

**Conservation and Sustainable Use of Traditional  
Medicinal Plants in Zimbabwe**

**Project Number. Zim/01/g35/a/1g/99**

**Mid-Term Review**

**Final Report**

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## List of Acronyms

AIDS	Acquired Immunodeficiency Syndrome
AREX	Agricultural research and Extension Services
BSAP	Biodiversity Strategy Action Plan
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CBD	Convention on Biological Diversity
CCF	UNDP Country Cooperation Framework
DEAP	District Environmental Action Plan
DNR	Department of natural Resources
DTT	District Task Team
FC	Forestry Commission
GEF	Global Environment Facility
GoZ	Government of Zimbabwe
HIV	Human Immuno Virus
IPR	Intellectual Property Rights
IUCN-ROSA	The World Conservation Union
LFA	Logical Framework Approach
MET	Ministry of environment and Tourism
NGO	Non-governmental Organisation
PDF	Project Development Facility
RDC	Rural District Council
SADC	Southern Africa Development Community
SAFIRE	Southern Alliance for Indigenous Resources
UNDP	United Nations Development Programme
UZ	University of Zimbabwe
WHO	World Health Organisation
ZINATHA	Zimbabwe National Traditional Healers Association

## EXECUTIVE SUMMARY

This report details the findings of the Mid-Term Evaluation of the UNDP/GEF Conservation and Sustainable Use of Traditional Medicinal Plants in Zimbabwe project (Project Number. Zim/01/g35/a/1g/99). The evaluation was conducted between April 20 and May 18, 2006.

The project was to be implemented over a five-year period from August 2002 to July 2007 but due to delays in the recruitment of the Project Coordinator, project implementation only started in May 2003. Before this official start-up, ad hoc arrangements had been made to initiate the project through the National Biodiversity Programme Office. The project is being implemented in five districts across the country, namely: Bulilima, Chimanimani, Chipinge, Mangwe, and Matobo. The project has a total budget of US\$ 1631 900 made up of US\$ 999000 of GEF funding and US\$ 632900 of counterpart funding.

The project implementing agency is the Ministry of Environment and Tourism. A National Steering Committee provides overall project technical direction while the Project Coordinator handles the day-to-day management of the activities. Other administrative structures set up to facilitate project implementation are the District Task Teams made up of the local authority and relevant governmental entities and non-governmental organisations operating at that level. The project is composed of five closely linked output areas that have been allocated to different implementing partners to take a lead in. These include the National Herbarium and Botanical Gardens (Output 1), the University of Zimbabwe Department of Pharmacy (Output 3), the Southern Alliance for Indigenous Resources (SAFIRE), a regional NGO (Output 2 and 4), and the Attorney General's Office (Output 5).

After one year of implementation, the project rationale, indicators and targets were reviewed in order to make them more rigorous as per the new GEF focus on project impact. New indicators and targets were developed in December 2004.

The project objectives are to promote the conservation, sustainable use and cultivation of endangered medicinal plants in Zimbabwe, by demonstrating effective models at the local level, and developing a legal framework for the conservation, sustainable use, and equitable sharing of benefits from medicinal plants at the national level.

The project has adopted an implementation strategy that highlights the following approaches to achieving the stated objectives:

- a) The promotion of in-situ conservation of threatened medicinal plant species.

The project has adopted a community-based approach through which local communities are involved in project implementation. One approach that targets the improvement of the conservation status of threatened medicinal plants is the promotion of in-situ conservation strategies at some of the project sites. The designation of "no-use zones" and the planting of threatened species in their natural setting at sites in Chimanimani and Matobo Districts has encouraged the regeneration of a number of these species.

In addition to planting of threatened plants, project participants have also developed guidelines for sustainable harvesting of medicinal plants with the support of the Southern Alliance for Indigenous Resources (SAFIRE).

While it is still too early to identify specific improvements in the conservation status of medicinal plants due to the limited time over which the project has been implemented, there is potential for this approach to result in positive impacts on the conservation status of medicinal plants. The designation of “no-use zones” will help relieve pressure on the resource in the wild and encourage regeneration while the introduction and application of harvesting guidelines will mitigate unsustainable off-take thereby increasing the availability of medicinal plants in the long term.

The principal risk associated with this approach is that not all community members are participants in the projects. Non-members might therefore claim rights over the resources as well as the benefits accruing from their exploitation as these resources are communally owned.

#### b) The promotion of ex-situ conservation practices

Ex-situ conservation is being promoted through the establishment of community nurseries as well as establishment of gardens at individual homesteads. All project sites have established nurseries that are at various levels of development while individual project members, especially traditional healers and herbalists, have established gardens at their homesteads where they are planting those medicinal plants that they use most often.

The evaluation understood the purpose of the communal project gardens to be to produce planting stock for reintroduction into the natural environment when enough planting material has been established. Individual gardens at the homesteads are for personal use by the practitioners that have established them.

#### a) The development of a legal framework

The improved conservation and sustainable use of medicinal plants will depend upon the extent to which community rights over the resource are assured as well as the extent to which communities benefit from these resources. This requires that a legal framework that protects these rights and provides for equitable access to the benefits from resource exploitation be put in place. The project has gone a long way towards putting this framework in place with a draft framework already developed with the participation of the government law office. The framework incorporates aspects of intellectual property rights which is an important issue given the threat of communities losing the traditional knowledge of medicinal plant properties to outsiders that is inherent in a project of this nature.

#### b) Commercialisation and benefit sharing

Conservation of biodiversity is most likely to occur where benefits from such efforts are shared amongst those that participate in the activity. The southern Africa region has developed the concept of sustainable use as a basis for conservation of natural resources. This concept has worked with resources such as wildlife that are also communally owned. The approach adopted for this project is therefore based upon this tested practice.

Medicinal plants are common goods that are used by individual practitioners. This results in the privatisation of the benefits from these resources. Under such conditions, sustainable use of the resources is not guaranteed as those with access work to maximise the benefits

they enjoy. The community-based approach is an attempt to ensure that these common resources are communally managed and the benefits from the resources are shared among all those participating in the management activities.

The project has also introduced the commercialisation of medicinal plants through the development of cottage industries as a way of promoting equitable distribution of benefits from these common resources. It is expected that when communities realise increased benefits, they will adopt sustainable use practices resulting in generally improved conservation of the resource.

There is the danger that commercialisation of medicinal plants will increase off take levels and threaten the conservation of wild stocks of plants. Community organisation around project activities and the introduction of both ex-situ and in-situ conservation practices, coupled with sustainable harvesting practices will mitigate this threat. The experience with community-based natural resources management has shown that when community groups realise increased benefits from the resources they use, they will adopt effective management strategies resulting in improved conservation. The designation of “no-use zones” in a number of the project sites visited bears testimony to this theory.

The Project Objective is to promote the conservation, sustainable use and cultivation of medicinal plants in five pilot sites in Zimbabwe, and the development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants.

The following project outcomes are expected:

- Conservation status and knowledge of threatened medicinal plants improved
- Stakeholder benefits from sustainable use of medicinal plants increased
- Cultivation of threatened medicinal plants greatly expanded
- Small businesses promoted for processing and marketing of cultivated medicinal plants
- Principles of sustainable use and equitable sharing of benefits from medicinal plants integrated into national and local legislation

The evaluation established that the project has made considerable progress towards meeting its objective. Threatened species have been identified and documented at each site while community awareness of the need for conservation of medicinal plants has been enhanced. Despite the fact that the area under cultivation of medicinal plants has not met the target of 1,6 hectares per site set for the mid-term, harvesting guidelines have been introduced thereby laying the foundation for improved conservation of plant species. In addition, enterprises for the commercialisation of medicinal plants have been initiated at each site and some project participants have started selling medicinal plants from their homes. This is providing incentives for improved conservation of medicinal plants.

The greatest achievement has been realised with regards to the introduction of a legal framework for the conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants. A draft legal framework that provides for the protection of intellectual property rights has been developed and is ready for adoption. Project progress at Objective level was rated as Satisfactory.

Under Outcome 1, the project has supported the performance of floristic inventories that have provided input into the production of inventories of medicinal plants in three wards in each district. Out of these inventories, priority lists of medicinal plants targeted for conservation in each area have been drawn up. These activities have helped improve

community awareness and knowledge of medicinal plant species in their areas. This improved knowledge and awareness should effectively contribute to improved conservation of these plant species. No notable progress was noticed with the improvement in the conservation status of medicinal plants, primarily due to the fact that the project has been under implementation for a relatively short period of time. The documentation of medicinal plants and the creation of inventories is only a first step towards the design of appropriate conservation programmes. Due to this limited impact from the conservation perspective, the evaluation rated progress under this outcome as Moderately Satisfactory.

Outcome 2 is aimed at increasing community benefits from sustainable use of medicinal plants. Enterprises have been established at each site while some project participants have established individual gardens at their homesteads. While it is too early to estimate direct benefits that have accrued to community members, there is potential for these to grow over time. The evaluation rated progress towards realising this outcome as Satisfactory.

Each project site has established a nursery for the propagation of threatened species while some project sites have embarked upon in-situ propagation of medicinal plants. While the targets set for the mid-term have not necessarily been met at all sites, it is evident that communities are fully mobilised for increasing the areas under cultivation. Progress towards this outcome was rated as Highly Successful.

Cottage industries for the processing of medicinal plants have been established in all five districts. These have introduced intermediate technology such as solar driers and mechanical grinders that have improved the processing of medicines. The improved packaging of these medicines has also greatly enhanced marketing processes for the medicines. Satisfactory progress has therefore been made towards realising this Outcome.

The greatest progress has been achieved with the development of principles of sustainable use and equitable sharing of benefits from medicinal plants. The development of a legal framework that enshrines property rights has greatly enhanced opportunities for this. Progress towards realising this Outcome was rated as being Highly Successful.

Overall, the project was rated as having made satisfactory progress towards achieving its intended objectives. The Table below summarises the ratings at the various levels.

<b>Project Level</b>	<b>Rating</b>
Objective	S
Outcome 1	MS
Outcome 2	S
Outcome 3	S
Outcome 4	S
Outcome 5	HS
<b>Overall Project Rating</b>	<b>S</b>

Although overall project performance is rated as being satisfactory, the evaluation proposes the following recommendations for the improvement of this performance between now and the end of the project.

General project administration will need to be improved through the adoption of the following measures:

- Dual accountability of project staff where they report to both UNDP and the Ministry of Environment and Tourism needs to be resolved. The recommendation is that staff evaluations be conducted by the National Project Steering Committee. The recommendations of the committee will be counter-signed by the Resident Representative and reports are submitted to the UNDP Regional Office in Pretoria.
- Financial reporting by most implementing partners is weak. UNDP should engage with these partners and offer them training in financial administration. Closely related to this is the need to relieve the Project Coordinator of the burden of carrying large sums of money to pay for project related costs in the field. It is recommended that UNDP expedite the institutional assessments that will allow for project financial resources to be administered by those institutions that are represented on the ground and have sound financial management systems.
- UNDP should provide transport to the districts to enable service providers to improve contact time with community groups that are implementing activities.

Overall project implementation will be enhanced with the implementation of the following recommendations:

The project should ensure that all data generated in the process of project implementation is deposited with the Project Coordination Unit. The National Herbarium and Botanical Gardens of Zimbabwe is holding onto data that they collected under this project. It is recommended that UNDP and the Ministry of Environment and Tourism contact the parent Ministry of this institution so that this data is retrieved as it is important for future project implementation.

The Project Coordinator should continue with his efforts to recruit the private sector to participate in the assessment of the efficacy of traditional medicines. This will complement the efforts of the Department of Pharmacy at the University of Zimbabwe.

It is recommended that the Project Coordinator work with the Ministry of Health as they develop a policy on traditional medicine. In addition to this, the Project Coordinator should also identify similar initiatives in other parts of the region and elsewhere that the project can share experiences with.

Project implementation processes should be reviewed with a view to introducing conflict resolution strategies especially given the potential for those members of the communities in the five districts that are not participating in the on-going activities laying claim on the benefits that are becoming evident.

The prospects for sustainability under this project will be further enhanced if it was institutionalised within the planning processes at local level. It is recommended that the Project Coordinator work with the District Task Teams to ensure that the project is integrated with district development planning processes. This will transform the project from a UNDP supported project to a local level initiative managed at local level.



## **INTRODUCTION**

The Zimbabwe Ministry of Environment and Tourism (MET), with support from the Global Environment Facility, has been implementing a medicinal plants project whose overall objective is: to promote the conservation, sustainable use and cultivation of endangered medicinal plants in Zimbabwe, by demonstrating effective models at the local level, and developing a legal framework for the conservation, sustainable use, and equitable sharing of benefits from medicinal plants at the national level. The project was to be implemented over a five-year period from August 2002 to July 2007. Due to delays in the recruitment of the Project Coordinator, project implementation only started in May 2003. Before this official start-up, ad hoc arrangements had been made to initiate the project through the National Biodiversity Programme Office.

The project is intended to deliver on the following five outcomes:

- Outcome 1: Conservation of threatened medicinal plants increased/enhanced;
- Outcome 2: Stakeholder appreciation of and benefits from sustainable use of medicinal plants increased;
- Outcome 3. Cultivation of threatened medicinal plants enhanced;
- Outcome 4: Small businesses promoted for processing and marketing of cultivated medicinal plants;
- Outcome 5: A conducive legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants in place and communicated to stakeholders.

The five outcomes also constitute the project components that are being implemented in partnership with a number of institutions at both national and district levels. National level implementing partners are the National Herbarium and Botanic Gardens for Components 1 and 2, the University of Zimbabwe Pharmacy Department for Component 3, The Southern Alliance for Indigenous Resources (SAFIRE) for components 2 and 4 and the Attorney General's Office for Component 5. Implementing partners at district level are mainly Government entities and currently include Rural District Councils (RDC's), Forestry Commission (FC), Agricultural Research and Extension Services (AREX) and the Department of Natural Resources (DNR). Representatives from these institutions sit as members of District Project Task Teams. As project implementation progresses and new focus areas are identified, new partners are being identified and invited to join the District Task Teams.

The project is being implemented in five districts across the country, namely: Bulilima, Chimanimani Chipinge, Mangwe, and Matobo. Bulilima, Mangwe and Matobo districts are in the dry western region of the country and are representative of dryland ecosystems that are also represented in Botswana, the Northwest Province of South Africa and Namibia. Chipinge and Chimanimani districts are along the eastern border of Zimbabwe with Mozambique where rainfall is much higher. The choice of these districts was on the basis of the need to identify representative medicinal plant varieties from the two regions.

### **Objectives of the Evaluation**

The purpose of the mid-term evaluation was to review progress that has been made towards meeting the project objectives and outputs, as well as identifying the strengths and weaknesses in project implementation. The evaluation was also expected to provide recommendations on any modifications that might be required to increase the likelihood of success.

The evaluation was also to analyse the achievements of the project against its original objectives and consider the effectiveness, efficiency, relevance, impact and sustainability of the project. It was also expected to identify factors that have facilitated or impeded the achievement of the objectives. In addition to a thorough assessment of the progress of implementation to date, the evaluation was expected to also provide recommendations and lessons learned to assist in defining the future direction of the project.

