# SURVIVAL FOOD MANAGEMENT IN ARID AREAS (BOTSWANA)

**IDRC PROJECT 93-0044** 

**EVALUATION REPORT** 

Prepared for the International Development Research Centre

by

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#### EXECUTIVE SUMMARY

The general objective of the project "Survival Food Management in Arid Areas (Botswana)" (93-0044) was to build on and strengthen local-level community resource management practices which enhance food security, are environmentally sound, and potentially sustainable. Specific objectives were:

- to undertake an extensive, in-depth information and data collection programme to identify community relationships and their dependence on the natural resources of the semi-arid Kalahari sandveld;
- to identify and quantify veld product supplies of local importance and with actual or potential market value; and
- to determine, in consultation with local communities, the necessary steps to achieve the equitable and sustainable management of veld resources.

Unfortunately, the implementation of the project was severely delayed, largely due to difficulties encountered in staffing the Team Leader position for the project. These difficulties, coupled with a changing financial situation at VPR, resulted in the diversion of the majority of allocated funds into research considered related to the original project. Funds from other donors would be utilized for a modified version of the original project. The changed situation regarding project expenditure led the consultant to alter the terms of reference for this evaluation to reflect the new allocation of project funds.

#### Accomplishments to Date

#### Information and Data Collection Programme

Progress on the information and data collection programme has been mixed but acceptable for a project in its first full year of implementation. The main activity completed was a PRA exercise conducted in the three communities in August, 1996. A detailed socioeconomic survey was to be conducted in the first week of June this year. Results of the research work included background information on the communities, an exploration of the problems and opportunities of the resource base, and the development of action plans. Only limited information has been obtained thus far on the indigenous management of veld resources, but information collection is continuing.

#### Identification and Quantification of Veld Product Supplies

The project has made good progress in the identification of veld products with subsistence value and actual or potential commercial value. Apart from community assessments, a local organization was also hired to undertake a survey of existing or potential products from the project area. Although still at an early stage, work on the quantification of veld product supplies is proceeding utilizing an innovative approach emphasizing community monitoring and assessment. Quantification of veld products is also being supported through test marketing activities which will provide both information on product marketability and income flows to rural producers.

Equitable and Sustainable Management of Veld Resources

Progress on this objective is at an early stage. As no effective organization for the management of natural resources appeared to exist at community level when the project began, support has been provided to the Veld Product Groups formed by interested participants at the 1996 PRA exercise. Efforts in supporting these groups are a logical first step towards the goal of equitable and sustainable management of the resource base. Project attention to the effective, democratic functioning of groups should support the inclusion of the perspectives of marginalised members in decision-making surrounding these resources. The Groups have all applied for plots from the Land Board where experiments on domestication and conservation of veld products can be conducted.

The project recognizes that its ability to develop successful marketing activities is one of the keys to achieving the sustainable management of resources; communities need to feel confident that a dependable market exists before they will invest effort in managing resources for future years. Only a limited amount of test marketing has been undertaken thus far.

Two significant challenges to the ultimate success of the project appear to require more attention. One challenge is the potential for conflict between and within communities as the commercialization of resources proceeds with the project. The project is currently taking a wait and see approach to this issue which is not unreasonable, as long as consideration is given to how these conflicts might be resolved when, and if, they become an issue. A further challenge is in the area of the legal framework related to natural resources which does not support the effective management of natural resources by communities. While the project has made progress in the creation of local-level resource management bodies, a key question for the project is what, if any, 'space' can be made for local people to gain secure access to, and have input on the decisions affecting, natural resources in their area.

#### Indigenous Fruit Tree Research Project

The long-term goal of the IFTRP is to develop superior genotypes of selected indigenous fruit tree species. These fruit trees could then be utilised within a production system that would be a viable alternative to the form of arable farming currently being practiced with limited success in the project area. Many of the achievements to date have occurred on-station. One early practical application of research has been the distribution of fruit trees to individuals in the CBMIF project communities. For the most part the exercise has been a success, but more research is required on the perceptions of the communities involving exotic versus indigenous species. If plans at VPR move ahead for the commercial development of superior cultivars of indigenous fruit trees to generate income for the organization, the question of intellectual property rights may require more attention.

#### **Evaluation of Project Methodology**

Survival Food Management

The original proposal placed a significant emphasis on the use of the 'village-based

researcher' (VBR) model first developed by ENDA-Zimbabwe. VBRs are trained in Participatory Rural Appraisal methodologies to document existing resource management systems and constraints to their sustained utilization. With project implementation, the focus on PRA remained, but the VBR model was dropped in favour of 'village-based officers' (VBOs) who would act largely as village-level coordinators for the project. Planned collaboration with ENDA Zimbabwe also failed to materialize. On a number of levels, i.e., opportunities for South-South collaboration, testing of methodology, it is regrettable that the VBR model was not implemented, but it is difficult at this stage to assess the impact of the decision on the quality and extent of the information obtained. Commitment by the VPR team to participatory research appears high, and community participants are pleased with the level of consultation in the project. It is hoped that the VBOs may constitute similar 'readymotivated change agents' during and after the project as was found in Zimbabwe with the ENDA VBR program.

VBR VS. VBO Clarify.

## Indigenous Fruit Tree Research Project

Methodologies employed by VPR in research on the domestication of indigenous fruit trees also demonstrated creativity and innovation. This innovative approach is demonstrated by a VPR-sponsored competition for school children to find the largest and sweetest fruits from local trees. Apart from on-station trials, trials of superior phenotypes are also being conducted with both farmers and at schools. Schools are perceived as good locations for trials because of their role as learning places where future generations of farmers can be introduced to the potential of indigenous fruit trees. Information obtained on the performance of superior phenotypes under on-farm conditions with minimal project interventions will prove invaluable in assessing the viability of promoting indigenous fruit trees as a crop. Pioneering research is also being undertaken with the University of Pretoria on the role played by vesicular-arbuscular mycorrhizal (VAM) fungi in tree development.

## Evaluation of VPR's Capacity and Capability for Future Activities in Veld Resource Management

In spite of the problems that affected the implementation of the project, the capacity of VPR to carry out future activities in working with communities to achieve the equitable and sustainable management of veld resources appears high. This conclusion is based on the following:

- staff commitment to consultation, resulting in positive relations with 1) communities who feel their agenda is respected:
- innovative approaches to the sustainable development of veld resources, 2) including local-level monitoring of resources, and an integrated approach to community needs which involves the inclusion of other NGOs;
- 3) the knowledge base and commitment of personnel are high;
- 4) VPR's strength in applied research on the domestication of veld resources.

