH (23)</td>
<td>8 34.8</td>
<td>11 47.8</td>
<td>4 17.4</td>
<td>8 34.8</td>
<td>12 52.2</td>
<td>3 13.0</td>
</tr>
<tr>
<td>FHH (20)</td>
<td>6 20.0</td>
<td>14 70.0</td>
<td>0 0</td>
<td>1 5.0</td>
<td>15 75.0</td>
<td>4 20.0</td>
</tr>
</tbody>
</table>

---

12 JCSS: Junior Community Secondary School
Again, the age and education status of non-LBRM households in Dibete was similar to the LBRM households. Households in the non-LBRM group were spread across the three age ranges. Two of the FHHs and 3 MHHs were in the 16 – 30 age groups, 3 FHH and 3 MHH were in the 31 – 50 age group, and 2 FHHs and 3 MHHs were in the 51+ age group. Thus, in the non-LBRM households category there was a higher percentage of respondents in the 50+ age category. Six of the FHHs and 4 MHHs had completed primary school. One FHH and 2 MHH had no formal education.

### 3.5.2 The LBRM Workers

In 83 instances the head of a LBRM household had been the only one to work on the road project. In 11 instances the HH and at least one other member of the household had worked on the project. Only in 5 instances had a person other than the household head worked on the project. Chart 4 gives a breakdown of project workers by type of household. In 11 of the LBRM households there were two or more members employed on the project.

![Chart 4: Category of LBRM Workers by HH Type](chart)

In Section 3.4 note has been made of the differences in task allocation between sexes. There are also differences in the length of time males and females actually spent working on the project. For example, in Dibete 30% of FHHs compared to 61% of MHHs reported that they were registered with the project throughout the 18 months. A few women left early due to illness or pregnancy.

The estimated household earnings for the 18 month project period varied between less than P2000.00 and P10,000.00+. Table 7 gives a rough guide on what households estimated as their total earnings from the project.
Table 7

Estimated Household Earnings from the Project

<table>
<thead>
<tr>
<th>Income range</th>
<th>Dibete</th>
<th>Palla Road</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FHH</td>
<td>MHH</td>
<td>FHH</td>
</tr>
<tr>
<td>Less than P2000</td>
<td>6</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>P2000 – 4000</td>
<td>5</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>P4001 – 6000</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>P6001 - 8000</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>P8001 – 10,000</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>P10,000+</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

No response: Palla Road = 14

Calculated on a monthly basis for the 18 month project period, 17 households had a cash income of less than P111.00, 26 households had earned between P111.00 and P222.00, 10 households had earned between P222.00 and P333.00, 17 households had earned between P333.00 and P444.00, 14 households had earned between P444.00 and P555.00, and 8 households had earned more than P555.00. Thus, calculated as an average monthly income, the monthly earnings for the project period for most households was of a modest amount.

Virtually all (83, 88.29%) of the 94 LBRM households said that they had no other form of cash income during the project period. Nineteen (65.5%) of the 29 non-LBRM households also said that they had no other major source of cash income in the project period. Those that had another source of cash income were mainly employed on drought relief projects.

Data from the 1991 Census showed that a significant number of households in Dibete and Palla Road had a cash-earning member and/or were receiving remittances. In the survey households were specifically asked if they had “any other major source of cash income”. Their response suggests that money received from remittances is not significant in amount. The VDCs confirmed that there are few work opportunities in the villages. Thus, for most households in Dibete and Palla Road there was no other major source of cash income during the project.

3.5.3 Benefits to Households

For the households that worked on the LBRM project there were two immediate benefits:

- Increased spending power as a direct result of the income earned.
- Acquisition of skills.

Forty-one of the 94 LBRM households said that they have acquired skills on the LBRM project that they have applied to other situations. Table 8 gives a more detailed analysis of the responses.
Table 8
Acquisition of skills from LBRM
(number of households)

<table>
<thead>
<tr>
<th></th>
<th>Dibete</th>
<th></th>
<th>Palla Road</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FHH</td>
<td>MHH</td>
<td>FHH</td>
<td>MHH</td>
<td>FHH</td>
<td>MHH</td>
</tr>
<tr>
<td>Acquired</td>
<td>7</td>
<td>13</td>
<td>14</td>
<td>7</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not acquired skills</td>
<td>14</td>
<td>9</td>
<td>20</td>
<td>9</td>
<td>23</td>
<td>18</td>
</tr>
</tbody>
</table>

Most of the people who said that they had acquired skills described this in terms of knowing how to use a slasher properly or repair potholes. However, few could describe how they had practically applied these skills in other situations.

Of course, people perceived the major direct benefit as being the cash earnings and the increased spending power that it brought. The project’s expectation was that income earned from this project would help households to improve the quality of their lives. This certainly seems to hold true for the short term. Given the modest average monthly earnings from the project it is hardly surprising that most households said that their main expenditure was on immediate basic needs, i.e. food and household items and clothing. Table 9 provides an overview of how the LBRM households said that they had mainly used their earnings.

Table 9
Households main use of LBRM income
(number of households)

<table>
<thead>
<tr>
<th>Use</th>
<th>Dibete</th>
<th></th>
<th>Palla Road</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FHH</td>
<td>MHH</td>
<td>FHH</td>
<td>MHH</td>
<td>FHH</td>
<td>MHH</td>
</tr>
<tr>
<td>Food &amp; HH items</td>
<td>21</td>
<td>18</td>
<td>33</td>
<td>16</td>
<td>54</td>
<td>34</td>
</tr>
<tr>
<td>Clothing</td>
<td>18</td>
<td>18</td>
<td>30</td>
<td>16</td>
<td>48</td>
<td>34</td>
</tr>
<tr>
<td>Education</td>
<td>4</td>
<td>8</td>
<td>11</td>
<td>7</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

However, many households reported that they had used their earnings to invest in developments that are of long term, as well as of immediate, benefit. The analysis of the twelve ‘investment variables’ demonstrates this (see Table 10). The investments have mainly focused on the welfare variables, such as improving housing and the furnishing thereof. However, a number of FHHs and MHHs did invest in livestock.

There is some anecdotal evidence of other types of investment. For example, two of the female members of Dibete VDC said that they have started businesses from the LBRM earnings. One now has a fruit stall along the main road, and the other is selling chibuku. Some households have of course ‘invested’ in more than one area.

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13 Chibuku is a traditional form of beer that is commercially produced. It is retailed mainly through informal traders in the rural areas and the low-income urban areas.
If a comparison is made with non-LBRM households in the two communities there is a notable difference. For example, a comparison based on the ‘upgrading of housing/plot’ variable shows that 16 (31%) of the 51 LBRM households in Palla Road invested in this area, compared to two (7%) of the 13 non-LBRM households in the same period. Similarly in Dibete, 23 (53%) of the 43 LBRM households, compared to two (12%) of the 16 non-LBRM households, invested in housing and plot development. This suggests that the LBRM has been instrumental in helping people improve the quality of their lives.

Investment in housing or plot development, and purchase of household furniture was obviously a priority for most households. A few had invested in livestock (mainly goats), and two MHH had bought a donkey cart, primarily for their own personal, rather than business, use. It is significant that many (.53%) of the FHHs had spent part of their earnings on education compared to 28% of MHHs, thus suggesting that the former have more difficulty meeting these kind of recurrent expenses. This was confirmed in discussions with the head teachers.