Specifically, the evaluation was to assess:

- (1) Project Design – review original project objectives and assess quality of design for delivery of planned outputs.
- (2) Project Impact – assess achievements of the project to date against the original objectives, outputs and activities using the indicators as defined by the project document.
- (3) Project Implementation – assess:
  - Project management arrangements; i.e., effectiveness of UNDP Country Office, Project Coordination Unit in implementation of the project,
  - Quality and timeliness of outputs and activities,
  - Financial situation (i.e., budget and expenditure status),
  - Responsiveness of project management to adopt and implement changes in project execution based on partner and stakeholder feedback.

Although the Terms of Reference stated that the consultant was to evaluate the performance of the project against the original indicators and targets as stated in the Project Document, it is important to note that these were reviewed a year into project implementation and a new set of indicators and targets agreed to by all stakeholders. These new indicators and targets were the ones used to evaluate progress in this evaluation.

## **1.2 Evaluation Methodology**

The evaluation was conducted over a twenty-five day period between April 20 and May 18, 2006. After introductory meetings with the UNDP Country Office and Ministry of Environment and Tourism principals in Harare the evaluator also conducted interviews with project representatives of the following implementing agencies: SAFIRE, University of Zimbabwe Department of Pharmacy, ZINATHA, Forestry Commission, Department of Natural Resources and the Department of Traditional Medicine in the Ministry of Health.

Following the meetings and interviews in Harare, the evaluator was accompanied by the Project Coordinator and the UNDP Head of the Environment Unit on field visits to Matobo, Bulilima, Mangwe, Chipinge and Chimanimani Districts. In each district, the team met with the District Task Team and paid courtesy calls at the District Administrators' offices before visiting project sites.

Visits were made to the following project sites:

Zenzele Uthutuke Group in Dema Ward and the Ndebele Cultural Village of Matobo District;  
Thembelihle and Mahkulela Groups in Bulilima District;  
Izandlakazilamanga Group in Simemela Ward in Mangwe District;

Mapungwana Group in Chipinge District;  
Kushinga, Saurombe and Nemaramba Groups in Chimanimani District.

At each of these project sites, the evaluator obtained an overview of progress with project implementation, problems encountered and plans for the future by project participants before engaging them in group interviews.

Following the field visits, the evaluator spent two days with the Project Coordinator reviewing project management procedures including staff contracts, programme implementation contracts, project implementation reports and financial management and control systems that are in use. On the final day in Harare, the consultant conducted debriefing sessions with UNDP, the Ministry of Environment and Tourism and SAFIRE.

The evaluation was based on the GEF Project Review Criteria and looked at the following elements:

- a) Implementation approach;
- b) Country ownership/Drivenness;
- c) Stakeholder participation/ Public Involvement;
- d) Sustainability;
- e) Replication approach;
- f) Financial planning;
- g) Cost-effectiveness;
- h) Monitoring and evaluation.

The list of people interviewed in the process of this evaluation is shown in Annex 4.

### 1.3 Structure of the report

An Executive Summary covering major findings of the evaluation is given at the beginning of this report.

This is followed by Chapter 1 which provides background and context to the project and describes the objectives of the evaluation itself.

Chapter 2 is an account of the project concept and design, objectives and activities. Also included in Chapter 2 are issues regarding the design changes that the project has undergone since inception.

Chapter 3 describes project implementation arrangements and covers institutional arrangements, financial management as well as stakeholder participation.

Chapter 4 analyses projects outcomes. Each project component is evaluated for the results or outcomes it is producing which are then measured against agreed to indicators and targets.

The project Impacts and their sustainability are analysed in Chapter 5 which is followed by an assessment of Lessons Learnt in Chapter 6 and Conclusions and Recommendations in Chapter 7.

Chapter 8 shows the reference material used in compiling this report.

Finally a list of Annexes is attached. These include The original Project Logframe, Revised Indicators and Targets, Terms of Reference, List of people interviewed and an Itinerary for the evaluation.

## 2. PROJECT CONCEPT AND DESIGN

### 2.1 Background

About 80% of the world's population relies on medicinal plants for their primary health care needs because modern drugs are either unobtainable or prohibitively expensive. In Zimbabwe, the role and contribution of traditional medicine is now receiving increasing recognition especially because access to allopathic medicine is becoming increasingly expensive and is now beyond the reach of the majority of the population.

Traditional medicines in Zimbabwe are under threat from poor woodland conservation practices and unsustainable utilisation. The regulatory framework for woodland conservation has also never had a specific focus on medicinal plants. Instead, focus was placed on indigenous plants of aesthetic or ecological value.

Almost all of Zimbabwe's rural land space is now classified as state land with rights of access to such land guided by central government dictates. The new land allocation system that is developing from the recent land re-allocation programme will be based upon a leasehold tenure system that does not provide secure tenure over the land and the resources on it. There is therefore no incentive for biodiversity conservation as benefits from the resource will not necessarily be internalised by the land user. Where land is privately owned, the owner is deemed to have control over plant resources, including their genetic components to the exclusion of others. This has in some cases led to poaching of medicinal plants by those that are excluded.

Due to these tenure arrangements increasing pressure is being exerted on the woodland resources in the country. It is estimated that some 70 000ha of the country's woodlands is cleared for agriculture annually to meet the needs of the country's growing population. A related problem is the high rate of utilisation of available medicinal plant resources. The high prevalence rate of HIV and AIDS and associated opportunistic infections, coupled with increased poverty levels and unavailability of drugs in the allopathic medical delivery system has increased the demand for herbal treatments including traditional medicines. In addition, the de-stigmatisation of traditional medicine has resulted in more people accessing the practice leading to unsustainable harvesting levels. As a result, some traditional medicinal plants are now endangered and/or vulnerable. Increased demand is also resulting in unsustainable harvesting techniques. Poor intergenerational transfer of harvesting technologies and knowledge systems have also resulted in medicinal plants being harvested before (or after) they reach maximum therapeutic value. This results in more biomass being collected to achieve the same level of effectiveness in treatment. There is therefore a need for adding to the knowledge base among users of traditional medicines and herbalists through conducting phytochemical analyses of medicinal plants in order to develop appropriate harvesting regimes.

Traditional value systems have guided the use of wild plants in Zimbabwe over the years. These include traditional rules and regulations that forbid the cutting of fruit trees and other "sacred" tree species for uses such as fuel wood and construction. The use of designated sides and positions of a tree (e.g. eastern and western sides only) to harvest roots and bark for traditional medicines also tended to deter people from exploiting the same tree before it had sufficiently regenerated. Unfortunately, some of these conservation

practices are breaking down partly due to the increasing demands being placed on the resource, as well as the increasing erosion of traditional cultural values through the assimilation of foreign cultural practices.

Traditional medicine has always been recognised in Zimbabwe. This recognition was indicated by the promulgation of the Traditional Medical Practitioners Act (Chapter 27:14) in 1981. Through this Act, a Traditional Medical Practitioners Council and the largest organization of traditional healers, the Zimbabwe Traditional Healers Association (ZINATHA) were created. The association today has a registered membership of over 55,000 traditional healers while there are many more healers and practitioners who do not belong to any association. However, the Act focussed on the regulation of traditional medical practice while paying little attention to its development. The establishment of the Department of Traditional Medicine within the Ministry of Health and Child Welfare in 2005 is perhaps the clearest sign that government now fully recognises traditional medicine. The Department's role is to coordinate the development of traditional medicine. This will be done through the formulation of a comprehensive policy on traditional medicine through the harnessing of the diverse policy instruments on the practice passed since 1980. The department's focus is also on de-stigmatising traditional medicine with a view to mainstreaming it in the health delivery system.

Co-operation between traditional and allopathic medical practices has always been encouraged through activities such as the setting up of clinics/pharmacies that specialise in traditional medicine with some of the clinics housing both traditional and modern doctors. In Mangwe and Bulilima districts, some of the project participants under the Traditional Medicines project have set up their gardens where they are propagating traditional medicines close to Ministry of Health and Child Welfare clinics. Such arrangements offer patients the choice of either consulting a traditional healer or a modern doctor. This recognition of traditional medicine by government has resulted in recommendations being made to mainstream traditional medicine in conventional health delivery systems. Mainstreaming does not necessarily have to result in the absorption of traditional medicine into allopathic medicine. Traditional medicine should be allowed to develop as a parallel system working through a referral system that is integrated with allopathic medicine wherever possible. This was the position adopted by the Southern Africa Development Community (SADC) Ministers of Health at a recent sector meeting.

A major problem with the practice of traditional medicine has always been the fact that it was not evidence-based. The Ministry of Health and Child Welfare intends to promote research to address this constraint and promote public/private partnerships to develop local medicinal plants under the codes of conduct as stated by the Medicines Control Authority of Zimbabwe. Any commercialisation of traditional medicines would then be accompanied by the commercialisation of the practice.

From the above, it is clear that medicinal plants are threatened from habitat destruction as well as heavy demand and unsustainable use. It is therefore imperative that measures be taken to regulate the extent to which woodlands are cleared if traditional medicines are to be preserved.

The project to promote the conservation and sustainable use of traditional medicinal plants has been designed to address the conservation-specific factors highlighted above. The project focuses on the conservation and sustainable use of sought after traditional medicines through the promotion of both in-situ and ex-situ conservation strategies. The project intends to introduce measures to relieve pressure on wild stocks of medicinal plants through these measures as well as sustainable utilisation of harvested plants. Equitable

access to the benefits from traditional medicines is also being promoted through the formulation of an enabling legal framework for the development of traditional medicines as well as the commercialisation of the practice. The project is therefore relevant to Zimbabwe as it addresses the major issues affecting the development of traditional medicine practices in the country.

Community based approaches to woodland conservation and, by extension, medicinal plants, have been adopted as the most effective ways of implementing the project and preserving the traditional intellectual property rights of communities. This is in keeping with the provisions of the United Nations Convention on Biological Diversity. The CBD recognizes the contribution of local communities by urging Parties to protect and promote traditional knowledge practices and innovations and to share benefits equitably with local communities.

The project is managed by the Ministry of Environment and Tourism (MET), who are the implementing agency as well as the national biodiversity focal point. A Project Coordinator has been engaged and is responsible for the day to day running of the project with guidance from an intersectoral Steering Committee drawn from the major stakeholders. The Committee consists of fourteen representatives from the Ministries of Environment and Tourism, Agriculture and Lands, and Health and Child Welfare; the Attorney General's Office; the Drug Control Authority; the United Nations Development Programme (UNDP); the World Health Organisation (WHO); the World Conservation Union (IUCN); the Zimbabwe National Traditional Healers Association (ZINATHA); the University of Zimbabwe; the National University of Science and Technology, and local non-governmental organisation (NGO). The specific project activities are subcontracted to relevant NGOs (e.g. university institutes, associations).

The terms of reference of the Steering Committee are to:

Discuss project annual workplans and approve budget allocations for the various activities;  
Review project progress reports and facilitate collaboration among stakeholders; and,  
Conduct periodic assessments of project outputs and direct emerging policy issues to the relevant authorities through the Ministry of Environment and Tourism.

The UNDP Country Office provides administrative support to the project through national execution arrangements, while IUCN provides technical backstopping, although this has not occurred due to staff changes as well as changes in programme focus at IUCN. The majority of project activities have been conducted through sub contracts with appropriate institutions such as the University of Zimbabwe's Department of Pharmacy.

Although the bulk of the project's capacity building efforts are targeted at the community level through ZINATHA, at least two PhD students have been engaged to work on the various laboratory activities under Output 1 using the co-financing component of the budget. This work is being carried out by the Department of Pharmacy in the School of Medicine at the University of Zimbabwe. This department is being supported through the provision of requisite equipment and chemicals for the studies.

## 2.2 Project Objectives and Activities

The original Logical Framework Matrix in the Project Document indicated that the project had two principal specific objectives that can be summarised as follows: to promote the conservation, sustainable use and cultivation of endangered medicinal plants in Zimbabwe,

by demonstrating effective models at the local level, and to develop a legal framework for the conservation, sustainable use, and equitable sharing of benefits from medicinal plants.

The original objective was therefore to increase the use of indigenous medicinal plants by local community members and traditional healers as an effective complement to modern medicines. Medicinal plant biodiversity is threatened by high demand for the products, land clearing in response to pressure for agricultural land, and over-use of forest resources. In addition, economic disincentives for the development of traditional medicines and inappropriate legal and policy frameworks also threaten the sustainable use of medicinal plants.

While a number of initiatives that promote the conservation of biodiversity are currently on-going, the GEF Alternative was intended to specifically target the development and dissemination of best practices for sustainable harvesting of medicinal plants from the wild and to integrate the dissemination of best practices for the provision of economic incentives to promote the sustained conservation of medicinal plants through the application of the CAMPFIRE approach to community based natural resource management. Through this approach, it is expected that benefits from medicinal plant use will be equitably shared by participating communities. The GEF Increment is also expected to help develop and encourage techniques for the cultivation of medicinal plants as a way of relieving some of the pressure on the wild plants and contributing to broader biodiversity conservation. Furthermore, the project will develop a national *sui generis* system of intellectual property rights (IPR) that will take into account the rights of communities as well as of traditional healers.

The following outcomes and activities were identified at the time of the original project design:

Project outcomes:

Wild medicinal plants conserved and used sustainably by local stakeholders, through the application of CAMPFIRE and other best practices (components 1 and 2).

Endangered medicinal plants cultivated both *in-situ* and *ex-situ*, and appropriate substitutes found for them (component 3)

Economic incentives developed to market cultivated species (component 4)

A legal framework developed to protect rights of communities and traditional healers (component 5).

Project Outputs and Activities

Output 1: Conservation of threatened medicinal plants enhanced through adaptation of the CAMPFIRE approach:

Activities:

Conduct participatory floristic surveys (endemism, degree of threat);

Create no-use, corridors, and buffer zones for endangered species;

Establish community regulations on sustainable use, including fiscal measures;

Set up management and benefit sharing mechanisms Participatory Monitoring and Evaluation.

Output 2: Stakeholder appreciation of and benefits from sustainable use of medicinal plants increased

Activities:

Mount awareness campaigns for sustainable use of medicinal plants;  
Acquire plant samples of threatened species;  
Develop capacity to undertake lab. Studies;  
Phytochemical characterisation of plant materials for best use guidelines;  
Promote indigenous knowledge on the conservation and use of medicinal plants;  
Develop and disseminate best practices for harvesting medicinal plants;  
Participatory Monitoring and Evaluation.

Output 3: Cultivation of threatened medicinal plants enhanced

Activities:

Develop and promote appropriate *in-situ* cultivation among pilot site farmers;  
Develop and promote *ex-situ* cultivation among ZINATHA members and other community members;  
Conduct agronomic trials to develop best practices for domestication of medicinal plants;  
Conduct Phytochemical Monitoring and Evaluation

Output 4: Promote small businesses for processing and marketing

Activities

Develop and promote harvesting and processing technologies;  
Conduct study tours on merchandization and commercialisation of medicinal plants;  
Support the establishment of cottage industries;  
Adapt standards for product marketing;  
Participatory Monitoring and evaluation.

