MONGOLIA

MINISTRY OF NATURE AND ENVIRONMENT

FINAL EVALUATION REPORT

"CONSERVATION OF THE GREAT GOBI ECOSYSTEM AND ITS UMBRELLA SPECIES" PROJECT

MON/02/G35 AND MON/02/335

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LIST OF ACRONYMS

APR	Annual Project Report
BAP	Biodiversity Action Plan
BZ	Buffer Zone
BZC	Buffer Zone Council
DSCF	David Shepherd Conservation Foundation
DZF	Denver Zoological Foundation
ESBP	Eastern Steppe Biodiversity Project (short name for Biodiversity Conservation and Sustainable Livelihood Options in the Grasslands of Eastern Mongolia)
GEF	Global Environmental Facility
GEF SGP	Global Environmental Facility Small Grant Program
GGSPA	Great Gobi Strictly Protected Area
GIS	Geographical Information System
GTZ	German Cooperation Agency
MAS	Mongolian Academy of Sciences
MNE	Ministry of Nature and Environment
MNT	Mongolian National *Tugrug* (national currency)
MoU	Memorandum of Understanding
NEX	National Execution
NPD	National Project Director
NPM	National Project Manager
PA	Protected Area
PIR	Project Implementation Report
PRA	Participatory Rural Assessment
PSC	Project Steering Committee
SPA	Strictly Protected Area
TPR	Tri-Partite Review
TRAC	Target for Resource Assignment from the Core (UNDP regular funds)
UNDP	United Nations Development Program
UNDP CO	United Nations Development Program Country Office
UNEP	United Nations Environment Program
UNOPS	United Nations Operational Program Service
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

Mongolian words

Aimag	Largest administrative unit of Mongolia equivalent to Province
Soum	Administrative unit within *Aimag* equivalent to County
Bagh	Administrative unit within *Soum*
Ger	Traditional dwelling for nomads
Dzud	Winter disaster
Negdel	Collective
Khural	People's representative governing body, similar to Parliament

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1. EXECUTIVE SUMMARY

This is the UNDP/GEF MON/02/G35 and MON/02/335 "Conservation of The Great Gobi Ecosystem and its Umbrella Species[1]" Project Final Evaluation Report. It contains the findings and recommendations prepared by the Evaluation Team.

1.1. Brief description of the project

In recognition of its unique qualities, the Government of Mongolia established the Great Gobi Strictly[2] Protected Area (GGSPA) in 1975. Having re-affirming its recognition as one of the world's great desert ecosystems in 1991, the United Nations designated the Great Gobi as an international Biosphere Reserve, the fourth largest Biosphere Reserve in the world, and the largest in Asia.

Human pressures for pastures and water on the edges of the Great Gobi SPA and in its buffer zones have substantially increased since the early 1990s and are believed to have lead to significant habitat degradation in some areas. Thus, in June 2003, UNDP/GEF MON/02/G35 and MON/02/335 "Conservation of The Great Gobi Ecosystem and Its Umbrella Species" Project was launched.

The four year project aimed to ensure the long-term conservation of the Great Gobi ecosystem by applying wild Bactrian camel conservation through building the capacity of the park management authority, improving the participation of local communities in the management of the protected area and supporting research and environmental monitoring activities.

It was designed to increase the efficiency of the protection of the GGSPA by applying combination of two approaches: concept for ecosystem integrity that must be maintained by the interplay between a demand of the herders and an ecosystem carrying capacity or supply; and species conservation concept, so that in the process of protecting single species, whole communities that may consist of other species and their associated ecosystem processes are also protected.

The geographical scope of the project is "A" section of the Great Gobi SPA and its buffer zone with approximately 4.4 million hectares area in Mongolia's south western corner.

1.2. Context and purpose of the evaluation

The project has been carried over for a period of four years between June 2003 and 2007. In accordance with UNDP/GEF M&E policies and procedures, all medium sized projects supported by GEF should undergo a final evaluation upon completion of implementation. This final evaluation is intended to assess the relevance, performance and success of the project and to look at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. In addition, the evaluation aims to identify lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

[1] The title of the project was differently spelled throughout the project life, however the evaluation team used the title name as it was generally spelled and understood.
[2] Although in the original document it was termed as "special", the evaluation team has decided to use wording "strictly" which coincides with the legal terminology as well as the true meaning of the Mongolian word source.

1.3. Main findings/achievements and recommendations

- The project set up a solid basis for Great Gobi conservation program that greatly enhanced the ability to identify conservation needs and priorities.
- The project has made significant contribution to strengthen human and technical capacities of the Great Gobi SPA Administration.
- Buffer zone residents/communities nearly unanimously agreed on the importance of conservation and agreed with the Great Gobi SPA Administration goals and activities.
- Additionally, the project has paid particular attentions to capacity building of national researchers and specialists.

Objective 1: Strengthening management of the Great Gobi ecosystem

- The project has set up regular monitoring scheme for the Great Gobi SPA and has collected significant amount of conservation monitoring data for over 3 year period. Within the frame of the project, various research studies are jointly held in cooperation with scientists of local and international scientific institutions. The results of the studies greatly contributed to understand the causes of fluctuation in wild camel abundance and population dynamics and initiate conservation and management measures based on findings.
- Amongst the other protected areas in Mongolia, GGSPA has obtained solid prospective to become the leading institution as a research base with its much strengthened capacity provided by the project.
- GGSPA Section "A" Management Plan 2005-2012 has been developed and endorsed by the Director, Special Protected Area Administration Department, MNE.
- The results of the research on pasture carrying capacity and GIS mapping in Edren Mountain Ranges has helped to assess the ecological balance of the area and economic needs of the communities that reside in the area.

Objective 2: Improving stewardship of the Great Gobi buffer zone

- The project assisted in establishing Buffer Zone Councils (BZC) in the Great Gobi SPA Buffer Zone and provided trainings for the Council members on how to plan and implement activities through effective participatory approaches.
- In order to increase local community participation in the management and conservation of the Great Gobi SPA Administration and to support the newly established Buffer Zone Councils, the project provided initial funds for the Buffer Zones in each *soum* with start up/seed money and organized trainings and workshops necessary for effective and smooth running of the funds.
- Local communities, particularly school children have had good understanding on necessity and conservation needs of the Gobi ecosystem and Great Gobi SPA contributions to conservation of natural resources.
- Expansion of tree nursery in Bayantooroi has provided an opportunity to other neighboring *soum*s with rare plant seedlings.

Objective 3: Responding to crosscutting issues

- One of the important outputs of the project was defining practical alternatives to solve disputes over pastureland use among local communities. As a result, local herders are able to seasonally move to different pastures.

- Another important and strong output is a contribution to livelihood of local communities and support income generating activities to reduce Saxaul bush harvest by local residents in the Gobi region.
- Water quality in the Gobi region is one of the concerns for its residents. Thus, the project assisted in installation of water purifying equipment at wells, construction of wells and solar water heaters, which provide with hot water for public showers and local hospitals in the Buffer Zone *soum*s.

In order to ensure the sustainability of the project achievements, the recommendations on continuity and sustainability of the project outputs were distributed to relevant stakeholders through workshop that was organized in May, 2007. It is strongly advised that the stakeholders need to pay their attentions to follow-up actions of the recommendations in the future.

In particular, the Ministry of Nature and Environment, the main project Executing agency, should consider and pay attention to immediate necessity to amend the Mongolian Law on Buffer Zones and regulations based on recommendations, experiences and achievements of other projects and programs implemented by donors' supports. Amendments and revisions to the Law and regulations need to include, for instance, the issues that will make the Buffer Zone Councils as a legal body with a clear status, appoint full time secretaries for Buffer Zone Councils, and establish an accountability system legally.

2. INTRODUCTION

This is the UNDP/GEF MON/02/G35 AND MON/02/335 "Conservation of the Great Gobi Ecosystem and its Umbrella Species" Project Final Evaluation Report. It contains the findings and recommendations prepared by the Evaluation Team.

In recognition of its unique qualities, the Government of Mongolia established the Great Gobi Strictly Protected Area in 1975. Having re-affirming its recognition as one of the world's great desert ecosystems in 1991, the United Nations designated the Great Gobi as an International Biosphere Reserve, the fourth largest Biosphere Reserve in the world, and the largest in Asia. The protected area is divided into two ecologically distinct parts, the Southern Altai Gobi (Section "A") and the Dzungarian Gobi (Section "B"), separated by 300 kilometers.
While the Southern Altai Gobi is uninhabited except for park staff and border guards, the Dzungarian Gobi is seasonally used by herders. The Great Gobi Strictly Protected Area Section "A" located in the southwestern part of Mongolia and supports particularly well-adapted to extremely harsh environment that has given rise to a unique ecosystem, species', many of which are found nowhere else in the world. The large mammal fauna consists of several rare or globally threatened species, namely the wild Bactrian camel (*Camelus batrianus ferus*), the Gobi bear (*Ursus arctos gobiensis*), the snow leopard (*Uncia uncia*), the argali wild sheep (*Ovis ammon*) and the Asiatic wild ass (*Equus hemionus*).

Human pressures for pastures and water on the edges of the Great Gobi SPA and in its buffer zones have substantially increased since the early 1990s and are believed to have lead to significant habitat degradation in some areas. Thus in June 2003 a UNDP / GEF founded project "Conservation of the Great Gobi Ecosystem and its Endangered Species" was initiated.