The vast majority of LBRM respondents (92%, 87 of 94 HH)) said that the project had no negative effect on them in terms of their health, agricultural activity or any other aspects of their lives. Two FHHs and one MHH in Dibete and three FHHs in Palla Road said that working on the project had some effect on their health. The clinics in both villages reported that there was no significant change in people’s personal health situation in the period of the project.
3.5.4 Spreading the Wealth

Not all households participated in the LBRM project. In Dibete it is estimated that 65 of the 142 households in the community did not work on the project, and that in Palla Road there were about 26 such households out of a total of 109. Most of the non-LBRM households that were interviewed expressed some disappointment that they had not been able to work on the project, and, therefore, felt that it was of little direct benefit to them.

Few of the non-LBRM households interviewed had made any ‘investments’ (see Table 11). This is a reflection of the fact that most claimed that they had no regular source of cash income. For example, only two of the FHHs in Dibete had worked on drought relief projects and one had temporary employment at the veterinary camp.

The comparison of LBRM and non-LBRM households shows that there is a striking difference between the two in terms of investment in education. ‘Investment in education’ primarily meant paying school fees and buying uniforms. In the LBRM households 42.5% had invested earnings in education, but in the non-LBRM household only 0.6% had managed to find the cash resources to make such an investment.

<table>
<thead>
<tr>
<th>Use</th>
<th>Dibete FHH</th>
<th>Dibete MHH</th>
<th>Palla Road FHH</th>
<th>Palla Road MHH</th>
<th>Total FHH</th>
<th>Total MHH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrading house / plot</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>HH equipment or furniture</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Agricultural equipment</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Development of lands</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment in livestock</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Development of cattle post</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment in transport</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Investment in Business</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hire of domestic labour</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>7</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However, there is ample evidence to illustrate that the earnings of a LBRM household indirectly benefited other households in the community. For example: in Palla Road:

- A young man had worked on the LBRM project for two months and had earned approximately P1,100. He used this to build a traditional hut. He hired a man to cut the poles, a woman to build the walls, and another woman to thatch the roof.
A middle-aged man had hired 3 people to mould bricks and had paid P200.00 for the work. He had earned about P9,000.00 on LBRM. Another man had hired a builder to help him construct a house and had paid P250 for his services. A third person had paid P2000 to have a two-bed-roomed house built. He had earned about P3,600.00 on the LBRM. A fourth person, who had earned about P4,500 on LBRM, had paid a builder P800 to construct a one bed-roomed house.

A middle aged female in Palla Road had built a traditional hut from her LBRM earnings. She had paid P500 for thatching grass, and P400 to a builder. Another woman had paid P300 in labour to upgrade her house. Yet another women had paid a builder P200 to work on her house.

A female household head had spent P200 on labour to mould bricks. Another woman had hired a local person to fence her yard and had spent P1600 on labour and materials.

In Dibete there were similar examples. For instances:

A young man hired his brother to build him a house, paying P7,000.00. Another middle aged man hired two builders for P800.00, part of which was paid from his LBRM earnings. Another man paid a builder P700.00 from his LBRM earnings for improvements to his yard.

A middle aged man hired a builder from nearby Mookane for P1000.00 to build a house.

A 53 year old man hired a labourer for P400.00 to help him fence his field.

Women in Dibete also invested in housing and employed local people in the process:

A middle aged woman paid two people P1500.00 to build a one bed-roomed house. Another woman did the same.

A middle aged woman, the head of FHH, paid her brother P1500.00 from her LBRM earnings to build a house.

A young woman from a FHH hired two people, paying each P100.00, to mould bricks.

A 33 year old FHH paid P750.00 to rebuild and re-thatch the roof on her rondavel.

3.5.5 The Effect on Business Enterprise

The effect of wage employment on local businesses can be used both as a measure of immediate impact of wage employment, and a measure of the potential for business growth and employment creation if the labour based approach is sustained. Thus,
formal business owners were asked how their businesses had progressed during the LBRM period and since the end of the project.

In Dibete three businesses were identified that existed prior to the start of the project. The community’s main business complex, comprised of a petrol station, a bottle store, a liquor restaurant, and a general dealer, is owned by one person. She reported that the LBRM had a positive affect on her business. Sales increased and she was able to diversify stock. Sales at the petrol station had been boosted by the presence of the contractors. During the LBRM period she had built the liquor restaurant and had employed five additional workers. In the post-LBRM period she reported that sales had decreased leading to a reduction in stock, and the retrenchment of seven workers.

A general dealer in the centre of Dibete village reported a similar trend in the growth of his business. During LBRM sales had increased and he had been able to diversify his stock, but after LBRM sales had decreased. As he put it, “there are now fewer people with money”

The building contractor in Dibete reported no change in his business circumstances. Although there had been an increase in building activity during LBRM, he reported that most people were doing their own construction. On the other hand, the increased availability of cash in the community and the growth in housing construction had led to the establishment of a brick making business. Dibete Brick Makers was started in September 2001. Four workers had been employed on a full-time basis. However, in the post-LBRM period these workers are employed on a piece-work basis, as the demand for bricks has considerably declined.

In Palla Road three businesses were interviewed. The business trends reported are similar to those described in Dibete. The owners/managers of a general dealer and bar, a bar and a hardware store all reported an improvement in sales during the LBRM and reduction since the project ended. The bar owner reported a marked reduction in sales since the end of the LBRM project, and that her business is now dependent on customers who are visiting the village at the weekend. The owner of the brick making business was not available for interview.

Individual households were also asked if they had an informal business and if they had how it had been affected by LBRM. In Palla Road five of the households interviewed reported that they had a business activity. During the LBRM period they had mixed fortunes. One beer brewing business ceased operating during the LBRM period because the owner was too busy, two reported better sales as more people had money, and two reported that their businesses remained the same – in one case the owner said people were only buying in the evening as they were working during the day. Three of the businesses said that their trade had declined since the end of LBRM.

In Dibete three households reported that they had a beer business at the start of LBRM. Two closed down, apparently because customers failed to pay their bills. The other closed because the owner was too busy.

There are a few examples of where income from LBRM has helped households to start another income generating activity. One woman from Dibete VDC said, “One of the good things about the project is that it gave us a chance to think. The money we
earned gave us a breathing space to think about what we can do with our lives. As a result I have started a business selling fruits.” Another had started a chibuku business.

The indications are that if the labour based approach is operated on a sustainable basis:

- Existing business operations can be strengthened and that this may lead to the creation of other employment opportunities.
- The increased spending power in the community can stimulate other business activities and this may lead to the creation of other employment opportunities.

### 3.5.6 Other Effects on the Communities

Discussions with the VDCs, clinic staff, and headteachers suggest that the LBRM had a broader impact than might initially be expected. All said that during the LBRM the communities changed and that there was a better atmosphere. People spoke of there being a more cheerful atmosphere, a sense of purpose, and of there being ‘life in the village’.