Output 5: A conducive legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants in place and communicated to stakeholders

Activities:

Review existing laws and develop alternatives;  
Carry out consultations on alternatives;  
Develop a national *sui generis* system;  
Produce and disseminate simplified pamphlets on the revised legal framework, technical information and new economic opportunities;  
Develop local level capacity in by-law formulation and enforcement.

### 2.3 Project Revision

A year into project implementation, UNDP-GEF expressed concern about the inconsistency of the project indicators as stated with the new concern about measuring the impacts of projects. It was felt that the project indicators as stated in the Project Document were considered to be non-specific and of no value if the baseline they were being measured against was zero. Further, aspects such as biodiversity index that were indicated as measures of progress were deemed to be difficult to measure

The other problem identified was that Indicators and Targets were grouped at national level, while they should ideally be disaggregated to district level where the project was being



implemented. Further, there were no baselines set at project initiation that made it difficult to set useful Targets or Indicators.

Difficulties were also experienced with separating out Outcomes, Outputs and Activities as indicated in the Project Document. Each of these has its own, slightly different, set of indicators and/or targets that needed to be tracked. Though these were not necessarily incompatible, they created problems in what project management should focus on as they reported progress with implementing the project.

These concerns led to the project commissioning a consultancy to assist with the revision of the project document after the first year of implementation with the primary objective of establishing measurable indicators and targets at both the objective and project levels. The results of the consultancy were discussed at a workshop in December 2004 where the indicators and targets in the tables below were agreed to as the ones to be used to measure progress with implementing the project.

Although the Terms of Reference for this Midterm Evaluation indicate that the project was to be evaluated on the basis of the original Indicators and Targets as stated in the project document, the consultant performed the task on the basis of these new and agreed to indicators which measure project impacts at appropriate levels. Further, these indicators also allow for the evaluation of whether the project is indeed achieving the biodiversity conservation target, which is UNDP/GEF's principal interest.

## 2.4 Project Design

The Traditional Medicine Project aims to implement the activities mentioned in the Biodiversity Strategy and Action Plan (BSAP), which was developed by the Government of Zimbabwe with support from UNDP/GEF. Environmental Management is one of the four thematic areas of the Country Co-operation Framework (CCF) developed by the Government of Zimbabwe and UNDP in 1997, showing the strong national commitment to the environmental protection. The CCF proposes four programmes under 'Environmental Management'. They are: (a) implementation of Agenda 21 using participatory approaches; (b) capacity building for water resources management; (c) support the follow-up of the World Solar Summit; and (d) strengthening national capacity to implement environmental conventions within existing institutions, including the BSAP. This project falls under sub-programmes (a) and (d).

The project responds to the GEF Operational Strategy, and the Operational Programme on Forests, in the Biodiversity Focal Area. In particular, it addresses the guidelines for sustainable use of forests by combining production, socio-economic, and biodiversity goals. It is in accordance with the fourth Conference of Parties of the CBD providing guidance on: a) access, fair and equitable sharing of benefits that are derived from research and development on biodiversity; b) capacity building at local level to involve communities in biodiversity management and monitoring; c) the importance of indigenous communities in the conservation and sustainable use of biodiversity as stated by article 8j of the CBD; and d) promoting environmental awareness, and public education.

At the regional level, the project links with and benefits from the Southern Africa Biodiversity Programme, a GEF funded initiative aimed at strengthening the capacity of SADC member states to implement provisions of the CBD. As a result of implementing this project, Zimbabwe will also be able to provide useful lessons to other SADC countries and the global community on the conservation, cultivation and sustainable use of medicinal plants. In addition, Zimbabwe is one of the few countries in the world that is experimenting with the

development of a *sui generis* system of IPR. Project participants will visit countries with related projects in order to learn from their experiences.

## 2.5 Project Budget

The Project received a GEF PDF A allocation of US\$ 25,000 for use in project formulation. Project implementation started in May 2003 following an allocation of UNDP/GEF grant of US\$ 974 000. Co-financing was also secured to a total of US\$ 632000, including a contribution of US\$ 250,000 by SAFIRE, bringing the total project budget to US\$ 1,631,900. The project will be implemented over a five-year period up to May 2008.

Table 1: Project budget (US\$)

ITEM	GEF	OTHER	PROJECT TOTAL
<i>PDF-A</i>	25 000	0	25 000
PERSONNEL	70 000	90 000	160 000
SUBCONTRACTS	359 000	250 000	609 000
TRAINING	214 000	50 000	314 000
EQUIPMENT	32 000	150 000	132 000
TRAVEL	206 100	63 900	270 000
MONITORING & EVALUATION	76 200	19 000	95 200
MISCELLANEOUS	16 700	10 000	26 700
PROJECT TOTAL	999 000	632 900	1 631 900

Source: Project Document 2002

## 3. Project Implementation

### 3.1 Roles & Responsibilities

The five project components have been allocated to various implementing agencies on the basis of their strengths and mandates.

The National Herbarium and Botanic Gardens is responsible for components 1 and 2, the University of Zimbabwe Pharmacy Department is responsible for component 3, SAFIRE for components 2 and 4 and the Attorney General's Office has responsibility for component 5. These divisions of responsibility are not necessarily mutually exclusive as evidenced by the adoption of increasing responsibility by SAFIRE for component 1 with the realisation that the promotion of enterprises was dependent upon the continued availability of medicinal stocks.

The project implementation approach requires each implementing partner to produce a work plan that is vetted by the steering committee at national level for consistency with the overall project objectives as articulated in the project logical framework (LFA) before financial resources are allocated. Progress towards achieving these objectives is measured against the project monitoring and evaluation plan. This implementation approach has been followed by most of the agencies involved with the exception of the National Herbarium that has not delivered as expected following their production of district vegetation profiles. The Forestry

Commission, the Department of Natural Resources and SAFIRE have stepped in to do additional work to assist community groups identify plants with medicinal values

Although individual project components are allocated to specific institutions for implementation, the collective efforts of these institutions are expected to contribute to the achievement of the overall project goals and objectives as articulated in the project Log frame. To varying degrees of quality, each implementing institution has adopted the LFA approach to track progress towards the realisation and achievement of these overall project goals. Progress reports by implementing partners that were reviewed show that attempts are made to measure implementation against the targets set in the project LFA with reference being made to performance indicators. SAFIRE provides a very good example of how implementing agencies have used this approach as a project management tool. Their mid-term project status report covering the period September 2003 to April 2006 uses this approach to measure project implementation status under components 2 and 4 that they are responsible for against the revised targets set in December 2004.

Project implementation is always impacted upon by the effectiveness with which resources are made available to the implementation level. Due to the fact that all other project implementation partners, except SAFIRE, have not been assessed for their capacity to handle UNDP funds, the project is implemented using a centralised direct payment system through which payments for services provided under the project are made by UNDP. This system requires that the Project Coordinator physically carries money with him to pay for expenses such as travel and subsistence allowances for DTT members, costs for workshops and for purchases of materials such as fencing that are required at local level. This system is inefficient and results in inordinate delays in project implementation as it means that project activities can only take place when or after the Project Coordinator visits sites and pays for such services. During the evaluation the Project Coordinator was seen carrying large sums of money to pay DTT members their subsistence allowances. This places the Project Coordinator at great risk while the risk of money getting lost in the process is also extremely high.

UNDP has provided the Government of Zimbabwe with support to enable them to implement the project. This includes providing for a Project Coordinator and adequate financial resources to fund all the project components. The Coordinator has done an exceptional job of getting the project started with results already being realised in the five pilot districts over the past two years. An issue that needs to be addressed however concerns the administration of staff contracts. While the Project Coordinator and the Office Assistant are contracted by MET, they are expected to report to UNDP on the management of project assets such as vehicles and finances. While having MET perform the contractual management responsibility might indicate the degree of national level control over the process, the potential for confusion arising from this dual accountability is also high. The evaluation could not establish who, between UNDP and MET, was responsible for evaluating staff performance. This is an important aspect of contract administration that has the potential to dampen staff morale if not addressed.

The project has received very strong support from the Steering Committee since its inception. At project start up, the committee met at least twice per quarter to review and approve work plans and budgets submitted by implementing agencies. After full project mobilisation, the frequency of meetings has now been reduced to once every quarter. The Project Coordinator indicated that the Steering Committee provided him with support with the process of the formulation of the Legal Framework where they provided very constructive comments resulting in the draft regulations that have been produced. The committee also provided useful inputs into the commercialisation strategy produced by

SAFIRE. In addition to these supervisory contributions, some members of the Steering Committee, notably from UNDP and the Ministry of Environment and Tourism have attended project implementation workshops at district level. The Steering Committee has therefore been involved with the evolution of the project and provided very useful guidance where it was needed.

As stated earlier, the National Herbarium and Botanic Gardens is responsible for Components 1 and 2, the University of Zimbabwe Pharmacy Department for Component 3, The Southern Alliance for Indigenous Resources (SAFIRE), an NGO for Components 2 and 4 and the Attorney General's Office for Component 5. The danger in this type of arrangement is that individual institutions might end up developing institutional projects out of the areas that they are responsible for. This is most likely to happen with research institutions that believe in proprietary rights to the information and knowledge that they generate. This has already occurred with the National Herbarium and Botanical Gardens that is claiming such rights over the information they generated through the baseline vegetation surveys that they conducted in the five pilot districts. Another potential risk lies in the possibility of one or more institutions failing to deliver on their area of responsibility or delivering late, which would adversely affect overall project implementation. The failure by the Department of Pharmacy at the University of Zimbabwe to conduct rapid assessments of plants identified by communities as possessing medicinal properties has adversely affected conservation programmes that were intended to propagate those plants confirmed through this process.

At district level, the project has established District Task Teams (DTT) chaired by the Rural District Council. The teams also include representatives of relevant governmental organisations such as Forestry Commission, Agricultural Research and Extension Services (AREX), Department of Natural Resources (DNR). In some districts, the DTT includes representatives of non-governmental organisations such as Fambidzanayi Permaculture Institute that are promoting the growing of herbs at community level. The inclusion of these other institutions has facilitated the creation of implementation partnerships that have provided useful entry points for project implementation. Representatives of SAFIRE also sit as members of DTTS. SAFIRE also sits as a member of these DTTS.

The DTT in Chimanimani provides a very good example of what a coordinated approach to the project can yield at local level. The Kushinga project in Nyahode Valley in the district is a good example of an integrated approach to medicinal plant propagation under nursery conditions and processing and marketing through an outlet in Chimanimani village. The project has now been allocated a stand where they will build a semi-permanent outlet for their medicines in Chimanimani village.

The Department of Pharmacy at the University of Zimbabwe is also working towards the achievement of the project targets with the engagement of two Doctoral candidates who are conducting research to establish the medicinal properties of various traditional medicines. The findings of this research are expected to guide the selection of plant species that community groups can then focus on as they implement both in-situ and ex-situ conservation programmes. Both the Forestry Commission and DNR will also use these findings in their community level extension services. There is a potential threat of results of this research being delayed with the University adopting a conventional approach to research that will only yield results in the long term while the project needs them sooner.

The Attorney General's Office has provided comprehensive input and technical support to the process of formulating a legal framework to regulate the development of traditional medicine. The process of drafting this legal framework is ongoing. While the Attorney

General's office is providing timely input into the project, the rest of government is facing serious constraints. The Government of Zimbabwe was expected to contribute to the project through the provision of in-kind support in the form of staff, vehicles and office space. While government has been able to provide staff and office space for the project in all five districts, the current economic environment within which the project is being implemented has resulted in GoZ being unable to meet their obligations. A major constraint faced by government is its inability to provide vehicles for use by government departments for the promotion of the implementation, monitoring and evaluation of the project. All five DTTs are finding it difficult to provide technical support to community groups due to limitations imposed by transport shortages. Project implementers go for long periods of time without being visited. While organisations such as SAFIRE and the Forestry Commission might have vehicles that could be shared with other DTT members to visit project sites, they too have institutional limitations that do not allow them to have these vehicles available to the project all the time. UNDP needs to find ways of providing vehicles for use at district level to facilitate constant contact with project implementers.

The overall assessment of institutional arrangements under the project shows that the institutions charged with implementing the various project components are making valuable contributions to progress towards realising project goals. Attention needs to be paid to the issue of institutions claiming proprietary rights over knowledge they generate with project funds and the delays caused by approaches to project implementation. Project management will also need to ensure increased and more effective coordination among implementing agencies, especially at local level, if project impacts are to be maximised.

### 3.2 Financial Planning

Efficiency in this report is interpreted to mean how well the project activities have used the resources available to achieve results. Efficiency also measures the quality, quantity and the timeliness of delivery of the results produced by the project to date.

The financial management summary provided by the Project Manager shows the following programmatic budget and expenditure profile over the three years that the project has been under implementation:

Table 2: Project Financial Management

<b>Year</b>	<b>Budget as per project document</b>	<b>Expenditure</b>	<b>Balance</b>
2003	US\$182 000.00	US\$ 74 110.52	US\$108 169.48
2004	US\$168 000.00	US\$170 128.76	-US\$ 1628.76
2005	US\$196 000.00	US\$198 261.00	-US\$ 2 261.00
<b>Totals</b>	<b>US\$546 780.00</b>	<b>US\$442 500.28</b>	<b>US\$104 279.72</b>

The project achieved a low rate of delivery of 40 % (budget against approved expenditure) in the first year. This went up to 101% in both the second and third years of implementation. The low rate experienced in 2003 was due to the delays with project start-up and the necessary mobilisation period for implementing agencies following the signing of agreements for the provision of professional services. Implementing agencies also started working on the project at different times. For example SAFIRE started working on the project in September 2003 while the University of Zimbabwe only signed their

agreement in November of 2004. The rate of delivery is expected to continue improving until the final year of implementation as project elements grow as beneficiary communities embark on more activities.

### 3.3 Country Ownership & Involvement

Country ownership and drivenness measures the extent to which the project is a “home grown” initiative. It also measures the degree to which the project addresses national priorities within the sector it falls in and the extent to which government and civil society organisations are working together to address project goals and objectives.

It is important to address this issue in an evaluation as the extent of country ownership and drivenness has direct implications for project sustainability in the long term. Projects that are driven from outside are not sustainable and usually collapse immediately once outside support is withdrawn. In evaluating the extent to which the project to promote the conservation and sustainable use of traditional medicines is owned and driven by Zimbabwe, the evaluator considered the context within which the project was conceived, the major issues of concern it was supposed to address as well as the institutional arrangements for its implementation.

As stated earlier, traditional medicines are assuming greater importance in Zimbabwe’s primary healthcare delivery system due to the deepening economic crisis. Increasing human population and the clearing of increasing amounts of woodlands for the expansion of agriculture are placing more and more pressure on the sources of traditional medicines resulting in increasing shortages of these important products. It was with this background that the Government of Zimbabwe embarked upon this project to conserve and promote the sustainable use of traditional medicinal plants. The project was initiated as part of the national programme for the implementation of national obligations under the Convention on Biological Diversity (CBD) with the full participation of affected or beneficiary communities.

