

MONGOLIA BIODIVERSITY PROJECT

MON/93/G31

Pre-Investment Feasibility Study and Pilot Phase Project

July 1993 - June 1997

FINAL EVALUATION

17 - 28 March 1997

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MONGOLIA BIODIVERSITY PROJECT

FINAL EVALUATION

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ACRONYMS AND GLOSSARY

<i>Aimag</i>	Province
<i>Bag</i>	Community
BAP	Biodiversity Action Plan
BIMS	Biodiversity Information Management System
CITES	Convention on the International Trade in Endangered Species
COP	Conference of the Parties
CTA	Chief Technical Adviser
GEF	Global Environmental Facility
GIS	Geographic Information System
GGNP	Great Gobi National Park
GPS	Global Positioning System
GTZ	German Overseas Development organisation
ICC	Information and Computer Centre
MACNE	Mongolian Association for the Conservation of Nature and the Environment
MAP21	Mongolia Action Plan for 21st century
MBTF	Mongolia Biodiversity Trust Fund
MNE	Ministry of Nature and the Environment
NGO	Non-Governmental Organisation
NSPAE	National Service for Protected Areas and Ecotourism
PA/SPA	Protected Area/ Special Protected Area
PPP	Pilot Phase Biodiversity Project
PRIF	Pre-Investment Feasibility
SPF	Small Projects Fund
<i>Sum</i>	District
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNOPS	United Nations Office for Project Services
UNV	United Nations Volunteers
VSO	Voluntary Service Overseas
WWF	World Wide Fund for Nature

**MONGOLIA BIODIVERSITY PROJECT
MON/93/G31**

FINAL EVALUATION

EXECUTIVE SUMMARY

The final evaluation of the Mongolian Biodiversity Project has been carried out between 17 - 28 March 1996 by Mr. P.J. Meynell. This evaluation considered the whole project from the initial PRIF to the completion of the pilot phase project in June 1997 and the establishment of Biodiversity Trust Fund expected by September 1997. The evaluation considered all the project documents and key reports, and discussions were held with a variety of persons associated with the project at all levels. The main findings of the evaluation are that an enabling environment for future biodiversity conservation work has indeed been created by the efforts of this project. It is considered that the project has contributed significantly to enabling Mongolia to fulfill its obligations under the Convention of Biological Diversity. In particular the following achievements stand out:

- The biodiversity and environmental legislation is in place and being enforced as far as circumstances allow;
- The Biodiversity Action Plan for Mongolia has been prepared and approved; it is now ready to be implemented; a monitoring committee has been set up;
- The staff of both the MNE and the NSPAE are in place and operational as far as funds and equipment allow; they have been trained up to a point, but still require further training;
- A Biodiversity Information Management System has been established and is fully functional although limited by shortage of input data;
- Public awareness and support for biodiversity conservation has increased, although experience of public involvement in planning and management of protected areas has been limited;
- Funding mechanisms are expected to be shortly in place to cover a significant portion of the ongoing financial requirements for biodiversity conservation in Mongolia.

Training activities were a particular focus of the project and in general were very successful in raising the awareness and expertise of staff in the Ministry and National Service for Protected Areas and Ecotourism. However, training and capacity building is a long term process which must be continued before full effectiveness of staff is achieved. The project has initiated this process.

The legislation in place must now be implemented and enforced. This requires training both of the government officials in the Parliament and in the aimags so that they can support the NSPAE staff in their duties to enforce biodiversity conservation.

The process of development of the Biodiversity Action Plan was significant in that great emphasis was placed upon the local ownership of the plan, through involving a diverse group of Mongolian interests and expertise in its preparation. This contrasts with BAPs which have been prepared by international experts in isolation.

The collection of data undertaken by the project has been significant, but a great deal more information will be required before management of key species, ecosystems, protected areas and buffer zones can be fully effective. This is a long-term process, which requires the regular input of data into the Biodiversity Information Management System which the project has helped to establish.

The project has gained some experience in setting up and running a Small Projects Fund. The aim of this SPF has been to provide assistance to people living in the buffer zones and to begin to demonstrate the value of protected areas. The process of developing such small projects has been useful in raising awareness of the issues of sustainability and biodiversity.

The increase in public awareness has been one of the successes of the project, especially through its publications, educational components and association with Mongolia's environmental NGO community. One of these NGOs is implementing a project for the re-introduction of the Takhi, taking over one of the early activities of the Pre-investment feasibility stage.

The Biodiversity Trust Fund is in the process of being established and should be completed by September 1997. The trust fund is seen as an essential component for continuing the provision of funds for biodiversity conservation, providing for the setting up of a National Centre for Biodiversity Conservation to continue the training activities of the project, as well as for specific conservation initiatives.

Suggestions are made for the improving the implementation of future activities for conserving biodiversity based upon lessons learnt during this phase.

I. INTRODUCTION

This report is the final independent evaluation of the Mongolia Biodiversity Project (MON/93/G31) which is a project of the Government of Mongolia, Ministry of Nature and the Environment, implemented through the United Nations Development Programme (UNDP) and funded by the Global Environment Facility (GEF).

The project falls into two distinct stages which are shown on Fig.1.:-

- the Pre-Investment Feasibility Study (PRIF) which lasted from July 1993 to July 1994
- Pilot Phase Project (PPP) which lasted from July 1994 to June 1997 with three periods - July 1994 - June 1996; July 1996 - December 1996; and January 1997 to June 1997.

This evaluation covers both the PRIF and the whole pilot phase project considering them as one integral project, even though the PRIF was designed to investigate the possibilities for the main project and therefore had slightly different objectives. The evaluation takes into consideration the various project documents initiating and defining the objectives and outputs for each stage. It has also considered the findings of the independent mid-term evaluation carried out by Keith Garratt and Basarsadyn Tschimed-Otschir in May 1996. That evaluation did not consider the PRIF stage, nor, obviously, the activities carried out subsequently. It was more concerned with the delivery of the outputs to date and less with the overall effectiveness of the initiative as a whole, and its contribution towards the creation of an enabling environment for future action by the GEF.

The evaluation was carried out by Mr. Peter-John Meynell of the UK environmental consulting company Scott Wilson Resource Consultants. He visited Mongolia between 17 and 28 March 1997, meeting with project staff in Ulaanbaatar, UNDP, Ministry of Nature and Environment officials and other people associated with the project or sector. He also made a field visit to two of the protected areas around Uvs Lake in north-western Mongolia to discuss the impact of the project in the field, with staff of the National Service for Protected Areas and Ecotourism (NSPAE) and local stakeholders - see map of Mongolia's Protected Areas, Fig. 2. His itinerary is shown in Appendix 1. In the time available it was not possible to meet the key field areas where the project has been working, so the impressions gained at Uvs have to be taken as representative of other protected areas in the country. The list of persons with whom he discussed the project is given in Appendix 2. The list of documents consulted is given in Appendix 3.

During the visit a teleconference was held with UNDP/GEF in New York to discuss progress. The Mongolia Biodiversity Project Office in Ulaanbaatar provided office facilities and interpretation, made arrangements for meeting with appropriate people and made their records available to ease the process of the evaluation. They should be thanked for their assistance, especially the National Project Co-ordinator, Mr. A. Enkhbat, and the two interpreters, Ms. Undral and Ms. Orgiltuya. Mr. Ganbold, the National Parks Director for Uvs should be thanked for making the arrangements for the successful field trip.

II. EVALUATION METHODOLOGY

The evaluation was based upon two main methods:

- Review of critical documentation, especially the various project documents for the PRIF and PPP, the terminal reports, and the mid-term evaluation carried out in May 1996.
- Detailed discussions with project staff at all levels, MNE officials, UNDP staff and with representatives of associated projects and organisations. The latter included MACNE, the GTZ project, MAP 21 and Peace Corps. During the field trip to Uvs extensive discussions were held with the NSPAE staff, with Park rangers and local people living in the buffer zone of Tsagaan Shuvuut Mountain Reserve, and with the beneficiaries of two of the Small Project Fund disbursements in Sagil Sum - the boot factory, and the nomadic hospital.

During the discussions effort was made to draw out the comments of those interviewed, both to provide a greater understanding on the side of the evaluator of the part played by the interviewees and their relationships with the project. Conscious effort was made not to ask leading questions, and wherever possible to ‘triangulate’ replies to confirm or adjust perceptions about the operation of the project and its impacts. Where possible recipients of training were questioned as to the usefulness of that training.

The project was responsible for producing large numbers of documents, ranging from specialist consultancy reports, trip and workshop reports to the key documents such as the Biodiversity Action Plan, Mongolia’s Wild Heritage, the report on Mongolia’s Environmental Laws, the Park Rangers Training Manual, and ‘Nature and the Child’. The revised Mongolian Red Book is about to be published. No attempt was made to assess the quality of all this material in the short time available. The full list of documents up to September 1996 are to be found in the Draft Terminal Report (Laurie and Enkhbat, 1996)

The purpose for this evaluation was to determine the relevance, efficiency, effectiveness, impact and sustainability of the project activities beginning with the PRIF and the whole of the PPP, especially the activities undertaken since the evaluation in May 1996. In particular, the criterion was to be assessed of whether the Mongolian capacity and the ‘enabling environment’ had been created for the follow-up activities.

According to the GEF operational criteria in the field of Biodiversity, enabling activities prepare the foundation for the design and implement effective response measures to achieve Convention objectives. They normally include country-driven activities for taking stock of and inventorying biodiversity, identifying options and establishing priorities to conserve biodiversity and developing biodiversity planning exercises. Enabling activities also may assist in the identification of additional capacity building needs and project concepts for further development. Although the scope of the project to date has been considerably wider than this, covering virtually all of the activities within the framework of operational programme to secure long-term biodiversity protection, reference to early project documents points to the fact

that in the initial stages of the project there was virtually no enabling environment for biodiversity conservation work of any kind.

In evaluating the project therefore, an attempt has been made to compare the situation before and after the project and to assess the contribution made by the project in effecting these changes. Through a simple scoring system an assessment has been made of the effectiveness of the project in creating the components of the enabling environment, based upon the judgement of the evaluator in the light of his perceptions. The detailed methodology of this will be described at the appropriate place in the text.

Finally, the process of an evaluation of this nature highlights shortcomings and omissions in the present and previous operation of the project. Recommendations are made for the continuation of biodiversity conservation activities initiated or assisted by the project.