The four year project aimed to ensure the long-term conservation of the Great Gobi ecosystem by applying Wild Bactrian camel conservation through building the capacity of the park management authority, improving the participation of local communities in the management of the protected area and supporting research and environmental monitoring activities

2.1. Purpose of the evaluation

The evaluation has been initiated by the UNDP Mongolia CO as a Responsible Party in consultation with the MNE as an Implementing Agency for this project. The final evaluation aims to assess the relevance, performance and success of the project. It looks at early signs of potential impacts and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals.
It will also identify and document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects. Thus, this final evaluation is not an appraisal for the follow-up phase of this particular project.
This evaluation has been undertaken taking into consideration the UNDP/GEF Monitoring and Evaluation Policy (http://www.undp.org/gef/05/monitoring/policies.html).

2.2. Key issues addressed

According to the terms of reference of the evaluation (see Annex 1), key issues that must be addressed by the final evaluation include:

- Management of the GGSPA using a GEF introduced "Tracking Tools" (see Annex 4)

- Assessment of the project management
- Analysis of main findings, lessons learned and extract best practices
- Most significant achievements
- Adequacy of the support provided to the project by the UNDP country office, MNE including GGSPAA and local governments
- Review of national and local policies with regard to conservation and development
- Contribution made by the project for long-term conservation of the umbrella species i.e. wild Bactrian camel
- Challenges faced by the project that may have impeded successful implementation
- Effectiveness and appropriateness of the project inputs

2.3. Methodology of the evaluation

The methodology used by the evaluation team includes:

- Documentation review (desk study) - the list of documentation reviewed is included in the Annex 4 to this report;
- Interviews with the following organizations and individuals at minimum: the Ministry of Nature and Environment, Mongolia; UNDP Mongolia Country Office; Great Gobi SPA Administration; Project Steering Committee members, National Project Director; National Project Manager (See Annex 3 for a list of persons interviewed).
- Field visits;
- Questionnaires;
- Participatory techniques and other approaches for gathering and analysis of data.

As required, the evaluation team also provided with ratings of the project achievements according to GEF Project Review Criteria. Aspects of the Project to be rated are:

- Project conceptualization/design;
- Stakeholder participation/public involvement;
- Implementation approach;
- Monitoring and evaluation;
- Attainment of Outcomes/Achievement of objectives (meaning the extent to which the project's environmental and development objectives were achieved) and
- Sustainability of project outcomes in terms of financial resources, sociopolitical, institutional framework and governance and environmental perspectives.

The ratings used for project achievements are: Highly Satisfactory – HS; Satisfactory – S; Moderately Satisfactory – MS; Unsatisfactory – U; Highly Unsatisfactory – HU; Likely-L; Moderately Likely-ML, Moderately Unlikely-MU and Unlikely-U.

As required in accordance with Terms of Reference for the evaluation, particular interest has been put in sustainability of the activities that was carried out during the implementation period of the project, given that the project has officially ended its activities in June 2007.

The evaluation team consisted of two members: two independent national consultants, Mr. BATBOLD Dorjgurkhem and Mrs. SUVD Purevjav.

2.4. Structure of the evaluation

First, we have outlined the organizational structure of the evaluation by clearly assigning roles and responsibilities for the evaluation team members involved with conducting the evaluation. It was a relatively easy task as only two experts were involved in conducting the evaluation. Therefore, it allowed avoiding a diagramed organizational chart and/or a table to define assigned

roles and responsibilities. The structure was simply discussed among the team members and decided that the team leader would be responsible for evaluating the activities under Component 1 , while, the national expert be responsible for the components 2 and 3. . The team leader will take the overall responsibility for the quality and timely submission of the evaluation report in English.

3. The project(s) and its development context

3.1. Project start and its duration

The project started officially, in June 2003 upon signing the project document by the Minister of Nature and Environment, Mongolia and the UNDP Mongolia Resident Representative. The NPM was recruited immediately after the signing of the project document and the following field trip to discuss about the outputs and implementation arrangements took place in July. First three months of the project was dealt with mainly administrative and financial matters such as recruiting project staff, opening bank account, setting up the Project Steering Committee, developing annual work plan, purchasing equipment necessary for the smooth running and accommodating the project office etc.

After running for four years, the project formally ended its activities in June 2007. In accordance with the GEF/UNDP M&E procedures, the final evaluation has been conducted at the initiative of UNDP in consultation with the MNE and hereby presents the outcomes of the evaluation.

3.2. Problems that the project seek to address

According to the initial project proposal, the Great Gobi SPA is under increasing threats from habitat loss and degradation along its northern border, particularly in Edren Mountain Ranges and throughout its buffer zone, loss of ecosystem integrity due to mis-management of limited water resources and is subject to depletion of species abundance and diversity such as the wild Bactrian camel.

Habitat deterioration and fragmentation

Due to its natural isolation and rare incursions by people and livestock, most of the core Great Gobi SPA is in a pristine and near pristine condition. However, along the northern border of the SPA and in the immediate buffer zone, human impacts are high and lead to change in the quality of the habitat for such internationally recognized species as Argali sheep, Ibex, goitered Gazelle, Asiatic wild ass and Snow leopard. The reasons for the changes include: change in the traditional methods of land use, comparatively high altitude, the vegetation is not dense and is short, the climate is harsh and dry, the growing seasons are short, and the soil is thin and light. These problems are exacerbated because no serious grazing management and land protection measures have been taken in spite of intensive use of land for traditional uses - grazing. With the discontinuance of collectivization in the pastoral sector in the early 1990s, the services that the *negdel* provided for herders under socialism—the regulation of access to pastures, the upkeep of wells for watering animals, the provision of winter hay, a collective truck for transport to fresh seasonal pastures, and much more—collapsed, and little replaced them. Herding became more atomized. Traditional rights of use to certain pastures were eroded, as the tragedy of the commons puts it, by a spirit of free-for-all. Thus, land on the northern border of the park was used for longer periods as winter grazing area because of the most reliable water sources.
Privatization of herds, lack of banking system including insurance, low marginal cost for nomadic pastoralism, lack of access to market and relative open-access of grazing areas, all add

up to the increase in average herd size throughout Mongolia including buffer zone of the GGSPA. The increase in herd size is exacerbated by the increase in proportion of number of goats for its higher marginal income and opening of new market for cashmere. Goats however are known to cause compaction of fragile soil system.

Although, under exceptional circumstances such as "*dzud*" herders are allowed to bring their livestock into the "limited use zone" of the park, illegal incursions occasionally do occur and pressure to open the outer edges of the park up for grazing area increasing.
In addition to livestock pressure on the park, the other significant factor leading to habitat degradation is over-exploitation of native bushes such as saxaul and downy poplar. If overgrazing occurred after the collectivization, the over-use of the Gobi bushes and plants started to occur during collectivization and was accelerated by poverty since the beginning of 1990s. Traditionally, herders have relied on animal dung, saxaul bushes and downy poplar trees as sources of fuel. With collectivization and *bagh* centers established to provide basic service to the herders during the collective period, there was increasing pressure on Gobi bush trees to supply needs for schools, hospitals, administrative buildings etc. Often, saxaul trees were stripped in a large scale using such heavy equipments as tractors.

This practice may be leading to direct and lasting impacts on the desert ecosystem where slow growth of most perennial vegetation is the norm. Although, most saxaul that is harvested is dead and dead tree harvest impacts on ecology of the area is unclear, it has been suggested that removal of dead trees leads to increased wind erosion and reduced nutrient content of soil.
The situation has worsened with climate change effects and lack of use rights for local communities that excluded the locals from the resource use decision making process.

Declining water resources

Despite Mongolia's water supplies are in principle, adequate to supply most of its 2.5 million people, serious problems of groundwater quality (high natural mineral content presence of arsenic) and local shortages are found in most of the Gobi area given low precipitation in the south, in particular. Therefore, water resources and their management are a key factor in the continuance of ecosystem integrity in the Gobi because humans, domestic livestock and wildlife all rely on a safe and reliable water supply. Patterns of grazing, social organization in herds, rates of predation and species fitness are all related to water supply – this is the case for both wild species and domestic herds. In recent years, there has been a general decline in the availability and quality of water resources across the Great Gobi SPA. Number of functional springs or oases in the core zone and conservation zone is decreasing. Desert oases in the pristine and near-pristine core and conservation zones may have decreased by as much as 60 % in the last few decades – with potential direct impacts on wild Bactrian camel and other species movements, mortality and fitness. Possible reasons for this decline are: increased use of natural springs along the northern border of the park, leading to direct competition with wildlife which in its turn increases pressure on more remote springs and oases deep in the park; collapse in maintenance and operations of the deep wells in the buffer zone leading to more reliance and pressure on natural springs and park border areas and lack of rehabilitation or management of water sources due to lack of funds and insufficient human resources. Other possible factors include erosion, sedimentation and drop in the water table - possibly results of climate change.

Depletion of species abundance and diversity

Many of the important wildlife species in the Great Gobi SPA are believed to be declining. Data is often sparse, but there is a general consensus that populations of rare species such as wild Bactrian camel, Gobi bear and Argali sheep are at critically low levels. Gobi bear is facing the

threat of loss of generic diversity, due to effects of inbreeding depression. Genetic diversity for wild Bactrian camel is under decline due to interbreeding with domestic camels. Argali are easily disturbed by human presence and may be subject to substantial poaching and grazing competition by domestic stock.

The causes for these and other species' declines are largely unknown, but a number of factors have been suggested as potential causes, which includes, wolf predation of young, out-migration to China, cross breeding with domestic stock (for wild Bactrian camel), disease, limited water and forage and poaching. Also direct competition for scarce water deep inside the park is caused by domestic camels that can range well inside the park boundary. While staying for longer period within the park beside the direct competition for forage and water, it is a concern over the potential for interbreeding and genetic erosion of wild camels.

Having defined the problems that the project seeks to address, the project document also identified underlying cause for these potential factors as a lack of information. Additionally, the project document suggested that appropriate management and conservation actions cannot be developed until there has been further study and monitoring.