#### Recommendations for Future Activities

- i) The project needs to plan for the transfer of responsibilities to the Veld Product Groups. Training needs for the groups need to be assessed, but one area of focus may be in the area of small enterprise activities.
- ii) Research is required on the impacts of current natural resource policy on the local management of veld resources. Collaborative linkages with other organizations may have the potential to support the development of a more favourable policy environment over the long-term.
- iii) Careful attention must be given to on-going monitoring of the impacts of increased commercialization of veld products.
- iv) Continued support needs to be provided for the community monitoring of resources initiated by the project.
- v) The project needs to consider the potential for conflict over resources as commercialization progresses, and begin planning ahead for how resourcesharing arrangements might be facilitated.
- vi) The project should ensure adequate support to research which focusses on the different potential management systems - both extensive and intensive - for veld products.
- vii) Support is suggested for the establishment of a marketing network for groups producing veld products to allow access to more markets with greater bargaining power.
- viii) The amount of interest in establishing a regional network for sharing information on community-based management of natural resources should be explored.

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### LIST OF ABBREVIATIONS

Community Based Management of Indigenous Forests **CBMIF** ENDA (Zimbabwe) Environment and Development Activities (NGO) German Development Agency **GTZ IFTRP** Indigenous Fruit Tree Research Project Participatory Rural Appraisal PRA The Netherlands Development Organization SNV Team Leader - CBMIF Project TL VAM Vesicular-arbuscular mycorrhizal fungi **VBO** Village-based Officer **VBR** Village-based Researcher **VPGs** Veld Product Groups Veld Products Research **VPR** 

veld products

**VPs** 

## Survival Food Management in Arid Areas (Botswana)

#### IDRC File 93-0044

#### EVALUATION REPORT

## 1. Introduction and Background

The general objective of the project "Survival Food Management in Arid Areas (Botswana)" (93-0044) was to build on and strengthen local-level community resource management practices which enhance food security, are environmentally sound, and potentially sustainable. Specific objectives were:

- to undertake an extensive, in-depth information and data collection programme to identify community relationships and their dependence on the natural resources of the semi-arid Kalahari sandveld;
- to identify and quantify veld product supplies of local importance and with actual or potential market value; and
- to determine, in consultation with local communities, the necessary steps to achieve the equitable and sustainable management of veld resources.

The project also intended to emphasize South-South collaboration. ENDA-Zimbabwe pioneered the concept of village-based researchers, community members trained in participatory rural appraisal (PRA) methodologies living and working with communities. The intention of the project was that ENDA would assist the recipient institution, Veld Products Research (VPR), in implementing this concept in two rural communities in Botswana.

As noted in earlier project reports (ie., Richard Seward's Travel Report #6 of 1994/95 [91-0028], Annual Technical Report from the project for year 1) the implementation of the project was severely delayed, largely due to problems in hiring a PRA Team Leader for the Project. Over a period of approximately 9 months, two candidates (both Zimbabwean) were offered the position of Team Leader (TL); one turned down the position after lengthy vacillation, the second candidate accepted the position, asked for time to provide notice to his employer, then changed his mind at the last moment. Contributing to the delay was VPR's Managing Director's keen interest, reflected in the patience with which he dealt with the situation, in securing the services of the first candidate, Davidson Gumbo, a highly experienced PRA practitioner with extensive experience in the region. The MD was understandably reluctant to hire an expatriate given the sensitive nature of the work that was involved. Further searching failed to turn up an interested/suitable candidate within Southern Africa. The Netherlands Development Organization (SNV), the NGO responsible for funding the position, then selected a Dutch candidate with natural resource management experience in Tanzania to fill the post. The TL finally arrived to take up his post in March, 1996, more than 18 months after the original release of IDRC funds. The lengthy delay in filling the position and therefore implementing the project necessitated a one year extension of the Need to extend to Mark 98 proposed two year project.

The project also arrived during a transitional period at VPR when the organization was making a shift from a very small, essentially one person operation (under Frank Taylor) to a larger organization with distributed responsibilities. Frank Taylor's responsibilities at the time of the project's initial development appeared to be such that it was unrealistic for him to devote the time to the project that was required without the presence of a funded team leader.

A further important issue for the implementation of the project was the changing funding situation at VPR. As might be expected given the previously precarious financial position of the organization, VPR (Frank Taylor) broadened the search for funding for the project beyond IDRC to other donors - a reasonable strategy to 'spread the risk' and increase the likelihood that the project would be funded. While IDRC was the first donor to commit funds for the project, close on the Centre's heels was SNV. SNV initially agreed to contribute financially through support for salaries on the project, but following the arrival of the TL, SNV's contribution expanded. Finally, GTZ, who received their consultant prepared project proposal in 1994, expressed interest in providing funds for a project on the "Community Based Management of Indigenous Forests" (CBMIF) beginning this year (1997). GTZ also provided some bridging funding for the second half of 1996 which supported the PRA exercise conducted during that period.

By the time the TL was finally in position in April 1996, delays in project implementation meant the likelihood of completing the project, even with the year extension, was slim. The delays, coupled with the availability of long-term funding from other donors, led VPR to shift a substantial proportion of IDRC funds from the original project focus "Survival Food Management in Arid Areas (Botswana)" to what VPR considered as allied and underfunded research, including the Indigenous Fruit Tree Research Project (IFTRP). SNV and GTZ funding would be utilized for a modified version of the original project which is presently underway.

### 1.1 Comments on the Terms of Reference for the evaluation

Following initial consultation with the staff at VPR, it became clear that the shift in utilisation of project funds was significant enough to require a revised approach to the project evaluation. Therefore, by necessity and where appropriate, the ToR for the evaluation will be considered to include not only the original project "Survival Food Management in Arid Areas (Botswana)" but also the other areas of expenditure, namely the research work on indigenous fruit trees. The majority of project expenditure went not to the original project, but to indigenous fruit tree research, with lesser amounts being directed to test marketing of veld products and public information activities.

Given the delays and the shifting of funds away from the original program, achievements of the original project objectives are minimal, at least as attained through the use of IDRC funds. It is proposed here to examine the progress and research accomplishments through the use of the original (IDRC) funding - mainly through support to

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allied research - as well as what progress has been made on the CBMIF project utilizing the other funding sources. Although the latter issue may not be considered strictly a concern of IDRC given the shift in funding priorities, it is considered essential to any discussion of VPR's capacity to carry out future activities in working with communities to achieve the equitable and sustainable management of veld resources.

