

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

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

**Final Evaluation**

***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 Immune 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
EMA	Environment Management Agency

## **EXECUTIVE SUMMARY**

This report details the findings of the Terminal 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 January 5 and 15, 2009.

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 being implemented in five districts across the country, namely: Bulilima, Chimanimani Chipinge, Mangwe, and Matobo. The project has a total budget of US\$ 1,631 900 made up of US\$ 999000 of GEF funding and US\$ 632900 of counterpart funding.

The project implementing agency was the Ministry of Environment and Tourism. A National Steering Committee provided overall project technical direction while the Project Coordinator handled the day- to- day management of the activities. Another administrative structure set up to facilitate project implementation was the District Technical Teams made up of the local authority and relevant governmental entities and non-governmental organisations operating at that level.

The project objectives were 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. 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 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 School of Pharmacy (Output 2), the Southern Alliance for Indigenous Resources (SAFIRE), a regional NGO (Output 2 and 4), and the Attorney General's Office (Output 5).

The project used a community- based approach through which local communities are involved in project implementation in collaboration with the implementation partners identified above. Community members, including traditional medical practitioners were

mobilised to participate in the project, while marketing and sales enterprises were set up in at least three of the five districts. Community ownership and the provision of incentives through marketing of produce were expected to motivate community groups to embark upon greater efforts at conserving medicinal plants. Attempts were also made to engage the private sector and have them contribute to the commercialisation of traditional medicines but these were largely unsuccessful.

A variety of incentives were provided to communities to ensure their continued participation in the project. These were in the form of potential for engaging in sales of medicines through which they realise income. The project also engaged stakeholders in relevant Ministries such as Health and Child Welfare in the development of policies and legislation to advance the conservation of medicinal plants.

The project also introduced commercial activities through which communities have started marketing the medicines that they were harvesting and processing. This was in response to a felt need brought about by the current economic meltdown in Zimbabwe that has resulted in a large proportion of the population being unable to access conventional medical services due to high costs and unavailability of drugs.

Conservation and biodiversity management projects take long to produce results on the ground but at the time of the terminal evaluation, a lot of work had been done to lay the foundations for improving the conservation status of medicinal plants in all the project areas. This work included the vegetation surveys that were conducted by Forestry Commission resulting in the identification of key threatened medicinal plant species in each district. These plant species received special conservation attention over the project life span. In addition to the in-situ conservation practices, community groups also engaged in planting of medicinal plants in nurseries with the intent to plant them out into the field. These planted trees were expected to relieve the pressure on wild plants that have been subjected to increasing pressure from a number of sources over the years.

While the extent of the planted sites falls short of the target of 5ha per district at less than 0.6ha, it is important to note that the work that had been done at the time of the terminal review 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.

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. The final document on the legal framework was drawn up with input from the Attorney General's Office and the participation of the project beneficiaries and has been submitted to publishers for gazetting and publication. The Policy on Traditional Medicines which was spearheaded by the Ministry of Health and Child Welfare with inputs from the projects was finalised and published by the GoZ.

Although this project is a biodiversity management project, it is pointing to the need to consider aspects of human development that are arising from the implementation of various activities. A major issue that has arisen is that of the need to integrate biodiversity management with programmes for the supply of water to participating communities. Without water, these initiatives cannot be sustained. Rural communities in Zimbabwe, as in other developing countries, are poor. Most of the residents in the project sites depend on the stock of resources as a basis for the survival of these communities. This makes the need to ensure communities benefit from these resources a paramount consideration. The small businesses that have been established to sell medicines are therefore critical to the success of this project.

The following lessons have been learned from the implementation of this project:

Stake holder participation in the planning and implementation of projects is an important tool in ensuring that projects address beneficiaries' concerns and needs. This ensures project ownership by beneficiaries.

Projects involving cultivation of indigenous trees require a long period for full results to be realized. The five year period for the project was just too short for this component of the project.

Some traditional practitioners hold the view that cultivated species are less effective compared to those growing in the wild while others are happy to use cultivated species and have even gone to the extent of growing some medicinal plants around their homesteads for their own use.

While knowledge of plants with medicinal value is the domain of elders and traditional practitioners, lessons from project implementation show that communities with youth involvement perform better in areas of project implementation, record keeping, providing secretarial support at workshops and meetings and documentation of experiences and information. Youth involvement also ensures project sustainability and passing of knowledge on medicinal plants and their use from the elders and traditional practitioners to the youths.

The slow growth rate of most indigenous plants with medicinal value means that there are no immediate benefits from cultivated medicinal plants resulting in beneficiaries losing interest in such projects. Cultivation of medicinal plants seems to do better where the activity is integrated with other activities that provide immediate benefits to participating communities. These lessons seem to suggest that projects aimed at the conservation of biodiversity need to have a production component that provides immediate benefits to participating communities if they are to be successful.

It is difficult to mobilize traditional practitioners to work as a group to establish enterprises for processing and marketing of medicinal plants products because to most practitioners it is a taboo to mix traditional medicine from different practitioners. This is particularly so among the lowly educated traditional practitioners. Such enterprises tend to perform better where beneficiaries are not traditional practitioners but are community members with knowledge and interest in traditional medicines.

Marketing of medicinal plants products is difficult in rural locations. Communities seem to prefer sourcing of traditional medicines from their family practitioners. In addition people in rural areas prefer to collect medicinal plants products from the wild for their own use. Of the three enterprises established under the project, two are located in rural areas and one is located in an urban location. The one located in the urban area is able to market its products while those in the rural areas have difficulties in marketing their products

Some plants studied have potential global benefits since they were found to have potential of treating AIDS related opportunistic infections. But more time and resources are required to support further studies to establish their full potential and effectiveness.

Local communities demonstrated that given the opportunity they are able to mobilize locally available skills to facilitate project implementation. The Nemaramba community, in consultation with an engineer from the District Development Fund, constructed a weir using local skills (builders). The weir is intended to provide water for their medicinal plants

nursery. Locally available skills were also used in fencing nursery sites woodlots and none use areas.

Experiences from implementation of the project demonstrated that constant project monitoring, provision of technical back stopping and community mobilization by extension officers are required to ensure successful implementation of projects. This is particularly so in biodiversity conservation projects whose benefits in most cases are in the distant future.

An appropriate political and economic environment is necessary for the successful implementation of projects. The implementing partners in the NGO sector failed to implement their planned activities as they were not allowed to visit rural communities for political reasons. On the economic front purchases of materials required for project implementation could not be effected due to the high inflation which resulted in the daily changes of prizes making quotations sourced meaningless. During the final year of the project all payments had to be suspended during the fourth quarter as the UNDP system failed to accommodate the zeros resulting from the depreciation of the Zimbabwean dollar.

The following recommendations are proposed for the lessons learnt from the implementation of the project:

Medicinal plants have been used by community groups without evidence of their efficacy. The tests conducted by the University of Zimbabwe's School of Pharmacy have confirmed that the majority of plants that community groups use as medicines do indeed have medicinal properties.

**Recommendation 1:** The results of the tests for the efficacy of the medicinal plants conducted by the University of Zimbabwe should be appropriately packaged and communicated to community groups so that these community groups can focus their conservation efforts on those plants that will yield benefits to them.

The University of Zimbabwe claims that the tests they have conducted on traditional medicinal plants are a first of its kind in Zimbabwe and possible in the southern African region. Some useful pointers towards the efficacy of traditional medicines used by practitioners have been identified creating grounds for the conduct of further laboratory tests to establish which plants deserve further attention towards the development of medicines that meet internationally accepted standards.

**Recommendation 2:** The government of Zimbabwe needs to either invest in these further tests or identify funding sources to continue with this work. In furthering this process of enquiry, care should be taken to protect the intellectual property rights of producer communities.

The economic meltdown in Zimbabwe has resulted in large sections of the population being unable to afford conventional allopathic medicines. Evidence from interviews conducted with community groups participating in the project indicate that more and more people, including those that previously did not use traditional medicine, are now making use of this alternative system.

**Recommendation 3:** The Ministry of Environment and Tourism, in collaboration with the Ministries of Health and Child Welfare and Justice, should conclude the legislative processes aimed at institutionalising and formalising traditional medicine as an alternative/parallel system in the medical delivery systems of Zimbabwe.

As more people resort to using traditional medicines in Zimbabwe, the potential market for traditional medicines increases making it possible for producer communities to establish

viable enterprises aimed at commercialising these medicines. Producer communities however lack appropriate skills and resources to facilitate the growth of such enterprises and will therefore need assistance.

**Recommendation 4:** Government should assist producer communities with the identification of partners for the development of this growing potential industry. Appropriate incentives should be provided for in policy to encourage the private sector to invest in these activities.

As traditional medicine continues to grow in importance as well as in its role as an entry point into biodiversity conservation there is a need to ensure that conservation practices developed by the Medicinal Plants project are adopted and assimilated into district planning processes. This way, the project will improve its potential for attracting additional sources of funding and the results generated to date will not be lost.