3.3. Immediate and development objectives of the project

The project, "Conservation of the Great Gobi Ecosystem and Its Umbrella Species", was initiated by prominent environmentalists and supported by GEF/UNDP with aims to ensure the long-term conservation of the Great Gobi ecosystem and its umbrella species by building the capacity of the park management authority, improving participation of local communities in the management of the protected area (SPA) and supporting research and environmental monitoring activities through the development of a model conservation program using the wild Bactrian camel as an "umbrella species".

The immediate objectives of the project are:

- To strengthen management of the Great Gobi ecosystem
- To improve stewardship of the Great Gobi buffer zone
- To respond to cross-cutting issues

3.4. Main stakeholders

Main stakeholders for the project include beneficiaries, implementing partners and donor agencies.

<u>Target beneficiaries:</u>
Buffer zone herders
Local people in the BZ *soum* and *bagh* centers
Rangers and Border guards

<u>Implementation partners:</u>
Ministry of Nature and Environment
Great Gobi Section "A" Strictly Protected Area Administration and staff, including rangers
Institute of Biological Sciences of the Mongolian Academy of Sciences
Buffer Zone Councils
Soum Administrations of the Buffer Zone *Soum*s

Donor Agencies:
GEF, UNDP

3.5. Results expected

1. Management of the Great Gobi SPA is strengthened
1.1 Causes of decline in the umbrella species abundance and diversity are determined.
1.2 Technical and human capacities of the SPA Management Authority are improved.
1.3 Revised SPA Management Plan is implemented.
1.4 Assessment framework is created and monitoring is on-going.
1.5 Underlying policy framework is strengthened.
1.6 Trans-boundary policy coordination with China is established.
2. Stewardship of the Great Gobi buffer zone areas is improved
2.1 A framework for community involvement at the *soum* level is developed in the whole buffer zone area.
2.2 The technical capacity for the community involvement in improving the buffer zone stewardship is developed.
2.3 Community outreach program. Awareness and commitment from all relevant players (government, local people and concerned institutions) towards conservation and sustainable use of the BZ areas is improved through establishing education and interpretation facilities
2.4 Feasibility of eco-tourism is assessed
2.5 Alternative models based on improved agriculture are delivered
3. Targeted responses for the cross-cutting issues of overgrazing and pasture deterioration, over-collection of Saxaul bushes and downy poplars, and declining water resources are developed and implemented
3.1 Community-based livestock grazing management is implemented
3.2 Community-based fuel resource management is implemented
3.3 Comprehensive water use and management plan is developed and used successfully.

4. Findings and Conclusions

4.1. Project Formulation

By establishing the GGSPA in 1975, the State of Mongolia legally protected renowned Gobi ecosystem, but the practicality of this move was still under question even though there have been implemented number of internationally funded conservation projects including, "Assistance to the Mongolian People's Republic in the establishment of the Great Gobi National Park[3]" aimed to undertake a comprehensive ecological survey of the park and to develop "Master plan" for the protection and management of the area funded by UNEP; and "Mongolia Biodiversity Project" to assist the further development of the Great Gobi SPA. Additionally there have been implemented various projects that concentrated on training - WCS/DSCF, wild Bactrian camel recovery program – Government of Mongolia, DZF etc. Despite supports provided earlier, there was still a great need to step forward given good foundation set up by previous programs, on which to apply modern concepts. It was particularly true with current economic situation in Mongolia. In addition, the accelerating impact of the climate change effect urges Mongolia to do more than only "paperwork". Therefore, the project, "Conservation of the Great Gobi Ecosystem

[3] In 1995, Mongolian Parliament re-classified the already existing protected areas in accordance with then newly amended law on protected areas. Therefore, before 1995 all protected areas were classified as only strictly protected areas but international experts named as they wanted.

and Its Umbrella Species" was initiated by prominent environmentalists and supported by GEF/UNDP. It was designed to increase the efficiency of the protection of the GGSPA by applying combination of two approaches: concept for ecosystem integrity that must be maintained by the interplay between a demand of the herders and an ecosystem carrying capacity or supply; and species conservation concept, so that in the process of protecting single species, whole communities that may consist of other species and their associated ecosystem processes are also protected.

Thus, the four year project aims to ensure the long-term conservation of the Great Gobi ecosystem by applying Wild Bactrian camel conservation through building the capacity of the park management authority, improving the participation of local communities in the management of the protected area and supporting research and environmental monitoring activities.

4.1.1 Conceptualization/Design (R)

"Conservation Of The Great Gobi Ecosystem and Its Umbrella Species" Project seeks to integrate the objectives of biodiversity conservation and social and economic development through a variety of approaches as strengthening management of the Great Gobi ecosystem, improving stewardship of the Great Gobi buffer zone and responding to cross cutting issues, generally labeled as "integrated conservation and development". Conceptualization of the project stands in two steps – broader concept referring to ecosystem management and at the narrow level referring to protected area management.

As it concerns ecosystem management, the concept that was defined by Grumbine[4] states: "Ecosystem management integrates scientific knowledge of ecological relationships within a complex sociopolitical and values framework toward the general goal of protecting native ecosystem integrity over the long term".
Thus, the project proposal argues that for number of reasons such as widespread poverty amongst herders that reside in buffer zone, over-stocking of grazing land in the buffer zone, and declining water resources throughout the protected area and its immediate buffer zone, the Gobi ecosystem and environmental conditions are generally declined and increased pressure on the Great Gobi SPA. In addition, this situation is further exacerbated by the climate change with recent years' severe winters and droughts. The proposal also argues that ecosystem integrity that must be maintained by relevant stakeholders such as grazing households will result from the interplay between a demand and an ecosystem carrying capacity or supply.
Interventions to support conservation are conceptualized by the way they influence these two factors. Demand interventions are intended to diversify livelihood options for herders, improve community involvement for decision making, improve technical capacity for community, increase public awareness and introduce community based livestock grazing management and fuel resource management, while supply interventions are intended to increase the water efficiency, grazing land productivity, and forage availability for both wildlife and domestic herds.

As it refers to protected area management, the project was designed to increase the efficiency of the conservation of the GGSPA by applying species conservation approach/concept, so that in the process of protecting single species, whole communities that may consist of other species and their associated ecosystem processes are also protected. The Wild Bactrian camel perfectly suites as a species of special concern because it is the largest mammal of the Gobi desert (distinctiveness), it is the species with small numbers that is distributed in an area most severely

[4] Grumbine, E.R. 1994. What is ecosystem management? *Conservation Biology* 8: 27-38

affected by climate change (endangerment), and it is the species that is of certain interest for tourist attraction and scientific research (utility).

Therefore, by applying two-step concept in combination, the project is aimed to ensure the long-term conservation of the Great Gobi ecosystem and its umbrella species.

4.1.2. Country ownership/driveness

During the period of political and economic transition, successive Mongolian governments have easily assimilated the global mainstream environmental agenda and adopted it to Mongolia's conditions. Thus, the State of Mongolia ratified such important international treaties for biodiversity conservation and management as the Convention on Biological Diversity (CBD), the Convention on International Trade on Endangered Species of Wild Fauna and Flora (CITES), the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The assimilating process has combined own perception of development needs and Mongolia's embrace of the principal international environmental conventions and the mixture of obligations and grant funding associated with these conventions.

The national agenda developed during the 1990s to deal with key areas of environmental conservation and management include the National Environmental Action Plan (NEAP) of 1996 updated in 2000, the State Environmental/Ecological Policy of 1997, the National Plan of Action to Combat Desertification (NPACD), the Biodiversity Conservation Action Plan (BAP), and the National Plan of Action for Protected Areas, all developed under MNE auspices, and Mongolian Action Program for the 21st Century (MAP-21), with subordinated *aimag* development plans, developed by the National Council for Sustainable Development (NCSD).

The project idea and proposed objectives are all fully consistent to the statements in national programs. Thus, under BAP, the Government of Mongolia committed to establish effective population control measures to limit human impact on the nation's biodiversity (see 3.2.2. of BAP vs. Objective 3); to establish a research program that improves knowledge of biodiversity and relevant threats (see 3.2.4. of BAP vs. Objective 1); to establish a nationwide information and monitoring system for biodiversity conservation (see 3.2.5. of BAP vs. Objective 1); to prevent pasture deterioration through overgrazing (see 3.2.10. of BAP vs. Objective 2 and 3); to establish effective land-use planning control and transportation policy (see 3.2.11. of BAP vs. Objective 2); to support tourism while developing sensible regulations to protect biodiversity (see 3.2.13. of BAP vs. Objective 2); to develop renewable, clean energy sources and ensure environmentally safe transport of fossil fuels (see 3.2.16. of BAP vs. Objective 3) and to improve ex-situ management for species conservation and conserving genetic resources (see 3.2.17. of BAP vs. Objective 1).

The development objectives of the National plan of Action to Combat Desertification integrate fully with the project objectives as formulated in the MAP-21 Document: "To ensure that a process of national development is established which fully incorporates the principles of environmental sustainability and meets basic human needs."

It should also be noted that the project objectives 2 and 3 are in good consistence with the statements in National Program on Special Protected Areas: "Increased participation of local communities in Special Protected Area management" and Policy on Environment in the Action Plan of the Government of Mongolia for 2000-2004: "To improve Special Protected Area management and livelihood of local communities residing Protected Areas and their Buffer Zones".

4.1.3. Stakeholder participation (R)

While reviewing the project document and interviewing those who participated in project formulation, it was particularly acknowledged by the evaluation team that the project structure and design was organized in a way of assigning high priority to the participatory approach.
Thus, in 2000 multi-stakeholder meeting was held and attended by representatives from UNDP; MNE; the Great Gobi SPA Administration; Institute of Biology, MAS; University of Agriculture; Mongolian National University and representatives of national and international conservation organizations e.g. National Commission on Endangered Species of Mongolia, Mongolian Association of Conservation of Nature and Environment (MACNE), WWF Mongolia Country Office and *Irves* Enterprise.