## 2. Methodology

The terms of reference for the evaluation are included as Appendix 1 to this report. The evaluation methodology focussed on two approaches:

- an in-depth review of project documents and reports to assess project planning, actual activities, expenditures, and results;
- open-ended interviews with project personnel and key participants in the collaborating communities. To gain further insights into how community members perceived their role in the project, a diagramming exercise was also undertaken with Veld Product Group members during the visit to the field sites.

Apart from the documents obtained from VPR personnel, some reports were provided to the consultant by IDRC personnel in Ottawa prior to departure.

The main contacts made for the evaluation are identified in Appendix 2. As the consultant was in Harare prior to his return to Canada, an attempt was made to meet with Richard Seward who was involved in monitoring the project in its initial stages on behalf of IDRC. Unfortunately Mr. Seward was away in South Africa during the time available. Davidson Gumbo of ENDA-Zimbabwe (see below) is also out of the country working on his doctorate in the United States.

## 3. Evaluation of Progress and Research Accomplishments

### 3.1 Survival Food Management in Arid Areas

The general objective of the project "Survival Food Management in Arid Areas (Botswana)" (93-0044) was to build on and strengthen local-level community resource management practices which enhance food security, are environmentally sound, and potentially sustainable. Specific objectives were:

- to undertake an extensive, in-depth information and data collection programme to identify community relationships and their dependence on the natural resources of the semi-arid Kalahari sandveld;

- to identify and quantify veld product supplies of local importance and with actual or potential market value; and
- to determine, in consultation with local communities, the necessary steps to achieve the equitable and sustainable management of veld resources.

### 3.2 Status of the Project

By the time project activities actually got under way, the TL felt there was a need to go back to the communities to ascertain if priorities had shifted in any way since the original proposal had been developed. In August, 1996, a PRA was held with the focus communities, as well as other interested organizations invited to participate by VPR. As required of projects with GTZ funding, following the PRA an "Objective Oriented Project Planning" exercise was conducted with the various stakeholders in the process (other than the communities themselves), i.e., representatives of various NGOs, government ministries and district councils, and funding agencies (SNV, GTZ). At this point, priorities based on the outcome of the PRA conducted with the communities were further rationalised to choose a specific direction for the project with goals and activities clarified. The project team then went back to the communities in March 1997 with another NGO to conduct a vision building and goal setting workshop with the 3 veld product groups (one from each of the communities of Motokwe, Tshwaane and Khekhenye).

Although some specific objectives are more explicitly stated than in the original proposal, the revised proposal for the "Community Based Management of Indigenous Forests" (CBMIF), as the project is now termed, is closely related to the original proposal. Goals of the CBMIF project have been defined as follows:

#### Development Goal:

To improve the living standard of rural communities in Botswana through sustainable and equitable utilization of natural resources.

### Project Objective:

Veld resources are efficiently utilized for securing subsistence and income generation.

#### Project Results (intended):

- a) Sustainable management of indigenous veld resources in selected areas has been initiated and is being implemented.
- Community awareness on the equitable and sustainable management of veld resources has developed.

- c) Women participate in, and profit from, veld resource management.1
- d) Domestication of veld resources has been initiated and is being implemented.
- e) Techniques for processing and preserving veld resources have been developed and are being applied.
- f) Strategies for marketing of veld products have been developed and are being implemented.

A comparison of the above objectives and intended results demonstrates a close relatiship to the original objectives of the project as discussed in the project summary. Although no reference is made as such in recent project documents, the current project propeal owes a considerable debt to the original proposal funded by the Centre.

#### 3.3 Accomplishments to Date

#### 3.3.1 Information and Data Collection Programme

Methodological aspects of the information and data collection programme will be discused in Section 4.

Progress on the information and data collection programme has been mixed but, as the projects only in its first full year of implementation, the programme is on-going. A detailed socioeconomic survey was to be conducted in the first week of June this year. The survey is internal to provide further information on the relative importance of the natural resource base to the the telephone to the population, as well as provide baseline socio-economic data.

The main activity completed on information and data collection since the implementation of the project was a PRA exercise conducted in the three communities in Augus 1996. As previously noted, this PRA assisted in formulating the objectives for the CBMI project as outlined in section 3.2. The PRA also facilitated the gathering of information on local natural resources, including their utilisation, management and community perspaives on the condition of the resource base. VPR has produced a report of the PRA exerce entitled "Empowering the Communities of Tshwaane, Khekhenye and Motokwe in Nature Resource Management".

To a large extent, the 1996 exercise confirmed the results of the earlier research activits (including a more broadly focussed 1995 PRA). Community participants were generally concerned about the declining availability of veld products (VPs) and as expected givenneir responsibilities for harvesting these products, women demonstrated more interest and knowledge of the specific locations and uses of VPs than did men. Specific problems

<sup>&</sup>lt;sup>1</sup> According to the Team Leader, this intended result is now considered to be a feature of Project Result (b): "egtable and sustainable management".

noted for VPs by community participants included: damage by livestock, highly unpredictable/insecure and seasonal supply, limited markets, and lack of knowledge of appropriate processing methods to allow for storage and potential marketing. Another issue related to natural resources arising in the PRA - and with significant ramifications for attempts to manage these resources (see section 3.3.3) - is the allocation of land by the Land Board to 'outsiders' without community consultation. The lack of consultation has led to friction and the community claims that natural resources have suffered as a result of the allocation process. Although only infrequently discussed openly, ethnic tensions both between the relatively more affluent Bakgalagadi and the Basarwa (Bushmen), as well as between sub-tribes of the Bakgalagadi group, have been apparent in the research activities with the communities and will likely influence future activities to develop community-based strategies for natural resource management.

The PRA exercise also revealed community perspectives on what constitutes 'management'. Participants felt the management of VPs consists of:

- 1) the domestication of selected species;
- 2) the management of the wild resource, through the establishment of a 'code of conduct' that people should adhere to when harvesting to ensure sustainability2;
- 3) processing to increase shelf life and improve marketability; and
- more effective marketing of resources.