III. PROJECT CONCEPT AND DESIGN

A. Context

Mongolia occupies an ecological transition zone in Central Asia where the Siberian taiga forest, Central Asian steppe, the Altai mountains and the Gobi desert meet. These different ecosystems support a wide variety of plant and animal species, a number of which are endangered endemic species. Mongolia has a land area of 1,567 million sq.km., with a current estimated population of 2.49 million. Of these approximately 55% live in urban areas; the rest mostly live a semi-nomadic (transhumance) existence tending their livestock in the rural areas. Although the population density is low, Mongolia's renewable natural resources are limited and the climate is harsh, with great extremes of temperature, low precipitation and severe storms. Ecosystems are fragile and extremely vulnerable to many forms of economic exploitation. Unsustainable uses of Mongolia's natural resources, its soil, surface and ground water, forests, grasslands, wildlife and fish are occurring. Although government policy in recent decades has favoured industrialisation and development with little attention to environmental impacts, the Ministry for Nature and the Environment (MNE) was re-established in 1992 to implement policies and programmes relating to the environment and biodiversity conservation.

The GEF Mongolia Biodiversity Project was designed to assist the newly re-established MNE to conserve biodiversity and to help inform the general public about the importance of conserving biodiversity. The Ministry and the country as a whole were facing severe problems as a result of underfunding, lack of knowledge and training. The PRIF and the PPP were designed to set the stage for implementing more focused projects in the conservation of biological diversity.

In 1990, Mongolia embarked upon the difficult process of democratising its government and transforming its centrally planned economy to that of a free market. It also brought an opening up of the country to international influences. One of these was undoubtedly the preparation for the UNCED conference in Rio in 1992, at which Mongolia signed the Convention on Biological Diversity and offered the whole of the country as a Biosphere Reserve, and expressed the intention that 30% of the country would be designated as protected areas. Before 1992 there were 11 Protected Areas covering 3.52% of the land area; during 1992 and 1993, 15 more Protected Areas were legally created, so that the total coverage is now 8.01% (Wingard, 1996). The book *Mongolia's Wild Heritage* identifies six areas in which Protected Areas may be proposed or expanded in due course, with about 50 smaller parks throughout Mongolia.

However, in trying to protect these areas, Mongolia was faced with a number of critical problems:

- there was no specific environmental protection legislation. Such legislation as there was, was enacted in more general laws such as those covering land use;
- the data on Mongolia's biodiversity was limited and much of it effectively lost in Russia; such data tended to be more descriptive biology rather than ecology, and was not oriented towards ecological management;

- the staff at the MNE was new and inexperienced in areas ranging from environmental legislation, its enforcement, and in biodiversity conservation and ecosystem management; in addition, the English language skills of many counterpart staff and trainees was very poor, and had to be built up extensively to facilitate progress during the project;
- a National Parks and Tourism Service had been set up to manage the protected areas, but this had very little funding, no equipment and with untrained staff inexperienced in biodiversity conservation issues. This was later changed to a more focused National Service for Protected Areas and Ecotourism (NSPAE), but suffered from the same lack of funding amounting to less than 1 US\$ per hectare of protected area;
- public awareness of environmental issues was very limited, and generally considered that with Mongolia's traditional closeness to nature, all was well with the environment. The vast areas of pasture could carry ever increasing numbers of livestock without problem, it was thought;
- experience in public involvement in planning and management of protected areas was non-existent, as before all decisions had been taken centrally and passed down to the relevant managers, whose main interest was in achieving the production figures.

This was the effective pre-project situation, in which the Pre-Investment Feasibility Study was designed to “define and establish areas and activities to indefinitely conserve representative samples of all major habitat types which occur in Mongolia and the species that these areas contain...”. This compares with the development objective of the PPP which was “the protection of biodiversity in Mongolia and to ensure sustainable development through taking environmental considerations into account while exploiting the natural production base of the country”.

B. Project Documents

Four project documents have been considered in this evaluation:

- The PRIF Activity Initiation Brief prepared in February 1993;
- The Pilot Phase Project Document signed in March 1995;
- The Project Revision document extending the PPP to December 1996, signed in June 1996;
- The Budget Revision document signed in January 1997 with funding contribution from UNDP/IPF;

At the outset, it must be said that these documents show a definite learning curve, from the first two documents, which present a very mixed bag of project components, making them extremely difficult to implement to the letter, and very difficult to evaluate the resultant activities and outputs, to the latter two which are more focused and manageable within definite time frames. It is of considerable credit to all the participants in the project at each stage, that, despite the project documents, the final outcome of the project has been as successful as it has been in creating the enabling environment. This criticism echoes earlier comments made by the mid-term evaluation team in May 1996 and in the Draft Terminal Report (Garratt and Tschimed-Otschir, 1996; Laurie and Enkhbat 1996). The concerns about the main working documents of the project are:

- The PRIF has no outputs, only a series of 17 often unrelated activities, which are then followed by a further series of more detailed activities under 7 different subheadings with between 4 and 21 different activities each, making a total of 71 separate activities.
- In the PPP Project Document, this confusion and plethora of activities continues and there is little logical connection between the 17 Immediate Objectives, the 41 outputs and the 107 activities, and there is often significant overlap between them, especially in the training outputs.
- The documents for the periods July - December 1996, and January - June 1997 are more constrained and the number of outputs expected have been limited to enable project staff to focus on those priority elements which remained from the original PPP project document.
- The time frames in which these activities were expected to have been carried out was unrealistic - one year in the case of the PRIF and two years for the PPP. The fact that, for example, the first activity listed on the PRIF document, “Draft a national biodiversity action plan and describe a strategy for its implementation, including identification of funding sources”, was only realised at the end of the PPP in June 1996, shows that 3 years under the prevailing institutional environment was more realistic than 1 year. Similarly, the setting up of the Biodiversity Trust Fund specifically identified in the PPP Project Document will not be realised until September 1997 at the earliest, an elapsed time of 3 years. Whilst all this time is not necessary for such an exercise, it shows that the design did not fully appreciate the dependence upon other outputs being achieved, e.g. the Biodiversity Action Plan itself. Perhaps a bar chart showing the logical progression and linkages between activities and outputs would have been useful.
- Nowhere in any of the documents is there a logical framework which might have made these linkages clearer both to the designer and to the evaluator. Consequently, it is impossible to know what were the main assumptions upon which the logic linking outputs to objectives were based, nor the risks involved which were foreseen.
- More importantly from an evaluation point of view, none of the project documents mention indicators which might show whether the objectives had been achieved, nor the sources of information on such indicators. As a result, the evaluator is left with the task of thinking up what indicators might be appropriate to such outputs and objectives. Whilst outputs are often clear if they are definite products, e.g. the approval of the Action Plan, indicators for institutional strengthening are much more difficult. An end-of-project situation is described and this has been used to compare before and after situations.
- A consequence of this omission has been that there has been little if any emphasis on the project upon monitoring the effects and impacts of project activities, so that there is little indication of the effectiveness for instance of the public awareness campaign, or the training programmes.

The result of these limitations in the project documentation, leads me to conclude that the comments made by the CTA in the Draft Terminal report are entirely justified, and his rationalisation of the priority areas of activity into 8 fields is to be commended. In his final report he lists these as:

1. Training
2. Law and Policy
3. Planning
4. Protected Area management
5. Surveys research and data management
6. Rural development in areas adjoining protected areas
7. Increasing public knowledge about biodiversity conservation
8. Funding for conservation.

These are the areas in which the effectiveness of the project should be judged, rather than the strict comparison with stated outputs and activities, which often have inappropriate numerical targets.

Although, the PRIF had been designed at a time when the GEF criteria were slightly different from what they are now, on examination of the PRIF Activity Initiation Brief, I found that the activities were very similar to those in the PPP involving training, legislation, development of the BAP and park management plans, and public awareness despite the greatest number of sub-activities coming under the heading of conservation of particular endangered species, such as the Bactrian camel and the Takhi (Przewalski's Horse). The reports of the two joint CTAs for the PRIF, Johnstad and Griffin, underline the fact that the former activities were indeed the main ones and that the initiative for reintroduction of the Takhi was left for other organisations to develop as separate projects based upon the preliminary research work carried out by the project. As for the Bactrian camel, one rather out-of-place output, highlighted in the previous evaluation, found its way into the PPP project document, and formed the basis for one consultancy. It did not apparently diminish work on the priority areas outlined above.

IV. PROJECT IMPLEMENTATION

A. Activities

The main areas of project activity during the different stages are shown below:

PRIF	PPP June 94-June 96	PPP July - Dec 96	PPP Jan - June 97
Land use/ Socio-economics/ Community participation in conservation/ Population management	Surveys Research and Data management		National environmental data base strengthening
	Rural development in areas adjoining protected areas Small Projects Fund	Rural development in areas adjoining protected areas Small Projects Fund	Rural development in areas adjoining protected areas Small Projects Fund
Conservation Areas and wildlife	Protected Area management		
Reintroduction of the Takhi			
Strengthening/ Training/	Training	Training	Training
Education/ Public Awareness	Increasing public knowledge about biodiversity conservation		Increasing decision makers knowledge about biodiversity
Ecotourism			
Strategic National planning to conserve biodiversity	Planning - Biodiversity Action Plan	Preparing BAP for implementation	Implementation of BAP Strategic planning with government and UNDP
Legislation	Law and Policy		
	Funding for conservation	Funding for conservation - Mongolia Biodiversity Trust	Funding for conservation - National Environmental Trust Fund
Planning for Pilot Phase	Outline planning for follow-up	Planning for follow-up	Securing funding for follow-up

Whilst it is clear that there have been some activities which have been lost since the PRIF, it is also clear that there is considerable continuity in the type of activity undertaken by all stages in the project. In the latter two stages, the focus has been narrowed further to undertake those activities where further work has been needed to achieve the objectives. In addition there has been continued work in areas such as training and institutional strengthening, particularly to make use of the skills of the current staff, for example the Associate Expert in Wildlife Biology who also has considerable expertise in computers and data base management.

Through consultations with relevant persons and a study of project documentation and reports, it is clear that the activities and achievements of the PRIF and the whole Pilot Phase were carried out efficiently and effectively in order to produce the outputs. Where particular activities were dropped or delayed there were reasons which caused the project management to do so. As an example, it had been proposed in the PPP

project document to hold a National Conference to discuss the Mongolian Biodiversity Action Plan; this was postponed in June 1996 because of the national and local government elections. It is now expected to take place at the end of the bridging stage. This sort of decision is to be expected in the adaptive management of project activities.

The delays in the appointment of the international consultancy for the Biodiversity Trust Fund were caused by there being insufficient funds in the budget to cover the costs necessary. This was overcome by negotiations with the consultancy company selected and through amalgamating the setting-up funds allocated for the BTF with those of the Desertification Trust Fund. The aim is to create a combined National Environment Trust Fund with greater management cost-effectiveness, but with separate accounts for addressing biodiversity and desertification issues.