With regards to the conservation and sustainable utilisation of medicinal plants, GoZ had already committed itself to acting on this problem through the passing of the Traditional Medicines Act of 1981. In addition, government had also committed itself to devolution of natural resource management responsibilities to local communities through programmes such as the District Environment Action Plan (DEAP) and The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). The former was focused on including environmental considerations into local level participatory planning while the latter focuses on rewarding communities who utilise their wildlife resources on a sustainable basis.

At all levels of project implementation there is evidence of participation by government representatives working with civil society organisations in project implementation. The Secretary for Environment and Tourism chairs the National Steering Committee on which a number of government entities are represented. At district level, the District Councils concerned chair the DTTs which are made up of government and non-governmental entities. Collaboration between government and civil society entities is also fully evident under this project with SAFIRE playing a pivotal role as a service provider for the development of enterprises. Unfortunately the level of government commitment to the project does not match the levels of financial resources committed to the effort. This is due to the current economic climate in the country. Under these circumstances, the commitment by government of staff time and office space goes a long way towards demonstrating the level of ownership they have over the project.

SAFIRE had also committed to contributing US\$ 250,000 in co-financing to this project. Due to shortages of foreign currency, the organisation has instead pledged to contribute this share in local currency. The organisation has advanced its own financial resources to fund those project components that they are responsible for and then claimed these back from to UNDP. In all it is more than likely that SAFIRE will have expended more than the equivalent of US\$ 250,000 in own resources to the total project budget.

### **3.4 Stakeholder Participation**

Traditional medicines cater for the health needs of a very large segment of the world's population. In Zimbabwe the majority of rural dwellers depend upon traditional medicines with the trends pointing towards this dependence increasing as access to allopathic medicine becomes more and more elusive due to the worsening economic melt down. This is placing increasing pressure on the plant and animal resources upon which the practice depends. Due to this, the use of traditional medicines and the practice of traditional medicine have started attracting greater attention from a wide range of stakeholders including the traditional practitioners themselves, government in their regulatory role as well in their role as promoters of an enabling environment for the delivery of health services, the scientific and research community concerned with both product development and biodiversity conservation, private sector entities looking out for investment and business opportunities and community groups and civil society organisations concerned with the protection of both intellectual property and use rights of communities that use these medicines.

The evaluation established that the project design has ensured that most principal stakeholders are involved in the initiative. Although the project is a biodiversity conservation activity, it has since broadened its scope to include the health implications of the management of traditional medicines. The composition of the project National Steering Committee is broad based and covers a lot of interest groups as highlighted earlier in this report.

While the project implementation arrangements have attempted to include as broad a range of stakeholders as possible, a potential problem lies in the fact that the project is being implemented through volunteers from within communities using common property resources. In the Zimbabwe environment, where land and resources are held in common, as the projects begin to yield positive benefits, there is a real danger of those community members that are currently not members laying claims on these benefits on the grounds that the resources that are being exploited also belong to them. Most of the projects evaluated have obtained access and use rights over the resources they are exploiting from the traditional leadership in their areas as a way of protecting their investments. While the role of traditional leaders has been accorded increasing recognition by central government over the past few years, it is not clear whether their responsibility has been extended to include the allocation of land and protection of individual or community rights over the resources on that land. Any challenges to these authorities would provide useful lessons for this project.

An area of stakeholder involvement that the project has not focused on to date is the engagement of stakeholders that are external to the project. An important class of stakeholder that has received little attention to date although the Project Coordinator claims to have approached them is the private sector. Public-Private Partnerships need to be developed as a way of improving the processing of medicines and developing traditional medicine into an evidence-based practice.

The project could also establish linkages with similar projects and programmes in other countries and regions thereby maximising opportunities for information and experience sharing. Kenya has a very comprehensive programme of developing and mainstreaming traditional medicine into the country's health delivery system that Zimbabwe could learn from.

#### **4.0 PROJECT OUTCOMES AND OUTPUTS**

As stated earlier in this report, project start-up was delayed by up to six months due to delays in the recruitment of the Project Coordinator. Although ad hoc arrangements were put in place for project implementation to commence under the aegis of the national Biodiversity Office, very little project implementation took place until May 2003. The project has therefore been in implementation for the past twenty-four months. Activities on the ground have in the majority of cases only been under implementation since September 2004. Despite the very limited timeframe within which the project has been under implementation, project impacts are beginning to show especially with regards to the establishment of nurseries for the propagation of medicinal plants and the processing and marketing of medicines. The impacts of conservation efforts, although difficult to measure in the short term, are also beginning to show results with the establishment of plant nurseries and the adoption and implementation of in-situ conservation measures at some of the sites visited during the evaluation.

##### **4.1 Achievements**

Considerable progress has been made towards achieving the project goals and objectives over the past two and half years (September 2003 to March 2005). This is detailed against each project component below. The tables below provide details of progress towards achieving the project Objectives and the Outcomes as measured against the indicators and mid-term targets agreed to in December 2004

In assessing progress made to date at both the Objective and Outcome levels, it is important to understand that the project has been designed with a number of assumptions regarding the conservation and sustainable use of medicinal plants. These assumptions have not been tested but will still have a bearing on what results would be expected from the activity. Any review of progress towards meeting targets at all project levels will need to be done with this understanding in mind.

The assumptions are:

- That there are a number of medicinal plants in Zimbabwe that are threatened by unsustainable usage; that there is a real threat to biodiversity conservation nationally and perhaps globally.
- That in-situ conservation is more effective and sustainable than ex-situ conservation in the case of the species to be selected.
- That conservation of species perceived locally as being under threat will lead to better national conservation status for those species.
- That commercialisation of traditional medicinal plants, as promoted by the project, will not lead to their over-utilisation or increased threat.
- That cultivation of medicinal plants will fulfil satisfactorily the increased demands made, and will be cost-effective.
- That cultivation does not reduce the efficacy of the active components or the plants desirability for use in herbal medicine.



**Table 3: Project Progress Against Objectives (2004 Revised Indicators and targets)**

<b>Project Objective</b>	<b>Conservation, Sustainable use and cultivation of Medicinal Plants in five Pilot Sites in Zimbabwe Development of a Legal Framework for Conservation, Sustainable use and Equitable Sharing of Benefits from Traditional Medicinal Plants</b>			
<b>Indicator</b>	<b>Mid-Term Measure (2006)</b>	<b>Target</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<b>Indicator 1:</b> Conservation status of traditional medicinal plants significantly improved by end of project	- Threatened species in each project area documented and at least 2 species with improved conservation status - Greater local awareness of need for conservation of medicinal plants		-Threatened species identified at each site visited; -New programme to improve conservation status of species -Communities aware of need for conservation of medicinal plants	S
<b>Indicator 2:</b> Endangered medicinal plants used sustainably by traditional practitioners and communities in project areas	- Traditional medical practitioners cooperating with project - Draft harvesting guidelines available for each project area		-All projects visited include Traditional medical practitioners among other community members -Draft harvesting strategies for each area available and training provided	HS
<b>Indicator 3:</b> Commercialisation of medicinal plants based on best practices, value-adding enterprise and cultivation established by end of project	- Minimal cultivation or value-adding activities taking place (Note: Baseline data for year 1 established that 1.6ha. is under cultivation in Chipinge, Mangwe and Bulilima districts and 2ha. in Chimanimani, no operating enterprises for medicinal plants)		-Each district has at least one enterprise but marketing of medicines happens from homes as well so commercial activity started in all areas visited. -Area under cultivation is mostly in gardens and nurseries. Average size of cultivated area in each site is 0.6 ha.	MS
<b>Indicator 4:</b> Principles of sustainable use of medicinal plants and equitable sharing of benefits integrated into national and local legislation by end of project, and	Draft legal framework available incorporating issues related to Intellectual Property Rights - Awareness among government and local authorities increased through workshops and		-Draft Legal Framework produced and ready for adoption; -Framework provides for incorporation of IPR -Planning /Advocacy meetings with all DTTs held on Legal Framework -Community awareness of rights and responsibilities is still limited due to overall legal set up in the country that	HS

community awareness enhanced	advocacy materials - Communities aware of their rights and responsibilities regarding utilization of medicinal plants	only provides usufruct rights to communal area dwellers	
<b>Overall rating Objective</b>			<b>S</b>

*Rating: HS=Highly Successful; S=Successful; MS= Moderately Successful; U=Unsuccessful.*

**Table 4: Project Progress against Outcomes**

<b>Outcomes</b>				
<b>Outcome 1</b>	<b>Conservation status and knowledge of threatened medicinal plants improved</b>			
<b>Indicator</b>	<b>Mid-Term Measure (2006)</b>	<b>Target</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Documented knowledge on medicinal plants usage at five project sites improved	- List of medicinal plants used and those threatened available for each project site - Appropriate monitoring system established for major threatened species in all project areas		- Inventory of plants with medicinal value documented in 3 wards in each participating district - Inventory of threatened medicinal plants, developed from information obtained from 3 wards in the 5 participating districts - Priority list of medicinal plants developed,- six plants per project site - list based on level of threat for plants and will be given priority for cultivation - 6 Preferred species identified per site – identification based on preference usage of the species by the community -List of plants with medicinal value produced; --Monitoring system for tracking major threatened species not established	HS
<i>Indicator 2:</i> Conservation status of listed threatened species improved in terms of number of individuals and/or area of distribution	-Baseline data on conservation status available for Year 1 - Populations of at least 2 priority species in each district showing evidence of maintaining or improving conservation status (e.g. number of individuals, extent of occurrence, proportion of young plants, and/or reduced damage)		-Floristic surveys of all sites by National Herbarium and Botanic Gardens -Forestry Commission conducted baseline surveys and reports produced for 6 primary species - Baseline survey is basis for establishing changes in population of key species	MS
<i>Indicator 3</i> Documentation of knowledge on pharmacology and composition of known medicinal plants found in the study areas	-Documentation of medicinal properties in place of at least 10 species from study districts		-UZ collected samples of 6 key species but analyses not yet done	U
<b>Overall Rating Outcome 1</b>				<b>MS</b>

<b>Outcome 2</b>	<b>Stakeholder benefits from sustainable use of medicinal plants increased</b>			
<b>Indicator</b>	<b>Mid-Term Measure (2006)</b>	<b>Target</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Number of local users adhering to best practices increased by end of project	-Basic awareness materials on sustainable use available, and 2 awareness workshops held in each project area -Traditional leaders cooperating with project		-Awareness workshops held at each project site; -Harvesting and Marketing Guidelines produced and workshoped at each site visited.but project has not produced general awareness documents; -Traditional leaders working with project participants. Some have allocated “no-use” zones for in-situ conservation e.g. Chimanimani, Chipinge and Matobo districts.	S
<i>Indicator 2:</i> Key endangered medicinal plants used sustainably by local communities and traditional practitioners	-Draft harvesting guidelines, including no-take zones, in place for each project area - Extent of 'poaching' of medicinal resources documented		Harvesting guidelines in place for all areas. “No-take zones established only in Matobo, Chimanimani and Chipinge. -Chimanimani district only district with set of Rules an guidelines to control access to medicinal plants for control of illegal off-takes.	S
<i>Indicator 3:</i> Extent of 'poaching' of medicinal plants by persons from outside of project area greatly reduced	-Sustainable utilisation of 2 medicinal plant species practised in each project area -Area under sustainable use practices quantified for each project area		Sustainable use concept just introduce-measure very difficult at early stage. -The no-take zones established in Matobo, Chimanimani and Chipinge can be classified as sustainable use areas.	S
<b>Overall Rating Outcome 2</b>				<b>S</b>

Rating: HS=Highly Successful; S=Successful; MS= Moderately Successful; U=Unsuccessful

<b>Outcomes</b>			
<b>Outcome 3</b>	<b><i>Cultivation of threatened medicinal plants greatly expanded</i></b>		
<b>Indicator</b>	<b>Mid-Term Target Measure (2006)</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Appropriate technologies on plant propagation, management and harvesting made available	-Cultivation guidelines available and at least one nursery operational in each district	Nurseries established and operational at each site.	HS
<i>Indicator 2:</i> Area planted to medicinal plants within each study site increased significantly by end of project practitioners	-Baseline data on cultivation available for each project area - Area with cultivated medicinal plants exceeds 2 ha in each project area	-Baseline data on cultivation not available. Most cultivation is in gardens with only one in-situ replanting taking place in Chimanimani. - Area with cultivated medicinal plants averages 0.6 ha per project area.	MS
<i>Indicator 3:</i> Efficacy under cultivation of active medicinal components maintained or enhanced	-Preliminary results on levels of active ingredients available for 2 major species	UZ has collected samples from the field but no analysis has happened due to delays with procurement of chemicals.	U
<b>Overall Rating Outcome 3</b>			<b>S</b>
<b>Outcome 4</b>	<b>Small businesses promoted for processing and marketing of cultivated medicinal plants</b>		
<b>Indicator</b>	<b>Mid-Term Target Measure (2006)</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Increase in value-adding enterprises and activities by end of project	-Measurable progress towards establishment of at least 2 operational enterprises producing and/or marketing medicinal plants from sustainable sources in each district	One enterprise established in Chimanimani, Chipinge, Matobo and Mangwe. Medicine sold from the other areas from homesteads	S
<i>Indicator 2:</i> Significantly increased trade (volume, value, no. people involved) in medicinal plants obtained from sustainable sources	-Trade in medicinal plants (volume, value, no. people involved) increased by 20% on Year 1 baseline	Sales of medicines are just starting from a base of zero in a lot of cases so a measure of 20% on Year 1 is not useful.	S
<b>Overall Rating Outcome 4</b>			<b>S</b>

<b>Outcome 5</b>	<b>Principles of sustainable use and equitable sharing of benefits from medicinal plants integrated into national and local legislation</b>		
<b>Indicator</b>	<b>Mid-Term Target Measure (2006)</b>	<b>Mid-Term Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Changes made in national policy and legislation covering community rights	- Government departments at national and district level made aware of principles of sustainable plant use, and need to incorporate these into national programmes and policies	-Project has arranged meetings with local authorities to discuss district planning processes incorporating conservation of medicinal plants.	S
<i>Indicator 2:</i> <i>Sui generis</i> system of Intellectual Property Rights in place at national level	- Draft legal framework incorporating issues related to Intellectual Property Rights available	-Legal framework in place	HS
<i>Indicator 3:</i> Stakeholders better informed on legal rights, obligations and requirements	- One workshop held in each district to make stakeholders aware of their legal rights	-Awareness workshops held in each district to popularise the Legal Framework	HS
<b>Overall Rating</b>			<b>HS</b>

Rating: HS=Highly Successful; S=Successful; MS= Moderately Successful; U=Unsuccessful

**Table 5: Overall Project Progress Summary**

<b>Project Level</b>	<b>Rating</b>
Objective	S
Outcome 1	MS
Outcome 2	S
Outcome 3	S
Outcome 4	S
Outcome 5	HS
<b>Overall Project Rating</b>	<b>S</b>

#### 4.2 Achievements at Objective Level

The project has two principal objectives:

Conservation, Sustainable use and cultivation of Medicinal Plants in five Pilot Sites in Zimbabwe

## Development of a Legal Framework for Conservation, Sustainable use and Equitable Sharing of Benefits from Traditional Medicinal Plants

It is generally known that concepts like conservation and sustainable use are difficult to measure and quantify. They are also ideals only reachable in the long term. Projects need to run for at least five years or longer for conservation activities to start yielding results that are measurable and quantifiable. The project under review has only been implementing activities for twenty-four months so the time of the mid-term evaluation was too early to expect to see meaningful impacts that relate to conservation and sustainability. It is clear from the results in Table however that a lot of work has been done towards laying the foundations for improving the conservation status of medicinal plants in all the project areas. Baseline vegetation surveys have been conducted resulting in the identification of key threatened medicinal plant species that will receive special conservation attention over the remainder of the project. Planting programmes for propagation of threatened medicinal plants have been introduced with nurseries fully established in all the sites visited during the evaluation. While the extent of the planted sites falls short of the target of 2ha per district at 0.6ha, it is important to note that the work that has been done to date was done over a period when the country was experiencing serious water shortages due to recurrent droughts. In addition to planting programmes, the project has also introduced harvesting guidelines to stem the unsustainable off-takes from the wild.