Community participants also brainstormed on possible action that could be taken to improve the management of veld resources. Apart from the code for the use of resources noted above, participants decided to form committees (Veld Product Groups - VPGs) to undertake a number of different activities, including raising awareness on the use/conservation of natural resources, applying to the Land Board for a plot which could be fenced where selected VPs would be conserved and cultivated, and seeking information on improving/developing processing methods to increase shelf life and the opportunities to market these products. VPGs identified training needs in the area of domestication, processing and storage techniques, and business management.

One issue of relevance to both the original project and the project as it currently stands, is the limited amount of information obtained to date on the indigenous management of veld resources. It is of course impossible to ascertain whether or not traditional resource management practices exist that have yet to be identified through the PRA process. Considerable information has already been obtained on indigenous knowledge surrounding the ecology of veld resources and their utilization. The VPR project team does acknowledge the need to collect further indigenous knowledge on these resources with the communities involved and recognizes that participatory assessment is an on-going process that must be

<sup>&</sup>lt;sup>2</sup> For example, thatching grass should only be harvested after the seeds have fallen, and the seeds of the medicinal plant sengaparile (Harpagophytum procumbens) should be planted whenever they are found in the wild.

viewed with a long-term perspective. Apart from the need to continue to with the iterative process of PRA which is essential to building and maintaining rapport and a sense of ownership of the project by the communities involved, it is imperative that careful attention be paid to monitoring the impacts of increasing commercialization on socio-economic factors.

### 3.3.2 Identification and Quantification of Veld Product Supplies

The project has made good progress in the identification of VPs with subsistence value and actual or potential commercial value. Community participants in the PRA were asked to use ranking exercises to assess the relative value in subsistence and commercial terms of a list of VPs they had previously selected as the most important in their area. Apart from assessments done by the project team with the participating communities, a local organization (Botswana-based) was also hired to undertake a survey of existing products and derivatives which are or could be produced in the project area. This survey is seen as a precursor to an extensive marketing survey planned for this year.

Although still at a fairly early stage, work on the quantification of veld product supplies is proceeding utilizing an innovative approach which emphasizes community monitoring and assessment. While VPG members demonstrated knowledge of where certain products could be found, they had little idea of the quantities available at a given location. An example of the difficulty community members have in estimating the densities of VPs on a given site is clearly provided by the experience of one of the VPGs with their selection of a 'prime' plot believed by them to be relatively abundant in certain VPs. The results of the participatory inventory of resources on this site were disappointing enough to lead the VPG to request the allocation of another plot of land by the Land Board.

The development of a community monitoring tool for veld resources has largely been undertaken by a Dutch volunteer associated with the CBMIF project. As has been recognized in other areas in work on non-timber forest products<sup>3</sup>, local-level monitoring is considered essential to fulfilling the goal of the sustainable development of VPs. The most progress has been made on a monitoring tool for Sengaparile, an important medicinal plant with high economic value. The purpose of the tool is both to allow the community to make an informed decision regarding sustainable harvest levels for a resource in a specific area and also to provide accurate information on which to base an application for harvesting permits. Field tests of the tool have already been conducted on one of the plots acquired by a VPG with interesting results as described above. Further inventories are planned for the next few months on both the other VPG plots and on potential harvesting sites on communal land. A spin-off of the work on developing a monitoring tool for veld resources has been the development of a participatory monitoring tool written in Setswana for the fruit trees -

<sup>&</sup>lt;sup>3</sup> See for example the work of Charles Peters (1994): <u>Sustainable Harvest of Non-timber Plant Resources in Tropical Moist Forest; An Ecological Primer</u>. Washington: Biodiversity Support Program.

indigenous and exotic (see below) - which were distributed by the project. Presumably the fruit tree monitoring tool will provide information on the care and growth of the trees, as well as provide useful information on the development and use of these tools by local people.

An important aspect of the quantification of VPs with real or potential market value, is the requirement that actual marketing activities be undertaken. Questions regarding product marketability, i.e., consumer acceptance, practicality, marketing costs etc., can only be effectively answered through the marketing of these products. Test marketing has so far focussed on supplying limited amounts of the Kalahari Truffle (Terfizia pfielii) for the European market. Results thus far have been positive and research is now proceeding on processing in South Africa to allow for long-term storage and therefore an increase in marketability of this highly perishable product. The market research for, and the purchasing and marketing of this product is supported by a revolving fund for VPs established with IDRC funds for the original project. The market assessment work, apart from the information it is providing on product marketability, is providing other benefits to the project in the way of income flows to rural producers, a feature essential to developing and maintaining interest on their part in the sustainable management of natural resources (see next section).

### 3.3.3 Equitable and Sustainable Management of Veld Resources

Determining, in consultation with local communities, the necessary steps to achieving the equitable and sustainable management of veld resources, was clearly the most challenging objective of the original proposal. Given the lengthy delays in the project and that the development of effective strategies on veld resource management could reasonably only be expected to occur in the second year of the project, it should not be surprising that progress on this objective is only in the early stages. However, a number of activities are now underway to address the objective of equitable and sustainable management and there is reason for optimism in this area if the project can overcome obstacles in marketing, conflicts over access and existing policy around natural resources.

At the time the project was initiated, no effective organization for the management of natural resources appeared to exist at community level. In keeping with the focus of the project on participatory development, no attempt has been made to impose an externally created resource management institution upon the communities. Instead, support has been made available in the areas of veld resource monitoring and conservation and group decision-making processes to the Veld Product Groups formed by interested participants at the 1996 PRA exercise. In March this year, a local NGO<sup>4</sup> was engaged to conduct a 'vision building and goal setting workshop' with the VPGs to create consensus for the focus and organization of the groups. Efforts in supporting these groups to become effective institutions for the management of veld resources are a logical first step towards the goal of equitable and

<sup>&</sup>lt;sup>4</sup> CORDE - Cooperation on Research, Development and Education.

sustainable management of the resource base. Participation in the groups is available to all interested community members; however, the project "will seek to identify and empower marginalised members of the group". How exactly this empowerment will be undertaken is not clear, but the project does reserve the right to suspend support to a group if it demonstrates no interest in either equity or resource sustainability issues. Certainly, project attention to the effective, democratic functioning of groups will support the inclusion of the perspectives of marginalised members in decision-making surrounding these resources. Women's participation in the groups is high, not surprising given their traditional responsibility for the harvesting of veld resources. The other segment of the population - apart from women - which is considered to be in the 'marginalised' category are the Basarwa. There is some participation by Basarwa in the VPGs of the non-Basarwa communities of Motokwe and Tshwaane where the Basarwa are a small proportion of the population.