The fact that people had something to get up for and do was important. “They got up in the morning, went to work, came home, cooked, ate and slept,” said one VDC person. “There was no time for mischief and early morning drinking. We all felt better for it.” The kgosi in each community felt that there was less conflict and crime in the community. In Dibete this was, to some extent, supported by the case statistics from the kgotla. In 1999, 73 criminal cases were recorded, in 2000 there were 61 cases, and in 2001 there were 58 cases.

Whilst it cannot be conclusively proved that this decline in the number of criminal cases is a direct result of LBRM, it is reasonable to assume that it did have some influence on the situation. If people are busy and can more easily satisfy their basic needs, there is likely to be less tension within households and the community.

The ‘feel good factor’ that people referred to is difficult to quantify but it is reflected in other ways. For example, the headteachers noted that:

- Pot fees were paid-up in the LBRM period, and arrears were paid off.
- School children were cleaner and smarter when they came to school, and there were fewer children attending without school uniforms.

Similarly clinic staff commented on the fact that:

- The villages were cleaner – the litter picking on the road reserves appeared to influence how people saw their own surroundings.
- Home-based HIV/AIDS patients were better cared for – people could afford soap so they were bathed more often.

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14 The term kgosi refers to the headman or chief of a village.
15 Pot fees are the payments made by an household with school-going children pays annually or each term to the primary school. The money is used to purchase wood for cooking the school meals.
The Dibete VDC also noted that the labour-based approach meant that there were fewer problems with sexual exploitation. The LBRM was compared with projects where maintenance teams come from outside the village and camp within its vicinity. They attract, and are a source of attraction for young women.

Given the scale of the HIV/AIDS pandemic in Botswana, improved care for HIV/AIDS patients and reduced ‘sexual exploitation’ are significant. The national prevalence of HIV/AIDS is currently estimated to be in the region of 25%. The incidence is highest amongst young females. Home-based care is one of corner stones in the Government of Botswana’s strategy for coping with the situation. That households have the resources to effectively assist in providing this care is important.

The VDCs, and some individuals identified with the work that the community had undertaken on the road. They felt that their work had helped to reduce accidents. The foreman in Palla Road explained how they had taken the initiative to spread sand over oil patches on the road to help prevent accidents. The VDCs expressed concern that the road conditions are now deteriorating, and that there are more cattle on the road.

### 3.5.7 The Post-LBRM Period

Perhaps the best measure of the impact of LBRM on the two communities is best assessed by what has happened in the post-LBRM period, i.e. from January to July 2002. As already noted in Section 3.5.5, the ending of the LBRM project had a negative effect on business activities. Nearly all businesses reported a decline in sales, and the additional jobs that had been created in the business sector had all but disappeared.

The VDCs and key informants all talked of deterioration in the community situation. There are very few alternative employment opportunities. Those that existed are related to drought relief and district council rural roads projects. They create few employment opportunities. At Palla Road the VDC said that 20 – 30 jobs had been created on drought relief in the last two years. In Dibete, the VDC quoted a figure of 16 – 20 jobs on drought relief throughout the two year period. Currently they said that there are about eight jobs. "The ending of the project means only more poverty and misery."

Individual households were asked what affect the ending of the project had on their household situation. The majority (74.5%) of those working on the project stated that the termination of the project had a negative effect. In the absence of any other significant work opportunities, people talked about unemployment and their inability to provide sufficient food and clothing for their families.

### 3.5.8 Road Conditions and Accidents

One aim of regularly maintaining the road was to reduce accidents. As well as the activities related to the repair maintenance of the actual road, the clearing of vegetation along the road reserve was intended to improve visibility for motorists and improve the chances of seeing any animals before they stray on to the road. In addition, people were employed to chase cattle off the road. These actions appear to have the desired effect.
Figures on the number of accidents involving animals shows that there was a dramatic decline after these activities had started.

In the twelve months prior to the start of the project there were 132 accidents involving animals on the Dibete – Mahalapye section. In the first twelve months of the project the number of accidents involving animals declined to 48.

### 3.6 The Control Situation

#### 3.6.1 The Respondents

In the control community of Artesia 50 household interviews were conducted. 23 MHH and 27 FHHs. Table 12 gives an overview of the age and education status of the household head.

<table>
<thead>
<tr>
<th>Table 12</th>
<th>Artesia: HH Age and Education Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH Status</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>MHH (23)</td>
<td>No</td>
</tr>
<tr>
<td>FHH (27)</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Draft Final Report, Roughton International / Roads Department, February 2002
As with the LBRM households in Dibete and Palla Road, the majority of households interviewed are under 50+ years, although in the Artesia sample there is a larger percentage of households in the 50+ age category.

### 3.6.2 The Economic Situation of Households

Twenty-seven households stated that they have had no regular source of cash income in the past two years. Ten (10, 37.0%) of the 27 FHHs and 13 (56.5%) of the 23 MHHs said that they had some regular source of cash income in the last two years.

The source of the cash income for these households is given in Table 13. In some instances a household had more than one source of cash income. In the case of MHH, six had more than one source of cash income.

<table>
<thead>
<tr>
<th>Source</th>
<th>FHH</th>
<th>MHH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought relief projects</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Veterinary Camp casual labour</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other government / council projects</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Income from a business activity</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Remittances</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Wages through casual employment</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pension</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>

For most of these households (7 FHHs and 4 MHHs) the earnings from these sources in the last year was less than P2000.00. Eight households (2 FHHs and 6 MHHs) had earned between P4001 – P6,000. Only three households had cash earnings in excess of P6000.00. Thus, for most households the average monthly cash earning was less than P166.00, based on an income of not more than P2000.00 in a 12-month period.

Most of these 23 households used this cash income for meeting basic food needs. Two also said that they purchased clothing and five households had spent on education.

Few of the fifty households interviewed had made any ‘investments’ in the past two years. Correspondingly the employment created through investments has been very limited. Only two FHHs households said that they had hired local labour to upgrade their housing.
Table 14
Investments by Household Type
(number of households)

<table>
<thead>
<tr>
<th></th>
<th>FHH</th>
<th>Local labour hired</th>
<th>MHH</th>
<th>Local labour hired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrading house / plot</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>HH equipment or furniture</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Agricultural equipment</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Development of lands</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment in livestock</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Development of cattle post</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment in transport</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment in Business</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hire of domestic labour</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>0</td>
</tr>
</tbody>
</table>

This low level of investment is hardly surprising given that over 50% of the respondents appear to have no regular form of cash income. In addition, the available work was mainly on the drought relief projects, where monthly earnings are low and work is rotated between households on a regular basis. The opportunity for accumulating excess cash to pay for things other than basic needs is difficult.

### 3.6.3 Perceptions about Employment Programmes

The Artesia VDC reported that, in 2001, drought relief was the main provider of waged employment. Sixty-five people were employed each month. The opportunity for employment was rotated around the wards on a monthly basis. Only households determined to be in special need were employed on a continuous basis.