Recommendations and outputs of the meeting were delivered to the project stakeholders at *aimag, soum* and *bagh* levels and discussions were organized. Results of discussions and feedbacks from local stakeholders were presented to a multi-stakeholder meeting in Ulaanbaatar.
At the international level, a joint Mongolian-Chinese seminar on Conservation of wild Bactrian camel was held in Beijing, China in 2000 with participation of representatives from MNE, MAS and MACNE. Participants offered cooperation for conservation of the species.
In December 2002, a Project Advisory Board meeting was organized and attended by experts of UNDP, MNE and Institute of Biology, MAS. Feedback and recommendations by the attendees were reflected in the project document. Thus, it is regarded that participatory approach, especially participation of multi-stakeholders was satisfactorily undertaken for the development of project document.

4.1.4. Replication approach

As outlined in the project document, the risk of declining quality of the Gobi ecosystem is mainly based on livestock activities. But at the same time, livestock is the basic source of livelihood within a nomadic society. Therefore, certain measures need to be implemented to clearly reduce impact of livestock to the level of the environmental capacity. This would allow wildlife to continue exist in its preferred habitat, and at the same time herders to continue their traditional style of living. It will simultaneously ensure long term conservation of the Great Gobi ecosystem and its umbrella species and the future generations of herders would still have the same freedom of choice for their appreciated way of living.

Therefore, this project focuses on how community development can be linked to protected areas management and fulfillment of its task – conservation of the unique Gobi ecosystem.
It examines pilot projects of small scale in communities that reside in the buffer zone of the GGSPA. It shows how Mongolia might develop its potential for protected areas management by replicating these approaches. This experience holds potential for replication in other protected areas and buffer zone/gateway communities in Mongolia using collaborative tools based upon lessons learned from the model projects and from similar cases around the country, including: 1) diversifying livelihood for herders; 2) improving community involvement for decision making; 3) increasing public awareness; 4) introducing community based livestock grazing management; 5) introducing community based fuel resource management; 6) developing an inclusive stakeholder group; 7) fostering education within buffer zone communities near protected areas and 8) expanding small size enterprises and entrepreneurship opportunities.

In overall, the project concept and implementation approaches are quite similar to those of other environmental projects and programs implemented in Protected Areas and their Buffer Zones in Mongolia.

4.1.5. Other aspects

As described previously (please see 4.1.3.), one of the advantages of the project formulation was a participatory approach. Having applied the participatory approach for the project formulation, it was revealed that it is a crucial condition for the success of the project to involve other existing programs, particularly that would promote scientific knowledge of ecological relationships and that would facilitate the linkages between the GGSPA and residents of the buffer zone. Thus, cooperation with the Institute of Biology, MAS; Denver Zoological Society and other scientific institutions on wild Bactrian camel research and monitoring, and GEF Small Grant Program for improvement of livelihood for local communities has been facilitated. The cooperation with professional institutions and organizations has provided great opportunity to successfully implement project activities and good practices.

4.2. Project Implementation

"Conservation of The Great Gobi Ecosystem and Its Umbrella Species" project was implemented in a satisfactory manner. From a process standpoint, all major outputs and deliverables were achieved, within budget, as planned. In terms of participation, there was an exceptional level of involvement amongst research institutions and technical experts from various countries. Involvement at the local level was also very good, especially considering the herder communities just trained by the project itself.

4.2.1. Implementation Approach (R)

Project management:

For the duration of the project, it has been managed by an office with 6 staff members based in Ulaanbaatar, Mongolia. A field office with 1 staff was located in Bayantooroi at the GGSPA Administration. The project implementation unit (PIU) was headed by a National Project Manager, who was assisted by a team of national technical specialists together with administrative support. The PIU was responsible for administration; support in the preparation of technical studies; preparation of project workplans and coordination of project activities; collection and dissemination of information relevant to the project; reporting on project progress; and the preparation of reports.

The PIU appears to be well run, and is staffed by a motivated and enthusiastic team. Staff members, interviewed have a high regard for the management of the PIU, and relationships between team members are good. It was apparent that the division of labor within the office is efficient and tasks are appropriately delegated. Staff members interviewed has an excellent command of English. In recognition of their excellent work for Gobi ecosystem and biodiversity conservation, the NPM was awarded "Honorary Badge to the Outstanding Conservationist" of the Government of Mongolia and the project training officer was awarded a certificate for the Excellence issued by the Ministry of Nature and Environment.

The project management was organized in a way of Steering Committee as a governing body – Project Implementation Unit as an implementing entity – Participating institutions – Beneficiaries.

The logical framework presented to the review team precisely enabled the project implementing unit to address the threats identified – wildlife habitat deterioration and fragmentation, declining water resources and depletion of species abundance and diversity. It contained clear statements

of project goal, objectives, verifiable success and performance indicators, means of verification, and risks and assumptions. Therefore, it has been one of the important project management tools for implementing the project activities.

Technical capacities built under:

Objective 1:

Concerning human capacity development, GGSPA rangers have attended certification training in the Khovd University and 6 of them obtained professional certification as required by newly amended law; all rangers have been trained on basic field methods and use of field equipment and GPS to improve monitoring techniques and reporting on planning and conservation approaches, database creation, law enforcement and public awareness; Park Director attended 2-week training for trainers in Kenya on modern techniques for wildlife monitoring; the number of rangers increased as a result of recruitment of additional community rangers and rangers; and the second stage of GIS database training was organized for the staff of the GGSPA. These trainings organized for GGSPA staff, greatly enhanced technical capacity to fulfill their dutues as protectors of biological diversity of the GGSPA.

Concerning technical capacity development, short-wave mobile and fixed radio network was established between rangers and Park Administration and it has increased rangers' security and communication efficiency and capacity to enforce laws. Technical supports provided for the GGSPA Administration, such as minivan, 4WD jeep and other equipment contributed to efficient and time-based patrolling and monitoring within the protected area.

In addition, 2 field research stations set up in the remote corners of the GGSPA and equipped with solar energy set, would encourage and enhance research activities for those who are interested in.

Manual book of the Great Gobi GIS based database was developed in Mongolian and English and transferred to the Institute of Biology, MAS; PAA and Project.

Objectives 2 and 3:

Three members from each Buffer Zone Council in five *soum*s attended training for development of credit project proposals, selection of project proposals, monitoring of project implementation and training for trainers. Trainers have organized training for other Buffer Zone members and local communities as well as economic entities that were interested in development and implementation of small project proposals, which immediately demonstrates the gain that was accumulated through the initial trainings. As a result, each Buffer Zone Council has implemented three small credit projects and increased their revolving funds by approx. 370 to 550 USD.

Additionally, two volunteer rangers from each *soum* in Buffer Zones attended training and they have become important levers for increased public awareness and participation of local communities in conservation activities.

Phase-by-phase training on sustainable use of pastureland was organized among local herders residing the Edren mountain range and recommendations were released. Moreover the herders attended training to maintain their records on use of pastureland on regular basis. Consequently, local herders have become competent to assess their business circumstances by themselves.
Similarly, training on making pressed fuel/ running small scale briquette plant was organized among local communities in Shinejinst *soum* and in total, individuals of 38 households attended

it. Training results show that as small projects were implemented in the *soum*, it has made contributions to solutions of fuel management.

It is concluded that trainings mentioned above, have provided with good opportunities and results to improve the project implementation outputs and sustainability of project activities in the future.

4.2.2. Monitoring and evaluation (R)

Monitoring and evaluation plan was developed during the project formulation period with expected outputs, responsibility and indicators for each corresponding activity. In addition, project key performance indicators were identified and were used to report on project progress towards attainment of its objectives in Annual Progress Reports for each year during the project implementation. Mid-term evaluation of the project was conducted by a team of international and national experts and its final report was released in March 2006. Following the recommendations made by the mid-term evaluation, the project implementing unit developed and implemented "Follow up Action Plan" with actions planned or undertaken, responsible parties, status/target completion date and remarks. Recommendations have been accurately followed up and appropriate measures have been taken.

4.2.3. Stakeholder participation (R)

Information exchange:

Information exchange on results of various research studies was facilitated through GIS based Great Gobi database and publications (7 books and 13 published scientific articles of which 3 in international publications), such as books, proceedings of the numerous workshop, conference and meetings that was organized regularly by the project team, posters, postcards, leaflets, newspaper (8 issues of newspaper "Gobi morning") and brochure. The scientific articles will have special consideration as it would serve as a major basis for the further studies toward conservation of the umbrella species with which the Gobi ecosystem. In addition, VCD movies on wild camel, Gobi ecosystem and Gobi bear were produced and disseminated for general public and stakeholders.

Information on project impacts and outputs were presented and shared during regular meetings of Buffer Zone Councils and training and workshops that were jointly organized with BZ Councils among local communities. In addition to this, information sharing on project activities and dissemination of the results achieved were made available through newsletter "Gobi Morning" that was jointly produced in cooperation with the SPA Administration and regional radio programs throughout five *aimag*s 1-2 times a year.

Community participation:

Much increased community participation in conservation of pastureland, water and fuel sources were observed in activities of local communities, local governments and institutions (e.g. Citizen's Representative *Khural*s, Government Offices, & schools) and BZ Councils including SPA Administration. Starting from the second year of project implementation, the BZC members have been managing the development and implementation of their work plans by themselves with the project support. For the implementation of community based pastureland management, the local herders' communities have been maintaining and managing herder's notebook and they manage to use grazing areas on a rotational basis. . Three community groups were established for

running pressed fuel/briquette factory that were implemented by the GEF Small Grant Program in the *soum* centers of BZs.