**Recommendation 5:** District planning processes should incorporate the conservation of traditional medicines as a way of managing biodiversity and other resources that community groups depend upon for their livelihoods. UNDP GEF should also take stock of the lessons emanating from this project and use them to inform similar processes in other parts of the world.

The implementation of the Medicinal Plants Project has suffered from less than optimal administrative support from UNDP Zimbabwe. This has resulted in delays in project implementation and the realisation of results.

**Recommendation 6:** It is accepted that all institutions have procedures that need to be adhered to but UNDP need to develop adaptive management systems to use in reacting to the political and economic situations similar to what was obtaining on the ground in Zimbabwe during the implementation of the project.



## **1. 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 outputs:

- Output 1: Conservation of threatened medicinal plants increased/enhanced;
- Output 2: Stakeholder appreciation of benefits from sustainable use of medicinal plants increased;
- Output 3. Cultivation of threatened medicinal plants enhanced;
- Output 4: Small businesses promoted for processing and marketing of cultivated medicinal plants;
- 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.

The five outputs also constitute the project components that have been implemented in partnership with a number of institutions at both national and district levels. National level implementing partners were 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), an NGO, 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 Environment Management Agency (EMA). Representatives from these institutions sit as members of District Project Task Teams.

The project was implemented in the five districts of Bulilima, Chimanimani Chipinge, Mangwe, and Matobo. Bulilima, Mangwe and Matobo.

### **1.1 Objectives of the Evaluation**

The Evaluation of the UNDP/GEF project “Conservation and Sustainable Use of Traditional Medicinal Plants in Zimbabwe” initiated by UNDP Zimbabwe and it is being undertaken in accordance with the UNDP/GEF Project Monitoring and Evaluation Policy. The principal purpose of the project evaluation is to assess the project results and impacts as required by the UNDP/GEF Monitoring and Evaluation Policy.

Main stakeholders in the evaluation process are UNDP Zimbabwe, Ministry of Environment and Tourism, SAFIRE, Attorney General Office, Forestry Commission, National Herbarium and Botanic Gardens, Five Rural District Councils and the Communities.

The evaluation is aimed at determining whether the following project outcomes have been achieved: -

- Medicinal plants conserved and used sustainably by local stakeholders, through the application of the CAMPFIRE approach and other best practices.
- Endangered medicinal plants cultivated both in-situ and ex-situ, and appropriate substitutes found for them. All endangered medicinal plants used sustainably by traditional practitioners and communities in project areas
- Economic incentives developed to market cultivated species. Commercialisation of medicinal plants based on best practices, value-adding enterprises and cultivation has been established
- A legal framework developed to protect rights of communities and traditional practitioners’ i.e. 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.

### **III. PRODUCTS EXPECTED FROM THE EVALUATION**

A comprehensive detailed evaluation report should contain the following information: Executive summary, Introduction, The project & development context, Findings & conclusions, Project formulation, Implementation, Results, Recommendations, Lessons Learned, Annexes-detailing persons involved, documents reviewed, evaluation methodology, photographs, case studies etc.

#### **1.2 Evaluation Methodology**

The evaluation was conducted over a seventeen day period between January 5 and end of February 2009. After introductory meetings with UNDP and Ministry of Environment and Tourism principals in Harare the evaluator conducted interviews with project representatives of the following implementing agencies: SAFIRE, University of Zimbabwe Department of Pharmacy, ZINATHA, Environmental Management Agency and the Attorney General’s Office of the Ministry of Justice.

Following the meetings and interviews in Harare, the evaluator was accompanied by the Project Coordinator on field visits to Matobo, Bulilima, Mangwe, and Chimanimani Districts. In each district the team met with representatives of 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
- Macingwana and Mahkulela Groups in Bulilima District;
- Nemaramba Group 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, and the Ministry of Environment and Tourism.

The evaluation was conducted to meet the following GEF Terminal Evaluation Criteria:

- **Results Achievements:** Presentation of an assessment of all relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable.
- **Consistency and Evidence:** The evaluation was to be consistent and present complete and convincing evidence. Ratings of achievements are also to be well substantiated.
- **Sustainability Assessment:** The evaluation has to present a sound assessment of sustainability of outcomes.
- **Lessons & Recommendations:** The lessons and recommendations identified are to be supported by the presented evidence and should be relevant to the portfolio and future projects.
- **Costs and Co-financing Assessment:** The evaluation should include the actual project costs (totals, per activity and per source) and actual co-financing used.
- **Monitoring & Evaluation Assessment:** They should include an assessment of the quality of the Monitoring and Evaluation plan at entry, the Monitoring and Evaluation system used during implementation, and whether the information generated by the system was used for project management

### 1.3 Structure of the report

A brief 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 arrangement, financial management as well as stakeholder participation.

Chapter 4 analyses projects outputs. Each project component is evaluated for the results or outputs 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 beyond the reach of the majority of the population.

Traditional medicines in Zimbabwe are under threat from poor woodland conservation practices and unsustainable utilisation of medicinal plants. 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 biological 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 sustainable 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) was 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 has been 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 could be integrated 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 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 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 was expected to provide 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 School 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 2 using the co-financing component of the budget. This work is being carried out by the School of Pharmacy 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 developing a legal framework for the conservation, sustainable use, and equitable sharing of benefits from medicinal plants.

The original objective was 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 that is 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 ongoing, 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 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, outputs 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 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 elsewhere
- Agronomic trials to develop best practices for domestication
- 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

No further project revision was conducted following those reported in the mid-term review report.

### 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 an 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 was implemented over a five-year period up to December 2008.

Table 1: Project budget (US\$)

ITEM	GEF	OTHER(CO-FINANCING)	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 Implementation Progress to date

As reported at the mid-term review, the five project components were allocated to various implementing agencies on the basis of their strengths and mandates. The National Herbarium and Botanic Gardens was responsible for components 1, the University of Zimbabwe School Pharmacy was responsible for component 2, SAFIRE for components 2 and 4, the five local authorities were responsible for output 3 and the Attorney General's Office had responsibility for component 5.

While all these institutions were positioned to implement the components of the project that they were mandated to implement, implementation progress was adversely affected by the political and economic environment obtaining in the country, especially in 2008.

The closure of the rural areas of the country to operations by NGOs by government from February 2008 to the end of the year meant that support that was being provided to community groups by organisations such as SAFIRE was discontinued. The Project Coordinator could also not visit project sites to monitor implementation progress. As a result of this, all participating community groups were left on their own to implement projects without technical support. A case in point was the Gwenzi community in Chimanimani which built a dam for supplying water to their plantation from start to finish without technical support from either UNDP or the technical support entities. Support for the development of markets for medicinal plants has also suffered as a result of this.

The economic melt-down in the country over the past two years has caused a number of problems for the implementation of the medicinal plant project. The hyperinflationary environment that the project has been implemented under has eroded the value of the local currency to levels where it was impossible for critical partners to continue operating. For a long time, UNDP Zimbabwe maintained a system of payments denominated in local currency despite the unsustainable losses in the value of the currency that were being experienced. SAFIRE had an arrangement through which they advanced their own resources to the project with the expectation that they would be reimbursed by UNDP but the delays in doing so by UNDP resulted in them losing money to the detriment of project implementation. The Department of Pharmacy at the University of Zimbabwe could not conduct their pharmacological essays on time as the amounts of money allocated for the purchase of chemicals that they needed for these tests always fell short of requirements due to inflationary pressures.

At local authority level, the problems of lack of financial resources and transport that were highlighted at mid-term continued to the end of the project. As a result, even progressive local authorities such as Bulilima and Chimanimani and government entities such as the Environmental Management Agency, the Forestry Commission and the Department of Local Government Administration experienced increased difficulties with providing support to community groups involved in project implementation.

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 and costs for workshops 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.

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 School 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 EMA will also use these findings in their community level extension services.

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 some of their obligations. A major constraint faced by government is its inability to provide vehicles and fuel 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 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. GoZ/ UNDP needs to find ways of providing transport 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.

### **UNDP Contribution to the Project**

The operational environment in Zimbabwe over the past three years has presented both local and international organisations with serious challenges which have adversely affected project implementation. The UNDP Country Office has not been immune to these challenges as evidenced by their failure to respond to requests for payments from the project in good time which was caused by the collapse of the national financial management system. This situation was compounded by the failure of the UNDP system to adapt to the peculiar circumstances that obtained in the country over this period. The insistence by the Country Office that they would continue paying for services in local currency when most service providers were demanding payment in foreign currency was a case in point. Given the hyper-inflationary environment in the country, payments to service providers became problematic. This situation directly affected SAFIRE, an implementing agent on the project that incurred financial losses after advancing their own financial resources in foreign currency for the implementation of activities and only to be reimbursed by UNDP in local currency.

Project implementation at a number of sites was affected by delays in issuing of purchase orders and processing of payments by UNDP Country Office. In worst cases, six months delays were experienced. An example was with the purchasing of project materials for the construction of a dam at Hot Springs, which took UNDP three (3) months to process against a quotation that was valid for 7 days.