In Palla Road and Dibete council and government employment programmes were described as a ‘life-line’ or ‘safety-net’. They are described in similar terms in the control community. Even though a household’s earnings from the programme are modest, approximately P200 per month, it is seen as useful. “If I was employed for a month I could buy one bag of mealie meal and a sheet of zinc roofing. The next time I was employed I could do the same. It may take me a long time to build a small house but at least I was achieving something. Projects like drought relief are a life-line to communities like ours.” Similar sentiments were expressed by households, who repeatedly stated that earnings from these projects are sufficient to help them meet basic needs. Some people, however, were critical of such programmes as drought relief, because of the low wages and the small number of people that are generally employed.

This ‘post-project depression’ situation described under the LBRM project (section 3.5.7) is not, unfortunately, unique to the LBRM. In the control community a similar type of situation was described after the drought relief project ended in 2001. The lack of alternative forms of employment creates social problems. The Artesia VDC talked about the recurrence of drinking problems, and an increase in stealing. “Now there is
no drought relief we cannot get credit. Life is tougher and it makes it difficult to attend to our family problems.”

The large majority of households considered unemployment to be a major problem for the village – and the main cause of poverty.

3.6.4 The Business Situation

The business situation in Artesia to some extent supports the description given above. All of the formal sector businesses interviewed have been operating two or more years. Half of these reported that the level of their business activity over the past year has remained the same, primarily because there is a limited customer base. On the other hand, three said that their business activity has improved. Artesia Filling Station – as compared to the filling station in Dibete - reported a growth in customers. This is probably a reflection of the fact that Artesia is the sub-district centre and has a JCSS. The increase in spending power that workers at the JCSS, the sub-district centre and sub-land board bring is also reflected in the fact that three of the businesses had reported that they had taken on additional workers in the last year.

However, informal sector businesses do not seem to do as well. Seven households said that they had a tuckshop business. Six of these were run by MHH. One has closed down. Of the remaining five, only one said that it had done better in the past 12 months. Competition and limited money in the community were cited as constraints to growth, although five of the business owners were optimistic about the future.

3.7 Summary

The findings from the household survey, focus group discussions, and key informant interviews suggest that the communities of Palla Road and Dibete, both as a whole and as individual households, feel that they have benefited from the project. Specifically:

- A significant number of households in each community derived cash earnings from the project. There is considerable variation in the amount of time households worked on a project, and therefore considerable variation in the total income earned from the project.

- Households mainly used their earnings to meet basic needs – buying food, household items, and clothing. FHHs, and some MHHs, used earnings to pay school fees (including arrears) and school uniforms.

- Nonetheless, earnings were sufficient to enable households, including households who only worked on the project for a short period, to ‘invest’ in resources that have a medium to long-term benefit.

- The majority of households that invested in medium to long-term resources spent money to upgrade their plot or house.
• There is ample evidence that injection of earnings into the community by LBRM households created casual employment opportunities for people in the community.

• There is also ample evidence, particularly from the formal business sector, that the injection of cash into the community through the LBRM project assisted with business development, and in some cases created additional jobs.

• Community leaders also reported that the project had a positive impact on the community. More households were able to pay school fees, and children attending school were better clothed. Patients in the HIV/AIDS home-based care programme were better cared for. Overall, there was an all-round better atmosphere in the communities.

• The positive impact of the project on households and businesses is highlighted by the post-LBRM situation. Households report a lack of employment opportunities, and a reversal in their economic situation. Businesses in the communities have reported a decline in their turnover, as there are now fewer households with money to spend.

• The maintenance activities did lead to a significant decline in the number of accidents involving animals.

These conclusions are supported by the findings from the control community, where there have been fewer employment opportunities and the jobs created through drought relief have not provided households with earnings comparable to the LBRM project. In the control community:

• 50% of households interviewed said that they have had no regular form of cash income in the last two years.

• Households that had earned income through the drought relief or other government projects had mainly used that income to meet their immediate basic needs.

• A small percentage of households said that they had made investments that have medium to long-term benefits. 18% of respondents in Artesia compared to 53% and 31% of LBRM households in Dibete and Palla Road, respectively, have invested in housing or plot development in the last two years.

• However, formal businesses in the control community reported that their turnover has been constant or has got better. This may be a reflection that Artesia is a sub-district centre and is a service centre for number of cattle post areas.

• Nonetheless, community leaders reported that there are few job opportunities other than on drought relief projects, and when employment on a project finishes it has a negative impact on individual households and the community as a whole.
4 Conclusion and Recommendations

4.1 The Impact
The LBRM project has had an impact on the socio-economic situation of the participating communities and households. There is no doubt that the participating communities and individual households both feel and actually did benefit from the LBRM project. A person’s perception about the quality of their life is, in many respects, as important as the actual acquisition of needs. People talked about their involvement in the project in terms of feeling:

- important about having a job; and
- relieved from the daily pressures and having time to think about the future.

Households also felt that a major benefit of the project was that it gave them an opportunity to achieve personal ambitions. For many, this was related to improving their homes by erecting permanent housing structures, fencing their yard, or buying furniture. Many households that participated in the LBRM ‘invested’ some of their earnings in things that they will continue to benefit from.

The LBRM, however, had a much broader impact. There is clear evidence that the income earned by households working on the road, generated employment opportunities for other individuals in the community. Examples of this have already been given.

Households in the communities of Dibete and Palla Road that were not employed on the LBRM project spoke of disappointment at not having the opportunity. This disappointment is no doubt reinforced by the fact that there are very few other employment opportunities in the villages. The lack of regular cash earnings in these households is all reflected in the level of ‘investment’ that they have been able to make, compared to LBRM households. Although some of these households did benefit from the work opportunities created by LBRM households ‘investing’ their earnings in housing and plot development this work was of a short term, casual nature.

The extent of the socio-economic impact is emphasised when comparison is made with the control community. There appear to have been few job opportunities in Artesia. The work opportunities that did exist did not pay as well as the LBRM project, and few households have been able to accumulate sufficient cash to make the same kind of ‘investments’ that LBRM households did.

An equally important aspect of the socio-economic impact of LBRM was that it helped the community feel good about itself. The VDCs talked of there being less rowdiness in the communities. Clinic staff talked about home based care patients being given better attention, and people taking better care of their yards and surrounding environments. The ‘feel good factor’ was an important outcome of the project for community leaders and households alike.
4.2 Sustaining the Impact

Unfortunately the ‘feel good factor’ has not been sustained. Whilst it is clearly demonstrated in the 18 months of the project that the cash earnings were extremely important to households and individuals, the ending of the project has meant a reversal in fortunes for both the households and the community alike. The informal sector businesses and the few formal businesses operating in the communities have been negatively affected. The indirect work opportunities that were created no longer exist. In the absence of any other alternative form of employment, households are once again struggling to make ends meet.

The absence of any other major employment opportunities in communities like Dibete and Palla Road, inevitably will mean that the termination of any employment project will negatively impact the whole community. Artesia VDC highlighted the same point when they spoke of how the ending of a drought relief project affects their community.

The finding of the impact assessment study demonstrates that when a reasonable number of households are employed and their earnings are above what is needed for subsistence, the income flowing into a community through those households does have a spin-on effect. This spin-on effect, and in general all the benefits that a project like LBRM brings, rapidly dissipate once the cash stops flowing.

The impact assessment demonstrates that there are good socio-economic reasons for sustaining the LBRM approach.