Community members, including traditional medical practitioners have been mobilised to participate in the project, while marketing and sales enterprises have been set up in at least three of the five districts. Community ownership and the provision of incentives through marketing of produce will motivate community groups towards greater efforts at conserving medicinal plants.

The greatest progress has been made in the area of developing a legal framework for the conservation, sustainable use and equitable sharing of benefits from traditional medicines. A draft legal framework has been drawn up with input from the Attorney General's Office and the participation of the project beneficiaries and is now being reviewed at the Ministry of Health and Child Welfare. Together with the draft policy on traditional medicine that is being drawn up by this Ministry, an enabling environment for the development of traditional medicine will have been created in Zimbabwe.

Overall, the project has made satisfactory (S) progress towards meeting the targets set in 2004. It is expected that with the groundwork that has been done to date, the project will achieve both objectives by project close out in 2008.

### 4.3 Achievements at Outcome Level

The project has five Outcomes. Progress achieved towards meeting the mid-term evaluation targets under each of these outputs is assessed in the section below.

#### ***Outcome 1: Conservation status and knowledge of threatened medicinal plants improved***

Under this outcome, the project will establish the prevalence of threatened and most used traditional medicines in all five districts. Knowledge about these plants will also be documented and used to inform research into the efficacy of those plants that communities use as medicines. An important aspect of this outcome is the work that has been sub-contracted to the University of Zimbabwe's Pharmacy Department for them to

establish the pharmacological properties in 6 main plants identified by communities as key medicinal plant species most used by communities in the five districts.

The medicinal plants in most common usage in the five project sites have been inventoried with input from community members themselves. This activity marshalled the collective wisdom of traditional knowledge systems and modern science to document the plants that communities claim to have medicinal properties. Six key species have been identified for further investigation at the University as part of this process.

Baseline surveys and vegetation mapping have been conducted for all five districts to establish the status of conservation of the plants that are most popular with both medicinal practitioners and community members alike. The expectation had been that evidence of improvement in the conservation status of the main medicinal plants would be discernable on the ground by the time of the mid-term evaluation. A baseline for year one would also be built using the results of these surveys. This has however not occurred as the project had just finished conducting the surveys by the time of the evaluation.

An additional area where the project failed to perform to expectations was that was that of getting the University of Zimbabwe to carry out pharmacological studies on the selected six key species identified by community groups as having medicinal properties. The University has taken longer than was expected to mobilise and this specific aspect of the project has not been implemented.

The evaluation concluded that project performance under Outcome 1 has been marginally satisfactory as documentation of species variety does not necessarily lead to improvement in conservation status. The performance of the University of Zimbabwe has been of particular concern with community groups expressing disappointment with the institution's failure to deliver information on the pharmacological properties of the plants they consider important from a medicinal value perspective. Project personnel from the University have collected samples from all five districts analyses were to begin at the time of the evaluation. Similar promises have been made before and nothing delivered. Claims that the analyses will take up to a year to yield results are also not acceptable to community groups interviewed. It might therefore be necessary for the project to consider identifying other qualified institutions to perform this task so as to provide participants with the information they need to focus their conservation efforts.

***Outcome 2: Stakeholder benefits from sustainable use of medicinal plants increased.***

Stakeholders involved in with the project are aware that benefits from the activities they are involved with will not materialise immediately. All those interviewed were taking a long term view to the project with the full realisation that ensuring that the resource was secured from a conservation perspective and that it took long to establish new products on the market are aspects of the project that required time. This level of understanding has been generated by the awareness campaigns launched at the start of the project. Community groups have been involved in a number of workshops through which they have received knowledge about the project.

So far the project has produced harvesting guidelines to promote sustainable utilisation of plants. Further, traditional leaders have been brought into the process and are working with community groups to secure the resource. The “no-take” zones established in Matobo, Chimanimani and Chipinge districts have been established with the help of traditional leaders.



A potential problem risk for this project relates to “poaching” by residents that are not involved with the project. This threat is particularly serious in Zimbabwe where all rural farmland and the resources upon it belong to the state with citizens only enjoying user rights.

To help stem this possibility, the project in Chimanimani has developed resource management and use guidelines that define access rights for project members and non-members. Other project participants interviewed in other areas acknowledged this as a real threat to the sustainability of their efforts and suggested providing compensation for those members of their communities that were not benefiting from the activity.

Most of the activities under this outcome have so far been geared at setting the bases for the future when business entities can be established to the benefit of all stakeholders. Performance has however been reasonable.

### ***Outcome 3: Cultivation of threatened medicinal plants greatly expanded***

Outcome 3 is targeting the expansion of cultivation of threatened species as a way of reintroducing plant material that has been lost. The expectation is that the use of planted material will also result in reduction of pressure on plant material from the wild and thus enhance the conservation status of these plants. Expansion of cultivation will be supported by the introduction of new technology of plant propagation. The target for area under cultivation for the mid-term was put at 2 ha in each district.

The evaluation found out that cultivation guidelines had been produced and training provided through the involvement of government entities such as AREX, Forestry Commission and the Department of Natural Resources.

As stated earlier, the assumption with this outcome was that there would be no reduction in the efficacy of drugs sourced from plantations and that users would not resist medicines from planted sources. This still has to be tested and the University of Zimbabwe is still to conduct tests on the pharmacological properties of the six key species identified by communities in each district.

Overall performance under this outcome is adjudged to be satisfactory. .

### ***Outcome 4. Small businesses promoted for processing and marketing of cultivated medicinal plants***

Conservation initiatives usually succeed if they can demonstrate that they are of direct benefit to project participants and other beneficiaries. Without this, communities soon lose interest in the processes. Examples of this phenomenon abound, with CAMFIRE in Zimbabwe and other CBNRM programmes in the region project being cases in point.

The project was designed with a very clear business component aimed at delivering financial benefits to project beneficiaries. The target for the mid-term phase was to have two viable enterprises functional in each country. So far only three small businesses have been established, one each in Chipinge, Chimanimani and Matobo districts. A fourth is under establishment in Mangwe district. When these enterprises are up and fully operational they will have very clear impacts on beneficiary communities especially given the current economic meltdown in the country.

Very small volumes of traditional medicine have been sold through the enterprises that have been established with the outlet in Chimanimani being the only that most developed. Records of sales are rudimentary and the project has pledged to assist with training. SAFIRE have a business development unit that is helping a number of project sites with developing business plans including marketing strategies.

***Outcome 5: Principles of sustainable use and equitable sharing of benefits from medicinal plants integrated into national and local legislation***

The most significant progress with project implementation has been made with regards to Outcome 5. A draft Legal framework that includes aspects of equitable benefit sharing and intellectual property rights has been developed with participation from community groups and the Government Law office-the Attorney General's Office. This framework will be supported by the policy instruments that are being developed by the Ministry of health and Child Welfare which will pave way for its incorporation into national laws.

Government entities have been involved in the formulation of principles of sustainable use of medicinal plants and the design of programmes that ensure improved management of the resources.

The performance of the project in this output is regarded to be Highly Successful.

Table 5 is a summary providing overall project performance. In sum the project is rated as satisfactory.

**Overall Assessment**

From the assessment summarised above, it is clear that the project has applied the resources available to it very efficiently. Commendable results have been realised over a very short space of time from a project that is being implemented under very trying economic conditions. The readiness by implementing agencies to take up responsibility for areas that they were not originally assigned to also points to the efficiency with which the Project Coordinator has guided activities under the project.

Work will need to be done in those areas that relate to conservation and protection of biodiversity as this is a biodiversity management initiative. This will require continued close monitoring and holding those institutions charged with responsibilities for the implementation of project elements to their duty. A clear case in point here is the Department of Pharmacy at the University of Zimbabwe and the National Herbarium and Botanical Gardens. New partners also need to be identified to address emerging issues as they arise. The project has already demonstrated its ability to take on board such new partners as has happened with the Permaculture Association of Zimbabwe that is integrating local level. These have proved very popular with participants as the majority of these have immune enhancement properties. This is attracting attention in an environment where most rural dwellers are living with HIV and AIDS.

**5. PROJECT IMPACTS & SUSTAINABILITY**

Physical projects on the ground have only been under implementation for the past year so it is still too early to judge what impact the project has had on the ground. What the project has done so far is to mobilise community groups to focus on a previously neglected aspect of conservation. The focus on medicinal plants in biodiversity conservation introduces

what could be described as “positive conservation” on account of the potential that such initiatives have to impact upon peoples’ lives.

Conservation of biodiversity takes a long time to show discernable impacts. The project has however raised expectations that need to be nurtured and directed towards more concerted efforts at conservation and sustainable use of these plants.

It is however not clear why the project focussed only on medicinal plants and ignored medicinal animal species if it was addressing biodiversity conservation.

The project objective is stated as: *to promote the conservation, sustainable use and cultivation of endangered medicinal plants in Zimbabwe, by demonstrating effective models at the local level, and developing a legal framework for the conservation, sustainable use, and equitable sharing of benefits from medicinal plants at the national level*

The expected benefits from the project are viewed to be in the areas of improved biodiversity conservation and increased benefits from exploitation of traditional medicines at local and national levels.

The project has effectively demonstrated the potential for conservation of medicinal plant biodiversity through the establishment of both ex-situ and in-situ conservation pilot projects. Planting of medicinal plants will help relieve the pressure on wild plants as well as provide a response to shortages of plant stocks in the interim. Global experience however shows that ex-situ conservation is not a preferred alternative to wild plant sources as the belief is that medicines from planted trees and shrubs are not as potent. Care should therefore be taken not to raise community members’ hopes too high with regards to the potential of planted resources providing them with adequate stocks for personal use and for sale. Greater potential for impacting on the conservation status of medicinal plants seems to lie with in-situ conservation practices that are being introduced by the project. The medicinal plant inventories that have been carried out provide useful information regarding available plant stocks. With this information, communities can be sensitised as to how much they can harvest. When these strategies are coupled with sustainable harvesting methods that are being promoted among participating communities, the likelihood of improved conservation of medicinal plants is greatly enhanced.

It is important to note that the project under review is experimental in that it is testing the efficacy of different strategies towards improvement of the conservation status of medicinal plants through the promotion of ex-situ and in-situ conservation practices as well as providing incentives for community participation in the initiative. The ultimate expectation is that this strategy will positively impact on the conservation of biodiversity in the project area. While it is still early to quantify improvements in conservation of medicinal plants, it is clear that the strategy is beginning to yield positive results with the designation of no-use zones and establishment of ex-situ gardens, which should improve the conservation status of medicinal plants. There will be a need to establish whether these initiatives have indeed resulted in measurable reductions in the pressure being exerted on wild stocks of medicinal plants, at the end of the project.

Useful lessons will nevertheless be learnt from these projects and these should be collected and used to inform programmes elsewhere. The lessons learnt from these pilots can therefore be used to inform programmes at national or regional level.

Note should be taken of the fact that all the results highlighted in Section 4 above have been produced with very limited resources and under very difficult conditions currently obtaining in Zimbabwe. The majority of institutions involved in the project do not have vehicles that they need to maintain contact with participating communities. In a lot of cases staff in these institutions have had to hitch hike to project sites or hitch rides from representatives of other participating institutions. These creative approaches to project implementation have been responsible for the successes scored to date.

Another impact of this project is the financial flows that are beginning to show from sales of medicinal plants in areas where enterprises have been established as well as the benefits realised through medicinal plants being a viable alternative to allopathic medicine. While most projects reviewed are only beginning to sell their produce on a commercial scale, the promise that they have of pulling producer communities out of poverty is attracting more and more people towards these projects. With increased recognition of traditional medicine as an alternative parallel system of providing primary health care and increased attention to developing traditional medicine into an evidence based practice, it is possible that more and more people will turn to it and increase its potential for providing sustainable livelihoods.

Examples of similar developments in countries like China need to be investigated and factored into future project designs. It is important to note here that the development of traditional medicine beyond the local level will require the participation of the private sector in bio-prospecting on a large scale. This issue will be addressed more effectively at a regional rather than a national scale.

## 5.1 Sustainability

Sustainability needs to be looked at from a variety of angles including institutional sustainability, social sustainability, financial sustainability, and the presence of an enabling policy and regulatory framework that furthers project objectives.

GEF funding is currently assured for the five year project lifespan. After that the project will have to find alternative sources of support or need to have generated enough internal revenue to sustain itself. The issue of sustainability is therefore critical. The evaluation identified an inordinate level of dependence on outside resources for project implementation. Almost all projects reviewed were waiting for UNDP to supply project inputs such as polythene bags, watering cans and fencing material with little effort being made to source these locally. There are too many examples of where this happened before with community projects only for these to crumble as soon as donor support stopped. All the projects supported through the CAMPFIRE programme in Bulilima and Mangwe districts have since collapsed with little evidence of any impact. It is therefore imperative that Project Management inculcate the spirit of self reliance within the projects that are being funded so as to avoid the same fate as was suffered by previous projects.

In terms of institutional sustainability, the project has created national level institutions to guide project implementation within the context of broader biodiversity conservation efforts. The project's focus on an issue of national importance and its emphasis on local, national and regional collaboration, coordination and capacity building will help to develop a strong network of institutions that will be able to work together long after project termination. The project design involves stakeholders with different sectoral interests that will be influenced by project results thereby incorporating some of these project results into sectoral and overall national development plans. This will promote the institutionalisation of project outputs into mainstream planning processes thus ensuring the sustainability of

project ideas. By contributing to these broader national objectives, the initiative stands a better chance of securing funding beyond the project life. Further, the institutionalisation of the project within the Ministry of Local Government and the District Council provides opportunities for the incorporation of the project into local level planning processes that would make it sustainable over the long term. Community groups have also been developed as project implementers with support from service providers. As these institutions become stronger, they will adopt the project eventually making it their own.