Currently, the VPGs are the locus of activity around veld resources in the three communities. All three VPGs have applied for 23 hectare plots from the Land Board where experiments on the domestication and conservation of VPs can take place. Two of the three VPGs have been allocated plots, but the Khekhenye group, as previously discussed, has requested the allocation of an alternative plot. Group plots are to be used for: 1) hopefully generating income for the VPGs; 2) experimentation on different domestication, conservation and harvest techniques; and 3) the group to gain experience with veld product management. Groups will also be the focus of activities for the initial marketing of VPs under the umbrella of the project.

The development of successful marketing activities is one of the keys to the over-all success of the project. Participants in the project are highly market-driven as was made clear from discussions with the VPGs. One group emphasized the importance of positive returns in terms of income in exchange for participation in the project; more people will be motivated to join in project activities if they can see the income benefits that come through involvement. The TL pointed out that effective market development and sustainable management are considered by the project to be intimately linked. For example, it will be very difficult to convince communities that a rotational system for harvesting should be followed if there is little guarantee that buyers will return again next year and the year after that. It will be equally difficult, if not more so, to convince local people to invest effort in growing these products without a reasonable assurance that they can be marketed down the road.

Actual marketing of products from within the project have yet to begin in earnest. As previously discussed, some test marketing of the Kalahari Truffle has been conducted over the past two seasons supported by IDRC funds. The purchase of truffles by VPR for the market was identified by the Tshwaane VPG in discussions with the consultant as a positive activity that helped to motivate them in their involvement with the project. Returns to harvesters from the sale of this product have been relatively high. VPR purchases the truffles for a conservative price - still much higher than had previously been realized from sales to private buyers - then waits until sales have been completed and expenses assessed before paying out the appropriate share to harvesters as a 'bonus'. Last year the bonus was 43%, creating the

problem of large sums being paid out at one time. The project is now exploring the option of paying out the bonus incrementally or pursuing other strategies to reduce the sudden large influx of cash into communities. One strategy is to move into the processing of this product so that sales can occur over a longer part of the year.

A significant question mark for the project is: what conflicts within and between communities could arise over the utilisation and control of natural resources as markets for products are developed? To some degree, the approach of the project to the issue of possible community conflict over resources appears to be one of 'wait and see'. Although the TL pointed out that the Basarwa, with greater experience and knowledge around the exploitation of veld resources, have a certain advantage over the Bakgalagadi, it is difficult to imagine this advantage lasting long in the face of a concerted interest on the part of the latter to begin harvesting increasingly valuable VPs. The approach of the project at this point does not seem unreasonable, provided consideration is given to how these conflicts might be resolved when, and if, they become an issue. Project staff have demonstrated a keen awareness of possible conflicts over the equal distribution of benefits of these resources. The existing ethnic tensions, not just between Basarwa and Bakgalagadi but even between sub-divisions of the latter, may however provide a stiff challenge to working out issues of mutual concern.

A further challenge for the project is in the area of the legal framework related to natural resources. The current policy structure does not support the effective management of natural resources by local communities. Officially, the resources of the communal lands are considered to be open to all residents of the country, although local communities feel they should have a right to be consulted on the allocation of land in their vicinity. The lack of consultation by government prior to the allocation of land has been the source of considerable friction with communities. The government position on natural resources appears highly contradictory: on the one hand, the government recognizes the desirability of having communities involved in decision-making, but on other, communities are given no role in decisions affecting natural resources, nor can they exert effective control over the resources in their vicinity. For example, the harvest of Sengaparile can now only be done legally with a permit from the Agricultural Resources Board. However, no input is sought from the communities closest to the resource, and any Batswana can obtain a permit to harvest. While the project has made progress in the creation of local-level resource management bodies, a key question for future phases of the project is what, if any, 'space' can be made for local people to gain secure access to, and have input on the decisions affecting, natural resources in their area.

### 3.3.4 Indigenous Fruit Tree Research Project

Much less documentation is available on the Indigenous Fruit Tree Research Project (IFTRP). As the majority of the work that has been completed is in the area of on-station research, results will also be discussed in section 4.3 in the context of assessing the methodology utilised by the project.

The long-term goal of the IFTRP is to develop superior genotypes of selected illigenous fruit tree species. These fruit trees could then be utilised within a production stem that would be a viable alternative to the form of arable farming currently being Pacticed with limited success in the project area. Ultimately the hope is that NGOs and revant government agencies can be provided with training and information on technology thous for utilizing the superior genotypes in extension programmes. Although the CBMIF (riginally "Survival Food Management in Arid Areas") and the IFTRP projects are being discussed separately in this evaluation, it is arguable - and this point was also made by staff at VPR - that the two programmes are linked. Domestication of veld resources with enomic and other values is an important part of the strategy of maintaining and enhancing the resource base.

As will be discussed in the section on project methodology, many of the achievements to date in research on indigenous fruit trees at VPR have occurred on-station. One early Pactical application of research has been the distribution of more than a thousand fruit trees - indigenous and exotic varieties - to over 140 individuals in the CBMIF project communities. The trees were provided after being requested during community meetings. As previously mentioned, a monitoring tool for fruit tree owners was developed to track the progress of the trees. IDRC funds are also being utilised to cover the printing of the first six - on indigenous trees - of a planned ten 'how to' booklets for growing fruit trees.

For the most part, the trees planted have survived, and participants' reactions have been positive. The only criticism of the tree planting exercise heard by the consultant in community meetings was that earlier requests for more of the exotic trees to be provided had not been followed up. While people were interested and willing to try growing indigenous trees, there may be a perception that exotics are a superior choice. Given the market of entation of people, the interest in exotics could stem from a concern over which trees have more potential for generating extra income. Local perceptions of the benefits of growing exotic versus indigenous trees can only be assessed through further research by the project, and this is encouraged. While indigenous fruit trees are almost certainly a better choice than exotics in terms of their adaptation to the conditions of the project area, other factors, i.e., marketability, personal preferences, etc., may be influencing people's perceptions and need to be acknowledged by the project. Once these perceptions are more fully understood, the Project will be in a better position to respond to the needs of the community.

The original Project Summary (PS 93-0044, p. v) makes mention of possible issues related to intellectual property rights that the project needs to be aware of and address. If plans at VPR move ahead for the commercial development of superior cultivars of indigenous fruit trees to generate income for the organization, the question of intellectual property rights may require more attention. VPR hopes one day to be a self-supporting organization through the marketing of a range of products including both indigenous and exotic fruit trees.