### **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 outcomes produced by the project to date.

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

Table 2: Project Financial Management: (GEF Funds)

<b>Year</b>	<b>Budget as per project document</b>	<b>Expenditure</b>	<b>Balance</b>
May 2003-April 2004	US\$182, 280.00	US\$ 74, 110.52	US\$108 169.48
May 2004- April 2005	US\$168, 500.00	US\$170, 128.76	-US\$ 1628.76
May 2005-April 2006	US\$197,000.00	US\$195,187.48	US\$ 1,812.52
May 2006-April 2007	US\$ 168,500.00	US\$ 163,000.00	US\$ 5,500.00
May 2007- April 2008	US\$ 371,573.24	May 2007- December 2007	US\$ 282,410.34

		US\$ 89,162.90	
<b>Totals</b>	<b>US\$974,000.00</b>	<b>US\$ 691, 589.60</b>	<b>US\$ 282,410.34</b>

**Budget Available for January 2008-December 2008: US\$ 282,410.34**

Source: Project Implementation Unit Records

**UNDP Project Budget and Expenditure Records**

<b>Year</b>	<b>Approved budget</b>	<b>Disbursement</b>	<b>Expenditure</b>	<b>Balance</b>	<b>Delivery Rate</b>
2004	454,780	145,054	142,703	312,077	31%
2005	229,000	325,070	330,984	-101,984	144.5%
2006	168,500	136,484	141,120	29,107	82%
2007	127,220	96,248	103,044	23,552	81%
2008	266,000	182,144	204.133	61,887	76.7%

Source: UNDP Finance Office Resource Overview Reports

The UNDP CO records cover the period up to the end of 2008 which had not been captured by the PIU at the time ie time of the Terminal Evaluation. The PIU records did not show expenditure for the period January 2008 to December 2008. There is need to reconcile these records so as to establish the exact position with the project finances at the time of project termination.

According to records maintained by the UNDP CO, the project achieved a low rate of delivery of 31 % (budget against approved expenditure) in the first year. This went up to 144% in the second year of implementation. The low rate experienced in 2003-2004 was due to the delays experienced 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 delivery rate went up considerably from 2006 to 2008 after the project had become fully mobilized. It averaged 80% of budget over this period as shown in the table below.

### 3.3 Country Ownership and Drivenness

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 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 transferring control and benefits from natural resources to the communities who utilise them 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 an implementing agency 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 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 have established 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 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. Despite this delay, project outcomes 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. Of particular note, are the decisions to set aside “no use zones” at some project sites where community members are not to harvest any medicines for agreed to periods to allow for regeneration of threatened plants.

#### 4.1 Achievements

Considerable progress has been made towards achieving the project goals and objectives over the past four years. . 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 end of project 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 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 these assumptions in mind.

The assumptions are:

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



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

<b>Project Objective</b>	<ul style="list-style-type: none"> <li>• <b>Conservation, Sustainable use and cultivation of Medicinal Plants in five Pilot Sites in Zimbabwe</b></li> <li>• <b>Development of a Legal Framework for Conservation, Sustainable use and Equitable Sharing of Benefits from Traditional Medicinal Plants</b></li> </ul>			
<b>Indicator</b>	<b>Baseline</b>	<b>End of Project Target Measure (2008)</b>	<b>Evaluation Finding</b>	<b>Progress Rating</b>
<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	At least 5 threatened species with improved conservation status in each project area  Greater national awareness of need for conservation measures for medicinal plants	Threatened species have been identified for each project site and studies on the active ingredients of these conducted by the UZ School of Pharmacy demonstrate efficacy of these medicines; Awareness of the need for conservation of medicinal plants has been increased as evidenced by the passing of enabling legislation	S

<p><b>Indicator 2:</b> Endangered medicinal plants used sustainably by traditional practitioners and communities in project areas</p>	<p>- Extent of sustainable use unknown and not based on agreed norms</p>	<p>Harvesting guidelines accepted by communities in each project area, and adhered to</p> <p>Area under sustainable utilization of medicinal plants covers 50% of each project area</p>	<p>Harvesting guidelines have been produced and disseminated to all project sites with training of traditional medicinal practitioners also conducted.</p> <p>Area under sustainable utilization varies from area to area with communities in Chimanimani having established “no-use” zones that effectively double the area under conservation. The droughts experienced across the country and poor access to water at most project sites have hampered the expansion of plantations.</p>	<p>HS</p>
<p><b>Indicator 3:</b> Commercialisation of medicinal plants based on best practices, value-adding enterprise and cultivation established by end of project</p>	<p>- No (or minimal) cultivation or value-adding activities taking place</p>	<p>At least 5 operational enterprises producing and/or marketing medicinal plants from sustainable sources in each district, covering 5 or more species</p> <p>Area under</p>	<p>Enterprise development has been initiated around three sites (Matobo, Mangwe and Chimanimani) and a commercialisation strategy developed. The development of these enterprises depend largely on population in the catchment areas so although there is evidence of increased demand/use of traditional medicines in project areas, it is doubtful that enterprises will develop to the extent where they will provide</p>	<p>HS</p>

		cultivated medicinal plants exceeds 5 ha in each project area	livelihood options to participating communities.	
<i>Indicator 4:</i> 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	- Little awareness of community rights regarding medicinal plants, or their potential for sustainable utilization - No legislation on Intellectual Property Rights or equitable sharing of benefits	<i>Sui generis</i> legislation in place and operational Government agencies have incorporated sustainable use of medicinal plants into national policies and programmes, and community rights are protected Communities advocating for greater benefits derived from utilization of medicinal plants	A draft National Traditional Medicine Policy has been produced. The policy aims to promote recognition of traditional medicine in national healthcare delivery, protect intellectual property rights and safe use of traditional medicines.	S
<b>Overall rating Objective</b>				<b>S</b>

**Table 4: Project Progress against Outcomes**

Outcome 1	Conservation status and knowledge of threatened medicinal plants improved			
Indicator	Baseline	End of Project Measure (2008)	Evaluation Finding	Progress Rating
<p><i>Indicator 1:</i> Documented knowledge on medicinal plants usage at five project sites improved</p>	<p>Very limited knowledge documented on medicinal plant usage -</p>	<p>Detailed information on threatened medicinal plants and status available and disseminated to other districts</p>	<p>Threatened species in each project district identified and information on sustainable harvesting methods has been disseminated to stakeholders. SAFIRE has produced publications on these.</p>	<p>S</p>
<p><i>Indicator 2:</i> Conservation status of listed threatened species improved in terms of number of individuals and/or area of distribution</p>	<p>- No information available on conservation status of threatened species</p>	<p>Data on conservation status available for Years 3 &amp; 5  Populations of at least 5 threatened species in each district showing evidence of improving conservation status Local communities &amp; district staff carrying out regular monitoring of threatened species</p>	<p>Information on threatened species has been collected and includes samples of at least six threatened species per site (voucher specimens).  Monitoring and evaluation by district staff has been affected by shortage of transport and low resourcing of government operations especially in the last twelve months. However community level monitoring has been introduced in most areas. A good example is the Nyahode area of Chimanimani District where communities are tracking harvesting trends and levels of extraction with a view to identify those species that</p>	<p>S</p>

			will require specific protection. Other groups have continued with project implementation despite lack of support from technical agencies. The Nemaramba community in Chimanimani district completed building a dam for water supplies without supervision from council and government officials while the Katjinge community in Bulilima have completed the fencing of their woodlot despite the failure of council and government officials to monitor progress.	
<i>Indicator</i> Documentation of knowledge on pharmacology and composition of known medicinal plants found in the study areas	3 - Limited information available on pharmaceutical properties of medicinal species	Comprehensive report on pharmacology & active ingredients of at least 10 threatened medicinal species	The University of Zimbabwe has produced a comprehensive “Results of Laboratory Studies on Traditional Medicinal Plants from the Manicaland and Matebeleland Regions of Zimbabwe” which shows evidence of medicinal properties in the medicines used by participating communities. These results will be communicated to relevant community groups and used to direct commercialisation activities under the project.	HS
<b>Overall Rating Outcome 1</b>				<b>S</b>
<b>Outcome 2</b>	<b>Stakeholder benefits from sustainable use of medicinal plants increased</b>			
<b>Indicator</b>	<b>Baseline</b>	<b>End of Project Target Measure (2008)</b>	<b>Evaluation Finding</b>	<b>Progress Rating</b>