Collaboration with the Southern Africa Biodiversity Programme, other UNDP supported programmes such as the GEF Small Grants Programme and Africa 2000 and IUCN programmes will provide a broader network of regional and international capacity to promote sustainability.

Social sustainability is predicated upon the increased importance of traditional medicines in the medical services delivery systems in the country. As more and more people find it increasingly difficult to access conventional allopathic medical services they will resort to traditional medicines making them socially sustainable. In addition, as the project is being implemented using a participatory approach, the interests of stakeholders in maintaining and replicating project results will be enhanced.

The project has initiated the formulation of a legal framework for promotion of traditional medicine and will be engaging with the newly established Department of Traditional Medicine in the Ministry of Health in furthering this aspect. The development of policy on traditional medicines by the Department will provide the necessary regulatory framework for furthering project objectives thereby making the initiative sustainable in the long term.

A potential risk rests with financial and economic sustainability especially given the very difficult economic environment within which the project is being implemented. Government has increasingly failed to meet its obligations towards the project. Community groups interviewed as part of this evaluation indicated that as the revenues they collect increase they will provide for investment in the project. While this is an important indication of the extent to which these communities are committed to making a success of this project, it remains to be seen as to how much they will be able to invest as promised. The Ministry of Environment and Tourism should maintain close links with the donor community and national institutions (government and non-governmental) to mobilize additional resources for other national initiatives and to explore innovative financing mechanisms for channelling such support.

From an economic perspective, an adequate suite of incentives will need to be made available at the local level to ensure sustainability of the effort. This would need to include promoting local enterprises, assisting local associations including ZINATHA to develop and strengthen marketing channels. Using the CAMPFIRE approach the project will need to ensure that revenues from the sale of wild or cultivated medicinal plants are equitably shared in the local community. Finally, it is expected that the *sui generis* system of IPR that is under development will provide the legal recognition of local community and traditional healer rights.

## 6. LESSONS LEARNT

The Review identified the following lessons that have been learnt from the implementation of this project.

1. Projects that involve the management of biodiversity need to incorporate the provision of benefits to participating communities to ensure their continued engagement in the activity. The potential for revenue generation and employment creation that is inherent in this project is the primary reason communities across the country are engaged to the level they are in this activity;
2. Lines of command and responsibility within the management structures of such projects need to be clearly defined at project design stage so as to avoid confusion at later stages.
3. There is a need to ensure continuity of membership of steering committees set up to guide the implementation of such projects as any changes will result in disruptions to project implementation. This project has been hampered by the failure of IUCN to continue as members of the steering committee as their expected input has not been fulfilled.
4. It is important that project targets and indicators of progress are clearly defined and set at the appropriate level early in the project cycle. These then need to be fed into a comprehensive Monitoring and Evaluation plan. The project lost a year of implementation in which useful results were not produced due to poorly designed monitoring instruments.
5. The project needs to create linkages with similar initiatives elsewhere to facilitate exchange of ideas and experiences.
6. While it is acknowledged that this is a biodiversity conservation initiative, there is need to open up to the human development implications of such programmes especially within the context of the environment it is being implemented. Strict adherence to purely biodiversity concerns might demotivate project beneficiaries.

## 7. CONCLUSIONS AND RECOMMENDATIONS

### 7.1 Conclusions

Due to the demise of the health delivery services in Zimbabwe, the project is addressing an area of need for a large segment of the country's population that is finding it increasingly difficult to access medical services. Therefore, while GEF's interest is primarily conservation of biodiversity, project beneficiaries see an additional angle to it.

The project has attracted a lot of attention among the communities that are implementing it with communities having established their own management structures at local level. These community groups are the champions that are driving activity implementation. It is clear from the evaluation that despite the very difficult social and economic conditions that are prevailing in Zimbabwe, the project is already beginning to yield results.

It has only been twenty four months since the project was initiated but there is clear evidence already that the primary objective of biodiversity conservation will be realised in the long term. The project is experimenting with strategies to improve conservation of biodiversity through the propagation of medicinal plants. Both ex-situ and in-situ approaches have been introduced to achieve this ultimate end. There will be need to evaluate the impact of this project's approaches to conservation at its conclusion.

The entry point of medicinal plants that has been used is of immediate value to participating communities. This is an innovative departure from conventional conservation approaches that only provided conservation as the reason for engaging with communities. The levels of

awareness of conservation among participating communities have been raised dramatically as a result of the implementation of this activity.

Already, there is evidence that the project is beginning to open up to other aspects of biodiversity conservation, in particular the delivery of ecosystem services. The issue of water resources management is now high on the agenda of all participating communities as they realise that they cannot develop ex-situ conservation measures without water. This is introducing aspects of integrated natural resources management around the theme of the management of medicinal plants. The project needs to begin forming linkages with other projects that it can benefit from as well as add value to allow for cross pollination of ideas.

There are shortcomings in implementation occasioned by some implementing partners not following through with their pledges to contribute to the process. A case in point is that of the National Herbarium and Botanic Gardens that are now withholding data that is vital for the establishment of baselines in the various project areas. These potential drawbacks need to be addressed as quickly as possible so as to avoid scuttling an otherwise dynamic process.

Effective management arrangements have been put in place by the project and these have resulted in very quick implementation. Problems with regards to transport and financial administration that have been raised by community groups and implementing agencies are administrative matters that can easily be resolved in consultation with UNDP.

The project has achieved commendable results within a very short space of time despite the very difficult conditions under which it is being implemented. Conservation and propagation of traditional medicines has been adopted by all the project participants visited with very successful models being developed. Of particular note in this connection are the in-situ conservation programmes that have been developed in Chimanimani district, which should be used as examples for others to emulate. The lessons being learnt from these examples need to be scaled up so they start influencing processes of resource allocation and management at both national level and beyond.

Community groups involved in the project are resuscitating traditional methods of managing woodlands with a renewed focus on the management of non-timber forest products which had largely been forgotten in most conservation programmes. With this renewed focus, the same communities are influencing the manner in which biodiversity is managed and conserved. Benefits that will flow from this renewed attention to biodiversity will accrue to the rest of the nation and provide justification for GEF investment in this project.

Zimbabwe is currently facing serious economic problems that have resulted in reduced investments in conventional medical delivery systems. Most people in the country are finding it increasingly impossible to access these services on account of cost and unavailability of drugs. The promotion of the use of traditional medicines through this project is therefore filling a critical gap in the welfare of the population. The elevation of traditional medicines above the mystical levels also provides opportunities for traditional medical practitioners to structure sustainable livelihoods around traditional medicine.

To date, the project has focussed on the Zimbabwean situation with no evidence of learning from experiences elsewhere. To avoid the project becoming a self-fulfilling prophesy, there is need for developing linkages with similar initiatives both in the region and further afield.

## 7.2 Recommendations

### Project Administration

Recommendation 1: UNDP and MET should resolve the dual accountability situation and establish a “one-stop-shop” where issues relating to staff contracts will be addressed. A recommendation is that staff appraisals be conducted by the National Steering Committee and signed by the UNDP Resident Representative before they are sent to the Regional Coordinating Unit in Pretoria.

Recommendation 2: UNDP should consider allocating at least two vehicles to the project (one to service Bulilima and Mangwe and another to service Chipinge and Chimanimani). This will increase client contact time resulting in improved capacity of community groups to manage the resources at their disposal.

Recommendation 3: The Project Coordinator is burdened with carrying large sums of project funds with him because institutions that are working on the project have not been certified to receive money. UNDP should expedite the institutional audit that is needed to certify recipient organisations. Institutions such as the Forestry Commission have fairly efficient decentralised financial management systems that could manage decentralising project financial disbursement systems.

Recommendation 4: UNDP should liaise with the subcontractors and consider facilitating training in financial management to ensure good project accounting.

#### Project Implementation

Recommendation 5: UNDP and MET should engage the National Herbarium and Botanical Garden with a request that the institution hands over vegetation data that they collected in the five participating districts as part of the project brief. This data is needed for purposes of establishing the baseline situation in the five districts. Without this baseline it will be difficult to track progress against the indicators that have been agreed to under the project.

Recommendation 6: Community Groups are waiting anxiously for feedback from the University of Zimbabwe regarding the medicinal properties in the plant species they have indicated to the team so that they can better focus their conservation efforts on the basis of reliable information. The Project Coordinator should request the Department of Pharmacy at the University to expedite this process. In the event that the University cannot provide the requested information, the Coordinator should identify other laboratories with capacity to do similar work and contract them to provide it.

Recommendation 7: The project should initiate collaboration with the Ministry of Health and Child Welfare and the private sector for the development of the practice of traditional medicine beyond the cottage industry that it has remained over time. A regional approach to this effort would provide scope for the growth and development of both the medicines and the practice. Increased attention to the practice by large sections of the country’s population seems to suggest that there is potential for traditional medicine to grow to a point where it will start providing sustainable sources of livelihood for practitioners.

Recommendation 8: The project should work with participating community groups to build conflict resolution capabilities among project participants in anticipation of potential conflict with those not participating in the initiatives. The suggestion that participating community members consider compensating those that are excluded from these projects through investment in priority community projects should be considered.



Recommendation 9: Linkages should be developed between the project and similar initiatives in the region and elsewhere to allow for sharing of experiences.

Recommendation 10: Project Coordinator should start identifying and promoting all opportunities for sustainability, including self-financing, that become available during project implementation. Where communities are engaged in commercial activities they should be encouraged to contribute to purchases of materials that they might require for project implementation.

Recommendation 11: Project implementation plans at district level should be aligned to District Development Plans to allow for tracking of the project's contribution to overall district development.

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Various Project Reports

APR 2004

APR 2005

Project Quarterly Reports

Workshop Reports

Field Visit Reports

## Annex 1

### PROJECT LOGICAL FRAMEWORK MATRIX

OBJECTIVES & ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & RISKS
<p><b>Overall Goal</b> Traditional and globally significant medicinal plants in Zimbabwe are protected and sustainably used.</p>	<p>Conservation status of medicinal plants improved Better access to traditional medicines</p>	<p>National reports Project reports</p>	<p>Health profile and epidemiology of the country does not increase significantly above current projections</p>
<p><b>Project Objectives:</b> Conservation, sustainable use and cultivation of medicinal plants in four pilot sites in Zimbabwe  Development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants</p>	<p>Conservation status of selected traditional medicinal plants in project sites maintained or improved by at least 50% by end of project. Principles of sustainable use integrated into national and local strategic plans, policies and programmes by end of project. Increase in area planted to</p>	<p>Government reports to CBD on the national status of traditional medicinal plants. Specialist biodiversity survey and monitoring reports. Local and national strategic plans and policy statements. Central statistical office/ AGRITEX reports.</p>	<p>Delays in strengthening the weak law enforcement regime may lead to over exploitation of medicinal plant as a results of increased product usage.</p>

	medicinal plants by at least 30% by end of project.		
<b>Output 1: Conservation of threatened medicinal plants increased/enhanced.</b>	Biodiversity index of threatened medicinal plants increased by 50% by end of project.	Community records District records	Sustainable forestry act is passed.

<p><b>Output 2: Stakeholder appreciation of and benefits from sustainable use of medicinal plants increased.</b></p>	<p>A better informed stakeholder by end for project.  Number of local users adhering to best practices increases substantially by end of project.  Number of sick people using products from sustainable use practices increases substantially by end of project.</p>	<p>Spot-check surveys.  Trade and commerce records.</p>	
<p><b>Output 3. Cultivation of threatened medicinal plants enhanced</b></p>	<p>Improved and appropriate technologies on plant propagation, management and harvesting made available by end of 2<sup>nd</sup> year.  Area planted to medicinal plants increases by 50% by end of year.</p>	<p>Spot-check surveys.  Trade and commerce records.  Research reports</p>	<p>Domestication of wild medicinal plants does not dilute medicinal attributes significantly.</p>

<p><b>Output 4: Small businesses promoted for processing and marketing of cultivated medicinal plants</b></p>	<p>Cost of acquiring traditional medicinal plants reduced by end of project.  100% increase in value adding entities and/or industries by end of project.  50% increased trade (volume &amp; revenue earnings) in traditional medicinal plants from sustainable sources by end of project.</p>	<p>Spot-check surveys.  Trade and commerce records.  Research reports</p>	<p>Overall macro-economic environment of country is conducive to marketing and trade of traditional medicines</p>
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<p><b>Output 5: A conducive legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants in place and communicated to stakeholders.</b></p>	<p>Increased lawful activities and incentive systems for sustainable use by 4<sup>th</sup> year.  A better informed stakeholdership on legal rights, obligations and requirements; and the new economic opportunities by the end of the project.  Compliance to rules and regulations by stakeholders by the end of the project</p>	<p>Project progress reports.  Spot-check surveys  Statute law book/Act of Parliament.</p>	<p>Government policy continues to be supportive of sustainable use of traditional medicinal plants.</p>

**Annex 2: Indicators and Targets Agreed to In December 2004**

**a) Indicators as per Original Logical Framework Matrix**

Objectives & Activities	Indicators
<p><b>Overall Goal:</b> Traditional and globally significant medicinal plants in Zimbabwe are protected and sustainably used</p>	<p>Conservation status of medicinal plants improved Better access to traditional medicines</p>
<p><b>Project Objectives:</b> Conservation, sustainable use and cultivation of medicinal plants in four pilot sites in Zimbabwe Development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants</p>	<p>Conservation status of selected traditional medicinal plants in project sites maintained or improved by at least 50% by end of project Principles of sustainable use integrated into national and local strategic plans, policies and programmes by end of project Increase in area planted to medicinal plants by at least 30% by end of project</p>
<p><b>Output 1:</b> Conservation of threatened medicinal plants increased/enhanced</p>	<p>1.1 Biodiversity index of threatened medicinal plants increased by 50% by end of project</p>
<p><b>Output 2:</b> Stakeholder appreciation of and benefits from sustainable use of medicinal plants increased</p>	<p>2.1 A better informed stakeholdership by end of project 2.2 Number of local users adhering to best practices increased substantially by end of project 2.3 Number of sick people using products from sustainable use practices increases substantially by end of project</p>



<p><b>Output 3:</b> Cultivation of threatened medicinal plants enhanced</p>	<p>3.1 Improved and appropriate technologies on plant propagation, management and harvesting made available by end of Year 2</p> <p>3.2 Area planted to medicinal plants increased by 50% by end of year</p>
<p><b>Output 4:</b> Small businesses promoted for processing and marketing of cultivated medicinal plants</p>	<p>4.1 Cost of acquiring traditional medicinal plants reduced by end of project</p> <p>4.2 100% increase in value-adding entities and/or industries by end of project</p> <p>4.3 50% increased trade (volume and revenue earnings) in traditional medicinal plants from sustainable sources by end of project</p>
<p><b>Output 5:</b> A conducive legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants in place and communicated to stakeholders</p>	<p>5.1 Increased lawful activities and incentive systems for sustainable use by year 4</p> <p>5.2 A better informed stakeholdership on legal rights, obligations and requirements; and the new economic opportunities by end of the project</p> <p>5.3 Compliance to rules and regulations by stakeholders by end of project</p>

**b) Agreed Indicators and Targets for Main Project Objectives** (modified from 2004 APR)

- Overall Goal:** -Traditional and globally significant medicinal plants in Zimbabwe are protected and sustainably used.
- Project Objectives:**
- Conservation, sustainable use and cultivation of medicinal plants in five pilot sites in Zimbabwe
  - Development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants

Project Indicators	Baseline	Mid-term target
<b>Indicator 1:</b> Conservation status of traditional medicinal plants significantly improved by end of project	- No formal conservation of medicinal plants in project areas - Use and conservation status of species poorly documented	Threatened species in each project area documented and at least 2 species with improved conservation status Greater local awareness of need for conservation of medicinal plants
<b>Indicator 2:</b> Endangered medicinal plants used sustainably by traditional practitioners and communities in project areas	- Extent of sustainable use unknown and not based on agreed norms	Traditional medical practitioners cooperating with project Draft harvesting guidelines available for each project area
<b>Indicator 3:</b> Commercialisation of medicinal plants based on best practices, value-adding enterprise and cultivation established by end of project	- No (or minimal) cultivation or value-adding activities taking place	Establishment of at least 2 enterprises producing and/or marketing medicinal plants from sustainable sources in each district Area under cultivation for medicinal plants exceeds 2 ha in each project area

<p><b>Indicator 4:</b> Principles of sustainable use of medicinal plants and equitable sharing of benefits integrated into national and local legislation by end of project, and community awareness enhanced</p>	<ul style="list-style-type: none"> <li>- Little awareness of community rights regarding medicinal plants, or their potential for sustainable utilization</li> <li>- No legislation on Intellectual Property Rights or equitable sharing of benefits</li> </ul>	<p>Draft legal framework available incorporating issues related to Intellectual Property Rights  Awareness among government and local authorities increased through workshops and advocacy materials  Communities aware of their rights and responsibilities regarding utilization of medicinal plants</p>
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**c) Agreed Indicators and Targets for Project Outcomes** (modified from 2004 APR).