Participation of *Soum* Admninistrations:

In addition to contributions made by the local government representatives during the regular meetings by giving advice and recommendations, 1 million MNT (equivalent to US$ 855) assistance for well construction was provided by the Bayan-Undor S*oum* Administration. Shinejinst and Erdene *Soum* Administrations supported pressed fuel/briquette factory by providing with buildings and paying salaries for the workers. Given the economic constraints faced by the local governments, these supports should be considered as highly regarded action and commitment for the conservation of the Great Gobi ecosystem. The support greatly contributed to expected outcome of the project to reduce the use of Saxaul trees.

Based on the above mentioned activities and efforts, it can be considered that information sharing, cooperation and participation with the local stakeholders have been successfully undertaken during the project implementation.

4.2.4. Financial Planning

A total amount of US$1.532 million was allocated to fund this medium sized project. The actual expenditure of the project budget was USD1.569 million at the end of August, 2007. Table 1 shows the planned funding and actual expenditure as of 31 August, 2007.

Table 1 Planned funding and actual project expenditure for 2003-2007 in USD

	Planned (2003-2007)			Actual (2003-2007)			Balance
	Cash	In-kind	Total	Cash	In-kind	Total	
GEF	954,000		954,000	954,000		954,000	0
UNDP/ TRAC	80,000		80,000	110,000		110,000	0
GEF/ SGP	80,000		80,000		34,816*	34,816	45,184
GoM		127,000	127,000		187,797	187,797	0
Others	291,196		291,196		282,550**	282,550	0
Total	1,405,196	127,000	1,532,196	1,064,000	505,183	1,569,163	45,184

* The cash was transferred directly to the accounts of the respective Buffer Zone *Soum*s or Park Administration.
** The contribution was in-kind as international researchers covered their costs like DSA, wages and international travel. They also brought their own equipment necessary for studies and researchers.

Even though, it was committed to contribute US$80,000 from GEF SGP, only US$34,816 or 44 % of the fund was used for local community development for a number of reasons that possibly includes: much needed trainings on planning, and development of project proposal etc. were provided for the local communities for the first two years that should be applied for grant under the scheme of GEF SGR; and under developed energy supply and poor transportation/road condition. The evaluation team concludes for this particular case that the project did not use its capacity efficiently.

The Government of Mongolia (Ministry of Nature and Environment) and the UNDP Mongolia Country Office have contributed more than the initial pledged amount.

4.2.5. Sustainability

Sustainability is the continuation of benefits after major assistance from the donor has been completed. The concept of sustainability implies the reconciliation of long-term development (in our case the achievement reached by the project will still be continued after the project finishes officially) with environmental goals.
With the purpose to ensure sustainability of the activities that already started up by the project, the PIU has developed the Exit Strategy with participation of multiple stakeholders to provide recommendations for Designated Institutions that likely will continue on: Mechanisms and course of actions for utilizing enhanced capacities; Responsibilities of parties concerned and Timetable of implementation. The Exit strategy includes: knowledge/products/reports/ evaluations produced/carried out under the project objectives; proposed management arrangements to institutionalize capacities; Buffer Zone Council workplans for 2007-2008; timetable for transfer and prospective strategy/responsibilities of proposed management institutions.
Most important part of the strategy is the prospective strategy or responsibilities of proposed management institutions. Thus, as it states the activities conducted under Objective 1 – management of the Great Gobi ecosystem will be further strengthened/continued by joint efforts of international and national institutions such as the International Takhi Group, the International Bear Foundation, and the Institute of Biology, MAS. This cooperative development will be ensured by developing a MoU by respective counterparts. In addition, relevant activities under the certain action plans and programs such as Conservation Action Plan for Mongolian Mammals and Recommendations from International Workshop on Wild camel conservation will be implemented based on commitments expressed by professionals in the field of wild camel preservation.

As the strategy suggests, management plan implementation will be ensured by the MNE, GGSPA Administration and its BZ Councils. Considering constraints they did have before the project implementation, this part of the strategy likely will not be fulfilled. Maintenance and updating of GIS based GGSPA database will be ensured by the Institute of Biology, MAS.

Under Objective 2 and 3, already initiated and on-going activities in the buffer zone of the protected area will further be continued by BZ Councils in each *soum* with revolving funds and appropriate trainings provided by the project. Though, revolving funds are not big deal in terms of quantity, it is believed to be still stimulating the herders and community groups that are well trained on sustainable development principles.

4.2.6. Execution and implementation modalities

The implementation of the National Execution as the main modality for UNDP-assisted programs, has been applied to the project. The National Execution has expanded national officials' sense of project ownership, increased important aspects of self-reliance, and contributed to capacity building. In the longer run, the National Execution also strengthens sustainability and increases most importantly, the cost effectiveness of the project. Despite the areas of achievement for this project, however, there were some constraints mostly with regard to scientific expertise, when it was involving modern techniques, particularly, satellite tracking of wild camels and Gobi bear catching. But national execution modality surely has contributed to capacity building.

For this project, GEF Implementing Agency is UNDP and the executing agency is the MNE. Main implementing agencies within Mongolia are: GGSPA Administration and Institute of Biology, MAS.

A Governing body of the project is the Project Steering Committee.

4.3. Results

4.3.1. Attainment of Outcomes/Achievements of objectives (R):

- Through advanced research on focal species' population dynamics and environmental monitoring throughout the protected area, the project set up a solid basis for Great Gobi conservation program that greatly enhanced the ability to identify conservation needs and priorities.
- The project has made significant contribution to strengthening of human and technical capacities of the Great Gobi SPA Administration and upgraded research, monitoring and inspection work to a professional level through effective cooperation with relevant stakeholders.
- Buffer zone residents/communities nearly unanimously agreed on the importance of conservation and agreed with the Great Gobi SPA Administration goals and activities.
- Additionally, the project has paid particular attentions to capacity building of national researchers and specialists through inviting and offering them to participate in different researches, workshops, and trainings organized by the project.

Objective 1: Strengthening management of the Great Gobi ecosystem

- The project has set up a regular monitoring scheme for the Great Gobi SPA and has collected significant amount of conservation monitoring data for over 3 year period. Within the frame of the project, various studies such as water supply, impact of grey wolf, ecto and endo parasites and population ecology of wild camel; breeding of captive wild camel and future management of hybrid camel on Wild Bactrian camel biology and ecology are jointly held in cooperation with national and international scientific institutions. The results of the studies greatly contributed to understand the causes of fluctuation in wild camel abundance and population dynamics and initiate management measures such as improvement of water and pasture quality, limit crossbreeding of domestic camels with wild camels and avoid disease transfer etc.
- Amongst the other protected areas in Mongolia, GGSPA has obtained solid prospective to become the leading institution as a research base with its much strengthened capacity provided by the project. It includes various on site trainings for rangers and management staff and technical improvements such as radio communication system that fully covers the entire rangers' network, transport and other equipment.
- GGSPA Section "A" Management Plan 2005-2012 has been developed and endorsed by the Director, Special Protected Area Administration Department, MNE. Although, the management plan is somehow ambitious to be implemented mainly, because of high planned cost of 919 million MNT, it is still an important document to comprehensively see the overall situation within the park and required actions. According to the Management Plan it has two stages for implementation and implementation of the 1st phase (2005-2009) has mostly covered by the Project lifetime, which means main activities related to capacity building, initiation of long-term studies and monitoring, management actions and buffer zone development were mostly completed.

- The results of the research on pasture carrying capacity and GIS mapping in Edren Mountain Ranges have helped to assess the ecological balance of the area and economic needs of the communities that reside in the area, as Edren Mountain Ranges traditionally been used by the local communities for grazing and at the same time it is the immediate border area of the GGSPA.

Objective 2: Improving stewardship of the Great Gobi buffer zone

- The project assisted in establishing Buffer Zone Councils (BZC) in the Great Gobi SPA Buffer Zone and provided trainings for the Council members on planning and implementation of activities through effective participatory approaches.
- In order to increase local community participation in the management and conservation of the Great Gobi SPA Administration and to support the newly established Buffer Zone Councils, the project provided initial funds for the Buffer Zones in each *soum* with start up/seed money. The project also organized trainings and workshops necessary for effective and smooth running of the funds. Small loans were distributed to local communities and consequently revolving funds in the *soum*s have been increased by 20-30 per cent.
- More than 200 jobs were created for locals during the project implementation. Total of 64 families out of 150 at the Bayntooroi village, where the Park Administration is located, were engaged in additional income generation.
- Local communities, particularly school children have had good understanding on necessity and conservation needs of the Gobi ecosystem and Great Gobi SPA contributions to conservation of natural resources.
- Expansion of a tree nursery in Bayantooroi has provided an opportunity to other neighboring *soum*s with rare plant seedlings.

Objective 3: Responding to crosscutting issues

- One of the important project outputs was finding of practical alternatives /make contribution to solve disputes over pastureland use among local communities. The project team analyzed the current status of pastureland use, organized phase-by-phase training on sustainable and proper use of pastureland among local herders and assisted in maintaining wells in pastureland that were not often used. As a result, local herders are able to seasonally move to different pastures.
- Another important and strong output is a contribution to livelihood of local communities and support income generating activities to reduce Saxaul bush harvest by local residents in the Gobi region. The project has supported production of household level pressed fuel /briquettes. This production provides a promising model of alternative income generating activities that has a strong potential for replication.
- Water quality in the Gobi region is one of the concerns for its residents. Thus, the project assisted in installation of water purifying equipment at wells, construction of wells and solar water heaters, which provide hot water for public showers and local hospitals in the Buffer Zone *soum*s. These contributions resulted in reduced use of Saxaul and more positive attitudes of local communities toward protected area conservation work and moreover active participation in conservation.