<p><i>Indicator 1:</i> Number of local users adhering to best practices increased by end of project</p>	<p>- Limited awareness of need for conservation and sustainable use practices</p>	<p>Awareness materials on conservation and sustainable use available to communities Acceptance by community and traditional healers of need for conservation of threatened species</p>	<p>Community members at all project sites are acutely aware of need for conservation and training provided in a number of areas. More than 100 community members have been trained to date. Local control regulations have also been formulated; Community groups, including traditional medicinal practitioners accept the need for conservation and are working with other project members at all sites.</p>	<p>S</p>
<p><i>Indicator 2:</i> Key endangered medicinal plants used sustainably by local communities and traditional practitioners</p>	<p>- Best practice guidelines not available</p>	<p>Harvesting guidelines, including no-take zones, accepted in each project area and adhered to Extent of 'poaching' of medicinal resources reduced by 50% Sustainable utilisation of at least 5 medicinal species practised in each area</p>	<p>Sustainable harvesting methods have been developed and packaged for dissemination to community groups. Sustainable use methods apply to more than five medicines. Community groups have put in place local regulations for harvesting of medicines to control unauthorised off-takes. However these off-takes continue requiring that the legislative framework that is currently under development be implemented as it provides for local level control of products.</p>	<p>S</p>
<p><i>Indicator 3:</i> Extent of 'poaching' of</p>	<p>- Unknown area or species at each site</p>	<p>Area under sustainable use</p>	<p>Poaching of medicines by outsiders still continues as project has only been</p>	<p>MS</p>

medicinal plants by persons from outside of project area greatly reduced	under sustainable use practices	practices covers 50% of each project area	focussed on a few participating communities. Those outside projects that have knowledge of medicines can still sell medicines to outsiders.	
<b>Overall Rating Outcome 2</b>				<b>S</b>

<b>Outcome 3</b>		<i>Cultivation of threatened medicinal plants greatly expanded</i>		
<b>Indicator</b>	<b>Baseline</b>	<b>End of Project Target Measure (2008)</b>	<b>Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Appropriate technologies on plant propagation, management and harvesting made available	- Unknown , but minimal, level of cultivation of medicinal plants	Nurseries in each area managed locally and self-sustaining	Community groups in all project sites have established medicinal plant nurseries and have been involved in determining appropriate methods of propagation of medicinal plants. Success has however been limited because of water shortages.	S
<i>Indicator 2:</i> Area planted to medicinal plants within each study site increased significantly by end of project practitioners	- No nurseries in place for herb cultivation, and minimal technical advice available	Area under cultivated medicinal plants exceeds 5 ha in each project area	Plantations have been largely unsuccessful due to shortages of water at almost all sites. The target of 5 hectares of planted medicines will therefore not be met at all sites. Local traditional leaders have allocated land for the project including those set aside as “non-use zones”. Communities that have set up these (Gwenzi and Sauombe in Chimaniani) have achieved more than the five (5) hectare target.	MS
<i>Indicator 3:</i>	No knowledge on	Results on level of	Plant efficacy tests were conducted for	U

Efficacy under cultivation of active medicinal components maintained or enhanced	differing efficacy of active ingredients	active ingredients available for 5 major species across project sites	plants collected in each district with results proving to be very promising. No distinction was made between planted/cultivated and those growing naturally. The preference among practitioners is for plants that occur naturally.	
<b>Overall Rating Outcome 3</b>				<b>MS</b>
<b>Outcome 4</b>				
<b>Small businesses promoted for processing and marketing of cultivated medicinal plants</b>				
<b>Indicator</b>	<b>Baseline</b>	<b>End of Project Target Measure (2008)</b>	<b>Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Increase in value-adding enterprises and activities by end of project	- Very little commercialisation or marketing of traditional medicinal plants	Establishment of at least 5 operational enterprises, covering 5 or more species, producing and/or marketing medicinal plants from sustainable sources in each district, and out grower schemes established	At least three enterprises established and operational (Nyahode/Kushinga, Makhulela and Ndebele Cultural Village). More than five (5) species are being marketed at each of these sites. These are run by traditional practitioner who buy raw materials from project sites and other sources.	S
<i>Indicator 2:</i> Significantly increased trade (volume, value, no. people involved) in medicinal plants	- No baseline data on production and sales	Trade levels increased by 20%	Very little data is available but Makhulela and Ndebele Cultural Village displayed their products at the International Trade Fair and realised high sales. Contract has also been developed with an urban sales outlet in Bulawayo	MS



obtained from sustainable sources			where sales volumes are higher than in the villages. Although the Nyahode centre was showing signs of growth, it has since been taken over by an individual traditional practitioner who now runs the outlet at Chimanimani village...	
<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>Baseline</b>	<b>End of project Measure (2008)</b>	<b>Evaluation Finding</b>	<b>Progress Rating</b>
<i>Indicator 1:</i> Changes made in national policy and legislation covering community rights	-National policies do not recognise community rights to medicinal plants	Government agencies and local authorities have incorporated sustainable use of medicinal plants into policies and programmes, and community rights are protected	National Policy on Traditional medicine developed. These are expected to influence use and management of traditional medicines in national health delivery systems. Traditional medicine conservation to be incorporated in district planning and natural resources management practices at local level.	HS
<i>Indicator 2:</i> <i>Sui generis</i> system of Intellectual Property Rights in place at national level	- No intellectual property rights law and low awareness among communities of rights and obligations	<i>Sui generis</i> legislation in place	No specific sui generis legislation formulated. Intellectual Property Rights are difficult to define especially as resources in question are community resources. Rights of communities to be defined in	S

			context of other legislation such as Environmental Management Act.	
<i>Indicator 3:</i> Stakeholders better informed on legal rights, obligations and requirements	- Low awareness of need for enabling legislation at various levels	Advocacy materials available for community / district use on legal rights, IPR and plant utilisation; at least one awareness workshop held at each project site	There is generally low awareness of environmental legislation among community groups despite the efforts of institutions such as Environmental Management Agency that have been running environmental extension programmes for long periods of time.	MS
<b>Overall Rating Outcome 5</b>				<b>S</b>

**HS - Highly Satisfactory:** no shortcomings in the terminal evaluation report.

**S - Satisfactory:** minor shortcomings in the terminal evaluation report.

**MS - Moderately Satisfactory:** moderate shortcomings in the terminal evaluation report.

**MU - Moderately Unsatisfactory:** significant shortcomings in the terminal evaluation report.

**U - Unsatisfactory:** major shortcomings in the terminal evaluation report.

**HU - Highly Unsatisfactory:** severe shortcomings in the terminal evaluation report.

**Table 5: Overall Project Progress Summary**

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

#### **4.2 Achievements at Objective Level**

The project had 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

As was observed at the time of the mid-term review, conservation and sustainable use are only attainable in the long term. The processes towards the achievement of these concepts are also amenable to disruption from external factors, such as the political and economic environment within which projects are implemented, which influence the way people relate to their environment.

The Medicinal Plants project has been under implementation now for five years. This has been a period of serious political and economic problems in Zimbabwe. Despite these problems however, commendable progress has been made towards the realisation of the two objectives of the project. Through the efforts of government and the partners that have collaborated with them to implement this project (SAFIRE, UZ, ZINATHA) attention has been directed at raising community awareness of the need to conserve medicinal plants as a way to achieve overall biodiversity conservation. Dedicated “non-use zones” have been set up in woodlands at two project sites resulting in general improved conservation practices. The realization of the fact that traditional medicines are fast disappearing has encouraged participating communities to embark upon the establishment of nurseries and plantations of traditional medicinal plants. Success rates with plantations have however been limited primarily due to shortages of water at all project sites. More success has been recorded with plantations established around homesteads which are easier to supervise and manage. Closely associated with this is the promotion of sustainable harvesting methods of medicines in situ which ensure continued survival of plants. These methods have been packaged and disseminated to all project sites where they are being adopted by all stakeholders. An important development with the conservation and sustainable use drive is that traditional medicinal practitioners who are usually secretive about their practice have come on board and are providing valuable input into this initiative.

Community groups participate more readily in conservation projects that benefit them directly. Preaching conservation to the poor has failed to yield sustainable use of resources. The potential for realising direct benefits to individual community members through the commercialisation of traditional medicines has motivated communities to participate in this initiative. Through this participation the involved communities are now identifying “off shoot” activities such as bee keeping which will in the long run augment their incomes This will have direct implications for poverty alleviation.

The greatest progress under this project 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 be created in Zimbabwe. However the test of any legislation is in its implementation. It is expected that the negative impacts of the current economic meltdown on the medical services in Zimbabwe will continue to see more people choosing traditional medicines ahead of allopathic medicines thereby creating suitable conditions for the implementation of the legislation that has been developed.

Overall, the project has made satisfactory (S) progress towards meeting the objective level targets set in 2004.

### **4.3 Achievements at Outcome Level**

The project has five Outcomes. The section below discusses the progress made to date towards meeting the terminal evaluation targets.

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

The objective of this outcome was to establish the extent to which medicinal plants were under threat at each project site and also identify the most commonly used plants. This information would be used to inform a research agenda to establish the efficacy of those plants commonly used for medicinal purposes. .

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 medicinal plants in most common usage in the five project sites have been inventoried and documented with input from community members themselves. This activity marshalled the collective wisdom of traditional knowledge systems and modern science to identify those plants that communities claim to have medicinal properties but are now threatened by over-exploitation. Six key species at each project site have been subjected to further investigation at the University as part of this process.

The project has also 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 while “no-take” zones have been established in Matobo, Chimanimani and Chipinge districts with the help of traditional leaders.