## 4. Evaluation of Proposed Project Methodology

### 4.1 Survival Food Management - Methodological Background

The original proposal placed a significant emphasis on the use of the 'village-based researcher' (VBR) model first developed by ENDA-Zimbabwe and used effectively in south-eastern Zimbabwe. VBRs are trained in Participatory Rural Appraisal methodologies to document existing resource management systems and constraints to their sustained utilization. VBRs are selected on the basis of tribal/clan and gender representation, as well as ability and community acceptance from within the communities where the PRA exercises are to be held. The quality of information generated through these PRAs is considered to be high, and a benefit of this process in Zimbabwe was the creation of ready-motivated change agents for the post-PRA period. Funds were set aside in the project budget for Davidson Gumbo of ENDA-Zimbabwe to assist in the selection and training of VBRs, and to make two visits during the VBR phase to assist in data analysis and to evaluate and make recommendations on the programme. The results of the PRA phase were to form the basis for assisting communities to identify initiatives and intervention needs to sustain the resource base, address degradation problems, and enhance food security (PS 93-0044).

When the project finally got under way, while the focus on the use of PRA remained the same, the approach to the use of VBRs changed significantly. The TL for the project decided against proceeding with the VBR model. A number of reasons for abandoning the VBR model were provided by the TL. One reason was the assessment that data collection was not the first priority of the village collaborator working with the project; the establishment of a community member (the 'village-based officer' - see below) who would act as the focal point for communication between the two partners in the project, the community group and project staff at VPR, was considered to be of more importance. Of further concern was the significant investment of time and funds that would be required to train individuals in the PRA work, with no guarantee that these individuals would continue in the role. From the TL's perspective, focusing all the training on a limited group was in a sense 'putting all your eggs in one basket. The wish was for more emphasis to be placed on the development of the community organization as a whole. Collection of data was and is still being undertaken with the participation of all members of the VPGs; however, where the VBR would presumably have been in charge of running the data collection exercises, this responsibility now rests with the external project team. Finally, a more political reason was offered as contributing to the decision not to pursue the VBR model. It was felt by the TL that the placement of 'change agents' in villages would not be supported by Botswana government departments - project collaborators - who consider the current extension presence in rural areas adequate.

An alternative position was created, the 'village-based officer' (VBO), who would act as coordinators of the project at the village level. Although paid by the project, VBOs were selected by the group, apparently partly based on the degree to which they were active participants in village committees. Apart from maintaining contacts between the local VPG and the external part of the project team, VBOs will monitor project progress and assist with

monitoring socio-economic impacts. VBOs will hold primary responsibility for monitoring progress at the community level. Project targets, as defined by VPGs themselves, will be the basis for assessing progress. VBOs will also monitor the socio-economic situation of selected households to provide qualitative information on project impacts.

## 4.2 Survival Food Management - Assessment of Utilized Methodology

As already indicated, while the structure of the research changed, the emphasis on the use of participatory methodology remained intact. From a research standpoint, it is regrettable that the VBR model was not tested in the context of the project, but it is difficult to make a firm assessment on the impact the decision to abandon the model has had on the quality and extent of the information obtained on veld resources. Commitment on the part of the project team to the philosophy and practice of participatory research appears high. The team also acknowledges the difficulty of achieving 'true' participation and demonstrates a patient attitude to achieving this goal. There is also an awareness on the part of the VPR team that the PRA methodology can raise expectations and it is important that the project do its utmost to maintain momentum with the communities involved. For their part, a number of VPG members expressed to the consultant their view that the project is truly a joint venture between the community and the external team and they appeared pleased with the level of consultation that has been a feature of the project.

The two VPGs that discussions were held with had a clear idea of what they perceived to be their responsibilities and the responsibilities of the external team. When asked to discuss their relationship with the project and the role of each of the partners, the Tshwaane and Motokwe VPGs stated they were bringing their own knowledge to the project, as well as their cooperation, labour, ideas for activities, and the materials they want to work with (plant materials and the like). Apart from increased income and general improvement in their lives, the groups perceived the ability to exchange ideas about VPs and to teach others in the future as benefits of the project. The Tshwaane group recognised their responsibility to continue with the project and to eventually take over its ownership. Both VPGs saw the responsibility of the outside team to provide funds for the project, but also knowledge and ideas, technical expertise, encouragement and empowerment through consultation.

It is not clear, however, that the role the VBRs were expected to play in the original project was fully understood either by some members of the project team or by collaborating agencies participating in the project. For example, recent project documents (CBMIF Annual Plan - 1997) refer to the decision not to give the VBOs "an active extension role", presumably in contrast to the original plan for VBRs, because of the relatively many government extension officers in the project area. This argument against overlapping responsibilities appears erroneous however, given that the VBR model is not parallel to the extension system, nor, in any case, is the extension system adequately addressing development needs for the veld product resource. What is clear is that the model selected for the project - the VBO - has significantly different and more minor responsibilities in the project than the

original VBR. Although it would be unfair to assess at this relatively early stage whether or not the VBOs are meeting all the responsibilities assigned by the project, from the perspective of one VBO, the main responsibility of the position appeared to be to ensure good communication between the external team and the VPG. Presumably the monitoring role within the project and other responsibilities will develop as the project proceeds. Depending on the training they receive and the room they are given to 'grow' in their positions, it also seems possible that the VBOs may well constitute similar 'ready-motivated change agents' as was found in Zimbabwe with the ENDA VBR program.

An unfortunate situation that may or may not be directly related to the decision to discard the VBR model, is the failure of the planned collaboration between VPR and ENDA-Zimbabwe to come about. It is possible that Davidson Gumbo who was to be a consultant to the VPR project, became disillusioned with the changes to the research programme, or simply grew impatient with the delays in project implementation. In any case, no response was received from ENDA to VPR requests for written material on the ENDA experience with VBRs. Apart from the missed opportunity for the project team to increase their knowledge of participatory methodologies, it is felt that both organizations may have benefitted from the process of exchanging information and collaborating on the development of natural resource management strategies for local communities.

## 4.3 Indigenous Fruit Tree Research Project - Assessment of Utilized Methodology

Methodologies employed by VPR in research on the domestication of indigenous fruit trees, also demonstrated creativity and innovation. A good example of this innovative approach is the VPR-sponsored competition to locate superior specimens of the most desired indigenous fruit trees. The competition was aimed at school children, the acknowledged 'local experts' in indigenous fruits. Through this process, trees with superior fruits (size and sweetness) were used as source material for the propagation program. Local people identified as 'owners' of these 'mother trees' are paid for the use of grafting material and for keeping an eye on the tree. Owners can eat all the fruit they wish but are requested to retain the seeds for the project.