In order to ensure the sustainability of the project achievements mentioned above, the recommendations on continuity and sustainability of the project outputs were distributed to relevant stakeholders through workshop organized in May, 2007. It is strongly advised that the stakeholders need to pay their attentions to follow-up actions of the recommendations in the future.

In particular, the Ministry for Nature and the Environment, the main Project Implementing Agency, should consider and pay attentions to immediate necessity to amend the Mongolian Law on Buffer Zones and regulations based on recommendations, experiences and achievements of other projects and programs implemented by donors' supports. Amendments and revisions to the Law and regulations need to include for instance, the issues that will make the buffer zone councils as a legal body with clear status, appoint full time secretaries for Buffer Zone Councils, and establish an accountability system legally.

Project activities carried out under each objective and their conservation impacts, and compatability with planned indicators are shown in Table 2.

Table 2: Impacts made by project activities implemented and planned key performance indicators and assessments
Objective 1: "Management of the Great Gobi ecosystem is strengthened"

Expected outcomes	Activities implemented	Impacts made by the activities implemented	Planned key performance indicators	Assessment	
				Project Results	Sustainability of project outcomes**
1.1. Determine causes of decline in umbrella species abundance and diversity	<u>Wild Bactrian camel (as an umbrella species):</u> As a result of number of research studies(*) that was carried out with project support either financial or organizational, basic factors affecting wild Bactrian camel population fluctuation are understood. Causes for wild camel population decline include: qualitative and quantitative decline of pasture conditions and water sources; predation pressure, and hybridization issues with domestic camels. Breeding and recruitment rate of wild camel in Trans Altai Gobi is normal. Wolf predation pressure exists not only for adults but for youngsters; 13% of wolf diet consists of camels. As a result of wild camel disease study, it was concluded presence of endo and ecto parasites ,but no critical diseases were identified. Wild camels move for water and pasture availability for long distances reaches sometimes 50-100 kms making themselves an easy prey for predators particularly for younsters. Out of 45 springs and oases documented in the Park, 30% dried up or water level dropped. According to result of the study on taxonomy of the Gobi bear, it suggests that the Gobi bear is more likely a remnant isolate population of *U.arctos isabellinus*.	Appropriate measures to address the causes for wild camel population decline are integrated into the GGSPA management plan. Initiated implementation measures. Being organized into communities, herders became aware of natural conservation Posters and documentary films were produced on Great Gobi wildlife and distributed to communities using local and national broadcasting. Capturing and collaring methods are refined and wild camel habitat requirement and movement pattern study re-initiated. Consensus is being approached on disputed taxonomy of Gobi bear.	Factors constraining wild Bactrian camel population increase are understood and appropriate measures to address them are integrated in the GGSPA management plan and are being implemented. Range/are needed to protect is initiated (to be known)??? by determining potential movement corridors of wild camels.	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
1.2. Improve human and technical	<u>Human capacity</u> • GGSPA rangers have attended certification training in Khovd University and 6 of them			**(S)**	**FS – (ML)** **SP – (L)**

capacity of the SPA Management Authority	obtained professional certification as per requirement of the newly amended Law on Environmental Protection. • All rangers have been trained on basic field methods and use of field equipment and GPS to improve monitoring techniques and reporting, on planning and conservation approaches, database creation, law enforcement and public awareness. • Park Director attended 2-week training for trainers in Kenya on modern techniques for wildlife monitoring. • Number of rangers increased as a result of recruitment of additional community rangers and park rangers • Second stage of GIS database training was organized for the staff of the GGSPA • <u>Technical capacity</u> • Short-wave mobile and fixed radio network establishment between rangers and Park Administration have increased rangers' security and communication efficiency and capacity to enforce law. • 2 field research stations were set up in the SPA and equipped with solar energy set. • The rangers of GGSPA was provided with the equipment for monitoring studies. • Jeep, Motorcycles etc. • Manual book of the Great Gobi GIS based database was developed in Mongolian and English and transferred to IB, PA and Project.	GGSPA is able to conduct monitoring surveys on wildlife in GGPSA on its own and able to guide complicated research activities with support of the Institute of Biology Among Mongolia' protected areas' network GGSPA became truly protected area with adequate technical and human capacities to become a scientific field for further research			**IF&G –(L)** **E – (L)**
1.3. Implementation of revised PA Management	<u>Development of GGSPA MP:</u> • MP for GGSPA 2004-2012 was developed to meet international standards and adopted in Jan. 2006 which includedbuffer zone	Methodology used for development of	Factors constraining wild Bactrian camel population increase are understood and	**(S)**	**FS – (ML)** **SP – (L)**

Plan	development, respond to cross-cutting issues, law enforcement, patrolling, research and monitoring. The information accumulated over 30 years since the establishment of the SPA has been compiled and integrated in the management plan. Some issues such as location and condition of water sources and pasture location and condition have been integrated in the SPA management plan.In research and monitoring component assesment of wild camel and other Gobi species' populations, identification of their movement paths, survey of forage resources, and forage carrying capacity, biotechnical actions, reproduction of the species, and control on breeding of wild camels with domestic camels etc are planned. Implementation of GGSPA MP: (please see all other activities)	the Management Plan can be applied to other protected areas in Mongolia	appropriate measures to address them are integrated in the GGSPA management plan and implemented. Range / area needed to protect the wild camel population is initiated by determining potential movement corridors of wild camels .		**IF&G –(L)** **E – (L)**
1.4. Create an on-going monitoring and assessment framework	• Developed a training programme on monitoring methods using modern conservation techniques with follow up trainings held on. It was applied to ranger-based monitoring network - 8 transects for rangers and 2 non-fixed transects for Park staff and researchers and were established in fall 2005. Regular monitoring is now taking place. The monitoring study allows to collect data on all species • As a result of the regular monitoring studies at the GGSPA, new biological species and water resources were identified • Collected data were integrated into database of the Institute of Biology and GGSPA. • The database was converted into GIS based database	On the example of GIS based GGSPA database, other protected areas can establish their own database with support from GGSPA and relevant scientific institutions Regular monitoring is another potential example for others to be carried out in their respective territories	Illegal activities in the PA and BZ have been decreased by (percentage to be determined????) as compared to baseline year of 2003. Ranger and border patrols are contributing to the database on umbrella species by providing with a reliable data on a regular basis. Great Gobi	**(S)**	**FS – (ML)** **SP – (L)** **IF&G –(L)** **E – (L)**

			biodiversity information is compiled, GIS based Great Gobi database established and open to interested parties		
1.5. Strengthen the underlying policy framework	• Number of rangers increased as a result of recruitment of additional community rangers and park rangers • A biologist went to Germany for training on telemetry data collection and analysis. He also gained skills during collaring trip and he transferred his knowledge to Park staff and researchers on basic use of GIS applications • A veterinarian participated in basic training on anesthesia and practice of collaring in Vienna, Austria and obtained basic skills on immobilization drugs and darting techniques. • GIS based database training was organized for broad range of state employees including border troops, researchers etc. • Training on monitoring methods and GPS use border patrols was organized	Not only GGSPA staff, but specialists from other institutions who participated in the trainings disseminated information about the project activities. This contributed to enhancing of the Great Gobi ecosystem importance		**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
1.6. Transboundary policy coordination with China	• Wild camel and other rare biodiversity data and information exchange between China and Mongolia was initiated. • Chinese representatives joined the same training in Kenya attended by the GGSPA Director • They use the same field handbook for monitoring • Joint camel monitoring and research expeditions have been organized in April 2005 in Mongolia and in October 2005 in China with the support of a UK-based research group on camel.	Some possibilities are increased to cooperate with Chinese counterparts, although there is not a confirmed evidence of transboundary migration of wild camels between the two countries	A common understanding of conservation issues enables China and Mongolia Governments to agree on coherent conservation measures.	**(S)**	**FS – (ML)** **SP – (L)** **IF&G –(L)** **E – (L)**

	• Experience sharing trip was organized involving delegates of Chinese Gansu Forestry Department and Xinjiang, Lop Nur National Level Wild Camel Nature Reserve and Mongolia Great Gobi Park Administration in the Great Gobi				
Overall	•			**(S)**	**(ML)**

(*) Research Studies on Wild Bactrian Camel: Some biological and ecological aspects of the wild Bactrian camel in Mongolia; Study on ecto and endo parasites of wild camels; Study on the groupings of the wild camel in Mongolia; Population ecology of the wild camel in Mongolia; Current situation and future management of hybrid camel in buffer zone are of GG SPA "A"; Water supply for wild camels; Impact of Grey wolves on the typical ungulates in "A" part of GGSPA; Habitat mapping of the wild Bactrian camel in Southern Mongolia; Study on wild camel behavior during rutting; Trans Altai pasture condition and wild camel diet research; Wild camel monitoring study; Research on Wild camel movement in Trans Altai; Trans Altai pasture type of spring season and wild camel diet study; Research report of collaring work of wild ass and find collared wild camels)

(**) Financial resources–FR; Sociopolitical–SP; Institutional framework and governance-IF&G; Environmental-E
Likely-L; Moderately Likely-ML; Satisfactory-S.