In the transition from the PRIF to the PPP, the project was allowed to drift in a 'business as normal' manner without any CTA or formally approved project document, for about nine months with consequent delays and loss of staff morale. It would appear that this lesson has not been adequately learnt, judging by the need to prepare one outline project document and to field two missions to prepare project documents for the follow-up. There has been a need to complete unfinished work and to finalise follow-up documentation and agreements during the periods July to December 1996 and January to June 1997. Whilst lessons were learnt in that specific documents and workplans were prepared for both periods, which are in themselves more realistic in terms of achievable outputs, the uncertainty and changes, for example in shortening the contract of the CTA, has led to a lowering of staff morale and indeed to some staff losses, e.g. amongst translators. The lessons of appropriate allocation of time needed to undertake tasks must be addressed in the follow-up.

That being said, the project office is effectively carrying out the activities necessary to achieve the outputs and objectives set for the latter two stages under the National Project Co-ordinator, Mr. A. Enkhbat. He has been associated with the project for a considerable period in different roles, e.g. environmental law preparation, and has received overseas training from the project. The project's institutional memory vested in him and other longer serving staff is considerable and should not be lost due to further delays and uncertainty.

B. Quality of Monitoring and Backstopping

The project does not appear to have used any systematic method for monitoring its effectiveness, either of individual activities or its wider impacts. A project may be very good at producing reports, leading training courses and achieving its numerical targets, as indeed this one has been, but, unless it monitors the effectiveness of these reports, training courses and other implementation actions it may be difficult to tell whether it has achieved its objectives. Equally it is unable to adjust its programme and the detail of the activities to become more effective.

For example, trainee evaluations are almost standard practice now, and the format for such an evaluation of training courses is included within the report on Staff Development and Training Needs Assessment carried out by Rudy Rudran in

September 1996. It would appear that such a system has not been used by the project to assess its many training courses. Nor has there been any formal follow-up to assess how effective the courses have been in terms of subsequent use of the skills learnt. An example of where this might be critical, since this may be the only training they receive, is the Protected Area Ranger training. This was backed up by the provision of the Manual for Ranger Training for National Service of Protected Areas and Ecotourism, produced by the project. Two points arise here:-

- the rangers, of course, say that this was a very useful training course, but it is difficult to know how useful, and how much of the course is actually used on a day-to-day basis by the rangers unless follow-up monitoring is carried out and used to improve future courses. The ranger to whom I spoke at Tsagaan Shuvuut indicated that he had found the element on First Aid extremely useful, and the element on ecotourism interesting, but that the element on biological statistics had been unnecessary and barely understandable.
- the Manual is a thick compendium of both theoretical and practical aspects of protected area management. It is a very useful document for Park managers, but scarcely a user-friendly document for the average ranger whose main records consist of symbols denoting the weather at three times of day and the numbers of different animals sighted. This is not to denigrate the work of the rangers who do a fine job under very isolated and dangerous conditions, but to point out that the rangers training manual is inappropriately named - it should be a Park Managers Manual. A slimmed down version more closely tuned to the actual needs of the rangers would have been more useful.

Both of these points indicate the need for follow-up monitoring and adaptation of the project work, especially in the field of training, communication and public awareness. Another example illustrates this in the field of environmental education. The project produced the environmental teaching book "Nature and the Child", by all accounts an excellent document which has been very well received by those who have used it. However, it is apparent that the normal government channels for distribution to schools has not been very effective, and even though teachers from the different Education Centres in various aimags received a training in its use and a number of copies, these have not always got through to the schools. Follow-up monitoring should be built in to ensure that such products of the project reach the right audiences, rather than assuming the job is done when the document is produced. Further monitoring could also be devised to see how effectively these educational materials have been in teaching children about biodiversity and ecology.

With regard to back-stopping, project documentation indicates that administrative support for the project from UNOPS and UNDP has been generally satisfactory for both PRIF and the whole PPP. However, the project staff have indicated that directions from GEF headquarters have, on occasion, been confusing and have contributed to the delays, for instance, in the development of follow-up activities. This probably resulted from the fluidity of GEF programming guidance which was in a process of evolution from 1994 through to its crystallisation in February 1996. The government patience in view of these delays has been commendable and their commitment to staying with the process augurs well for the future.

V. PROJECT RESULTS

The TOR for this evaluation specified a contents list for the report. In view of the large number of project components, it was considered impracticable to organise the report in the outline suggested. Nevertheless, the evaluation covers all the aspects required. The reporting structure used starts by summarising the achievement of the outputs and immediate objectives, and the progress towards achieving the Development Objective. For the most part these summaries are divided into the different stages of the project, together with comments on the achievements.

In the next section the eight different areas identified in the Draft Terminal Report are considered in turn and the evaluation criteria of relevance, efficiency, effectiveness, capacity building, impact and sustainability are discussed. These are then brought together in the Overall Appraisal of the project.

A. Outputs and Immediate Objectives

A.1. *Pre-Investment Feasibility (PRIF), June 1993 - June 1994*

PRIF OBJECTIVE	PRIF ACTIVITIES	COMMENTS
To define and establish areas to indefinitely conserve representative samples of all major habitat types which occur in Mongolia and the species that these areas contain, focusing to a greater extent on areas that contain endemic, rare, threatened or endangered, or other globally significant species or natural communities	1. Draft a national biodiversity action plan and describe a strategy for its implementation, including identification of funding sources.	Initial workshop held in 1993 to determine the status of biodiversity and conservation measures. Actual document achieved in April 1996, see later in PPP.
	2. Assess existing protected areas network to determine if adequate size samples of all ecosystems exist in Mongolia. Propose additional areas.	Various studies and reports. Additional areas suggested.
	3. Assess human land-use and land use/wildlife interactions and describe peoples contribution to conserving biodiversity.	Various social studies carried out. Groundwork for public participation strategies laid
	4. Establish a funding mechanism to fund small-scale community projects that conserve/enhance biodiversity	Small Projects Fund was established. 1st grant issued April 1994.
	5. Assess existing threats to the long-term viability of the protected areas network, and to individual protected areas, determine how best to address these threats.	Numerous studies and reports prepared, providing information for BAP later
	6. Assess and quantify the needs for training and education in protected areas management and biodiversity conservation.	On-the-job training and capacity building of MNE staff carried out
	7. Negotiate arrangements to establish	Co-operative agreements

	institutional relationships with international institutions in ecosystem management and biodiversity conservation.	between UNDP, MNE, WWF and GTZ to support buffer zone management. and with WWF Germany to produce Mongolia's Wild Heritage
	8. Assess and quantify the needs for physical infrastructure development within existing and proposed conservation areas	The creation of a new National Service for Protected Areas and Ecotourism was based upon PRIF recommendations
	9. Finalise management plan for Great Gobi National Park	Some studies carried out
	10. Describe and initiate species management plans for a few key threatened or endangered species	Various studies and suggestions for conservation of Bactrian camel.
	11. Lay the foundation for reintroduction of the Takhi, and initiate training for successful re-introduction	Consultancies were organised for Takhi reintroduction. This activity was later dropped, but two re-introduction projects are in progress, MACNE at Khustain Nuruu and in South Gobi.
	12. Assess the potential for ecotourism and describe a specific plan to initiate ecotourism activities	Tourism status report and draft tourism regulations produced
	13. Investigate the need for remote sensing and GIS as management tools for biodiversity conservation, and prepare a specific plan for hardware, software, institutional arrangements and training needs	Recommendations included in the PPP Project Document
	14. Investigate the need for a biodiversity database system, synthesise it and use it for decision making.	Recommendations included in the PPP Project Document
	15. Assess alternatives to achieve greater public awareness of the need to conserve biodiversity and describe and initiate activities to do so	Public information programmes using radio, TV and written material produced
	16. Determine if human population levels and growth rates pose a significant threat to biodiversity in Mongolia	Unknown
	17. Review existing environmental legislation that affects biodiversity and propose revisions	Training, seminars and some draft legislation prepared
	18. Assess institutional arrangements for training and research for biodiversity conservation and recommendations for institutional strengthening	Training carried out, but see report on training needs assessment carried out during Sept.'96

A.2. Pilot Phase Biodiversity Project (July 1994 - June 1996)

OBJECTIVE	OUTPUT	COMMENTS
1. To develop a Biodiversity Action Plan	1.1. A Biodiversity Action Plan	A significant process of local ownership involving, initial studies culminating in a 3 week drafting workshop in September 1995. BAP produced April 1996 & approved by outgoing Cabinet on 16 July 1996.
	1.2. Conference to discuss MBAP	Postponed due to national and local elections. Due to be held in June 1997
2. Establish and execute a staff training programme for MNE	2.1. A ministry wide staff training and development programme	Not fully achieved by end of June 1996, but note the training courses for MNE staff to be held at end of April 1997
3. Strengthen the abilities of persons responsible for legislative drafting and implementation	3.1. Three persons trained in drafting biological conservation	Achieved
	3.2. Eighteen parliament members trained in basic principles of biodiversity conservation legislation	Achieved in 1995 with very positive comment. However, elections in July has meant that new parliament members will need to be trained.
	3.3. Two Enforcement & implementation seminars	Achieved. The second was attended by 70 persons from all over the country, with high level of interest.
4. Draft and revise existing policies critical to the preservation of biodiversity on both local and national level	4.1. At least five environmental laws and necessary resource materials for presentation to government	16 laws have now been passed, and a report on environmental legislation produced.
	4.2. Recommendations for model mechanisms to improve local level input to management of protected areas	Draft Management plan for Khovsgol NP produced with local input, but this has not been implemented there. It has been used as a basis for indicative Mps in Eastern Steppe.
	4.3. Recommendations presented in legal form for the expansion of at least one protected area	BAP presented action points for generalised expansion of protected area system, but no legal form for expansion presented.
5. Increased access of Mongolian legal community to international legal resources and improve the enforcement of biodiversity conservation laws	5.1 The creation of a NGO for citizen enforcement with links to the international law community	This was initially set up as a legal entity, but failed due to staffing and funding problems.
	5.2. Mongolia accedes to CITES	CITES ratified April '96. Attended COP. Implementation seminar held in Jan 1997
6. Facilitate the design and inauguration of national tourist laws, policies and institutions to ensure that tourism benefits biodiversity conservation objectives	6.1. Model national law for the regulation of tourism drafted in form suitable for presentation to the Mongolian Government	Assistance provided for Draft Tourism Law which is approved in principle, but progress delayed awaiting comments from other sectors.
	6.2. Tourism policies and	Tourism development strategy