The selection of fruit tree species for further research has been determined by the priorities of local people. Currently, five species are being researched: two species of the genus Strychnos (cocculoides and spinosa), Azanza garckeana, Vangueria infausta and Scelerocarya birrea. On-station research has provided some notable successes, for example with superior fruit size, growth and vigour from superior phenotypes of the Scelerocarya. According to Stanley Mateke, Senior Horticultural Research Officer at VPR, the most difficult challenge has come from the Strychnos, whose disappointing growth is believed to stem from a mycorrhizal association that is as yet poorly understood. Vesicular-arbuscular mycorrhizal (VAM) fungi form important associations with many plants, allowing the hosts to absorb nutrients more efficiently and to cope better under conditions of water stress. Research being undertaken towards a PhD at the University of Pretoria by Mateke - with the field work being

conducted at VPR - will focus on improving the knowledge base on VAM fungi in fruit trees and isolating the most effective VAM fungal species for use in the inoculation of host species to improve growth.

In the hope of gaining information on how these trees will perform on-farm, the project has begun on-farm trials with a small number of households. Originally the intention was to pursue the early trials with schools in the communities, but farmers expressed considerable interest in taking part in this phase of the research so the decision was taken to expand the trials. Participants are told that the plantings are experimental, and are given advice on where to plant the trees, i.e., not too close to buildings, and how to protect them from animals and frost. Within the schools, staff and the parent-teacher association are approached with a proposal for 'joint research'; the school will provide a site, labour and will undertake some data collection, while the project will provide planting stock, information on planting and care, and a rain gauge which the school can also use as a teaching tool. The focus on schools for many of the fruit tree trials stems from the view of the project that as learning places, schools are excellent locations to introduce future farmers to the concept of growing indigenous fruit trees as a viable activity. Plans are currently underway to expand the trials to more schools and possibly with more farmers.

The focus on moving trials out to the field sooner than is often the case with horticultural research, is not without risks as the project willingly acknowledges; if the trees fail to thrive, farmers may be sceptical regarding the planting of indigenous fruit trees in future. However, the project feels that by being completely honest with participants in stressing the trial nature of the activity, the potential benefits outweigh the risks. The information obtained on the performance of superior phenotypes under on-farm conditions with minimal project interventions - the trees are the farmers to look after as they wish - will prove invaluable in assessing the viability of promoting indigenous fruit trees as a crop.

## 5. Evaluation of VPR's Capacity and Capability for Future Activities in Veld Resource Management

In spite of the problems that have marked the implementation of "Survival Food Management in Arid Areas" there is still room for optimism regarding VPR's capacity and capability to carry out future activities working with communities to achieve equitable and sustainable management of veld resources. As previously discussed, VPR has evolved into an organization with more distributed responsibilities, reducing significantly the pressure on one person (Frank Taylor) to meet the majority of the organization's needs. There is also no question that many of the difficulties encountered at the beginning of the project were out of VPR's hands. To have two candidates accept and then turn down a position would lead to serious delays for any organization attempting to implement a program with the complexities found in "Survival Food Management in Arid Areas". At the same time, VPR bears some responsibility for the delays in filling the post. While it is acknowledged that finding the right person for the post was key to the success of the project, quicker decision-making than

the 18 months or more required seems possible, even with the set-backs caused by the actions of the prospective Team Leaders.

The lessons learned from the difficulties in implementing the project as well as the increase in personnel able to take on added responsibilities, makes a repeat of the problems which marked the current project less likely. There has clearly been an increase in the capacity of VPR to effectively manage multi-disciplinary projects of the type found in the original proposal. At the same time, for the credibility of VPR to be maintained with donors, there is a need to ensure that a repeat of the situation where project funds are shifted significantly away from originally funded objectives is not repeated. VPR written materials which suggested the project would fully achieve its objectives - at least with IDRC funding during the three year time frame - were a loose interpretation of the original project objectives. While the manner in which funds were spent does make a contribution towards understanding the potential of some VPs, expenditures were not focussed on the main objectives of the original project. In hindsight, donor monitoring to keep the project on track could have been closer for an organization (VPR) at this stage of its development. Improvements have also been made relatively recently in the areas of project reporting and administration which should allow for improved project tracking by donors.

While achievements in the area of the original project objectives with IDRC funds were disappointing, the capacity of VPR to carry out future activities in working with communities to achieve the equitable and sustainable management of veld resources appears high. This conclusion is based on the following:

- Relationships between VPR and the communities involved are good, aided significantly by the commitment to consultation demonstrated by the project team.
- VPR's innovative approaches to the sustainable development of veld resources augurs well for future activities. These innovative approaches include local-level monitoring of resources, and an integrated approach to community needs which involves the inclusion of other NGOs. In spite of the difficulties in establishing a working relationship with ENDA-Zimbabwe, it is felt that there is a genuine interest and commitment on the part of the staff at VPR to work collaboratively with other organizations in the South.
- 3) The quality of the project team is high. The knowledge base and commitment of personnel is high and responsibilities are more distributed which should reduce the bottlenecks seen in the original project implementation.
- 4) VPR's strength in applied research on the domestication of veld resources (i.e., the Indigenous Fruit Tree Research Project).

#### 6. Recommendations for Future Activities

This section covers two aspects of concern for the project: 1) suggestions for future activities requiring additional funding inputs and 2) issues deemed to require consideration during the current project cycle, which may or may not require additional funding to implement.

## i) Training and Devolution of Responsibilities

While it is acknowledged that the project is still at a relatively early stage, there is a need to begin planning for the transfer of responsibilities to the VPGs in each community. Transferring responsibilities means that training needs must be planned well in advance; for example, one approach would be to identify suitable members of each group for training in small enterprise activities. Skills transfer and education around the commercialisation of VPs were mentioned in group discussions with the evaluator as being highly desired by VPG members. The project would be well advised to consider linking up with another organization with expertise in microenterprise development to help meet training needs in this area.