4.3 Waged employment

An issue that emerged out of the discussion with the VDC in the control community is the Pula wage amount. The drought relief project in Artesia, employing 65 people per month over a 12-month period, provides an interesting point of comparison.

On the drought relief project a household earned about P200 and on average had the opportunity to work about 3 – 4 months of the year, in one-month periods. On the LBRM project the average length of employment for most households was about the same. However, the wages paid were significantly higher, ranging between P500 – 600 for a full month of employment.

Although on both projects households were employed in blocks of time rather than continuously, the difference in level of earnings is significant. LBRM households had sufficiently high wages to enable them to meet immediate basic needs and make other ‘investments’. This appears not to have been the case with drought relief.

The impact of the LBRM project has been significant because households could, even in a one – two month period of employment, accumulate sufficient cash to meet basic needs, and make other kinds of ‘investment’.
4.4 Project organisation issues

Whilst the communities and most households felt that the project was well organised, a number of organisational issues have emerged. Not least of these is ensuring that FHHs and other disadvantaged households are adequately represented on the work force. The fact that there was an equal or greater number of FHHs selected at the registration stage appears to be as much a result of a demographic coincidence as by specific design. That this representation was not carried over into the employment phase is a matter of concern given that FHHs tend to be poorer than MHHs. The need for gender guidelines at the selection stage has already been noted. There also needs to be gender guidelines at the employment stage.

The VDCs expressed concern about their limited involvement. Their view is that even at the household registration stage ‘lip-service’ was paid to their role. After the registration stage there appears to have been little contact between the VDC and contractors. The VDCs do have a potential role to play in:

- The recruitment stage and in particular ensuring that those households most in need are targeted. This also applies to the actual selection of workers, and replacement of households that withdraw from the project.
- Resolving disputes that may arise over employment arrangements.
- Monitoring the behaviour of households and the impact of the project on the community.

The role of VDCs, and relevant government departments, such as Social Work, needs to be factored into the contractual arrangements.

4.5 Monitoring and Evaluation of LBRM Projects

The monitoring and evaluation of LBRM projects should be based on two sets of variables:

- Social variables.
- Impact Variables.

In both cases the variables need to be kept ‘simple’ in terms of being able to observe, measure and record them during the monitoring and evaluation process. ‘Simplicity’ is emphasised on the grounds that the primary purpose of an LBRM project, i.e. employment creation and poverty alleviation, should not be overshadowed by the monitoring and evaluation activity. There is also a cost element to consider.

Monitoring, of course, refers to ascertaining whether the project is being implemented in the intended manner. Thus, monitoring will focus on selection of LBRM participants, actual recruitment of selected individuals/households for work, and allocation of work in terms of time and jobs.
Given the objectives of an LBRM project, the fundamental monitoring issue is whether the intended target group, i.e. households most in need, are effectively involved and participating. In the Botswana context the key social variable is the participation of femaleheaded households. Demographic and sociological data shows that in Botswana FHHs tend to have less income and are more likely to be in the lower income categories. There may be other vulnerable groups that might be targeted in particular areas, such as households that have people with disabilities, and remote area dwellers. Where the targeting of these groups, and other similar types of groups, is factored in to the LBRM project they then need to be considered as key social variables for monitoring purposes.

Focusing on the participation of FHHs as the key social variable means that monitoring data needs to be collected from the outset on a gender dis-aggregated basis, taking into account whether a participant is from a FHH or MHH. In the LBRM pilot project, data on the number of workers, for example, was broken down by sex but no consideration was given to each individual’s household status. The recording tools/reports used in the monitoring process need to reflect this gender dimension. Gender dis-aggregation, and dis-aggregation of data based on any other social variable being applied, should also be factored into the evaluation process.

Evaluation of an LBRM project is focused on assessing the impact of the project on the communities and households. This assessment should be based on a manageable number of observable or measurable impact variables. Impact variables in this context are indicators of how the employment created and the income earned has enabled participating households to improve their socio-economic situation. In other words, have they been able to use the income earned to improve their household situation? This implies that the income earned through a LBRM project will be sufficient for households to invest in longer-term assets as well as short term needs.

The evaluation of the LBRM pilot project has highlighted, in the Botswana context, a number of pertinent investment-type impact variables. Key primary investments for low-income households are:

- Housing
- Household furniture

Other significant impact variables may include:

- Agricultural resources
- Transportation
- Enterprise development

These, however, must be defined in the context of the geo-economic environment where the LBRM project is being implemented.

The investment-type impact variables are but one measure of the impact of a LBRM project. In socio-economic terms it is important to assess whether households that participated in the LBRM project feel that the quality of life has improved. For example, has the LBRM:
• Changed their way of living?
• Influenced the way they feel about themselves and their community?
• Enabled them to do things that they could not previously do?

These are less tangible impacts and less easy to measure. Data collected at the household level can be verified through focus group discussions, discussions with community leaders and local extension workers, and local business owners.

An underlying assumption of the LBRM approach is that the socio-economic situation of households will be better after they have participated in a project compared with what it was before. Methodological, therefore, data from the post-project impact assessment needs to be compared with data from the pre-project situation. There are, in fact, three methodological options in terms of making this comparison. They are:

1. Comparison with a baseline survey in the target community. The baseline survey is undertaken prior to the start of the project.

2. Comparison with a ‘control’ community that is not involved in the project.

3. Comparison of households within the community, comparing those that have been involved in the project with those households that have not.

A combination of the options is, of course possible. Comparison with a baseline study, and comparison between participating and non-participating households is likely to give the best assessment of impact.

Whatever the option chosen, data collection in the communities should be multi-pronged. The main source of information should be the household unit. This should be complemented through data collected from:

• Community leaders
• Business owners
• Community Development and health workers.

Sample data collection guidelines for the household unit, community leaders, and business owners are attached.
Annex A

TERMS OF REFERENCE
BACKGROUND
In a policy statement contained in the National Development Plan 8, the Government of Botswana emphasises poverty alleviation through creation of meaningful employment and the application of labour-based methods. The policy further aims at increased involvement of the private sector in the building of the economy.

Responding to these policy statements, the Ministry of Works Transport and Communications, through Roads Department, requested that a component for application of labour-based methods in road works be taken into the Institutional Co-operation Agreement between Roads Department and the Norwegian Public Roads Administration (NPRA). ILO/ASIST has been engaged to carry out technical audits and special studies to highlight problems and constraints that need to be resolved for a large-scale application of labour-based methods using small-scale citizen contractors.

Since the technology had not been applied in the Department before, it was found necessary to start with demonstration projects through which information would be collected as a basis for a large-scale application of the method in future. Preparations commenced in 1998 with project identification and formulation of implementation strategy. Candidate projects were identified for construction of low volume sealed access roads and for routine maintenance of the road network.

The Demonstration Projects using small-scale labour-based contractors for Routine Maintenance were implemented for one and a half years up to the end of December 2001. Preparations for escalation of the approach encompassing maintenance of approximately 520 km of sealed primary and secondary roads are well under way.