	regulations for protected areas drafted	developed for Khatgal town in Khovsgol National Park
7. To determine best timing and means of establishing Mongolia Biodiversity Trust Fund	7.1. An analysis of the feasibility of establishing a MBTF	Prospectus document prepared. Further development depends upon appointment of consultants Apr.97
8. Improve the ability of Mongolians to manage and conserve biodiversity by training to understand recent theories and methodologies of conservation biology and to draft more rigorous research/grant proposals	8.1. Ten professionals and students trained in population monitoring; in basic conservation biology; one national expert in small populations management; one national graduate in methods of census & research on pop.dynamics of Bactrian camels	Many training courses and fellowships undertaken. Exact content of training does not follow that specified in output 8.1.
	8.2. A quality research proposal process developed, resulting in at least 10 research proposals per year, of which at least 5 are improved and 3 are funded. One proposal sent overseas to an external funder.	A research fund was set up and five proposals were funded out of 30 proposals received, and 7 invited for improvement. Research undertaken often requires extensive revision.
	8.3. At least 8 presentations at a Mongolia Biodiversity Seminar Series and a collection of 8 papers from the presentations.	This was attempted but was poorly attended and not continued
9. Expand and improve the management of Mongolia's system of protected areas to ensure the long-term conservation of the full array of species, ecological processes and biomes.	9.1 Personnel trained in management, protection and data acquisition in Mongolia's protected areas	Extensive series of training courses and on the job training organised for park staff and rangers. Rangers training manual produced. Computer training for Park staff in Jan - June 1997.
	9.2. Ten protected area persons trained in applied protected areas and species preservation law and enforcement	2 x 1 week seminars held on environmental law attended by 60 and 70 persons respectively
	9.3. Completion of draft Protected Area Management plans	Only a draft management Plan for Khovsgol Lake NP was prepared after a long participatory process, but plan itself lacks logic and attention to ecosystem principles. It has not been implemented yet.
	9.4. At least 2 calf and 2 impregnated cow, tame wild camels	Camel breeding adviser set up a breeding station for captive wild camels, but little has been done since her visit.
	9.5. Proposals for the expansion of Mongolia's system of protected areas	Data collected to review representativeness of coverage of existing PA network, but no further formal proposals were prepared other than BAP itself.
	9.6. At least five national park directors trained in tourism development and regulation	Short workshops on Tourism management held.
	9.7. Khovsgol NP created into a model for future tourism development nationally	Development of a tourism strategy for Khatgal town in Khovsgol NP as part of management plan
	9.8. Improved management of the Takhi horse protection programme in GGNP	This output dropped since other projects had taken up the re-introduction of Takhi horse.

10. To establish mechanisms to increase level of local participation in and benefit from conservation activities.	10.1. Established small projects fund programme in the NSPAE office of MNE.	Small projects Fund established and managed by project
	10.2. Established SPF programmes in areas surrounding 4 priority areas	SPF programme publicised in Khovsgol, Great Gobi, Uvs and Dornod NPs. Total of 11 small projects funded by July 1996
	10.3. Enhanced mechanism to involve local people in contribute to the development of conservation policy and protected area management.	This activity limited to the attempt at Khovsgol to draft a management plan through a participatory process
	10.4. Socio-economic data set overlays for the Biodiversity Information Management System	This has not been achieved
11. To strengthen long-term capacity of SPF by developing funding mechanisms and crucial linkages with other socio-economic development programmes in Mongolia	11.1. Complementary funding and administration mechanisms developed	This has not been achieved, but potential lies with Poverty Alleviation Programme
	11.2. Assessment of the potential to include a small credit scheme in the SPF	This has been achieved with the review of the SPF procedures undertaken during the bridging stage, February 1997.
12. To increase public awareness and education of biodiversity conservation needs	12.1. Greater awareness of biodiversity conservation	Public awareness has increased for environmental issues generally, partly due to the efforts of the project.
	12.2. A national media campaign, consisting of 52 radio programs, 6 TV programs broadcast; one bi-annual magazine, one monthly newspaper, one quarterly newspaper, 3 books and the quarterly MNE newsletter published. 4 Information brochures developed and distributed. Biodiversity editorial Board established within MNE	Outputs included: National Biodiversity Contest with over 200 entries; 30 short radio programmes several foreign biodiversity videos and one short TV programme on Great Gobi. Numerous high quality publications including one quarterly magazine and one quarterly newsletter.
13. To train Mongol teachers to include Biodiversity conservation in formal and informal schooling, to train local people near protected areas how and why to minimise environmental impact on five protected areas and to train MNE staff to communicate in English	13.1. At least 200 teachers and Children's Camp staff trained to use BEC Teachers Manual and Children's books	Nature and the Child - a Teachers' Biodiversity Activity Guidebook written, tested in schools and printed and reprinted later with contribution from GTZ.
	13.2. The English language skills of at least 30 MNE staff improved through training	Large amount of English training provided through Inst. of English for Special Purposes

14. Design and install a BIMS to support biodiversity conservation assessment and management efforts in Mongolia with defined institutional responsibilities and using appropriate institutional arrangement	14.1. Formation of a BIMS Technical Steering Committee	Uncertain
	14.2. Establishment of a fully operational BIMS centre	System has been set up and is operational, but because data is limited, its use is also limited.
	14.3. Institutionalisation of a BIMS centre in the MNE	Established in MNE's Information and Computer Centre with hard- and software provided by the project.
	14.4. The production of at least 5 maps of priority areas: National, regional and local NP level pilot studies	Maps included in the BAP include: Major soil groups, Biogeographical zones, Vegetation zones, Protected Areas of Mongolia (established and proposed), Protected areas in adjacent countries.
	14.5. Production of at least 5 species distribution maps	These have not been done owing to limitations of data
15. Improve the ability of Mongolians to effectively utilise, manage and maintain the BIMS	15.1. Successfully train two technicians and two managers in the utilisation, management and maintenance of the BIMS	Two staff members of ICC were trained at AIT and one short in-country training was provided by project consultant.

A.3. Pilot Phase Project (July 1996 - December 1996)

OBJECTIVE	OUTPUT	COMMENTS
1. The Biodiversity Action Plan will be ready for implementation	1.1. A conference at which the BAP and specific projects for implementation are presented to the public including donors	Not yet achieved, postponed because of elections national elections in June 96 and local elections in October 96. Propose to hold in June 97.
	1.2. A series of seminars in selected aimags to present the BAP to local people and receive comments	One seminar held in Khangai Mountains National Park for 40 persons in February 1997. Participants included the sum governors, environmental inspectors, Park staff and rangers.
	1.3. A Committee to monitor and assess the future implementation of the BAP that produces annual reports on the implementation of the plan and the status of biodiversity in Mongolia	National BAP Committee set up in October 1996, consisting of 13 persons. It has met twice already. It will meet 4 x per year and report to the Ministerial Council 2 x per year.
	1.4. Official presentation of the BAP to the Conference of Parties of the Biodiversity Convention	National Project Co-ordinator and Biologist from MNE attended conference to present BAP. They took 100 copies with them, and report a good reception.

	1.5. Completed preparation for a comprehensive protected area system review	Not achieved. Wildlife biologist arrived in August 96, and his TOR was altered so that this output was no longer appropriate. Recently arrived UNV Wildlife Biologist will undertake this.
2. Establish and endow the Mongolia Biodiversity Trust	2.1. Complete legal and technical documentation of the MBT	Not yet achieved. Pending the appointment of the consultants, EDG. Contract due by end of March. Main delays caused by lack of sufficient funds. This was overcome by merging with the Desertification Trust Fund which contributed \$30,000 to consultancy. Expected to be completed by Sept. '97.
	2.2. The MBT as a legal entity	Not achieved yet since this output is dependent upon 2.1. If consultancy contract is successful, it should be set up by September 1997.
	2.3. Plan and information systems in place	Not achieved yet, pending the appointment of local trust manager to work with EDG. However various activities have been done, e.g the training needs assessment for biodiversity conservation, presented to the Ministry of Education. Expected completion by September 1997.
	2.4. Capital or pledge of capital secured	Not achieved yet. To be done by EDG and Local Trust Fund manager by September 1997.
3. A sustainable SPF programme on projects of more direct benefits to conservation, in particular renewable energy	3.1. Revised Guidelines, procedures and criteria and possible links with Trust Fund	Achieved, see SPF report February 1997. Main revisions included setting up of revolving fund to give credit for business activities, size of grant increased to \$5,000. New tranche of project proposals currently being considered.

A.4. Pilot Phase Project (January - June 1997) (Part funded by UNDP/IPF)

OBJECTIVE	OUTPUT	COMMENTS
1. To obtain approval of GEF funding for the new Mongolia Biodiversity Conservation project (UNDP/IPF)	1.1. A well-prepared project brief with a fully fledged project document ready by July 1996 for submission to the GEF Council Meeting scheduled for Oct. 1996	Achieved after Niamir-Fuller's mission in early December 1996. But note that date of GEF Council Meeting should read May 1997
2. Ensure that strategy and actions developed by government in BAP are implemented (UNDP/IPF)	2.1. A committee to monitor and assess the implementation of BAP which produces annual reports on the implementation of the Plan and status of biodiversity	Achieved, although various activities are not yet complete, e.g. training of focal points in EIA on 12/13 April. Other activities are ongoing, but BAP is being revised in light of comments from regional meeting
3. Establish and endow the National Environmental Trust Fund with two separate windows for Biodiversity & Desertification	3.1. Equipped and functioning secretariat in Ulaanbaatar	Not achieved yet but see earlier comments relating to appointment of external consultants and local Trust Fund Manager. Completion by September 1997
4. Begin to attain broad understanding among Mongolian leadership of basic ecological principles, land ethics and conservation biology	4.1. Government officials from a wide range of backgrounds introduced to ecology and conservation biology	Not achieved yet, but part of an ongoing process. Lecture series planned for June 97. Training courses for MNE staff at end April, CITES implementation workshop held on 18 Jan 1997, Ecotourism workshop planned for May 1997
5. Concentrate the established SPF & Research Grant Program on projects of more direct benefit to conservation, in particular renewable energy, and ensure local community participation not only from the protected area or its adjacent zones	5.1. Revised guidelines procedures and criteria and possible links with Trust Fund and Poverty Alleviation Programme	SPF Guidelines have been prepared, (see Jan - June 1997). Research Grant Program guidelines will be prepared by recently arrived UNV by June 1997.
6. Assist government in strengthening the National Environmental Data Base	6.1. BIMS reviewed and strengthened	No plans for immediate work on BIMS, pending its use on specific PAs.
	6.2. NSPAE and protected areas capacity in data gathering and processing is strengthened	Ongoing. Computer training for Park staff has been held
	6.2. National Environmental Data Base is strengthened and linked with the National Sustainable Environmental Network	Linkages with MAP 21 established.
	6.3. Data on wildlife population is catalogued and suitable data collection system is established	Beginning to happen as Park staff use computer training to input their data. Also dependent upon input of the UNV wildlife biologist recently arrived.
7. To assist government in preparing a national strategy and concomitant UNDP project/programme proposals in the environmental field for the sixth UNDP programming period	No outputs identified	Ongoing consultations.