The general knowledge base on medicinal plants has been increased through the surveys conducted by both the Forestry Commission and SAFIRE. Threatened medicinal plant species at each site have also been identified and documented. This process has directed the efforts of establishing the efficacy of these plants as medicines through the research conducted by the University of Zimbabwe' School of Pharmacy

The evaluation concluded that project performance under Outcome 1 had been Satisfactory (S)

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

As stated in the mid-term review, stakeholders involved 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.

Although more people are accessing traditional medicines than in the past, the size of markets in rural Zimbabwe is generally small. Revenue levels that will be realised from this market base will therefore be small for the foreseeable future. This explains why the three project sites where commercialisation of the medicinal plants practice has occurred have gone on to set up market linkages with urban-based institutions in Bulawayo and Chimanimani.

A potential risk for this project relates to “poaching” of medicines by people from outside the project areas as well as by residents that are not involved with the project. This threat is particularly serious given the fact that these activities are being implemented on communal land where resources are held as common property.

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.

This Outcome is rated Moderately Successful (S).

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

Output 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 technologies of plant propagation. The target for area under cultivation for the end of project was put at five (5) ha at each project site.

Although cultivation guidelines had been produced and training provided through the involvement of government entities such as AREX, Forestry Commission and the Environmental Management Agency, shortages of water have seriously affected progress with this output resulting in no site achieving this target. More progress has been achieved with the establishment of “no-use zones” where medicinal plants are conserved in situ.

Overall performance under this output is adjudged to be Moderately Satisfactory (MS).

***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 being cases in point.

So far only three enterprises have been established, one each in Chipinge, Chimanimani and Matobo districts. A fourth is under establishment in Mangwe district. Very small volumes of traditional medicine have been sold through the enterprises that have been established. 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. Revenue levels have remained low at all three sites resulting in the Chimanimani enterprise opting for having the business run by an individual traditional medicine practitioner and the ones in Matobo and Bulilima establishing linkages with business outlets in Bulawayo where the market is larger.

This Output is rated successful (MS).

***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 Final document on the 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 together with the National Policy on Traditional Medicines that has been 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 Successful (S).

Overall, the project is rated Satisfactory (S).

## **5. PROJECT RESULTS AND SUSTAINABILITY**

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 in the areas of improved biodiversity conservation and increased benefits from exploitation of traditional medicines at local and national levels.

### Project Effectiveness

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. The assessment of project Outcomes in Section 4 above indicates that the project has resulted in limited physical activities on the ground especially given the limited progress made with expanding cultivation of medicinal plants due to limitations of water supply. From a conservation point of view however, the project has achieved more through the establishment of conservation zones where medicinal plants are protected in situ. Further conservation benefits have also been realised through the development of sustainable harvesting methods and control of poaching. The conservation impact of the project is therefore in the form of creating new attitudes to conservation among participating community groups. The institutionalisation of these resource management systems will result in improved conservation of woodland resources and through these, the biodiversity that holds medicinal plants. This is directly in response to the project objective and addresses the problem of increased resource loss due to unsustainable harvesting.

### Project Relevance

The Medicinal Plants Project was developed as an entry point to the conservation of biodiversity which was necessitated by increasing levels of environmental degradation in Zimbabwe. The conservation of woodlands and the planting of medicines to replace those that were lost provided for overall conservation. In line with the provisions of the Convention on Biological Diversity which Zimbabwe is a party to, the project promoted the involvement of community groups in this conservation effort as well as the development of an enabling legislative framework for the management of threatened plant species. This aspect of the project also contributes to the GEF objective.

The medicinal plants project was introduced at a time when most Zimbabweans were experiencing limited access to allopathic medicines due to the economic meltdown. 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. As stated in the mid-term review, examples of similar developments in countries like China need to be investigated and factored into future project designs.

### Project Efficiency

The development of commercial enterprises at project sites has progressed rather slowly due to the limited size of the market. Initiatives that have included the development of linkages with institutions in larger urban centres for the marketing of medicines seem to indicate that urban areas provide greater potential for the sale of medicinal plant products. These fledgling markets need to be nurtured to encourage the development of traditional medicine beyond the local level.

Note should be taken of the fact that all the results highlighted in Section 4 above have been produced under the very difficult conditions currently obtaining in Zimbabwe. The

majority of technical 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 the districts have had to hitch hike to project sites or hitch rides from representatives of other participating institutions in order to keep these contacts alive. The Project Manager has also been continuously engaged with project beneficiaries through his monitoring visits. These creative approaches to project implementation have been responsible for the successes scored to date. The approach that involved community groups directly in project management also helped to reduce project implementation costs as resources were directed at community level with the exception of specialist inputs such as the development of markets for the products and the assessment of the efficacy of traditional medicinal plants. The hyperinflationary environment in Zimbabwe has also affected project implementation with all organizations involved unable to maintain their commitment to the project due to financial constraints.

### Overall Results Achievement

Measure of Results Achievement	Rating
Relevance	S
Effectiveness	S
Overall Rating	S

**Highly Satisfactory (HS):** The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Satisfactory (S):** The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Moderately Satisfactory (MS):** The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Moderately Unsatisfactory (MU):** The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Unsatisfactory (U):** The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Highly Unsatisfactory (HU):** The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

### 5.1 Project Sustainability

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

#### Financial Sustainability

The evaluation has indicated that the project was implemented under very difficult economic conditions. Although the GoZ had pledged to provide co-financing to the project in the form of staff time and other in-kind contributions, it became increasingly difficult for these to be delivered as financial allocations to the various departments and institutions that



were meant to work on the project dwindled. As a result, the evaluation identified an inordinate level of dependence on outside resources for project implementation. Almost all project participants 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 where this has happened before with community projects only for them to crumble as soon as donor support stopped. A good example in Zimbabwe is the community-based projects that were supported by the United States Agency for International Development up to the year 2000 through the CAMPFIRE programme in Bulilima and Mangwe districts that have since collapsed with little evidence of any impact. This eventuality could be mitigated through the mobilisation of local resources to supplement donor funding as a way of promoting project sustainability. Although community groups interviewed as part of this evaluation indicated that they would like to invest more 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 is doubtful that these communities will be able to invest as intended as the country's economy has collapsed.

The economic environment in Zimbabwe is currently so precarious that it is unlikely that government or the beneficiary communities will be able to continue funding this initiative into the future. As financing from UNDP GEF comes to an end, it would be prudent for the project to develop collaborative arrangements with other projects such as the Southern Africa Biodiversity Programme, and other UNDP supported programmes such as the Energy and Environment Programme, the GEF Small Grants Programme and Africa 2000 in order for some of the project elements to be sustained into the future. The conclusion of the evaluation therefore is that given the economic situation in Zimbabwe, this project will not be financially sustainable without outside (donor) support.

#### Institutional Sustainability

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 promoting the use of medicinal plants which is an issue of national importance and its emphasis on local and national 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 and implementation also involved a variety of stakeholders with a broad mix of interests. The experiences that these institutions are realising from project implementation will be useful in getting some of them to incorporate 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 Councils would provide 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 implementing agencies. As these institutions become stronger, they will adopt the project eventually making it their own. Institutional sustainability of this project is therefore likely to occur into the future.

#### Social 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 the development of this system of delivery of medicinal services more socially sustainable.

As stated earlier in this report, the development of an enabling policy environment and specific legislation for the development of traditional medicine in Zimbabwe will facilitate the recognition of this alternative system of delivering medical services. With this formal recognition, it is expected that traditional medicine will be formally incorporated into the delivery system thereby ensuring the sustainability of the practice over the long term.

There have however been some useful products and lessons from the implementation of this project which should not be lost.

### Environmental Sustainability

A final measure of sustainability is environmental sustainability. As stated in this report, little progress has been made with physical work on the ground in relation to the conservation of traditional medicines through the establishment of plantations due to water shortages. A lot has been achieved however, through the increased awareness among project beneficiaries of the value of medicinal plants. The establishment of in-situ conservation sites or ‘non-use zones’ at some project sites is a good indicator of this increased awareness. In addition, the mobilization of various community, governmental and non-governmental institutions to participate in the implementation of the project will ensure effective project implementation into the future. This change in attitudes bodes well for conservation of medicinal plants specifically and biodiversity in general.

The approach adopted for this project introduced an important innovation to conservation of biodiversity through the focus on traditional medicines which are important to the communities that use them. The project has therefore deviated from the customary approaches to conservation which do not show a direct and immediate benefit to affected communities. The introduction of a business dimension to conservation through the pilot commercialisation projects has also heightened community interest in conservation due to the potential for them realising financial benefits from the practice in addition to the social and ecological benefits which have traditionally benefitted society in general. On account of these facts it is expected that community attention to biodiversity conservation will improve resulting in increased environmental sustainability.

### Assessment of Project Sustainability

<b>Measure of Sustainability</b>	<b>Rating</b>
Financial Sustainability	U
Institutional Sustainability	L
Social Sustainability	L
Environmental Sustainability	L
Overall Rating	U

Likely (L): There are no risks affecting this dimension of sustainability.

Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.

Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability

Unlikely (U): There are severe risks that affect this dimension of sustainability.