OBJECTIVES OF THE STUDY
The Task Force that guides the implementation of the labour based contractor development project has commissioned this study. One of the reasons of adopting labour-based methods in road maintenance was to contribute to the national objectives of employment creation, poverty reduction, economic growth etc. The demonstration project offered an opportunity to try the labour-based approach and gain experience before embarking on a full-scale programme. The socio-economic impact study is the means of ascertaining the viability of labour-based maintenance. Furthermore, the study is expected to highlight improvements that can be made in planning and executing an expanded programme in order to achieve both the primary (road maintenance) and secondary objectives (employment creation, poverty reduction, economic growth etc).
The overall objectives of the proposed study are to:-
♦ establish whether the roads maintenance project has brought about some change in behaviour and the socio-economic situation of the population in the project areas (specifically);
♦ quantify such change and its distribution among impact beneficiaries over time;
♦ determine the level of local participation in the programme;
♦ -identify problems (if any) hampering the participation of women in the labour-based maintenance works;

and on the basis of the above to:
♦ -review the existing selection criteria for roads to be maintained using labour-based methods;
♦ suggest how socio-economic benefits can be maximised in an expanded labour-based maintenance programme; and
♦ prepare simplified guidelines for the evaluation of socio-economic impacts of the labour-based maintenance

SCOPE OF STUDY
Scope of the socio-economic study shall include the following:-
i) review the labour-based maintenance works carried out by the Roads Department in relation to the achievement of the development objectives, which include employment creation and poverty alleviation.
ii) Assess the socio-economic benefit realised through the implementation of the labour-based road maintenance project.
iii) Assess the effect of the labour-based maintenance project on women and men in relation to their status in community, total workload, family life, health and welfare. Assess how this affects the traditional way of living in the project areas.

DESCRIPTION OF WORK
In order to fulfil the services required, the consultant team shall undertake tasks, which shall include, but not limited to the following:-
♦ select project roads that will enable adequate data collection to meet requirements of the objectives of the study;
♦ assess the distribution of (any) benefits among the population of the impact areas e.g. farmers, traders, consumers etc;
♦ specification of constraints to full realisation of benefits and their equitable distribution among the residents of the project impact areas;
♦ provision of specific recommendation for improving procedures of selection of project roads and labour recruitment procedures;
♦ development of simple, practical and useful planning tools from the results of the evaluation;
♦ review women's and men’s participation in the labour-based works, in relation to the number of women and men employed, level of employment, recruitment procedure, activity (task) assignment and payment for work done;
◆ assess to what extent employment possibilities, through short term, have changed women and men's status in the community, their role in the family and their overall workload;
◆ assess work related health problems (if any) on women and men working or who worked on the labour-based projects and recommend measures needed to be taken to minimise the risks;
◆ assess the suitability of labour-based work methods and hand tools for women workers;
◆ Assess to what extent local structures such as kogtlas add value in the implementation of secondary objectives of employment creation, poverty reduction etc; and
◆ assess what alternative sources of income would have been pursued by those employed by the project if the project was not implemented.

METHODOLOGY

1. An assessment of the local economic impact of LBT investments establishes how money spent on labour-based infrastructure maintenance is retained or revolves within the local economy. The interest is in which new businesses are established and which businesses improve, expand or disappear (road maintenance and non maintenance-related). This process assesses the economic characteristics of local employment being generated (directly and indirectly) as a result of using LBT for the road maintenance.

2. The key question for investigating the local economic impact of LBT applied in rural road maintenance is how is the money spent and where does it flow? Infrastructure projects usually have two verifiable means for tracking the flow of funds: One side of the coin is the master roll and the bill of quantities. They are the first reference in assessing the impact of project spending on business development (and the impact of these businesses on other businesses) and the development of incomes. The other side of the coin is the impact of expenditure of wage incomes. This could require questionnaires to investigate the changes in performance of local shops and businesses.

3. When the available project data are not sufficient to establish evidence of various economic actors benefiting from the operations of a LBT choice, specific inquiries into direct and indirect local economic effects are to be made through surveys. It is recommended to limit the investigation to those actors that are most likely to be affected by the project.

4. The local (business) environment is not a laboratory in which the analyst can fully control the flow of money. As an integrated part of his investigations, the analyst needs to include a control group of respondents located in an area that is not benefiting from LBT road maintenance. The main purpose of using a control group is to balance impact effects against possible errors and side effects. Side effects may occur from other developments, associated or not associated with the project. Please note that the main objective of impact analysis is to quantify and qualify the changes emerging from the project in an adequate manner, rather than to prove the ultimate causal relationship between project implementation and individual economic characteristics.
5. As a general guideline for impact surveys, the number of variables should be limited, in order to ‘get them under control’. Hence, field questionnaires and questions should be straightforward and user-friendly.

6. Key-aspects to be looked into include:

   a) Impact on direct employment (directly involved in project expenditure):
      - Quantity of manual labour involved in road maintenance work.
      - Quantity of labour involved in ancillary activities such as cattle chasing.
      - Quantity of semi-skilled labour involved in supervision of projects (operation and maintenance)

   b) Impact on indirect employment (indirectly involved in project expenditure):
      - workers who move on to other job (opportunities) through acquired project skills
      - changes in labour migration
      - workers permanently employed as a result of community capacity building
      - extra workers employed in support services, agri-business, and businesses that have been established as a result of infrastructure spin-offs
      - impact on dependants

NB.
For employment referred to under a) and b) it is worth making a qualitative specification: level of skill, wage rate, and job duration.
A more general distinction should be made between which share is locally employed and which is from outside the locality (define boundaries).

   c) Impact on other businesses, e.g. other construction activities, local markets and food sector.

Assess the most important and verifiable changes in business operation:
- quantity of new established businesses
- developments in their product quantity and variety
- developments in sales volume and profit (as much as possible and to the extent business records permit)
- developments in return value of their shops and businesses (economics of location)
- the main reasons for these changes (not naturally assuming a causal relationship between infrastructure improvement and business development)

7. For the assessment of direct and indirect effects the analyst has to define a zone-of-impact on both sides of the roads that has been maintained. A reasonable zone is within a 2,5 to 5 km distance from the relevant roads. This figure should be used as a guideline. Impact effects may be different from one locality to another.
TIME FRAME AND INPUTS

The study is envisaged to be carried out by a sociologist/researcher as team leader with input from an engineer with labour-based technology experience and research assistants. The Roads Department will provide engineering input. The consultant will be responsible and accountable for the recruitment and payment of research assistants.

The consultant will submit a proposal that meets the requirements of the client, split into technical and financial components. Work will commence only when the client and the consultant reach an agreement. The consultant is expected to furnish the client with a proposed workplan showing milestones and estimated corresponding duration. The consultant is also expected to propose a manning schedule with unit rates for all the personnel. Reimbursable costs should also be included in the financial proposal.

The draft final report will be submitted to the client for comments. The final report will be produced after comments have been received from the client within 10 working days of receiving such comments.

Mr Gamelihhle Sibanda of ILO/ASIST will backstop the study. The Roads Department Labour Based Methods Co-ordinator, will offer engineering input and render logistical assistance to facilitate the carrying out of the study. Such assistance will include organising a site visit and identification and soliciting co-operation of stakeholders who will be requested to provide information.