B. Development Objective

The development objective of the Pilot Phase was stated earlier as “the protection of biodiversity in Mongolia and to ensure sustainable development through taking environmental considerations into account while exploiting the natural production base of the country”.

This objective is extremely broad and in order to ascertain whether progress has been made through this project, we need to consider some of the parameters which might serve as indications of progress. In the first instance, we have the direct parameters of the biodiversity itself, encompassing the protection of the key species, the habitats they occupy and the representative ecosystems of Mongolia. We can ask whether these parameters of biodiversity have been changed as a result of the actions of the project - have they been protected in reality? Have population numbers increased or remained stable? Have the areas of degradation around key habitats and ecosystems been reduced? Have protected areas remained in a similar pristine state?

Precise data on the status of species and the protected areas is not available, either before the project started or indeed afterwards making it difficult to answer such questions. On the other hand, we can consider the development component of the objective, which implies an increased capacity to conserve biodiversity on the part of the Mongolian nation. These are less direct indicators because they assume that if the capacity is increased, then the implementation of conservation activities will be more effective and biodiversity will be conserved. There are perhaps several groups of indicators here and it is a question of choosing the most appropriate. These are:

- There is an effective Protected Area system in place;
- There are a range of respected and effectively enforced biodiversity conservation laws;
- Trained protected area staff are in place, adequately equipped and carrying out their duties efficiently and effectively;
- People living in the buffer zones benefit from and share in the management of the protected areas;
- People living in urban and other rural areas understand the benefits and value of biodiversity and balance its conservation with economic and social development at all levels and sectors.

The key word in many of these indicators is “effective” because the world abounds with Protected Areas which exist in name only. For each of those listed, there are a number of more specific indicators which elaborate on the effectiveness - with the laws indicator for instance, one might develop a set of indicators based upon effectiveness at preventing poaching and the export of animal and plant products. Discussions with Park Staff in Uvs indicate that the number of poaching or plant collecting cases brought to book is only a fraction of the whole and is currently very low (12 such cases were reported to me). For various reasons relating to the equipping and staffing of protected areas, it must be assumed that current levels of enforcement of the biodiversity conservation laws are not very effective.

That being said, the fact that there is now a Mongolian Protected Area system in place, there are staff appointed to look after and manage these areas and there are

biodiversity conservation laws, is a great step forward. It is fair on this count to say that progress towards the development objective has been achieved. It is also fair to say that perhaps these are the easiest steps to take, and much remains to be done.

Similarly there is an indication that the people living in the buffer zones are beginning to understand the value of the protected areas. Discussions with the people living around Tsagaan Shuvuut Mountain indicated this, although they would not allow any expansion of the area to include the shore of Uureg Lake, where they pasture their livestock. The small projects may have had some effect in improving the social and economic conditions, especially the nomadic hospital, but the direct links between these and biodiversity conservation are tenuous. However, such small projects can not be expected to make large impacts upon the sustainability of an area, but their significance lies in the process of their promotion and development which serves to raise awareness of biodiversity and sustainability issues.

There is also an indication that biodiversity conservation is being taken into account at the highest levels of government in balance with social and economic development which are obviously their highest priority. Minister for Nature and the Environment, Dr. Adyasuren informed me that one of the areas with the highest reserves of hydrocarbon fuel resources lies within the Great Gobi Special Protected Area. In making decisions on which areas to exploit for these resources, those in Great Gobi were specifically excluded.

In summary, it is considered that significant progress has been made towards achieving the stated development objective of the project. However, it must be stressed that this conclusion is based upon the brief impressions of the evaluator, rather than upon scientific or objectively measured indicators. The identification and measurement of such indicators should be built into future biodiversity conservation activities.

VI. APPLYING EVALUATION CRITERIA

In this section each of the components of the project are considered in turn with reference to the criteria of relevance, efficiency, effectiveness, capacity building, impact and sustainability.

A. Training

The project completed a variety of different training courses throughout the period, aimed at specific audiences, both within the MNE, the NSPAE and outside these institutions. These have usually been linked to other project activities such as the drafting and approval of environmental laws. In the most recent months the training courses have been aimed at improving the skills of the NSPAE staff, in biological and park management data collection and input into computers. In general, the training courses appear to have been well targeted and very relevant to the overall purpose of the project and, indeed, to the Convention on Biological Diversity.

The number and variety of courses, although not in strict accordance with the project documents, appear to be well in excess what had been originally planned, which would indicate that the project has built up a great deal of experience in organising such courses. The numbers of courses also points to an efficiency with which they have been run, and to their cost effectiveness.

The effectiveness of these courses is more difficult to judge. The Draft Terminal Report points out that one problem observed was that due to inadequate staffing levels, staff management and supervision, and lack of basic equipment (e.g. binoculars and computers) training received may not be put into action. The example is given that at the Bogd Khan SPA, it was observed that exposure to training in protected area management has not been followed up by basic work such as establishing reasonable zoning schemes and enforcing regulations through effective patrolling schedules.

More fundamentally, the question was raised during my discussions that often the objectives and content of ranger training were not as skills-based as they might have been. There was no way built into the courses of measuring the competence of the participants at the end. It sometimes seemed that the number of courses and participants trained was more important, which might have been the result of having numerical targets built into the project document. Monitoring the effectiveness of training is a vital component for learning and improving the quality of the courses.

Training whether it is the short workshops, the longer fellowships or the study tours, for example to Nepal is one of the mainstays of capacity building. Judging by the description of the capacity of the MNE at the beginning of the project, compared with the situation at present, it is fair to say that capacity has been built in the MNE and its associated institutions such as the NSPAE and ICC.

The impact of the training programme has been to build up the institutions of the MNE and NSPAE in particular. However, training has not been restricted to these two institutions, most courses have included people from other ministries and aimag

officials as well as from schools, universities and the NGOs. The evidence of the English language skills of Ministry staff associated with the project is obvious, although it would be difficult to say how much of this is due to the project's efforts. Other evidence may be drawn from the fact that in repeated training courses, such as the ranger training, Mongolian trainers delivered the courses after the first few had been held.

This points also to a degree of sustainability of the training. There is now less dependence upon expatriate experts being brought in to deliver training courses. However, it is apparent that there is still a long way to go, especially for protected area staff. The report on staff development and training needs assessment (Rudran, 1996) highlighted the need to establish a National Centre for Biodiversity Conservation and a programme for training trainers. Only with these in place will Mongolia be able to build and sustain its own capacity for biodiversity conservation in the future. The importance of this element as a component of follow-up activities was stressed by a number of people interviewed. Additional funds should therefore be found for this, from the Biodiversity Trust Fund or from another donor.

B. Law and Policy

The project's work on law and policy has been of fundamental importance and relevance. Without adequate legislation in place, the protected area staff would not have the power to do their job to conserve biodiversity. In total 16 new pieces of environmental legislation were prepared with the help of the project. The project's work in advocacy and training parliamentarians in the significance and importance of environmental legislation was critical to the approval of these laws. One minor criticism encountered was that not all of these laws had a direct bearing on biodiversity conservation, for example the Law on Mineral Resources. However, this is a minor point, and one for which the project can be commended for its synergy in going well beyond the stated target of 5 environmental laws passed.

The accession of Mongolia to CITES and the ongoing discussions with the Ramsar Convention, are both extremely relevant to the conservation of biodiversity, particularly as Mongolia has a number of species of interest to the illegal international trade. The project played a significant role in the process of accession, preparing documents, advocating and organising a seminar on CITES implementation for customs and border officials. These have strengthened Mongolia's early ratification of the Convention on Biological Diversity.

The effectiveness of these laws is another question. It is probably early days yet to measure this, but the key criteria is enforcement and the related, public respect for these laws. The NSPAE staff have been trained in the biodiversity and protected area legislation, but owing to lack of resources are not able to be as effective in catching poachers and plant collectors as they might be. This sometimes leads them into dangerous situations, and some means of self-protection has been requested and needs to be addressed in the near future. In terms of public respect for the laws, the estimated levels of poaching for example would indicate that the laws are still not fully respected, especially by people from the towns. 80% of the infringements of the law are for cutting of trees in specially protected forests and only 20% for poaching.

By all accounts the people in the buffer zones of the protected areas are more understanding and respectful of the laws and in some areas local residents have informed the NSPAE about illegal cutting of trees.

The project seems to have been particularly efficient in its work on legislation. Its full impact on biodiversity conservation is yet to be seen, as the time for understanding and enforcement of the legislation is still very short. The laws on Hunting, Natural Plants, Special Protected Areas and others were only passed in 1995. In comparison with the 1993 situation, the legislation on the statute book in 1997 shows the effect of this work.

The capacity building aspect of this component of the project was important. Training was provided to MNE staff in the drafting of legislation, and to parliamentarians. The report on Mongolia's Environmental Laws (Wingard, 1996) is a useful summary of the wealth of legislation. However, one area of concern is that after the elections in June 1996, and the local elections in October, the new policy and decision makers in power at both central and aimag levels, have not been exposed to the debate on biodiversity and environmental legislation. It would appear important to maintain the initiative of the project in continuing the process of informing politicians and advocating the importance of biodiversity conservation to the new government. Whilst the legislation remains, its application needs to be sustained at the highest level of government as well as being enforced in the field.

C. Planning

The Biodiversity Action Plan is rightly acknowledged as being one of the most important outputs of the project, and Mongolia is among the first countries to produce such a Plan. It is directly relevant to the overall objective and to the GEFs own criteria. It was approved by the outgoing government in June 1996, and has been endorsed by the new government. In the next four year programme of the government, the BAP is included in a separate section on Environment and Biodiversity Conservation, and there is an objective of extending the protected area network, currently between 8 - 10% of the country, to 15% by the year 2000.