Outcomes	Indicators	Baseline situation	Mid-term target
<p><b>Output 1:</b> Conservation status and knowledge of threatened medicinal plants improved</p>	<p>1.1 Documented knowledge on medicinal plant usage at five project sites improved</p> <p>1.2 Conservation status of listed threatened species improved in terms of number of individuals and/or area of distribution</p> <p>1.3 Documentation of knowledge on pharmacology and composition of known medicinal plants found in the study areas</p>	<p>- Very limited knowledge documented on medicinal plant usage</p> <p>- No information available on conservation status of threatened species</p> <p>- Limited information available on pharmaceutical properties of medicinal species</p>	<p>List of medicinal plants used and those threatened available for each project site</p> <p>Appropriate monitoring system established for major threatened species in all project areas</p> <p>Baseline data on conservation status available for Year 1</p> <p>Populations of at least 2 priority species in each district showing evidence of maintaining or improving conservation status (e.g. number of individuals, extent of occurrence, proportion of young plants, and/or reduced damage)</p> <p>Documentation of medicinal properties in place of at least 10 species from study districts</p>

<p><b>Output 2:</b> Stakeholder benefits from sustainable use of medicinal plants increased</p>	<p>2.1 Number of local users adhering to best practices increased by end of project</p> <p>2.2 Key endangered medicinal plants used sustainably by local communities and traditional practitioners</p> <p>2.3 Extent of 'poaching' of medicinal plants by persons from outside of project area greatly reduced</p>	<p>- Limited awareness of need for conservation and sustainable use practices</p> <p>- Best practice guidelines not available</p> <p>- Unknown area or species at each site under sustainable use practices</p>	<p>Basic awareness materials on sustainable use available, and 2 awareness workshops held in each project area</p> <p>Traditional leaders cooperating with project</p> <p>Draft harvesting guidelines, including no-take zones, in place for each project area</p> <p>Extent of 'poaching' of medicinal resources documented</p> <p>Sustainable utilisation of 2 medicinal plant species practised in each project area</p> <p>Area under sustainable use practices quantified for each project area</p>
<p><b>Output 3:</b> Cultivation of threatened medicinal plants greatly expanded</p>	<p>3.1 Appropriate technologies on plant propagation, management and harvesting made available</p> <p>3.2 Area planted to medicinal plants within each study site increased significantly by end of project</p> <p>3.3 Efficacy under cultivation of active medicinal components maintained or enhanced</p>	<p>- Unknown , but minimal, level of cultivation of medicinal plants</p> <p>- No nurseries in place for herb cultivation, and minimal technical advice available</p> <p>- No knowledge on differing efficacy of active ingredients</p>	<p>Cultivation guidelines available and at least one nursery operational in each district</p> <p>Baseline data on cultivation available for each project area</p> <p>Area with cultivated medicinal plants exceeds 2 ha in each project area</p> <p>Preliminary results on levels of active ingredients available for 2 major species</p>

<p><b>Output 4:</b> Small businesses promoted for processing and marketing of cultivated medicinal plants</p>	<p>4.1 Increase in value-adding enterprises and activities by end of project 4.2 Significantly increased trade (volume, value, no. people involved) in medicinal plants obtained from sustainable sources</p>	<p>- Very little commercialisation or marketing of traditional medicinal plants - No baseline data on production and sales</p>	<p>Measurable progress towards establishment of at least 2 operational enterprises producing and/or marketing medicinal plants from sustainable sources in each district Trade in medicinal plants (volume, value, no. people involved) increased by 20% on Year 1 baseline</p>
<p><b>Output 5:</b> Principles of sustainable use and equitable sharing of benefits from medicinal plants integrated into national and local legislation</p>	<p>5.1 Changes made in national policy and legislation covering community rights 5.2 <i>Sui generis</i> system of Intellectual Property Rights in place at national level 5.3 Stakeholders better informed on legal rights, obligations and requirements</p>	<p>- No intellectual property rights law and low awareness among communities of rights and obligations - Low awareness of need for enabling legislation at various levels</p>	<p>Government departments at national and district level made aware of principles of sustainable plant use, and need to incorporate these into national programmes and policies Draft legal framework incorporating issues related to Intellectual Property Rights available One workshop held in each district to make stakeholders aware of their legal rights</p>



#### d) Original Project Indicators

Objective: To promote conservation and sustainable use of endangered medicinal plants in Zimbabwe, by demonstrating effective models at local level and developing a legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants.

Indicators	Initial value	Mid-term target (2006)
Indicator 1: Conservation status of selected traditional medicinal plants in project sites maintained or improved by at least 50% by end of project	No conservation plan in place; gradual extirpation of threatened medicinal plants	Draft harvest guidelines in place, including no take zones and propagation methods to improve productivity
Indicator 2: Key endangered medicinal plants used sustainably by local communities and traditional practitioners	No documentation of status of endangered medicinal plants (utilization and recovery)	Sustainable harvest guidelines for different species under implementation by communities and traditional practitioners
Indicator 3: Increase in area planted to endangered medicinal plants increased by at least 30% by the end of the project to relieve pressure on wild stands	No cultivation of endangered medicinal plants	- Cultivation guidelines - Area planted to threatened medicinal plants increased by 10%
Indicator 4: Principles of sustainable use of medicinal plants integrated into national strategic plans, policies and programmes by end of project	No sustainable use guidelines	Draft guidelines on sustainable use of medicinal plants
Indicator 5: <i>Sui generis</i> system of Intellectual Property Rights on medicinal plants established and stakeholders made aware of their rights	No legal framework related to medicinal plants use and conservation and intellectual property rights	Draft legal framework incorporating issues related to Intellectual Property Rights

## **Annex 3: New Indicators Proposed By J. Timberlake: December 2004**

### **A. Indicators and Targets at Project Objective Level**

The **proposed Indicators and Targets** for the **Main Project Objectives** are given as Table . Normally, Indicators for project objectives are higher order (i.e. less specific) than those for Outcomes. In line with this the Project Objective Indicators have been revised and reduced to four, focussing on improved conservation of threatened species (biological), sustainable utilisation (use), increased commercialisation and cultivation (enterprise) and awareness and legal aspects (legislation). Targets have been set to district level, i.e. achievements have to be at project site level not just at national level.

Also implicit in the revised Indicators and Targets is the documentation of the current situation (baseline), including establishment of priority species and determination of their conservation status. Detailed Targets that give a better indication of the activities required are given under Project Outcomes.

### **B. Indicators and Targets at Project Outcomes**

The **proposed Indicators and Targets** for the **Project Outcomes** or Outputs are given in Table . The Outputs are basically the same five as given in the 2004 APR (Annex 2), although the Indicators have been significantly revised. The reduced cost of traditional medicines (original Indicator 4.1 of 2004 APR) and the numbers of sick people using them (original Indicator 2.3) have been removed as they add complexity to an already difficult monitoring system. The emphasis of the project should be on the conservation of threatened medicinal plants and their sustainable utilization, rather than on expanding usage or bringing the unit value down (which may, ironically detract from conservation by making it not worthwhile).

Much greater emphasis has been placed on documentation and establishing a baseline against which to measure progress, and on quantifiable Targets.

As with the Project Objective Indicators, Targets are set at district or project site level and may need to be revised upwards once baseline information is available.

#### **Output 1: Conservation status**

Key Indicators here are the production of lists of medicinal plants used in each district or project site. The species that are considered endangered need to be determined, and from that a list of priority species that the project intends to focus on can be drawn up.

A monitoring system using quantifiable parameters needs to be set up in each district, possibly best done initially by the National Herbarium or a university department. This must enable changes in the conservation/ biological status of the main endangered species to be readily picked up. Parameters such as number of individuals, extent of occurrence, proportion in the population of young plants or regeneration status, and levels of damage to individual trees or the habitat, need to be measured. It will not be possible now, in Year 2 of the project, to get baseline data for Year 0, but it is vitally important to get a baseline as soon as possible to measure the impact of project activities.

#### **Output 2: Sustainable use**

Key issues here are raised awareness among traditional practitioners and communities of the need for conservation and sustainable utilisation, perhaps better stated as utilisation of

medicinal plants without reducing the conservation status of existing populations. There is need to establish some sort of baseline on what are acceptable harvesting levels, and how many people are adhering to them. The area (in square kilometres or percentage of district) under sustainable use practices (the latter being determined under the biological monitoring activity above) is an important measure.

Establishing what are best practices in terms of harvesting is not easy and will obviously have to be an iterative process - adaptive management.

The issue of poaching has been included as some communities have pointed out that the more unsustainable practices are carried out by people "illegally" coming into the area from outside (often major urban centres) and extracting plants, and over which the communities have no direct control. Their willingness to record and control this is an indicator of community empowerment and a major step towards sustainable utilisation.

### **Output 3: Cultivation**

An assumption here is that medicinal plants when cultivated will retain their efficacy and desirability for treatment. Hence there will be need to check this in a laboratory study.

Appropriate techniques for cultivation will again require adaptive management, initially taken from established forest nursery or farming practices.

Field visits suggest a very low level of existing cultivation of medicinal plants, with just a very few households having some planted trees with medicinal properties, or herbs planted around the homestead. A baseline of extent of cultivation in each project area which articulates the number of households involved and area under cultivation (or perhaps number of trees if more appropriate) needs to be established very soon.

### **Output 4: Enterprise**

A significant assumption here is that any increased commercialisation or marketing of traditional medicines will be derived from cultivated plants or populations under sustainable management, or alternatively from improved business management. If this is not the case, conservation status may be severely impaired or reduced.

It would appear that there is a pre-existing low level of informal trade in prepared medicines, which needs to be quantified. In some areas this may have been done adequately by SAFIRE over the last year. It is a stated hope of the project not only to increase this trade, but to encourage marketing and other value-adding enterprises. The targets require that there is a baseline against which such an increase can be measured.

### **Output 5: Legislation**

Important project objectives are not just the increase in awareness of communities' rights regarding their existing knowledge and resources, but the legal and policy environment to back these up. For the project to demonstrate sustained impact it needs to ensure legislation to support equitable sharing of benefits is in place, both at national and local levels (District Council bye-laws, etc.). The enhanced awareness should not just be with the communities at project sites, but also within local and district authorities, including district-level government officers, as measured through work plans and the district planning process. Production of awareness-raising publicity materials will help significantly.

## **Annex 4: Terms of Reference**

### **TERMS OF REFERENCE FOR INDEPENDENT REVIEW OF PROJECT (April, 2006) “CONSERVATION AND SUSTAINABLE USE OF TRADITIONAL MEDICINAL PLANTS IN ZIMBABWE “**

#### **I. Introduction**

The project on Traditional Medicinal Plants in Zimbabwe seeks to promote the Conservation and Sustainable utilization of plants with medicinal value. Sustainable use of traditional medicinal plants depends on sound management and conservation methods used. Documentation of plant resources available, harvesting techniques and levels applied also contribute to sustainable use. In Zimbabwe, medicinal plants are treated as a common resource with limited rules and regulations to control access. Mechanisms to control access and to improve benefit sharing of benefits from medicinal plants products will contribute to conservation and sustainable use. In addition monitoring of harvesting levels, patterns and techniques are also key to resource sustenance. Commercialisation of traditional medicine is one benefit driven approach that ensures that appropriate incentives are made available to key stakeholders, which could lead to improved conservation and cultivation of plants used as raw materials. Key to this approach is value addition through processing, packaging and marketing of medicinal plants based products. This requires a considerable amount of skills (processing and entrepreneurial skills) and therefore requires careful identification of entrepreneurs, facilitation of business organisation and development of entrepreneurial skills. It is against this background that a traditional medicine commercialisation strategy was developed following a series of research on various topics involving traders, traditional practitioners and various stakeholders at national, district and community levels. The project thus supports the implementation of the UN Convention of Biological Diversity (CBD) at local level and it promotes sustainable development through the integration of economic, social and environmental objectives of rural societies.

The 5-year project with a total budget of *US\$974 000* started in May 2003. It is being implemented in 5 pilot districts of Chimanimani, Chipinge, Matobo, Bulilima and Mangwe, which were selected during the preparatory phase. The project has the following outcomes and indicators:

The Ministry of Environment and Tourism (MET) is the implementing agency. National level partners are the National Herbarium and Botanic Gardens for Component 1&2, University of Zimbabwe Pharmacy Department for Component 3, SAFIRE, an NGO for component 4 and the Attorney General's Office for Component 5. Government partners at local level include Rural District Councils (RDC's), Forestry Commission (FC), Agricultural Research and Extension Services (AREX) and the Department of Natural Resources (DNR).

#### **2. Objectives of the Mid term Review**

According to the Evaluation Plan, the project is due for a mid-term review in March, 2006. The overall objective of the evaluation is to review progress towards the project objectives and outputs, identify strengths and weaknesses in implementation, assess the likelihood of the project achieving its objectives and delivering its intended outputs, and provide recommendations on modifications to increase the likelihood of success.