PRESENTATION OF THE REPORT

The final report will be in both hard copy (5 bound and one unbound master copy) and electronic format, in a format consistent with other reports produced within the framework of the Institutional Co-operation Agreement (1998-2001) between the Roads Department and the Norwegian Public Roads Administration (NPRA). The electronic version will be in MS Office 97 or 2000.

The report should include a list of contacts made, interviews held, and written and other sources relied upon in its preparation and for its conclusions. It may also refer to further work, which should be considered in addressing issues uncovered.
Annex B

SAMPLE DATA COLLECTION INSTRUMENTS
The Department of Rural Roads is conducting a survey to assess the impact and benefits of the Labour Based Road Maintenance project in the Dibete – Palla Road area. The aim is to assess how this project has benefited individuals and community as a whole in the short and medium term. We would like to ask you a few questions about how the project benefited you.

(The interview should be conducted with the household head that worked on the project. If the household head did not work on the project but another member(s) of the household did conduct the interview with the HH and the other persons)

Section A: Complete at the end of the interview
1 Location: (a) [ ] Dibete      (b) [ ] Palla Road      (c) [ ] Artesia
2 Respondents: (a) [ ] Interview with HH      (b) [ ] Interview with HH & project participant
3 HH Sex: (a) [ ] Female      (b) [ ] Male
4 Age of HH: (a) [ ] 16 - 30      (b) [ ] 31 – 50      (c) [ ] 51+
5 Education level of HH (highest education level achieved): (a) [ ] primary      (b) [ ] Junior secondary      (c) Senior secondary
   (d) [ ] post secondary      (e) [ ] no education

Section B: Household details
First we would like to ask you if anyone from your household participated in the Labour Based Road Maintenance Project
6 Participant: (a) [ ] Yes, only I as HH worked on the project [GO TO Q8]
   (b) [ ] Yes, I as HH and other member of my HH did [GO TO Q7]
   (c) [ ] Yes, other member of my HH did [GO TO Q7]
   (d) [ ] No, no person in this HH participated [GO TO Q13]
7 Number of participants: How many people from your household participated in the LBRM project?
   (a) [ ] …….. Females      (b) [ ] …….. Males      (c) [ ] …….. Total
8 Jobs: What jobs did you and members of your HH do on the LBRM project? (Instructions: 1 Note the SEX of each person who worked on the project 2 Note the age of each person who worked on the project as follows
   (A) 16 - 30      (B) 31 – 50      (C) 51+)
<table>
<thead>
<tr>
<th>Jobs Position</th>
<th>HH</th>
<th>HH</th>
<th>Member 1</th>
<th>Member 2</th>
<th>Member 3</th>
<th>Member 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Grass cutting</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Bush clearing</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Litter picking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleaning drainage &amp; culverts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cattle chasing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairing potholes/ road edges</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

9 **Level of participation:** Did each member of HH work on the project throughout the full 18 months? *(Note: a person working throughout the 18 months may not have been employed continuously but they were a regular part of the registered group of workers. A person who was not a regular registered worker may have left the project early or joined late).*

<table>
<thead>
<tr>
<th>HH Member</th>
<th>Registered worker for 18 months</th>
<th>Left the project early</th>
<th>Joined the project late</th>
<th>Reason for leaving early / joining late</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member 1</td>
<td></td>
<td></td>
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<tr>
<td>Member 2</td>
<td></td>
<td></td>
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<tr>
<td>Member 3</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Member 4</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

10 **Average earnings:** On average how much did your HH earn each month from this project?

<table>
<thead>
<tr>
<th>HH Member</th>
<th>No. of months worked</th>
<th>Average monthly earning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member 1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Member 2</td>
<td></td>
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<tr>
<td>Member 3</td>
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<td></td>
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<tr>
<td>Member 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11 **Main LBRM expenditure:** What did you mainly use your LBRM earnings for?

(a) [ ] Food and household items
(b) [ ] Clothing
(c) [ ] Education .................................................................
(d) [ ] Other .................................................................
12 **Skills**: Did you learn any skills on the LBRM project that you have applied to other situations? (eg, repairing fences)  
   a) □ No  
   b) □ Yes  
   If YES, explain what skills and how they have been applied:…………………………………………………………………………………………………………………………

13 **Other cash income**: In the LBRM project period did your HH have any other major source of **cash income**?  
   a) □ No  
   b) □ Yes, Drought Relief  
   c) □ Yes, Veterinary Quarantine Camp  
   d) □ Yes, other government / council project ……………………………
   e) □ Yes, other …………………………………………………………….

**Section C: Benefits**  
Now we would like to ask you how your household has benefited from the LBRM project.

14 **Benefit**: Describe the main benefit that your HH has gained by working on the LBRM project.  
………………………………………………………………………………………………………………………………………………………………………………………………………………

15 **Business**: Do you have a business that was operating before the start of the LBRM project  
   a) □ Yes  Type …………………….  
   b) □ No

16 **Business Growth**, If yes to Q10, did the business activity get better, remain the same, or got worse during the LBRM period?  
   a) □ Better  
   b) □ Same  
   c) □ Worse  
   Explain :………………………………………………………………………………………….

17 **Current Business Situation**: Since the end of the LBRM project how has your business progressed?  
   a) □ Better  
   b) □ Same  
   c) □ Worse  
   Explain :………………………………………………………………………………………….
18 **Acquisitions:** Since working on the project has your HH invested in

*(Instruction: write in main source of funding eg. LBRM, Drought Relief cattle sales, cash from working relatives, etc)*

<table>
<thead>
<tr>
<th>Investment</th>
<th>Explanation what</th>
<th>Local labour employed. Explain</th>
<th>Main Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Upgrading you house / plot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Household equipment or furniture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Agricultural equipment</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(d) Developing of your lands – fencing, hire of labour, hire of tractor, seeds</td>
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<tr>
<td>(e) Livestock</td>
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<td></td>
<td></td>
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<tr>
<td>(f) Developing of your cattle post – fencing, hire of labour, water</td>
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<td></td>
<td></td>
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<tr>
<td>(g) Transport – bicycle, donkey cart, etc</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(h) Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Business (new or upgrading)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) Hire of domestic labour / servants</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(k) Other</td>
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</tbody>
</table>

19 **Negative affects:** Were there any negative affects for your HH as a result of working on this project? *(Probe: Health, loss of time on agricultural activity, etc).*

- (a) ☐ No negative affects
- (b) ☐ Yes on HH members health ..............................................
- (c) ☐ Yes, agricultural activity ..............................................
- (d) ☐ Yes, other .................................................................

20 **Last six months:** The work on the project stopped six months ago. What effect has this had on your household?

- a) ☐ No change in our HH situation.
- b) ☐ Negative change in our HH situation

Write below the explanation for their answer

........................................................................................................
........................................................................................................
Section D: Now we would like to ask you a few questions on how the project was organised.

21 Selection: Do you have any comments and suggestions on how HH were selected to work on the Project?

…………………………………………………………………………………………………………………………………………………………………………

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22 Job Allocation: Do you have any comments and suggestions on how jobs were allocated to different individuals?

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…………………………………………………………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………………………………………………

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23 Improvements. Do you have any suggestions on how the project could be better organised on the future?