Objective 2: "Stewardship of the Great Gobi buffer zone areas is improved"

Expected outcomes	**Activities implemented** (2003 – July 2007)	**Impacts produced as the project activities were implemented** (as of July 2007)	**Planned key performance indicator**	**Assessment**	
				Project results	**Sustainability of Project outcomes*****
2.1 Improved stewardship of Great Gobi SPA BZs	• Established Buffer Zone Councils in five *Soum*s in SPA Buffer Zone; • Provided BZ Council members with relevant training (e.g. participatory approach, small credits) for empowerment; • Development BZ management plans; • Organized study tour, in which BZ Council members participated, to Gobi Gurvan Saikhan NP and Khustai NP	• Implemented activities to support livelihood of communities and sustainable use of natural resources in BZ *Soum*s though participatory approach (e.g. local communities, organizations & institutions, SPA Administration); The local organizations & institutions have become empowered in terms of decision making and implementation of actions (*).	• Five functional buffer zone councils are established, understand and fulfill their role and responsibilities without the project support in Altai, Tsogt, Erdene, Bayanondor and Shinejinst *soum*s • All five buffer-	**(HS)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
2.2 Improved stewardship of Great Gobi SPA BZs: develop technical	• Provided each BZ Council with seed money of MNT 1,200,000 *equivalent to USD1,000; • Trained two members from each BZ	• BZ Councils have had their seed money/ assets. • BZ Council members empowered to run the fund; As small projects were		**(S)**	**FS – (L)** **SP – (L)** **IF&G –(ML)**

capacity building of community participatory approach	Council in development of small credit project proposals, selection of proposals, monitoring of project implementation, trained as trainers; • Provided all BZ Council members with training above mentioned;	implemented, employment was generated and livelihood of beneficiaries was improved. Totally 12 small projects were funded and their revolving funds were increased by 30-40 %	zone councils capacity improved and their involvement in the protected areas management is ensured.		**E – (L)**
2.3 Developed effective public awareness programme	<u>Public awareness</u> • Made videos on wild Bactrian camel and Gobi bear and produced public awareness materials on project activities, outcomes and findings; Publicized the awareness materials via mass media: national TV channels; • 10 minute radio programs were aired by regional radio channel in Western Mongolia twice a month. • Brochure on project activities and outcomes (in Mongolian and English) was produced and disseminated to target groups. • Great Gobi SPA website was created and has become functional. • Project activities and their outcomes, prioritized environmental issues were regularly posted and discussed through newsletter "Gobi Morning". <u>Information centers:</u> • Information centers were established in five BZ Sums and necessary equipment and training materials were provided. • Training on ecology was provided to teachers of biology at secondary schools. <u>Naturalists'' Clubs</u> Environmental clubs were organized at secondary schools in the BZ Soums and training on conservation and ecology was held among school children.	• Public awareness on project activities and outcomes was disseminated via local and national mass media (TV & newspapers). • As awareness and attitudes of local communities in BZ towards Great Gobi SPA and its natural resources were enhanced, illegal actions e.g. poaching, recorded within the SPA have been reduced by about 80 % (Annual report of GG SPA Administration*, 2006).* • Club members have become major hosts of Information Centers. • Club members jointly develop their work plans and organize campaign "flag tour" calling for joint implementation of planned activities among Sum organizations and institutions. For instance, due to the campaign, solid waste management in the Sums has been improved (****).	• Illegal activities in the PA and BZ have decreased by (percentage to be determined) as compared to baseline year of 2003. • Public perception and attitude towards environment and biodiversity conservation is improved.	**(S)**	**FS – (ML)** **SP – (L)** **IF&G –(L)** **E – (L)**

2.4 Assessed the possibility to develop eco-tourism	• Studied the possibility to develop tourism; • Established ger tour camp based on Eej mountain National Monument; • Published brochure "Eej Khairkhan Mountain";	• Proposed tourism development concepts and activities were specified in the management plan for Great Gobi SPA (**).	• Sustainable alternative livelihood options are developed in the buffer zone and significantly improved local people's income without relying solely on livestock.	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
2.5 Developed a model improvement of livelihood of local communities	• Organized participatory training on sustainable use of natural resources for local communities; • Established plots for growing *Hippophae and* vegetables in Bayantooroi Sum. • Established a livestock washing plot in Edryn Mountain range	• Two community groups (included members of 30 households) were established in Bayantooroi to grow *Hippophae* and vegetables and growing has been started since 2007 (***).	• Sustainable alternative livelihood options are developed in the buffer zone and significantly improved local people's income without relying solely on livestock. • Alternative livelihood options are developed in the buffer-zone.	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
Overall	•	•	•	**(S)**	**(ML)**

(*) According to the BZ management and planning, the BZ Councils are empowered in integrated approach for the activities implemented by the project, other programs and projects as well as donor organizations.

(**) A tour camp, based on "Eej Khairkhan" NM has been opened recently, just in June 2007, so that no definite outcomes are seen so far.

(***) Sowing of *Hippophae* in Bayantooroi is expected to show first results at least in 3 years. Community groups were provided with seed vegetables in 2007 and first results are expected to be seen starting from next year.

(****) The most active groups participated in training, public awareness and conservation activities on sustainable use and protection of natural resources and ecology were children of Environmental clubs in five BZ Soums . There are six clubs with members of 30-40 children of 12-16 ages, which actively take part in activities. Additionally, The British Wild Camel Conservation Foundation supports the activities and initiatives of the children's clubs.

(*****) Financial resources–FR; Sociopolitical–SP; Institutional framework and governance-IF&G; Environmental-E
Likely-L; Moderately Likely-ML; Satisfactory-S.

Objective 3: Develop and implement targeted responses for the cross-cutting issues of overgrazing and pasture deterioration, over-collection of *Saxaul* bushes and downy poplars, and declining water resources.

Expected outcomes	Activities implemented	Impacts made by the activities implemented	Planned key performance indicator	Assessment	
				Project Results	Sustain-ability of Project outcomes***
3.1 Improved community based pastureland management	• Locations of winter settlements and wells of over 140 households residing Edryn Mountain range were identified and mapped and socio-economic surveys were carried out, • Carrying capacity of pastureland was identified and data was entered in a GIS based map. • Recommendations on sustainable use of pastureland at Edryn Mountain range was issued and delivered to target groups. • Four monitoring plots were enclosed at Edryn Mountain range in order to ensure potential pastureland restoration. • Herder's book on pastureland use and monitoring was distributed and maintained by herders. • A groundwater/deep well was constructed in Shar Khotol area.	• *Soum* Citizen's Representative *Khural*s issued a decision on sustainable use of pastureland based on the recommendations. • As herder households spend their winters in Edryn Mountain range and seasonally move around particularly in springs and autumns, habitats and ranges of wildlife species i.e. Argali, ibex, wild camel, and wild Asiatic ass have been seasonally freed from inhabitance of humans and livestock (*).	• (see Objective 1) • • As a result of the improvement of pasture condition in the buffer zone, there is no more pressure to use pastures within the SPA. • Community based livestock grazing management is practiced at least in three buffer zone soums. • Overgrazing is controlled around underground wells by reducing animal concentration.	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
3.2 Improved community based fuel management	• Small briquette production plants were opened and run in Shinejinst and Erdene *soum*s. • Solar water heaters were installed at bath houses and hospitals in *Soum* centers. • Low pressure boiler that uses	• Use of Saxaul is drastically reduced. Only one fact shows that hospital in Shinejinst *soum* used 12 tons of Saxaul for heating per year. However, it used 2 tons of Saxaul in 2006 due to the use of briquettes for heating. Use of Saxaul at the hospital has been reduced by **10 tons** (**).	• Alternative fuel source is created and practiced in the buffer-zone.	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**

	briquettes for heating was installed in kindergarten of Shinejinst *soum* and training on making briquettes was organized for 38 household members in the Sum center.	• In Shinejinst *soum* a community group "Art of Living" was established and 6 individuals were provided with employment. They produced and sold 170.000 pieces of briquettes to organizations and institutions. It was 40% of fuel supplies of the *soum* organizations and institutions. They put MNT 838.675 from their incomes into environmental fund at the *Soum*.	• The production of an alternative fuel source generates a significant income for the households that produce it.		
3.3 Management plan and program for sustainable use of water resources developed	• Inventory on open surface water bodies and water reserve and quality was conducted within the SPA and Recommendations were issued. • Water purifying equipment was installed at a well in Shinejinst *soum*. • Some wells were repaired and restored.	Water management issues were reflected in SPA management plan.	• Water quality is improved for residents of Buffer Zone *soum*s	**(S)**	**FS – (L)** **SP – (L)** **IF&G –(L)** **E – (L)**
Overall	•			**(S)**	**(L)**

(*) Southern edges of Edren Mountain range was one of the important habitats of wild Bactrian camel. Because most of water bodies in the Great Gobi SPA are found in the southern part of the mountain, local residents put their winter settlements near the water bodies. Thus, species habitat has been occupied/reduced and the species has been suffering from the lack of water. Local communities are aware of this situation and seasonally moved to different areas in order to seasonally make the water bodies and nearby grazing areas free of their settlement.

(**) When the project started, the organizations and institutions e.g. hospitals, administrative units, schools, kindergartens, and bath houses at five *soum*s in SPA BZ consumed in total **842.5 tons of** Saxaul for heating their buildings and premises only during cold season (from October to March) every year. This was one of the most serious pressures on the SPA by local communities. However, now the use of Saxaul for heating in the *soum*s has been drastically reduced due to use of briquettes, low pressure boilers, solar water heaters in the organizations and institutions in the Sums.

(***) Financial resources–FR; Sociopolitical–SP; Institutional framework and governance-IF&G; Environmental-E
Likely-L; Moderately Likely-ML; Satisfactory-S.