The efficiency and attention to local ownership with which the BAP was produced is highly significant in comparison with BAPs produced by outside experts in other countries. Having held an initial workshop during the PRIF to determine the status of biodiversity and conservation measures and then worked through an extensive process of surveys and data collection, often, in the early stages, carried out by experts from overseas, the project called a diverse group of people from many disciplines and sectors to assist in the preparation of the BAP. In a three-week workshop in September 1995, 15 working groups were asked to write papers on different topics to form the basis of the plan. These were then incorporated into the BAP which emerged in its final form in April 1996. This was a potentially difficult process to manage, but it ensured that the process was largely Mongolian produced. The project had suffered somewhat in its early stages from a reputation of being expatriate dominated, but this process ensured that the products were at least locally owned.

The effectiveness and impact of the BAP are too early to measure, but the timing and production of the BAP at a time of rapid social and economic change is significant which will, hopefully, ensure that biodiversity will be factored into development plans. However, the national conference was postponed because of the elections, but one local implementation seminar has been held. Comments from that local seminar are being incorporated, but it will only become a useful if it is a 'living' document. This has been stressed in some discussions, and the significance of monitoring to inform when and where adaptations should be made should not be underestimated. The Government has set up a Biodiversity Monitoring Committee which has met twice already. It intends to meet four times a year and report to the Minister twice a year. In addition environmental focal points have been identified in other key Ministries, and the project is due to hold an EIA training workshop for these officials later this year.

These aspects indicate both the commitment of the government to the BAP and the capacity which has been put in place to ensure that it is implemented. With the capacity building exercises in training MNE and NSPAE staff it is considered that the outlook for the BAP continuing to be a key component of government planning is good.

However, the sustainability of biodiversity conservation is heavily dependent upon economic and social development. Economic and social conditions in the country demand that highest priority is put on addressing these issues. Poverty is perhaps one of the biggest threats to biodiversity conservation in Mongolia - it is understandable that when faced with no food and fuel, people will resort to illegal cutting of trees and poaching. Poverty is certainly as big a threat as mining or other large-scale forms of economic development; it is more difficult to address because it is so widespread.

D. Protected Area management

The project has been instrumental in supporting the NSPAE in protected area management from the beginning through the provision of equipment, such as jeeps, and lorries for the offices, motorcycles, horses and camels for the rangers, uniforms for rangers, computers, binoculars, spotting scopes and in some instances GPS systems for determining the co-ordinates of positions in the protected areas. When the service was set up, the staff just had an office and some furniture. As the Park Director at Uvs said, without the project they would not have been able even to visit the protected areas under their management. Even now the budget for the Service is minimal.

The training that the project has given the NSPAE staff has been widely appreciated and has helped to maintain the enthusiasm and interest which were obvious from the visit made to the Uvs office.

The relevance of this input from the project is its contribution towards direct conservation of biodiversity in the field. Without it, conservation activities would have been on paper only in many of the protected areas. With it, the activities have started and experience is being gained. It is considered that the inputs have been extremely effective and efficient. Support has been given to field staff to use as they

see fit. Inevitably there are stories of abuse of such equipment, but in the overall picture these appear to be minor.

The other major area where the project has tried to assist has been in developing protected area management plans. This has perhaps been the least successful aspect of the project, but not for the lack of trying. A participatory process for developing the management plan at Khovsgol was undertaken with assistance from a UN Volunteer working with the project. This remains in draft form only and has not been implemented after a change in Park Director who had not been involved in the process. It is intended that this will be a model for other protected areas, and it has been used as a basis for indicative management plans to be developed for the Eastern Steppe.

The impacts of this support to NSPAE are considerable in terms of the work carried out by their staff. It is difficult to judge the impacts upon the biodiversity itself, but the presence of trained rangers living adjacent to the protected areas has led to some management measures being taken and the control of some infringements of the law.

The sustainability of this level of support remains a problem. In the absence of follow-up projects, three of the focal areas for PPP, Khovsgol, Great Gobi and Uvs, will be left without effective support. This concern was expressed on a number of occasions, because, although the government wishes to increase the ranger numbers and provide a more appropriate budget for running the NSPAE operations, it is severely constrained financially; even a proportion of fees and fines collected by each office is apparently deducted from the office budget. It is unlikely that this will change in the short-term.

In addition to budgetary limitations, the training of staff in these and other areas is a long-term process, which the PPP project has started effectively (table A2, item 9.1). However to be fully effective in the long term, the staff require regular, on-going training. The sustainability of the training efforts of the project may be reduced, unless the proposed National Centre for Biodiversity Conservation is funded and started within the near to medium term,.

E. Surveys, research and data management

The surveys and research carried out during the PRIF and the project itself were a very valuable resource for the team that prepared the BAP. This information included range condition, wild animal species, extent of hunting, effects of development activities, numbers of people and livestock, infrastructure available for management and tourism. Five Mongolian researchers were funded to carry out research studies on Argali sheep, Mongolian gazelle, endangered Gobi plant species, otters and Black grass algae. The surveys and research were relevant and useful to the process of the BAP. They have also been useful for other publications, especially Mongolia's Wild Heritage, the Dictionary of vertebrate names (recommended to me as the most useful of the project documents since wildlife workers can now know that they are talking about the same animal), and the soon-to-be published revised edition of Mongolia's Red Book.

Limited amounts of data have been transferred to the database and GIS system which the project installed in the ICC for the creation of the Biodiversity Information Management System (BIMS). This system is operational, but because of the limited database its actual use has been limited to the production of the maps in the BAP. However, the ICC have used the system for creation of more detailed maps of Khustain Nuruu for the Dutch funded project run by MACNE. It is expected to be used extensively in follow-up activities to the PPP. However, the use of BIMS by the NSPAE staff in other protected areas is limited by the availability of funds, since ICC have to make a charge for such detailed maps.

Given the amount of information which has been collected already and the wealth of historic scientific data which is reported to exist in Russia, it would be extremely beneficial for a research contract to be given to pull all of this material and enter it into the data base to make it more useful and integrated with the BIMS. Given the funds which have been spent on the surveys, research and BIMS already, it would give much greater efficiency to the system if the data could be organised completely.

The research contracts have had a small impact in developing the capacities of the researchers to carry out such work, and the training and equipment given to ICC for the GIS and BIMS have increased their capacity to operate such a system. The Director of the ICC, however, felt that the training that was given was really insufficient for full capability.

The results of the survey and research work remains available but will be improved if the data base is completed, not only with existing information, but also with data collected regularly from each of the protected areas. The work which the project has been doing recently in providing training to NSPAE staff in the use of computers for storing and organising the observational and research data they collect will do much to make the BIMS a more living and useful tool. This computer training work is just at the beginning and needs to be continued before it becomes a regularly used tool. The presence of a number of Peace Corps volunteers working full-time in the NSPAE offices will strengthen this learning process.

F. Rural development in areas adjoining protected areas

The Small Projects Fund was initiated during the PRIF, continued during the PPP and revised and reissued with new guidelines during the period January - June 1997. The idea behind the fund was to demonstrate that there were benefits for people living in the buffer zones of protected areas. The SPF was originally thought of as a form of compensation, but increasingly the idea is to demonstrate the possibilities for sustainable development in such areas and to link the grants or loans more closely to conservation. Renewable energy projects are particularly favoured because they imply less dependence upon wood fuels, especially the Saxaul (*Haloxylon ammodendron*) found in the Gobi desert.

Sometimes the relevance of the projects selected appears somewhat stretched such as the *bag* kindergarten, the nomadic hospital or the small boot factory, but these were provided with social and economic justification to improve living conditions or to provide an income for people living in the buffer zone. The first two have proved very

popular, but the boot factory has been faced with problems partly due to sickness of the manager, but mainly due to lack of electricity and the inability of local people to pay for the products with money to buy replacement raw materials. They tend to pay in kind (one and half lambs for a pair of boots) so that although the herd of the boot factory is increasing, its wealth remains tied up. This illustrates some of the constraints small businesses face in these areas.

One of the benefits of the SPF has been that its introduction to communities in the buffer zones presents a good opportunity to discuss the aims and objectives of the protected area and biodiversity conservation in general. It does not come across therefore as a lecture, but as a discussion in which the problems and threats to the area and the communities can be addressed and if possible a suitable option for funding identified. The project has helped considerably in the improvement of such applications, but recognises that this is a very much easier way of informing and involving local people in the reasons for setting up the protected area. At present there is little other mechanism for involvement, apart from the system of appointing voluntary rangers from the community to assist the protected area rangers.

It is apparent that the SPF can only be a demonstration; it can not be a full development initiative designed to make major advances in the quality of life of the people living in buffer zones. It has already been noted that poverty is one of the biggest threats to biodiversity, and this can scarcely be addressed through a mechanism like the SPF. It is therefore very important that future biodiversity initiatives link in with other projects which are specifically addressing this problem, such as the MAP 21 and Poverty Alleviation Programme and a number of others in the pipeline. The opportunity to bring biodiversity conservation into the thinking behind these projects and to contribute to poverty alleviation through demonstrating sustainable alternatives should not be missed.

Small projects of this nature are bound to be fragile, and there are undoubtedly going to be failures. This is part of the learning experience for people in the buffer zones as much as it is for the administration of the SPF. It is too early to say whether the whole experience has been effective or whether there has been an impact on the quality of life of the beneficiaries. Nevertheless the experience in administering such funds has been a useful capacity building exercise.

With the change in the guidelines of the SPF, soft loans from a revolving fund can now be given to small business ventures, and this will encourage both a responsibility for returning the money and making a success of the venture, and also return capital to fund other projects.

G. Increasing public knowledge about biodiversity conservation

The public awareness component of the project is also recognised as one of its successes. Since it was the flagship project of the MNE, much attention was paid to it and it has lived up to this attention through the production of most of the outputs required of it in the project document. Apart from the preparation of publications, much of the work was channelled through the main environmental NGO in Mongolia, MACNE (Mongolian Association for the Conservation of Nature and the

Environment). This included the National Biodiversity Contest, the production of the teachers' guide 'Nature and the Child', and for the initial issues of a newspaper on biodiversity issues. Publication of the latter is continuing. The quality and popularity of Nature and the Child has already been commented on, as have questions of its full distribution.

Biodiversity conservation depends upon public support, and it is critical to increase public awareness of the value and threats to biodiversity. In the Mongolian situation there is a need to build on the traditional respect for nature and to highlight the new threats from overgrazing and urbanisation. The lack of awareness amongst increasingly urban populations needs to be addressed as part of an on-going process.

Undoubtedly the project has played a part in the process and changes in awareness to date and has apparently achieved this effectively and efficiently. One side benefit of the project has been its use as a resource centre for people interested in the environment. It continues to be used in this way and it is obvious that a number of students, researchers, and tourists and the general public are welcome in the project office. This has not yet reached unmanageable proportions.