## ii) Assessment of Applicable Natural Resource Policies

In hindsight, it appears policies affecting the management of natural resources could have received more attention during the initial planning for the project. A more critical assessment may have clarified the shortcomings of the current policy framework in supporting the local management of veld resources and could have helped shape the focus of research activities. Given the significant potential impact of these policies, or of the lack of appropriate policies, on local resource management initiatives, it is imperative that the project consider approaches for creating a more favourable policy environment. One approach could be to search out collaborative linkages - for example, with university researchers - for research into policies supportive of local resource management and control. It may also be useful to link up with projects working on similar initiatives elsewhere in the region.

## iii) Monitoring Impacts of Increased Commercialization of Veld Products

The need for continual monitoring of the socio-economic and environmental impacts of increased commercialization of veld resources in the project area has been acknowledged by the project. However, a limited amount of information has been gathered thus far which would allow such assessments and monitoring to take place, especially on socio-economic impacts. Consideration must be given to the possibility that impacts will be beyond the participating group. These concerns may be addressed to a significant degree by the results of the socio-economic survey. While with the number of different concerns and factors that the project appears to be balancing quite admirably thus far make the task a challenging one, the project has a responsibility to

ensure that in the face of pressure to provide income for participants, important questions around sustainable management, long-term planning and equitable resource use are not left behind.

## iv) Continued Support for Community Monitoring of Resources

There is a need to continue the research into the development of effective tools for the monitoring of natural resources by local people. While the project will have made progress in this area by the time the posting for the volunteer working on this project is completed, it seems likely that much work will remain to be done in this innovative area. Establishing a regional working group on these methods could also be a useful approach to ensuring their continued evolution in a coherent fashion.

#### v) Facilitation for Resource-sharing Arrangements

Until now, there appears to have been little discussion within the project of how potential conflicts around the sharing of veld resources will be addressed. Even in the relatively brief visit paid by the consultant to the project area, a question came up about how the VPG might be able to harvest from the area around another village. If the project is successful in its objective of improving income generation from VPs, the likelihood of conflicts developing - as has been seen in neighbouring countries - over certain favoured/highly valued resources, seems high. The project needs to begin planning ahead for this possibility, especially given the potential for resource conflicts to take on an ethnic dimension. Research is needed into the various models for the resolution of resource-based conflicts with the aim of promoting resource-sharing arrangements for mutual benefit.

#### vi) Management Systems for Veld Products

Various activities on the domestication and management of VPs are already planned for within the project and appear to be of keen interest to the community groups. The potential to acquire valuable information through these experiments is high if sufficient funds are made available for the support of group activities. Of considerable interest is the possibility for experimentation with 'enrichment' or 'enhancement' planting on the group plots, as a strategy that is in-between domestication and more passive in situ management. The project is encouraged to ensure adequate financial support is available for group-focused research and monitoring in this area. The project may also wish to consider seeking funding to support an undergraduate or a graduate student to conduct more detailed research on the different models for veld product domestication/management.

## vii) Support for a Marketing Network for Veld Products

As has already been stressed, the development of viable markets for VPs must go hand-in-hand with the development of sustainable management approaches. The project has recognised the challenges that small producers - such as the VPGs - may face in attempting to market products independently. Therefore, a recommended focus for future research is the establishment of a marketing network for cooperation between different producer groups. The size of this networking body will allow access to more markets with greater bargaining power than would be possible with the limited resources of smaller groups. VPR could take the lead in initiating such a network, but this consultant believes that there would be interest on the part of other NGOs and producer groups to become involved, once positive results can be demonstrated.

## viii) Explore Potential for Information Sharing on Community-based Management

While similar projects appear to collaborate well when they share a common donor, there seems to be less communication among other projects which may have similar interests, but little support and encouragement to share information outside of conferences. Even with the consultant's limited knowledge of other community-based natural resource management projects in Southern Africa, he was able to suggest some that were unfamiliar to the project team. Obviously not all of these projects will have valuable information to share with each other; however, given the complex nature of the issues that must be dealt with in order to succeed with community-based management, it does seem likely that experiences of other practitioners could be valuable in assisting communities to reach their full potential in these activities. To support the exchange of information and lessons learned between different communitybased natural resource management projects (loosely defined), it is proposed that the level of interest in such a network be explored. If interest is high enough, information could ideally be shared through e-mail - utilizing a 'listserver' or mailing list of interested parties - with support for groups to get 'on-line', or failing that, a group without Internet access could be partnered with another organization in the vicinity to share the information.

## Appendix 1.

#### Terms of Reference

- a) To evaluate progress and research accomplishments of the project "Survival Food Management in Arid Areas (Botswana)" Centre file 93-0044 in accordance with project objectives outlined in the Project Summary.
- b) To evaluate in particular the suitability of the methodology proposed and used by the project to address project objectives.
- c) To evaluate the capacity and capability of Veld Products Research to carry out future activities, and to work with communities to achieve equitable and sustainable management of veld resources.
- d) To make recommendations for future activities based on (c).
- e) To submit a detailed and satisfactory report of the work accomplished to Wardie Leppan of the Regional Office for South Africa by June 20, 1997.

Appendix 2.

Schedule of Activities and Contacts Met

May 20

Arrive in Botswana - transfer to Gabane

Tuesday

Meeting with VPR Staff

Tour of VPR Headquarters, nurseries, research plots

May 21 Wednesday Meeting with Community Based Management of Indigenous Forests

(CBMIF) Team:

Cor de Wolf (Team Leader)

Douglas Thamage (Assistant Team Leader)

Initial review of project documents

Meeting with Frank Taylor, Managing Director VPR

May 22

Continued review of project materials

Thursday

Meeting with Frank Taylor re: Indigenous Fruit Tree Research Project

Preparation for field days

May 23 Friday Travel to Tshwaane with Assistant Team Leader

Organize meetings in Motokwe and Tshwaane for following day

May 24 Saturday Discussions with members of Veld Products Group,

Tshwaane (9 members present)

Travel to Motokwe: visit indigenous fruit tree trial site with members of

Women's Group (6 members)

Discussions with members of Motokwe Veld Products Group (12 members

present)

Return late to Gabane

May 25

Sunday

Off Day

May 26 Monday Review/write-up of field trip notes Continued review of documents

May 27 Tuesday Meeting with Frank Taylor and Rick Sunstrum, VPR's Office Manager, to discuss expenditure of Project funds

Reviewed project financial reports Write-up of evaluation notes

May 28

Final discussions with Frank Taylor, Cor de Wolf

Wednesday and other VPR Staff

Continued writing of Project Evaluation

May 29 Thursday

Meeting with Stanley Mateke, Senior Horticultural Research Officer

(unavailable prior to this time)

Depart Gabane