## Project Monitoring and Evaluation

The Project Execution Agency had made an attempt at developing a comprehensive Monitoring and Evaluation Plan at the beginning of project but the indicators and targets set at that time were considered limited in scope. To address this concern, a review of project indicators and targets was conducted one year into implementation. This review resulted in the establishment of clear specific, measurable, achievable, realistic and timely indicators which have been used by the PIU to monitoring project implementation. Through this process, periodic quarterly and annual monitoring and evaluation and financial performance reports have been produced. A mid-term review of the project was also conducted as per the GEF requirements. The products of these monitoring and evaluation processes have been used as source material for this Final Evaluation. This aspect of project management is rated as having been successfully implemented.

## 6. Lessons Learnt

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

Stake holder participation in the planning and implementation of projects is an important tool in ensuring that projects address beneficiaries' concerns and needs. This ensures project ownership by beneficiaries.

Projects involving cultivation of indigenous trees require a long period for full results to be realized. The five year period for the project was just too short for this component of the project.

The Ministry of Environment and Tourism and all the other institutions working with community groups on this initiative need to continue nurturing the close links that have been developed with the donor community and national institutions (government and non-governmental) so they can continue to mobilize additional resources for other national initiatives and to explore innovative financing mechanisms for channelling such support. More importantly, all opportunities for local level (community) investment into the project should be exploited as this is the surest way of ensuring that the project becomes sustainable.

Some traditional medicinal practitioners hold the view that cultivated species are less effective compared to those growing in the wild while others are happy to use cultivated species and have even gone to the extent of growing some medicinal plants around their homesteads for their own use.

While knowledge of plants with medicinal value is the domain of elders and traditional practitioners, lessons from project implementation show that communities with youth involvement perform better in areas of project implementation, record keeping, providing secretarial support at workshops and meetings and documentation of experiences and information. Youth involvement also ensures project sustainability and passing of knowledge on medicinal plants and their use from the elders and traditional practitioners to the youths.

The slow growth rate of most indigenous plants with medicinal value means that there are no immediate benefits from cultivated medicinal plants resulting in beneficiaries losing interest in such projects. Cultivation of medicinal plants seems to do better where the activity is

integrated with other activities that provide immediate benefits to participating communities. These lessons seem to suggest that projects aimed at the conservation of biodiversity need to have a production component that provides immediate benefits to participating communities if they are to be successful.

It is difficult to mobilize traditional practitioners to work as a group to establish enterprises for processing and marketing of medicinal plants products because to most practitioners it is a taboo to mix traditional medicine from different practitioners. This is particularly so among the lowly educated traditional practitioners. Such enterprises tend to perform better where beneficiaries are not traditional practitioners but are community members with knowledge and interest in traditional medicines.

Marketing of medicinal plants products is difficult in rural locations. Communities seem to prefer sourcing of traditional medicines from their family practitioners. In addition people in rural areas prefer to collect medicinal plants products from the wild for their own use. Of the three enterprises established under the project, two are located in rural areas and one is located in an urban location. The one located in the urban area is able to market its products while those in the rural areas have difficulties in marketing their products

Some plants studied have potential global benefits since they were found to have potential of treating AIDS related opportunistic infections. But more time and resources are required to support further studies to establish their full potential and effectiveness.

Local communities demonstrated that given the opportunity they are able to mobilize locally available skills to facilitate project implementation. The Nemaramba community, in consultation with an engineer from the District Development Fund, constructed a weir using local skills (builders). The weir is intended to provide water for their medicinal plants nursery. Locally available skills were also used in fencing nursery sites woodlots and none use areas.

Experiences from implementation of the project demonstrated that constant project monitoring, provision of technical back stopping and community mobilization by extension officers are required to ensure successful implementation of projects. This is particularly so in biodiversity conservation projects whose benefits in most cases are in the distant future.

Finally, an appropriate political and economic environment is necessary for the successful implementation of projects. The implementing partners in the NGO sector failed to implement their planned activities as they were not allowed to visit rural communities for political reasons. On the economic front purchases of materials required for project implementation could not be effected due to the high inflation which resulted in the daily changes of prizes making quotations sourced meaningless. During the final year of the project all payments had to be suspended during the forth quarter as the UNDP system failed to accommodate the zeros resulting from the depreciation of the Zimbabwean dollar.

## **7. Conclusions And Recommendations**

### **7.1 Conclusions**

Due to the demise of the health delivery services in Zimbabwe, the project was designed to address 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 project 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.

Although the biodiversity targets of the project will only be partially met due to the impacts of droughts and water shortages, there is clear evidence that the primary objective of biodiversity conservation will be realised in the long term. This is because the entry point of medicinal plants that has been used is of immediate value to participating communities. As stated in the mid-term review, 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 the value 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 other aspects of conservation. The issue of water resources management is now high on the agenda of all participating communities as they realise that they cannot develop conservation without water. This is introducing aspects of integrated natural resources management around the theme of the management of medicinal plants.

Effective project implementation is predicated upon the full engagement of all support institutions. There are shortcomings in implementation occasioned by some implementing partners not being able to follow through with their pledges to contribute to the process. Cases in point are the UNDP CO and district task teams that for various reasons have failed to provide requisite support to project implementation.

The personal commitment of the Project Coordinator to project implementation has resulted in the project achieving commendable results over the project life 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.

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 very critical gap in the welfare of the population.

The project has developed very successful models of developing traditional medicine in Zimbabwe with little or no evidence of the incorporation of lessons from other parts of the world. Countries such as China have a very highly developed traditional medicine delivery system from which Zimbabwe can learn. This way the project under review can avoid becoming a self-fulfilling prophesy.

## 7.2 Recommendations

Medicinal plants have been used by community groups without evidence of their efficacy. The tests conducted by the University of Zimbabwe's School of Pharmacy have confirmed

that the majority of plants that community groups use as medicines do indeed have medicinal properties.

**Recommendation 1:** The results of the tests for the efficacy of the medicinal plants conducted by the University of Zimbabwe should be appropriately packaged and communicated to community groups so that these community groups can focus their conservation efforts on those plants that will yield benefits to them.

The University of Zimbabwe claims that the tests they have conducted on traditional medicinal plants is a first of its kind in Zimbabwe and possible in the southern African region. Some useful pointers towards the efficacy of traditional medicines used by practitioners have been identified creating grounds for the conduct of further laboratory tests to establish which plants deserve further attention towards the development of medicines that meet internationally accepted standards.

**Recommendation 2:** The government of Zimbabwe needs to either invest in these further tests or identify funding sources to continue with this work. In furthering this process of enquiry, care should be taken to protect the intellectual property rights of producer communities.

The economic meltdown in Zimbabwe has resulted in large sections of the population being unable to afford conventional allopathic medicines. Evidence from interviews conducted with community groups participating in the project indicate that more and more people, including those that previously did not use traditional medicine, are now making use of this alternative system.

**Recommendation 3:** The Ministry of Environment and Tourism, in collaboration with the Ministries of Health and Child Welfare and Justice, should conclude the legislative processes aimed at institutionalising and formalising traditional medicine as an alternative/parallel system in the medical delivery systems of Zimbabwe.

As more people resort to using traditional medicines in Zimbabwe, the potential market for traditional medicines increases making it possible for producer communities to establish viable enterprises aimed at commercialising these medicines. Producer communities however lack appropriate skills and resources to facilitate the growth of such enterprises and will therefore need assistance.

**Recommendation 4:** Government should assist producer communities with the identification of partners for the development of this growing potential industry. Appropriate incentives should be provided for in policy to encourage the private sector to invest in these activities.

As traditional medicine continues to grow in importance as well as in its role as an entry point into biodiversity conservation there is a need to ensure that conservation practices developed by the Medicinal Plants project are adopted and assimilated into district planning processes. This way, the project will improve its potential for attracting additional sources of funding and the results generated to date will not be lost.

**Recommendation 5:** District planning processes should incorporate the conservation of traditional medicines as a way of managing biodiversity and other resources that community groups depend upon for their livelihoods. UNDP GEF should also take stock of the lessons emanating from this project and use them to inform similar processes in other parts of the world.

The implementation of the Medicinal Plants Project has suffered from less than optimal administrative support from UNDP Zimbabwe. This has resulted in delays in project implementation and the realisation of results.

**Recommendation 6:** It is accepted that all institutions have procedures that need to be adhered to but UNDP need to develop adaptive management systems to use in reacting to the political and economic situations similar to what was obtaining on the ground in Zimbabwe during the implementation of the project.