…………………………………………………………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………………………………………………

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FOCUS GROUP DISCUSSION GUIDELINE
LABOUR BASED ROUTINE MAINTENANCE PROJECT

Guideline for use with the VDC, women’s focus group, and men’s focus group in the villages of Dibete and Palla Road

1 **General comments on the project.** Warm-up question where participants briefly state their opinions about the project. Opinions are recorded on card in terms of ‘Successes’ and ‘Limitation’. Participants select the three most important for further discussion.

2 **Benefits.** Specific discussion on how the community as a whole has benefited, and how households have benefited. Probing for specific examples.

3 **Gender relations.** Discussion on what impact women’s involvement in the project has had on gender relations in the household. For example, as there been any change in the division of household tasks, and in the community? Are women playing amore activity role in community decision-making bodies?

4 **Selection Process.** Description of how participating households and individuals were selected, and what guidelines were provided. Discussion on the strengths and limitations of that process, and what improvements, if any, should be made to the selection process and why. Probing will focus on why more men than women were selected, what attention was given to the involvement of FHHs, and how tasks were divided between women and men. When the number of workers was reduced, what process was followed to decide who should not be hired?

5 **Alternative employment.** Discussion on the alternative employment opportunities that might have been available if LBRM had not been implemented

**Factual data to be collected** (points (b) – (d) for discussion with VDC.):

- a) Rates of pay for each task area for women and for men. If there was a difference in rates of pay the reason for this should be probed.
- b) Destitute registration: number of registered destitutes before LBRM, at the end of LBRM, and currently. Discuss reasons for any changes in figures, and the extent to which these changes can be attributed to LBRM
- c) Needy Children: number of registered Needy Children before LBRM, at the end of LBRM, and currently. Discuss reasons for any changes in figures, and the extent to which these changes can be attributed to LBRM
- d) Businesses: number of businesses (e.g., tuck shops) before LBRM, at the end of LBRM, and currently. Discuss the reasons for any changes in figures, and the extent to which these changes can be attributed to LBRM
INFORMATION ON BUSINESS ACTIVITIES
LABOUR BASED ROUTINE MAINTENANCE PROJECT

LBRM COMMUNITY

Community: ……………………………………………………………………………

BUSINESS A

1 Name and Type of Business: Name …………………………………………………

2 Type of Business: (a) □ General dealer  (b) □ Bar / bottle store  
   (c) Tuck shop  (d) Shebeen  (e) □ other ………………………………………

3 Person Interviewed:  (a) □ Owner  (b) □ Manager

4 Operation::  Was the business operating before the start of the LBRM project?  
   (a) □ Yes [GO TO Q5]  (b) □ No, started during LBRM [GO TO Q4]  
   (c) □ No, after LBRM [COMPLETE Q4 and then GO TO Q9]

5 Start-up Finance:  If NO, where did you obtain the finance to start your 
   business?  (a) □ LBRM  (b) □ Other ………………………………………

6 Business Growth, Did the business activity get better, remain the same, or got 
   worse during the LBRM period?  
   (a) □ Better  (b) □ Same [GO TO Q8]  (c) □ Worse [GO TO Q8]  
   Explain :…………………………………………………………………………

7 Better:  If the business got better since the start of the LBRM, did it 
   : (a) □ Increase its sales  (b) □ Diversify its stock  
   (c) □ Improve its equipment  (d) □ Expand its buildings  
   (e) □ Other ………………………………………………………

8 Workers:  During the LBRM did the business employ more workers?  
   (a) □ Yes  (b) □ No  (c) □ No, fewer workers

9 Current Business Situation:  Since the end of the LBRM project how has your 
   business progressed?  (a) □ Better  (b) □ Same  (b) □ Worse  
   Explain :…………………………………………………………………………
INFORMATION ON BUSINESS ACTIVITIES
LABOUR BASED ROUTINE MAINTENANCE PROJECT

CONTROL COMMUNITY

Community: ...........................................................................................................

BUSINESS A

1 Name and Type of Business: Name .................................................................

2 Type of Business: (a) □ General dealer  (b) □ Bar / bottle store
   (c) Tuck shop  (d) Shebeen  (e) □ other .........................................................

3 Person Interviewed:   (a) □ Owner   (b) □ Manager

4 Operation: Has the business been operating two or more years?
   (a) □ Yes [GO TO Q5]  (b) □ No

5 Business Growth, Did the business activity get better, remain the same, or got worse during the last year?
   (a) □ Better [GO TO Q6]  (b) □ Same [GO TO Q7]
   (c) □ Worse[GO TO Q7]

   Explain : ...........................................................................................................

6 Better: If the business got better, did it
 : (a) □ Increase its sales
   (b) □ Diversify its stock
   (c) □ Improve its equipment
   (d) □ Expand its buildings
   (e) □ Other  .........................

7 Workers: During the last two years did the business employ more workers?
   (a) □ Yes  (b) □ No  (c) □ No, fewer workers

8 Current Business Situation: How do you expect your business to progress in the next year?   (a) □ Better   (b) □ Same   (b) □ Worse

   Explain : ...........................................................................................................
Annex C

PERSONS INTERVIEWED

Government and District Council Officials
Mr Ramestse, Chief Technical Officer, Roads Department
Ms R Mosarwa, Headteacher, Dibete Primary School
Ms B Ditshabeme, Family Welfare Educator, Dibete Clinic
Ms G Sekololo, Family Welfare Educator, Dibete Clinic
Ms G Boitumelo, Headteacher, Palla Road Primary School
Mrs R Badisang, Staff Nurse, Palla Road Clinic
Mr S Mojo, Assistant Social Welfare Technician, Artesia
Ms B Hengari, Community Development Assistant, Artesia

Private Sector
Mr R Neseyi, Director, Roughton International
Mr Gops, Gops & Son Contractors

Village Development Committees
Artesia
Mr B M Keathi, Chairman
Ms Moratwa Motlhajwa, Secretary
Ms Josephine Matshiba, Treasurer
Ms Keleapere Tsheko
Ms Mmamosweu Mowi
Ms Khala Sejwa
Mr M Gaobowkwe, Headman

Dibete
Kgosi L Mosarwa
Chepisogo Basebi, Chairperson
Tidimalo Sebelo, Secretary
Tatelelo Ogopotse, Treasurer
Goitseone Basimane
Nklabe Gaobane
Onjatile Solomon
Botshelo Bakwena, Headman
Samofela Kasoma, Headman

Palla Road
Kgosi G Sebolao
Phang Gaorengwe, Chairperson
Keitumetse Lekgoanyane, Vice Chairperson
Oneetse Sebolao, Secretary
Gaopalelwe Mpaesele
Oganeditse P Seboloko
K Lekgoanyane
Tshireletso Dlamini
Wagamang Mangope, Headman
Otsetswa K Mangope, Former Councillor
Annex D

Bibliography


Government of Botswana, National Development Plan 8, Gaborone, 1997


Roughton International, Training and Establishment of Small Scale Labour Based Contractors in Routine Maintenance. Feedback Seminar Minutes, Roads Department, 26 November 2001

Roughton International, Training and Establishment of Small Scale Labour Based Contractors in Routine Maintenance, Draft Final Report, Roads Department, Gaborone, February 2002