#### Outcomes to be evaluated

The outcomes and indicators to be evaluated are summarised below:

<b>Outcome</b>	<i>Outcome indicator</i>
<b>Components 1 and 2:</b> Wild medicinal plants conserved and used sustainably by local stakeholders, through the application of the CAMPFIRE approach and other best practices	<i>Indicator 1: Conservation status of traditional medicinal plants significantly improved by end of project</i> <i>Indicator 2: Endangered medicinal plants used sustainably by traditional practitioners and communities in project areas</i>
<b>Component 3:</b> Endangered medicinal plants cultivated both in-situ and ex-situ, and appropriate substitutes found for them <b>Component 4:</b> Economic incentives developed to market cultivated species.	<i>Indicator 3: Commercialisation of medicinal plants based on best practices, value-adding enterprise and cultivation established by end of project</i>
<b>Component 5:</b> A legal framework developed to protect rights of communities and traditional practitioners	<b>Indicator 4:</b> Principles of sustainable use of medicinal plants and equitable sharing of benefits integrated into national and local legislation by end of project, and community awareness enhanced

### 3. Specific Terms of Reference for the Mid-term Review

#### General issues:

As an integral part of the project cycle, the evaluation will analyse the achievements of the project against its original objectives. The evaluation will consider the effectiveness, efficiency, relevant, impact and sustainability of the project. It will also identify factors that have facilitated or impeded the achievement of the objectives. While a thorough assessment of the progress of implementation to date is important, the evaluation is expected to also result in recommendations and lessons learned to assist in defining the future direction of the project.

The evaluation will in particular, assess:

- 1) Project Design – review original project objectives and assess quality of design for delivery of planned outputs.
- 2) Project Impact – assess achievements of the project to date against the original objectives, outputs and activities using the indicators as defined by the project document.
- 3) Project Implementation – assess:
  - Project management arrangements; i.e., effectiveness of UNDP Country Offices, Project Coordination Unit in implementation of the project
  - Quality and timeliness of outputs and activities
  - Financial situation (i.e., budget and expenditure status)
  - Responsiveness of project management to adapt and implement changes in project execution based on partner and stakeholder feedback.

#### Specific issues

The evaluation of project achievements will be based on the GEF Project Review Criteria of:

- a) Implementation approach
- b) Country ownership/Driveness
- c) Stakeholder participation/ Public Involvement
- d) Sustainability
- e) Replication approach
- f) Financial planning
- g) Cost-effectiveness
- h) Monitoring and evaluation

### **Implementation approach**

Review the clarity of roles and responsibilities of the various individuals, agencies and institutions and the level of coordination between relevant players. In particular, the capacity and performance of the Ministry of Environment & Tourism, National Herbarium, SAFIRE, Attorney General's Office, University of Zimbabwe, Project Manager, and National Steering Committee at national level and rural district council and district technical teams and community groups at local level will be reviewed.

Review the management of staff contracts and improvements made in this regard including staff commitment and retention.

Assess the level to which the Logical Framework Approach (LFA) and performance indicators have been used as project management tools.

Evaluate any partnership arrangements established for implementation of the project with relevant stakeholders involved at national and local levels.

Describe and assess efforts of UNDP in support of the implementing agency and national institutions.

Make recommendations as to how to improve project performance in terms of effectiveness and efficiency in achieving impact on both capacity building and the targeted conservation concerns

### **Country ownership/driveness**

Assess the extent to which country representatives (including governmental officials, civil society etc.) are actively involved in project implementation.

Assess whether Government of Zimbabwe has maintained financial commitment to the project

### **Stakeholder Participation and benefits accrued**

Assess the level of public involvement in the project and comment as to whether public involvement has been appropriate to the goals of the project.

Review and evaluate the extent to which project impacts have reached the intended beneficiaries.

### **Sustainability**

Assess the likelihood of continuation of project outcomes/benefits after completion of GEF funding; and describe the key factors that will require attention in order to improve prospects for sustainability of project outcomes.

- Factors of sustainability that should be considered include; institutional capacity (systems, structures, staff, expertise etc.), social sustainability, policy and regulatory frameworks that further the project objectives, financial sustainability

### **Replication Approach**

Assess the extent to which the project activities opportunities are being taken to scale up lessons and experiences emerging from the project. Make recommendations on how this could be achieved if necessary.

Describe the main lessons that have emerged in terms of: strengthening country ownership/drivenness; strengthening stakeholder participation; application of adaptive management strategies; efforts to secure sustainability; knowledge transfer; and the role of M&E in project implementation. In describing all lessons learned, an explicit distinction needs to be made between those lessons applicable only to this project, and lessons that may be of value more broadly.

### **Financial Planning**

Assess the financial control systems, including reporting and planning, that allow the project management to make informed decisions regarding the budget.

Assess the extent to which the flow of funds has been proper and timely both from UNDP and from the project management unit to the field.

Evaluate the extent of due diligence in the management of funds and financial audits.

### **Cost effectiveness**

Assess compliance with the incremental cost criteria (GEF funds used to finance a component of the project that would not take place without GEF funding and securing co-funding and associated funding.

Assess the extent to which the project has completed the planned activities and met or exceeded the expected outcomes according to schedule and as cost –effective as initially planned.

### **Monitoring and Evaluation**

- Review the projects reporting systems and their efficiency.

Review the implementation of the projects monitoring and evaluation plans including any adaptation to changing conditions (adaptive management).

## **4. Team Composition**

The team will be composed of the following individuals:

Regional Consultant experienced in biodiversity issues and rural development  
UNDP CO EE focal point

## **5. Duration of the assignment**

The duration of the assignment will be 2 weeks.

## **6. Expected Outputs**

Based on the above points, the evaluation should provide a document of approximately **40 pages** indicating what project activities, outputs and impacts have been achieved to date, and specifically:

Assess the extent to which the project objectives have been met and where gaps are evident

Draw lessons learned from the experiences of the project, in particular those elements that have worked well and those that have not

Provide recommendations to strengthen the effectiveness, efficiency, impact, implementation, execution and sustainability of the project.

### **ANNEX I**

#### **Documents to be reviewed:**

Traditional Medicinal plants project document

Project implementation reports (PIR's) for 2003, 2004 and 2005

Project quarterly progress reports

Field visit reports

NEX project audit reports



## **Annex 5: List of People Interviewed**

### **1. Pretoria**

Nik Sekhran                      UNDP GEF Regional Coordinator

### **2. HARARE**

#### **UNDP- Zimbabwe**

Mr Ben Mokam                  Deputy Resident Representative  
Mr. Mufaro Moyo              Head: Environment and Land Support Unit  
Mr. Ambrose Made              Environment and Land Support Unit

#### **Ministry of Environment and Tourism**

Mrs Margaret Sangarwe        Permanent Secretary  
Mr Irvine Kunene                Deputy Permanent Secretary  
Mr A. Matiza                      Acting Under Secretary-Environment Division  
Mrs Mutsa Chasi                Director General Environmental Management Agency  
Mr Dominic Kwesha              Forestry Commission-Research  
Mr Darlington Duwa              General Manager-Forestry Company of Zimbabwe

#### **Ministry of Health and Child Welfare**

Professor Gomo                  Director Dept of Traditional Medicine

#### **University of Zimbabwe**

Professor Chagonda              Chairman, Department of Pharmacy  
Ms Tafadzwa Munodawafa      Post Graduate Researcher  
Ms Iklim Viol                      Post Graduate Researcher

#### **SAFIRE**

Mr G. Kundlande                Director  
Mr. P. Gondo                      Deputy Director  
Dr. P. Sola                        Head of Programmes  
Mr. J. Musevenzi                Research and Development  
Ms S. Khumalo                    Ecologist  
Mr. Liberty Shelton              Business Development  
Mr Felix Mujuru                 Participatory Planner

#### **ZINATHA**

Professor G. Chavunduka        President

### **3. PROJECT LEVEL**

#### **A. Matobo Rural District Council**

##### ***Council/Task Team Members***

Mr I. Ndlovu                      Chief Executive Officer  
Mr Tapson Ncube                 Executive Officer Administration

Mr Bekezela Tshuma	District forestry Extension Officer
Mrs Fransisca Ndlovu	District Arex Officer
Mrs Molefe	District Administrator

### ***Project Implementers***

#### 1. Zenzele Uthuthuke Group-Dema Ward (Membership: 30 women)

Mrs Thandane Dube	Chairperson
Mrs A Tembo	Vice Chairperson
Mrs P Ncube	Secretary
Mrs Nesisa Dube	Vice Secretary
Mrs Matete Moyo	Treasurer
Mrs Esinathi Dube	Committee Member
Mrs Laizah Ndlovu	Committee Member
Mrs Sitshngisiwe Moyo	
Mrs Idah Moyo	
Mrs Simelani Moyo	

#### 2. Ndebele Cultural Village-Vulindlela Ward:

Cultivation but focus is on commercialisation  
(Enterprise with 8 members)

Mr David Mhabinyane Ngwenya  
Mrs Elitha Sibanda  
Mr. Velaphi Dube  
Ms Khanyiselwe Ngwenya  
Mrs Rose William  
Zethi Sangweni  
Sethi Nkala  
Thembinkosi Ncube

### **B. Mangwe and Bulilima Rural District Councils**

#### Council Staff/Task Team Members

Irvine Ncube	Executive Officer Projects (Mangwe)
Ms Pauline Sibanda	Assistant Campfire Officer (Bulilima)
Mr B. Lemu	District Natural Resources Officer
Mr Ngwenya	District Forestry Officer

#### 1. Thembelihle Project- Matshinge Ward

(Conservation and propagation)  
(52 members)

Mr Million Ndlovu	Chairperson
Feda Ncube	V. Chair
Bekezela Mpofu	Secretary
Elina Dube	V. Secretary
Khamba Mhlanga	Treasurer

Violet Ndlovu  
Florence Moyo  
Meja Ndebele                      Councillor

2. Makhulela Traditional Medicine Centre  
(Propagation and Enterprise)  
(6 members)

Mekson Ncube                      Chair  
Lanjiwe Ncube                      Secretary  
Tabitha Moyo                      Treasurer  
Besilina Ndlovu                      Gardener  
Kobo Dube                          Store Manager  
Milton Ncube                      Councillor

3. Izandlakazilamanga Project Simemela Ward-Mphoengs  
(Propagation)

Mr Themba Dlamini                  Chair  
Spongwana Ncube                  V. Chair  
Monica Ndlovu                      Secretary  
Consolata Mpala V. Secretary  
Clara Dube                          Treasurer

### **C. Chipinge Rural District Council**

Council/Task Team

Mr A. Mlambo                      Senior Executive Officer Admin  
Mr Manhando                      Economic Development and Natural Resources  
Mr Karimanzira District Forestry Extension Officer  
Mr Chirema                          Natural Resources  
  
Mr Dhliwayo                      District Administrator  
Mr Ngwenya                      President's Office

1. Mapungwana Project- Mapungwana Ward  
(Propagation)  
(35 members)

Mrs Dumayo  
Mrs Mupasha  
Mr Fanuel Madhuma  
Mr Zivenyika  
Mr Matikiti

### **D. Chimanimani Rural District Council**

Mr E. Maringe                      Chimanimani RDC  
Mr Marange                      District Natural Resources Officer  
Mr W. Sibanda                      District Forestry Officer  
Mr Mugani                          District AREX Officer  
Mr Marweyi                          SAFIRE

1. Kushinga Traditional Medicine Centre- Ward 13  
(Propagation and Enterprise)  
(22 members in all)

Mr Mashava	Chair
Mrs Mabota	V. Chair
Mrs Chikati	Secretary
Mr Mutsakwa	Member
Mr Chimhanda	Member
Mrs Nota	Treasurer
Mr Jongwe	Advisor
Mr Chienwa	Councillor
Mr Manzou	Headmaster

2. Saurombe Traditional Medicinal Plants Garden

(Propagation and no-use zone)  
(involvement of traditional leader)

Mr Alan Muyambo	Chair
Mr Karakadzai Tuso	Treasurer
Mr Mapanda	Advisor
Mrs Mutisi	
Mrs Chikukwa	
Mrs Dhliwayo	
Mrs Nyamande	
Mrs Nyanjiku	
Mrs Saurombe	

3. Nemaramba Project- Hot springs  
(Propagation and in-situ propagation. Designated no-use zone)  
(Land allocated by traditional leader)

Mr Gwenzi-	Chairman
Mrs Gwenzi	
Mrs Gwenzi	

N.B Most advanced ideas. Unfortunately most project members did not attend.

**Annex 6. Schedule of Field Visits**

**TRADITIONAL MEDICINAL PLANTS PROJECT**

**Itinerary for Independent Mid-Term Evaluation**

<b>Date</b>	<b>Venue</b>	<b>Time</b>	<b>Activity</b>
20/04/06	UNDP	0900	Courtesy Call
	MET	1000	Courtesy Call – Permanent Secretary
	MET	1030	- Meeting with Project Personnel - Review Project Documents
	FC	1430	Meeting with Mr Kwesha
21/04/06	UZ Dept of Pharmacy	0900	Meeting with Department of Pharmacy Project Personnel
	SAFIRE	1030	Meeting with SAFIRE Personnel
	National Herbarium & Botanic Gardens	1430	Meeting with National Herbarium & Botanic Gardens Personnel
23/04/06	Travel to Bulawayo		
24/04/06	Matobo District	0900	Meeting with District Task Team
	Matobo District	1200	Dema Ward
25/04/06	Matobo District	0900	Mocha Ward
	Matobo District	1400	Silo we Ward
26/06/06	Bulilima District	0900	Meetings with DAs and Coos
	Bulilima District	1000	Meeting with District Task Teams
	Bulilima District	1200	Manikin Ward
27/04/06	Bulilima District	1030	Makhulela Ward
28/04/06	Mangwe District	1030	Tithe Ward
29/04/06	Mangwe District	1030	Simelamela
30/04/06	Travel to Harare		
<b>Date</b>	<b>Venue</b>	<b>Time</b>	<b>Activity</b>

03/05/06	Travel to Mutare		
04/05/06	Chipinge	0900	Meeting with District Task Team
	Chipinge	1200	Mapungwana Ward
05/05/06	Chipinge	1030	Zamchiya Ward
06/05/06	Chimanimani	0900	Meeting with District Task Team
	Chimanimani	1100	Nyahonde Ward
07/05/06	Chimanimani	0900	Saurombe Ward
	Chimanimani	1230	Hotsprings
08/05/06	Travel to Harare		
<b>Date</b>	<b>Venue</b>	<b>Time</b>	<b>Activity</b>
03/05/06	Travel to Mutare		
04/05/06	Chipinge	0900	Meeting with District Task Team
	Chipinge	1200	Mapungwana Ward
05/05/06	Chipinge	1030	Zamchiya Ward
06/05/06	Chimanimani	0900	Meeting with District Task Team
	Chimanimani	1100	Nyahonde Ward
07/05/06	Chimanimani	0900	Saurombe Ward
	Chimanimani	1230	Hotsprings
08/05/06	Travel to Harare		