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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>	<ul style="list-style-type: none"> <li>▪ Conservation status of medicinal plants improved</li> <li>▪ Better access to traditional medicines</li> </ul>	<ul style="list-style-type: none"> <li>▪ National reports</li> <li>▪ Project reports</li> </ul>	<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</p> <p>Development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants</p>	<ul style="list-style-type: none"> <li>• Conservation status of selected traditional medicinal plants in project sites maintained or improved by at least 50% by end of project.</li> <li>• Principles of sustainable use integrated into national and local strategic plans, policies and programmes by end of project.</li> </ul> <p>Increase in area</p>	<ul style="list-style-type: none"> <li>• Government reports to CBD on the national status of traditional medicinal plants.</li> <li>• Specialist biodiversity survey and monitoring reports.</li> <li>• Local and national strategic plans and policy statements.</li> <li>• Central statistical office/AGRITEX reports.</li> </ul>	<p>Delays in strengthening the weak law enforcement regime may lead to over exploitation of medicinal plant as results of increased product usage.</p>

	planted to medicinal plants by at least 30% by end of project.		
<b>Output 1: Conservation of threatened medicinal plants increased/enhanced.</b>	<ul style="list-style-type: none"> <li>• Biodiversity index of threatened medicinal plants increased by 50% by end of project.</li> </ul>	<ul style="list-style-type: none"> <li>• Community records</li> <li>• District records</li> </ul>	Sustainable Forestry Act is passed.

<p><b>Output 2: Stakeholder appreciation of and benefits from sustainable use of medicinal plants increased.</b></p>	<ul style="list-style-type: none"> <li>• A better informed stakeholderhip by end for project.</li> <li>• Number of local users adhering to best practices increases substantially by end of project.</li> <li>• Number of sick people using products from sustainable use practices increases substantially by end of project.</li> </ul>	<ul style="list-style-type: none"> <li>• Spot-check surveys.</li> <li>• Trade and commerce records.</li> </ul>	
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<p><b>Output 3. Cultivation of threatened medicinal plants enhanced</b></p>	<ul style="list-style-type: none"> <li>• Improved and appropriate technologies on plant propagation, management and harvesting made available by end of 2<sup>nd</sup> year.</li> <li>• Area planted to medicinal plants increases by 50% by end of year.</li> </ul>	<ul style="list-style-type: none"> <li>• Spot-check surveys.</li> <li>• Trade and commerce records.</li> <li>• Research reports</li> </ul>	<p>Domestication of wild medicinal plants does not dilute medicinal attributes significantly.</p>
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<p><b>Output 4: Small businesses promoted for processing and marketing of cultivated medicinal plants</b></p>	<ul style="list-style-type: none"> <li>• Cost of acquiring traditional medicinal plants reduced by end of project.</li> <li>• 100% increase in value adding entities and/or industries by end of project.</li> <li>• 50% increased trade (volume &amp; revenue earnings) in traditional medicinal plants from sustainable sources by end of project.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Spot-check surveys.</li> <li>▪ Trade and commerce records.</li> <li>▪ Research reports</li> </ul>	<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>	<ul style="list-style-type: none"> <li>• Increased lawful activities and incentive systems for sustainable use by 4<sup>th</sup> year.</li> <li>• A better informed stakeholdership on legal rights, obligations and requirements; and the new economic opportunities by the end of the project.</li> <li>• Compliance to rules and regulations by stakeholders by the end of the project</li> </ul>	<ul style="list-style-type: none"> <li>• Project progress reports.</li> <li>• Spot-check surveys</li> <li>• Statute law book/Act of Parliament.</li> </ul>	<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>	<ul style="list-style-type: none"> <li>☐ Conservation status of medicinal plants improved</li> <li>☐ Better access to traditional medicines</li> </ul>
<p><b>Project Objectives:</b></p> <ul style="list-style-type: none"> <li>! Conservation, sustainable use and cultivation of medicinal plants in four pilot sites in Zimbabwe</li> <li>! Development of a legal framework for conservation, sustainable use and equitable sharing of benefits from traditional medicinal plants</li> </ul>	<ul style="list-style-type: none"> <li>☐ Conservation status of selected traditional medicinal plants in project sites maintained or improved by at least 50% by end of project</li> <li>☐ Principles of sustainable use integrated into national and local strategic plans, policies and programmes by end of project</li> <li>☐ Increase in area planted to medicinal plants by at least 30% by end of project</li> </ul>
<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>	<ul style="list-style-type: none"> <li>2.1 A better informed stakeholdership by end of project</li> <li>2.2 Number of local users adhering to best practices increased substantially by end of project</li> <li>2.3 Number of sick people using products from sustainable use practices increases substantially by end of project</li> </ul>

<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	End of project 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	<ul style="list-style-type: none"> <li>☐ At least 5 threatened species with improved conservation status in each project area</li> <li>☐ Greater national awareness of need for conservation measures for medicinal plants</li> </ul>
<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	<ul style="list-style-type: none"> <li>☐ Harvesting guidelines accepted by communities in each project area, and adhered to</li> <li>☐ Area under sustainable utilization of medicinal plants covers 50% of each project area</li> </ul>
<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	<ul style="list-style-type: none"> <li>☐ At least 5 operational enterprises producing and/or marketing medicinal plants from sustainable sources in each district, covering 5 or more species</li> <li>☐ Area under cultivated medicinal plants exceeds 5 ha in each project area</li> </ul>
<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	- Little awareness of community rights regarding medicinal plants, or their potential for sustainable utilization - No legislation on Intellectual Property Rights or equitable sharing of benefits	<ul style="list-style-type: none"> <li>☑ <i>Sui generis</i> legislation in place and operational</li> <li>☐ Government agencies have incorporated sustainable use of medicinal plants into national policies and programmes, and community rights are protected</li> <li>☐ Communities advocating for greater benefits derived from utilization of medicinal plants</li> </ul>



**c) Agreed Indicators and Targets for Project Outcomes** (modified from 2004 APR).

Outcomes	Indicators	Baseline situation	End of Project 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>☐ Detailed information on threatened medicinal plants and status available and disseminated to other districts</p> <p>☐ Local communities &amp; district staff carrying out regular monitoring of threatened species</p> <p>☐ Data on conservation status available for Years 3 &amp; 5</p> <p>☐ Populations of at least 5 threatened species in each district showing evidence of improving conservation status</p> <p>☐ Comprehensive report on pharmacology &amp; active ingredients of at least 10 threatened medicinal species</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>☐ Awareness materials on conservation and sustainable use available to communities</p> <p>☐ Acceptance by community and traditional healers of need for conservation of threatened species</p> <p>☐ Harvesting guidelines, including no-take zones, accepted in each project area and adhered to</p> <p>☐ Extent of 'poaching' of medicinal resources reduced by 50%</p> <p>☐ Sustainable utilisation of at least 5 medicinal species practised in each area</p> <p>☐ Area under sustainable use practices covers 50% of 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>	<ul style="list-style-type: none"> <li>☐ Nurseries in each area managed locally and self-sustaining</li> <li>☐ Area under cultivated medicinal plants exceeds 5 ha in each project area</li> <li>☐ Results on level of active ingredients available for 5 major species across project sites</li> </ul>
<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</p> <p>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</p> <p>- No baseline data on production and sales</p>	<ul style="list-style-type: none"> <li>☐ Establishment of at least 5 operational enterprises, covering 5 or more species, producing and/or marketing medicinal plants from sustainable sources in each district, and out grower schemes established</li> <li>☐ Trade in medicinal plants (volume, value, no. people involved) increased by 50% on Year 3 baseline</li> </ul>
<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</p> <p>5.2 <i>Sui generis</i> system of Intellectual Property Rights in place at national level</p> <p>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</p> <p>- Low awareness of need for enabling legislation at various levels</p>	<ul style="list-style-type: none"> <li>☐ Government agencies and local authorities have incorporated sustainable use of medicinal plants into policies and programmes, and community rights are protected</li> <li>☐ <i>Sui generis</i> legislation in place</li> <li>☐ Advocacy materials available for community / district use on legal rights, IPR and plant utilisation; at least one awareness workshop held at each project site</li> </ul>

#### 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	End of project targets (2008)
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	Evidence of adherence to harvest guidelines; no reduction in populations of target species in harvest zone
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)	Status of endangered medicinal plants improved (harvests within sustainable off take parameters)
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 of medicinal plants by communities at all project sites increased by 30% by end of project
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	Final guidelines on harvest, processing and marketing
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	<i>Sui Generis</i> legislation in place and operational

## Annex 3: Terms of Reference



### **PROJECT FINAL EVALUATION Terms of Reference UNDP/GEF Project**

#### **“Conservation and Sustainable Use of Traditional Medicinal Plants in Zimbabwe”**

##### **I. INTRODUCTION**

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. However, a final evaluation is not an appraisal of the follow-up phase. To this end, the project on “Conservation and Sustainable Use of Traditional Medicinal Plants in Zimbabwe” is due for its Final evaluations to assess the relevance, performance and success of the project. The Evaluation will be focusing on its early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

##### **Project Objectives:**

The primary objective seeks to enhance conservation of threatened medicinal plants at each project site, increase stakeholder appreciation of medicinal plants and benefits arising from sustainable use as well as promote cultivation of threatened medicinal plants. It seeks to promote small businesses for processing and marketing medicinal plants, at the same time facilitating the development of a conducive legal framework for the conservation, sustainable use and equitable sharing of benefits from medicinal plants.