The collaboration with MACNE has been useful and has helped to build its capacity through the experience. Representatives of MACNE sit on the Biodiversity Monitoring Committee and they are also collaborating with the Dutch Foundation Reserves for the Przewalski's Horse in a project at Khustain Nuruu. The public awareness about the environment and biodiversity conservation appears to have achieved a momentum, and the public are beginning to write to the Ministry about their environmental concerns and people from buffer zones of protected areas have reported incidences of tree cutting etc.

H. Funding for conservation.

Given the shortage of government funds for conservation activities, it was obvious from the start of the project that some form of financial mechanism would be required to sustain the financial requirements of biodiversity conservation. This led to the concept of the Biodiversity Trust Fund which is now about to be developed and implemented. It could be said that the length of time taken to develop this has been too long, but in many respects such a fund could only be set up once greater knowledge about the situation and when the plans for action were in place. If it had been launched earlier, it would have lacked credibility.

It is premature to make any assessment of its effectiveness, impact or sustainability, since the fund-raising activities have not yet begun. There are indications of interest from the Dutch government, but these and other donors can not be quantified.

On the other hand the project has collaborated extensively with a number of other donors and implementing agencies, notably the Dutch Government in providing an Associate Expert, the Asia Foundation, WWF, GTZ, the US Peace Corps and UK VSO. A list of the additional resources secured by the project from other donors is provided in the Draft Terminal Report. The sums indicated there amount to just under

\$ 1 million which is a significant leverage in the light of the overall GEF investment of \$ 1.5 million for the Pilot Phase Project.

VI OVERALL APPRAISAL

A. National benefits

The key questions for this evaluation are not just whether the project has been successful in achieving its outputs and objectives, but whether an enabling environment has been created for more detailed and focused work to take place in the follow-up. In order to provide a guide to this and to the changes which have occurred since 1993, a simple system for evaluation has been designed based upon both the key outputs of the project and the requirements of such an enabling environment. These are shown together with the assessment in the table below.

In order to use the assessment, which it must be stressed is a personal judgement, based upon the author's own perceptions, the first two assessment columns describe the situation before the project began in 1993 and at the end in 1997. The scoring is simple between 0 and 3 indicating the absence or presence of the assessment criterion. Thus a score of:

- 0 - indicates absence of criterion
- 1 - indicates minor presence of criterion, major further effort required
- 2 - indicates significant presence, some further effort necessary
- 3 - indicates major presence, little or no further effort required

The difference between the two scores is an indication of the change which has taken place both as a result of the project and due to other factors.

Alongside of the column indicating the change which has occurred is a column for comments which take into account the contribution and effort put in by the project. This bears in mind that some changes will have been effected by the project by itself, whereas in others the project will only have had a minor influence. It also takes into account the fact that some changes could be and were completed effectively in the lifetime of the project, whereas others are part of an ongoing process of improvement. The comments indicate where further work is needed, especially in the fields of training, data collection and public awareness.

Comparison between the different criteria and groups of criteria may be made to identify where the project has been more or less successful. This shows that the project has been particularly successful in its major areas of activity of capacity building and institutional strengthening. The following areas stand out:

- Public awareness and environmental education
- Environmental legislation and policy development
- Preparation of the Biodiversity Action Plan
- Development of funding mechanisms (Small Projects Fund) and the Biodiversity Trust Fund (assuming the consultancy is successful)
- Training activities have also been very successful, but this an almost never ending task
- The collection of biological and sociological data and processing it is a large task which has been effectively started, but much further work needs to be done.

The least successful areas of activity would appear to be in the development of protected area management plans, the demonstration of sustainable development in the buffer zones, and in the creation of an environmental law NGO, but these are not major areas of focus for the project which was primarily concerned with creating an enabling environment for addressing such issues later.

In this respect the comparison of the situation in 1997 to the pre-project situation is important. It is clear from the chart that this assessment shows a considerable increase in biodiversity conservation capacity. This evaluation considers that a good basis has been laid down, and an enabling environment has been created, largely through the activities of the project. In particular one can point to the following characteristics of an enabling environment:

- The biodiversity and environmental legislation is in place and being enforced as far as circumstances allow;
- The Biodiversity Action Plan for Mongolia has been prepared and approved; it is now ready to be implemented; a monitoring committee has been set up;
- The staff of both the MNE and the NSPAE are in place and operational as far as funds and equipment allow; they have been trained up to a point, but still require further training;
- A Biodiversity Information Management System has been established and is fully functional although limited by shortage of input data;
- Public awareness and support for biodiversity conservation has increased, although experience of public involvement in planning and management of protected areas has been limited;
- Funding mechanisms are in place or are expected to be shortly in place to cover a significant portion of the ongoing financial requirements for biodiversity conservation in Mongolia.

B. Global benefits

Finally an assessment of the global benefits of this project shows that Mongolia is in a much better position to conserve the biodiversity of global significance than it was at the beginning of the project. It augurs well for the follow-up activities when the practical work of conserving the biodiversity of the Mongolia begins in earnest. It is fair to say that the PRIF and the PPP were really preparatory for the government to meet its obligations under the Convention on Biological Diversity. Detailed practical conservation activities could not be undertaken without the previous preparation and creation of the enabling environment of the PRIF and PPP stages.

This Pilot Phase Project anticipated the enabling activity guidance of GEF-1. The list of project activities and its achievements all fall within with the activities listed under the definition of enabling activities at the COP-2 as well as the list of activities falling within the framework of operational programmes to secure long-term biodiversity protection (see GEF Operational Strategy 1996, page 18). The PPP also takes into account guidance from COP-3, for example, in emphasising capacity building for traditional lifestyles, knowledge and practices.

TABLE: ASSESSMENT OF CHANGES IN THE ENABLING ENVIRONMENT DUE TO PROJECT EFFORTS

CRITERION FOR EVALUATION	Sit. 1993	Sit. 1997	Change (97-93)	COMMENTS ON PROJECT EFFECTIVENESS
Surveys, Research and data management				
Basic biological data on key species	1	2	1	Project collected much useful data, but much more required for effective management
Basic biological data on key ecosystems	1	2	1	Project collected much useful data, but much more required for effective management
Basic sociological data for areas around PAs	0	1	1	Project collected much useful data, but much more required for effective management
Quality of research proposals improved	0	1	1	Some progress due to project, but improvement is an ongoing process
Research into reintroduction & protection of key species	0	2	2	Basic studies done by PRIF and projects for Takhi horse being implemented by MACNE
PA staff regularly collect, analyse data	0	1	1	Some collect data encouraged and trained by project, but most are inexperienced in analysis. Ongoing process
Environmental data base established	0	1	1	Data base established due to project efforts but data input is limited
BIMS established and used	0	1	1	BIMS operational due to project efforts but limited by lack of data
Institutional Capacity				
MNE Staff trained	1	2	1	Much effort put in by project, but more training required as part of ongoing process
Focal points in ministries identified & trained in EIA	0	2	2	Focal points in place and EIA Training to take place in April 97 organised by project
PA staff appointed and in place	1	2	1	Not the responsibility of project, but project's presence and help has been important
PA staff trained in PA management	0	1	1	Much training effort put in by the project, but still a long way to go before staff fully trained
PA staff trained in computer use	0	1	1	Project has trained some staff in basic use of computers, but much more needed to be fully effective
PA offices equipped and functional	1	2	1	Project provided jeeps and basic equipment, otherwise offices would not have been functioning as effectively
PA offices linked through e-mail	0	0	0	Not yet achieved, in process of investigation by project
Environmental Awareness				
General public awareness of environment	1	2	1	General awareness has increased. Project put in as much effort as others
Tools for env. education in schools available	0	3	3	Successful development of teaching book by project
Tools for env. education widely used	0	1	1	Some doubts about optimum distribution of book through non-project channels
Environmental NGOs active	1	2	1	Project collaborated with and supported some NGOs, but such NGOs still young
Environmental resource centre used	0	1	1	Project resources used by students and public

CRITERION FOR EVALUATION	Sit. 1993	Sit. 1997	Change (97-93)	COMMENTS ON PROJECT EFFECTIVENESS
Legal framework				
MNE staff trained in env. legislation	0	2	2	Project provided training, but more needed
Parliamentarians trained in env. legislation	0	2	2	Project provided training but after elections, new MPs need training to maintain level of knowledge
Environmental Laws in place	1	3	2	Project had a major input in drafting and advocating laws
Environmental laws enforced	1	2	1	Project has no responsibility for enforcement, but some laws being enforced
Environmental laws explained	0	3	3	Project produced an explanatory book used by PA staff
Environmental law NGO operational	0	0	0	This NGO was set up with project assistance but failed due to staffing problems
Mongolia ratifies CITES	0	3	3	CITES ratified, workshop held, COP attended. Significant project assistance
Mongolia ratifies Ramsar Convention	0	1	1	RAMSAR not yet ratified, in process. Significant project assistance
Planning and management				
Biodiversity Action Plan prepared	0	3	3	Major success for project
Biodiversity Action Plan approved	0	3	3	Project and others actively advocated BAP
Implementation of BAP	0	1	1	1st Implementation seminar in Feb 97, National conference due in June 97.
BAP Monitoring Cttee established and met	0	3	3	Project instrumental in setting up BAP Committee
Protected Area coverage	1	2	1	Proposals for expansion of PAs in BAP, but these have not yet been implemented
Protected Area Management Plans	0	1	1	Khovsgol MP prepared but not used. Project used this as a basis for indicative plans in Eastern Steppe
Implementation of PA management plans	0	0	0	As above, other PAs have no plans prepared or implemented, though it is included in this years work programme
Contribution to other strategic projects & plans	0	2	2	GTZ, MAP 21, Peace Corps have used the BAP experience
Local (national) ownership of plans	0	2	2	Increasing ownership as project progressed
Public involvement in planning	0	1	1	Khovsgol Plan involved public participation, but more experience needed
Funding Mechanisms				
Small Project Fund criteria established	0	3	3	SPF well established by the project
Small projects implemented	0	3	3	11 SPF projects have been funded, most have had reasonable success, but some problems encountered. Other SPF projects in pipeline
Biodiversity Trust Fund criteria established	0	3	3	BTF prospectus prepared by project
Biodiversity Trust Fund in place	0	3	3	Assumed to be in place by Sept 1997 due to project consultant efforts
Leverage for additional funding	1	3	2	Project successful in securing additional \$1m. for biodiversity conservation
CRITERION FOR EVALUATION	Sit.	Sit.	Change	COMMENTS ON PROJECT EFFECTIVENESS