##### **II. OBJECTIVES OF THE EVALUATION**

The Evaluation of UNDP/GEF project “Conservation and Sustainable Use of Traditional Medicinal Plants in Zimbabwe” is initiated by UNDP Zimbabwe and it is being undertaken in accordance with the UNDP/GEF Project Monitoring and Evaluation Policy. The principal

purpose of the project evaluation is to assess the project results and impacts as required by the UNDP/GEF Monitoring and Evaluation Policy (See [http://thegef.org/MonitoringandEvaluation/MEPoliciesProcedures/me\\_policiesprocedures.html](http://thegef.org/MonitoringandEvaluation/MEPoliciesProcedures/me_policiesprocedures.html)).

Main stakeholders in the evaluation process are UNDP Zimbabwe, Ministry of Environment and Tourism, SAFIRE, Attorney General Office, Forestry Commission, National Herbarium and Botanic Gardens, Five Rural District Councils and the Communities.

**The evaluation will try to determine whether the following project outcomes have been achieved: -**

- The project's component on wild medicinal plants conserved and used sustainably by local stakeholders, through the application of the CAMPFIRE approach and other best practices.
- Endangered medicinal plants cultivated both in-situ and ex-situ, and appropriate substitutes found for them. All endangered medicinal plants used sustainably by traditional practitioners and communities in project areas
- Economic incentives developed to market cultivated species. Commercialisation of medicinal plants based on best practices, value-adding enterprise and cultivation has been established
- A legal framework developed to protect rights of communities and traditional practitioners' i.e. 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.

**III. PRODUCTS EXPECTED FROM THE EVALUATION**

A comprehensive detailed evaluation report should contain the following information: Executive summary, Introduction, The project & development context, Findings & conclusions, Project formulation, Implementation, Results, Recommendations, Lessons Learned, Annexes-detailing persons involved, documents reviewed ,evaluation methodology, photographs ,case studies etc.

**In addition the following should be adhered to: -**

The report should be 50 pages or less in total, The 1<sup>st</sup> draft of the report should be submitted within 2 weeks of completion of the mission. The draft should be submitted to UNDP and it will be circulated for comments to MET, SAFIRE, Project Management and other Key stakeholders. If there are discrepancies between the impressions and findings of the evaluation team and the aforementioned parties, these should be explained in an annex attached to the final report

**IV. METHODOLOGY OR EVALUATION APPROACH**

The methodology that will be used should be presented in detail in the report and should include information on: Documentation review, the

list of documentation to be reviewed should be included as an Annex to the TOR, Interviews held , Field visits undertaken and any other approaches used for the gathering and analysis of data

## V. EVALUATION TEAM

An independent international/national expert will conduct the evaluation. He/she should not have participated in the project preparation and/or implementation, should not have conflict or interest with project related activities or with project partners/agencies. The expert will be responsible for conducting a mission to meet with the stakeholders, visit the sites and drafting the report.

### **The consultant should possess the following qualifications:**

Advanced degree in Environmental Science ,At least 10 years of work experience in related field, including project evaluation experience , Familiar with GEF-UNDP rules and regulation and prior evaluation experience with GEF projects will be an asset, strong analytical, writing, presentation and editorial skills, Understanding of institutional set-ups, social dynamics and economics of Zimbabwe/Southern Africa, Familiar with the provisions of the UN Convention on Biological Diversity, Familiar with management and evaluation of community based projects, Fluent in English language and Fluent/understanding local languages (Shona and Ndebele) is an added advantage.

## VI. IMPLEMENTATION ARRANGEMENTS

UNDP Zimbabwe Office is the main operational point for the evaluation and it will be responsible for liaising with the Project Team to set up the stakeholder interviews, arrange the field visits, coordinate with the Government and ensure the timely provision of DSAs and travel arrangements within the country.

The time frame for the evaluation process will be as follows: -

<b>Task</b>	<b>Time (days)</b>
Literature Review and Interviews with Principal Stakeholders (Get. of Zimbabwe, UZ, UNDP, NGOs etc)	3
Field Visits and Interviews with project beneficiaries (2 days x 5 districts)	10
Report Writing (Draft) & Presentation	2
<b>Total</b>	<b>15 Days</b>
<ul style="list-style-type: none"> <li>• Final Report</li> <li>• Report Production and communication (Printing, telephone, e-mails, postage)</li> </ul>	



**N.B. Please note that the 15 man days for this assignment cover the period up to the production of the 1<sup>st</sup> draft and presentation. The consultant will be expected to complete and submit to our offices the final report within a week upon his/her return.**

## **Annex 4: List of People Interviewed**

### **1. HARARE**

#### **UNDP- Zimbabwe**

Mr. Mufaro Moyo	UNDP Assistant Resident Representative, Governance and Gender Mainstreaming (GGM) Unit
Mr Wadzanai Madombwe	Programme Officer, GGM
Mr. Ambrose Made	Programme Specialist, GGM

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

Mr Irvine Kunene	Deputy Permanent Secretary
Mrs Mutsa Chasi	Director General Environmental Management Agency

#### **Ministry of Justice-Attorney General's Office**

Mr Nelson Dias	Deputy Attorney General
Mrs Gurure	Legal Draftsperson

#### **University of Zimbabwe**

Professor L. C. Chagonda	Director School of Pharmacy
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#### **SAFIRE**

Mr G. Kundlande	Director
Mr. P. Gondo	Deputy Director
Dr. P. Sola	Head of Programmes
Mr Felix Mujuru	Participatory Planner

#### **ZINATHA**

Professor G. Chavunduka	President
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### **2. PROJECT LEVEL**

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

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

Mr Tapson Ncube	Executive Officer Projects
Mr B. Tshuma	District Forestry Officer

##### ***Project Implementers***

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

Mrs A Tembo	Vice Chairperson
Mrs Nesisa Dube	Vice Secretary
Mrs Matete Moyo	Treasurer

Mrs Sitshengisiwe Moyo	Member
Mrs Idah Moyo	Member
Mrs Simelani Moyo	Member

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

Mrs Moyo	District Administrator, Bulilima
Mrs Gangada	District Administrator, Mangwe
Ms R. Mangozhe	Assistant District Administrator
Irvine Ncube	Executive Officer Projects (Mangwe)
Mr B. Lemu	District EMA Officer
Mr. Mlilo	District Forestry Officer
Mrs Mlilo	EMA Officer, Mangwe
Mr Mangowe	Chief executive Officer, Mangwe
Mr Tshabalala	A/Chief Executive Officer, Bulilima

### **Project Site**

Macingwana/Zimnyama

Mr. Obert Ncube	Chairman
Mr Leonard Nkomo	Member

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

Mr Harahwa	Chief Executive Officer
Mr Timothy Maringe	Chimanimani RDC
Mr Ernest Marange	District EMA Officer

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	
Mrs Test Manyande	
Mrs Svodai Manzungu	
Mrs Kunyongana	
Mr Luke Kunyongana	
Jabulani Gwenzi	
Pendu Gwenzi	
Mr Peter Maringe	
Headman Nemaramba	
Mr Mashava- Traditional Practitioner	

## Annex 5: Schedule of Field Visits

### TRADITIONAL MEDICINAL PLANTS PROJECT

#### Itinerary for Independent Terminal Evaluation

Date	Venue	Time	Activity
02/01/09	MET	0900	Documents Review
05/01/09	UNDP	0900	In-Briefing Meeting with Mr. W. Madombwe and Mr. A. Made
	MET	1000	Courtesy Call Mr I. Kunune- Deputy Permanent Secretary
	SAFIRE	1100	Meeting with Mr G. Kundhlande and Medicinal Plants Project Staff
	MET/EMA	1400	Meet with Mrs M. Chasi-Director General EMA
06/01/09	UZ Dept of Pharmacy	0900	Meeting with Prof. Chagonda- Director, School of Pharmacy
	ZINATHA	1100	Meeting with Prof Chavhunduka-President of ZINATHA
	Travel to Bulawayo	1400	Travel to Bulawayo
07/01/09	Matobo District	0900	Courtesy Call at DA and CEOs Offices Meeting with District Task Team
	Matobo District	1200	Visit Dema Nursery and Woodlot project site
08/01/09	Bulilima/Mangwe Districts	0830	Courtesy Call at DAs Offices Meetings with District Task Teams
		1000	Visit Matjinge Project site
		1400	Visit Zimnyama Project
09/01/09	Travel to Harare		Travel to Harare
11/01/09	Travel to Chimanimani District	1030	Travel to Chimanimani District
12/01/09	Chimanimini	0800	Courtesy call on CEO Meeting with District Task Team
		1200	Visit Hot Springs Project Site
13/01/2009		0900	Visit Saurombe Project Site
		1400	Visit Kushinga Project Site
14/01/09	Travel to Harare		
15/01/09	Harare	0900	Meeting with Mrs Gurure and Mr Dias Attorney General's Office
	UNDP	1100	Out-Briefing with Mr. Moyo and Mr. Madombwe
05/05/06	MET	1500	Out Briefing with Mr. Kunene-Deputy Permanent Secretary
16/01/09	Departure for Botswana		Departure for Botswana