	1993	1997	(97-93)	
Rural development around PAs				
Renewable energy activities demonstrated	1	2	1	Renewable energy small projects successful
Small-scale business activities demonstrated	1	2	1	Some small business SPF successful, others less
Social benefit activities demonstrated	1	3	2	Social SPF projects more successful
Conservation activities demonstrated	0	1	1	Conservation SPF projects not yet approved
Sustainable development in buffer zones	0	0	0	Sust. dev. in buffer zones not yet demonstrated

VII. RECOMMENDATIONS

As a result of this evaluation the following recommendations may be made to build upon the enabling environment that has been created by the project activities. Lessons should be learnt from the process of the previous project and applied in future activities. These include:

1. Build in on-going monitoring of the effects of project activities to include both ecological and social indicators and where training or public awareness campaigns are concerned, indicators of competence or effectiveness. Such follow-up monitoring should be used to advise and adapt future courses of action.
2. The public involvement of communities in the planning and management of protected areas should be encouraged and strengthened, especially since the numbers of park staff will necessarily be limited.
3. Small demonstration projects can not fully address the magnitude of problems of poverty both in buffer zones around protected areas. Since poverty is considered a major threat to biodiversity in Mongolia, future biodiversity initiatives should collaborate with other development initiatives which are focusing on poverty issues. It is considered that cross-fertilisation of ideas between biodiversity conservation and sustainable use and poverty alleviation will be fruitful.
4. Every effort needs to be made to bring the National Environmental Trust Fund into operation as soon as possible to minimise any delays in funding biodiversity conservation activities in other parts of the country not covered under the new project, and the establishment of a National Centre for Biodiversity Conservation.
5. Every effort should be made to ensure that publications and communications are targeted appropriately and that a clear distribution strategy should be prepared for each major document to ensure that it reaches the proper audiences.
6. The project should maintain contact with both national and aimag politicians and decision makers to ensure that they are fully briefed on the importance and value of biodiversity conservation.
7. Training efforts for NSPAE staff need to be continued on a long-term basis for staff in all protected areas.
8. The BIMS should be made fully useful by the collection and inputting of data from the project and previous studies on to the database.

Appendix 1. Itinerary of P.J.Meynell

- March 17, Monday.** 08.40 Arrive in Ulaanbaatar
 14.00 Visit project Office for briefing by Mr. Enkhbat, NPC
 14.30 Meeting with Dr. Adyasuren, Minister for Nature and the Environment
 15.30 Meeting with Mr. Banzragch, Director General EPA and Mr. Myagarsuren, Chairman NSPAE
 17.00 Meeting with Dr. Jonathan Wager, MAP 21
- March 18, Tuesday.** 09.30 Meeting with Mr. Alois Liegl, GTZ
 11.30 Meeting with Dr. Amarkhuu, MACNE
 14.30 Meeting with Dr. Shiirevdamba, Project Director
 15.30 Meeting with Mrs. A, Stjarnerklint, UNDP
 16.30 Meeting with Mr. Tschimed-Otschir, WWF
- March 19, Wednesday** 09.30 Meeting with Dr. Batjargal, Director of Hydrometeorology and Environmental Monitoring Agency.
 11.00 Meeting with Jeff McCusker, Peace Corps
 12.00 Meeting with Rogier Gruys, Associate Expert
 14.30 Meeting with Mr Bayarjargal, Small Project Co-ordinator
- March 20, Thursday** 09.30 Teleconference with GEF New York, UNDP office
 10.30 Meeting with Mr. Lhagvasuten, Institute of Biology
 12.00 Meetings with other project staff
 14.30 Meeting with Megan Cartin, VSO Lecturer in Ecology
 Information gathering, reading project documents etc.
- March 21, Friday** 08.10 - 10.40 Flight to Ulaangom, Uvs province
 11.30 Meeting with NSPAE Director and staff
 13.30 Meeting with Mr. Batsuuri, Deputy Governor, Uvs Aimag
 15.00 - 18.00 Field visit to Uvs lake.
- March 22, Saturday** 08.00 Depart for Tsagaan Shuvuut Mountain Protected Area
 12.00 Meeting with Protected area ranger
 14.00 Field trip to view wildlife in Tsagaan Shuvuut
 16.00 Meetings with people of Tsagaan Shuvuut buffer zone
 17.30 Depart for Sagil Sum
- March 23, Sunday** 09.30 Meeting with small boot factory manager and staff
 10.30 Meeting with Sagil Sum Hospital doctor
 11.30 Meeting with Sagil Sum Governor
 14.00 Return to Ulaangom
- March 24, Monday** 09.00 Meeting with NSPAE Park Director and staff for Uvs.
 11.20 Departure for Ulaanbaatar
 16.20 Arrival in Ulaanbaatar
 Report Preparation
- March 25, Tuesday** Report Preparation
 16.30 Final meeting with Dr. Adyasuren, Minister MNE and Mr. Gardner, UNDP RR.
- March 26, Wednesday** Report preparation
 13.00 Meeting with Mr. Khudulmur, ICC
- March 27, Thursday** Report Preparation
 14.30 Final meeting with Mr. Gardner and Ms. Stjarnerklint, UNDP
- March 28, Friday** 09.05 Departure for London
- Appendix 2. List of persons met**

Biodiversity Project Staff

Mr. A. Enkhbat	- National Project Co-ordinator
Dr. T. Shiirevdamba	- Project Director and Director of Dept of Natural Disaster Assessment and Database, MNE
Mr. Rogier Gruys	- Associate Expert Computers
Mr. Bayarjagal	- Small Projects Officer
Ms. Ts. Oyunchimeg	- Administrative Assistant
Ms. L. Surmaa	- Computer Officer
Ms. Undral	- Translator
Ms. Orgiltuya	- Translator

UNDP

Mr. D. Gardner	- Resident Representative
Ms. A. Stjärnerklint	- Deputy Resident Representative
Mr. B. Batkhuyag	- Programme Assistant

Ministry of Nature and the Environment, Ulaanbaatar

Dr. Ts. Adyasuren	- Minister
Dr. Z. Batjargal	- Director General, National Agency for Hydrometeorology and Environmental Monitoring
Mr. S. Banzragch	- Director general, Environmental Protection Agency
Mr. S. Khudulmur	- Director, Information and Computer Centre
Mr. D. Myagmarsuren	- Chairman, National Service for Protected Areas & Ecotourism
Mr. N. Tseveenmyadag	- Director, Eastern Nature Reserve, Dornod

Associated Agencies, Ulaanbaatar

Dr. J. Wager	- Senior Adviser, MAP21
Mr. J. McCusker	- US Peace Corps, ex-UN V with the project
Mr. Alois Liegl	- Project Co-ordinator, GTZ Environmental Protection and Buffer Zone Development Project
Ms. M. Cartin	- UK VSO, Lecturer in Ecology
Dr. O. Amarkhuu	- President, MACNE
Dr. J. Tseredeleg	- Vice-President, MACNE
Mr. B. Lhagvasuten	- Research Fellow, Institute of Biology, Mongolian Academy of Sciences
Mr. B. Tschimed-Otschir	- Director, WWF Mongolia

National Service for Protected Areas and Ecotourism, Uvs

Mr. Ganbold	- Director
Mr. Togthochbaaiar	- Biologist
Mr. Mordorj	- Environmental Inspector
Mr. Enchee	- Ranger, Uvs Lake SPA
Ms. Oshin	- Accountant
Mr. Ayurzana	- Ranger, Tsagaan Shuvuut SPA
Mr. K. Dillon	- US Peace Corps volunteer

Aimag Government, Uvs

Mr. Ts Batsuuri	- Deputy Governor
Mr. M. Batjargal	- Consultant for MAP 21

Sagil Sum, Uvs

Mr. Turnen-Ulzii	- Sum Governor
Dr. Dorjderem	- Hospital doctor
Ms. Batsaikhan	- Boot factory manager
The people of the bag at Tsagaan Shuvuut mountain SPA	

Appendix 3. List of documents consulted

- EDG.** 1996. Fundraising for the Mongolia National Environment Trust Fund.
- Enkhbat, A.** March 1997. Progress report. Mongolia Biodiversity Project, July - December 1996.
- Finch, C. (ed).** 1996. Mongolia's Wild Heritage. Mongolia Ministry for Nature and the Environment, UNDP/GEF, WWF.
- Garratt, K. & Tschmid-Otschir, B.** May 1996. Mongolia Biodiversity Project Independent (mid-term) Evaluation.
- GEF.** 1993. Activity Information Brief. Pre-Investment Facility Project for Mongolia Biodiversity Project.
- GEF.** February 1996. Operational Criteria for Enabling Activities: Biodiversity
- GEF.** February 1996. Operational Strategy.
- GEF.** October 1996. Draft Operational Programs. Biodiversity Arid and semi-arid zone ecosystems.
- Griffin, J.** October 1994. Final report. Mongolia Biodiversity PRIF.
- Gruys, R.** 1996. TOR for Associate expert Wildlife Biology/Computers. Trip reports to Khovsgol, Dornod, Great Gobi and training courses for NSPAE staff in computers, workshop on finding information on the World Wide Web.
- Johnstad, M.** December 1994. Interim consultancy report. Mongolia Biodiversity PRIF.
- Laurie, W. A. & Enkhbat, A.** Sept 1996. Draft Terminal Report. Mongolia Biodiversity Project Implementation Phase One.
- Mongolia Biodiversity Project.** List of equipment distributed to NSPAE offices.
- Mongolia Biodiversity Project.** Prospectus Mongolia Biodiversity Trust Fund.
- Mongolia Biodiversity Project.** April 1996. Biodiversity Conservation Action Plan.
- Mongolia Biodiversity Project.** February 1997. Small Projects Fund Program Description.
- Nash, S.V.** CITES Training, Consultants report to Mongolia Biodiversity Project.
- Rudran, R.** Sept. 1996. Report on Staff Development and training needs assessment. Mongolia Biodiversity Project.
- UNDP/GEF.** 1995. Project Document for Mongolia Biodiversity Project.
- UNDP.** 1996. Project revision for Mongolia Biodiversity Project - Impl. Phase 1.
- UNDP.** December 1996. Budget Revision for Environmental Programming for the UNDP sixth cycle programme.
- UNDP/GEF.** 1997. Project document for Biodiversity Conservation and sustainable livelihood options in the grasslands of Eastern Mongolia.
- Wingard, J.** April 1996. Report on Mongolia's Environmental laws. Mongolia Biodiversity Project.