Table 3. The ratings used for project achievements as required by ToR

(Highly Satisfactory – HS; Satisfactory – S; Moderately Satisfactory – MS; Moderately Unsatisfactory- MU; Unsatisfactory – U and Highly Unsatisfactory- HU
Likely –L; Moderately Likely- ML; Moderately Unlikely – MU; Unlikely-U)

	Finding and Conclusions		**Ratings**
	4.1 Project Formulation	4.1.1. Conceptualization\Design	**(HS)**
		4.1.3. Stakeholder participation	**(S)**
	4.2 Project Implementation	4.2.1. Implementation Approach	**(S)**
		4.2.2. Monitoring and evaluation	**(S)**
		4.2.3 Attainment of outcomes/Achievement of objectives	**(S)**
	4.3 Sustainability	4.3 Assessment of Sustainability of project outcomes	**(ML)**

5. Recommendations

Objective 1:
GGSPA Management Plan and its implementation**:**

Although, the First phase of the GGSPA Management Plan (2005-2009) has been mostly implemented by the project activities - capacity building, initiation of long-term studies and monitoring, management actions and buffer zone development, the Management plan should be re-considered within the frame of a potential and achievable fundraising policy so that the plan has to be a working document that is implemented. It can be done effectively using through series of workshops with potential donors including not only traditional donor conservation organizations such as GTZ, Swiss Development Cooperation and WWF, but also involving scientific institutions that is interested in conducting research studies in the Great Gobi. In this case, the GGSPA can offer settled up field stations located deep in the desert. In addition, business entities and people who are originated from the Gobi can be potential donors for certain activities, particularly, that are directed towards well-being of the local communities, i.e. providing with social services and offering job opportunities.

Prioritize conservation needs using cost-effective methods:

Predictions of whether a species has the ability to persist in an environment can be made using population viability analysis, an extension of demographic analysis – an assessment, using mathematical and statistical methods to predict the probability that a population or a species will extinct at some point in the future. This sort of research will not require much funding and also it will prioritize different species with regard to its extinction probability. In addition, it can reveal

and prioritize required conservation actions for each species. Therefore, having basic survey type data, it is a time to move forward and apply the scientific findings into practice.
It is also worth to consider integrated studies on habitats and distribution areas of wild Bactrian camel and Gobi bear into monitoring on global warming impacts, one of the main causes of ongoing Gobi ecosystem degradation. This will provide a mean for an integrated approach to the long term conservation of the Great Gobi SPA ecosystem.

Objective 2:

Improving stewardship of the Great Gobi buffer zone**:**

Current part time position of BZ Council members is reducing and negatively impacting on sustainability and continuity of effectively functioning BZ Council members that have been trained and empowered by the project. Thus, it is worth to consider that the Secretary of BZ Council is a full time post or split duties of Secretary to one of the *Soum* Government officers. This move will provide a good opportunity to link and incorporate BZ Council activities into *soum* government actions and establish accountability. With regard to the full time post of BZ Council Secretary, there is a need to propose and submit an amendment to the Mongolian Law on Buffer Zone.

The Law on Buffer Zone states *"(7.2.3) Soum* Citizen's Representative *Khural*s shall retain certain portions of compensations and fines paid by violators of environmental legislations into the *Soum* Buffer Zone Fund. Thus, the *Soum* Citizen's Representative *Khural*s need to pay particular attention to retaining of the portions into Buffer Zone Fund and monitoring over their expenditures.

Additionally, particular attention should be given to the sustainability of Fund operation, for example, while the Fund is matured, portions of incomes are allocated and spent for definite actions (e.g. 50 % of the Fund is retained into *Soum* development fund, 40 % for BZ revolving fund and 10 % for BZ Council activities) based on the practices of GTZ funded Buffer Zone Development Project implemented in Gobi Gurvan Saikhan NP.

As BZ Council members periodically report the activities implemented and actual and potential expenditure of revolving fund to their *Soum* Citizen's Representative *Khural*s for presentation and discussion, effective understanding and cooperation will be raised among the involved parties.

If the specialists in charge of BZ issues and rangers of the SPA administration act as consulting bodies in discussion of issues of BZ Council activities and revolving fund, particularly sustainable use of natural resources (i.e. pastureland and water) and integration of the issues into SPA management, it will positively impact on the sustainability of achievements that were reached under the project support.

Community outreach and education program:

It will be much effective if the activities of information centers in the *soum*s in SPA BZ are managed and directed by the teachers trained during the project implementation, based on Contract with the *soum* school and Administration office (Information center in Erdene *soum* of Gobi-Altai *aimag i*s under the responsibility of the *Soum* Administration Office). One of the important tasks of information center is to train successors of young naturalists from time to time.

For sustainability and continuity of the activities implemented under the project support the Park Administration specialist in charge of public awareness and rangers need to closely cooperate with Naturalists' club members and school teachers of the *Soum*s in SPA BZ. They can jointly organize a variety of thematic actions e.g. conservation awareness activities, study tours, and public awareness among local communities (for instance, artistic and dramatic performances on human attitudes towards the environmental conservation).

Assess feasibility of ecotourism:

The Great Gobi SPA and its buffer zone is one of the ideal destinations in the Gobi region because of its relatively untouched natural condition and adaptive nomadic living patterns of local communities as well as home to endangered wildlife (fauna and flora species). Nevertheless, the SPA is visited by few adventure travelers due to its remoteness and low level of infrastructure in the region. However, regarding tourism as one of the potential income generation sources, the Park administration develops and offers special itineraries for the SPA and its Buffer Zone to tourists and visitors as follows: Bayantooroi (visit Park Administration for detailed info on the SPA and its BZ), *Eej Khairkhan* Mountain (Mother Mountain) for sightseeing and hiking/walking tour; *Maikhan Bulag* (Maikhan spring/Oasis) – for watching wildlife and visiting herder families during daytime and talking to rangers sitting around campfire in the evenings; *Tsagaan Bulag* (White Spring/Oasis) – for visiting Gobi bear captive breeding site; *Zagyn Us* (Saxaul Water)– for captive breeding site of wild Bactrian camel etc. The itineraries should be published in fliers and distributed to local tour operators in UB during tourism fairs and posted on the SPA website. Information for travelers and tour operators should include that the SPA is visited by certain number of tourists a year (e.g. limited number of tourists and visitors to the SPA per year) and tours are guided only by rangers within tourism zones. Guides should be specially trained and have very good knowledge and understanding on natural and historical sites, wildlife (fauna and flora) and their facts.

Eej Khairkhan (Mother Mountain) and its vicinity is frequently visited by domestic tourists. Thus, it is important to establish camping sites, where latrine and shower facilities are appropriately constructed. Camping sites and *ger* tour camps should be located at a distance far from *Eej Khairkhan* Mountain (not next to the mountain).

In practice, some Park administrations give too much consideration and importance to tourism development and mobilize its most staff members into tourism activities. Instead, the Park administration should keep its rangers on duties within their responsible areas, while offering local communities to run *ger* tour camps by providing them with necessary training e.g. on how to adequately serve tourists and visitors with accommodations and meals.

Objective 3:

Respond to cross-cutting issues:

BZ Councils are able to play important roles in ensuring the sustainability of responses to cross-cutting issues such as overgrazing and range deterioration, over-collection of Saxaul bushes and downy poplars, declining water resources. BZ Councils should deal with assessment of the conditions, achievements and hold meetings and discussions with local residents on a regular basis.

6. Lessons learned

GGSPA became truly a base for science research and studies with adequate supporting facilities such as fully furnished two stations that is located deep in the Gobi desert, Gobi bear research station that works throughout the year, the Wild Bactrian Camel Population Re-establishing Center located close to the GGSPA Administration etc. Using these facilities, international researchers, particularly young biologists can do their master's or PhD degree research work.

The most important impact under the project Objectives 2 and 3 is the sustainable pastureland management that was developed in participation of herders residing the Edren mountain range in the SPA BZ.

One of the important expected outcomes was to find out a better way of solution of disputes over pastureland, a human pressure on Great Gobi management. In order to achieve the outcome, the project conducted studies on the current use of pastureland and developed recommendations on sustainable use of pastureland and organized phase-by-phase trainings among local herders. Over 90 per cent of herder households of the targeted area attended the trainings.

As some wells were repaired and constructed in remote areas, local herders were provided with opportunities to seasonally move to the remote areas. Consequently, herders resided in the Edren mountain range all years around, now move to different areas in spring and summer time. Thus, they free the mountain range from human and livestock residence during these seasons, where they used to spend their winters. As a result, wild species e.g. Argali, Ibex, and wild Bactrian camel seasonally move around the mountain range.
Moreover, monitoring plots for assessment of pastureland plant growth rates were established at the nearby water points and local herders were able to assess pastureland conditions by themselves.

In order to create additional income and seasonal employment for local communities in the BZ, the project studied the feasibility of tourism development in the SPA. Thus, a small scale project on establishment and running of a *ger* tour camp has been initiated in *Eej Khairkhan* Mountain Natural Reserve with funding of US $ 9,200 from the GEF Small Grant Program. Although feasibility study earlier conducted has rationalized the potential tourism market, the low infrastructure development of the Gobi region was not considered properly. It is still doubtful that many tourists frequently would visit the GGSPA and substantial incomes would be earned from tourism activities compared with Khustai NP which is located much closer to the market (approx. 100 km from Ulaanbaatar on a paved road).

7. Evaluation report Annexes

Annex 1. Terms of Reference for Final Evaluation for "Conservation Great Gobi and Its Umbrella Species" UNDP/GEF Project

TERMS OF REFERENCE

FINAL EVALUATION FOR
"CONSERVATION GREAT GOBI AND ITS UMBRELLA SPECIES" UNDP/GEF PROJECT
(#00013661 & #00013662)

1. Background

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators, or as specific time-bound exercises such as mid-term reviews, audit reports and final evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. However, a final evaluation is not an appraisal of the follow-up phase.

Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.[5]

With financial support from the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), the Ministry of Nature and Environment (MNE) of the Government of Mongolia has been executing the project to conserve Gobi ecosystem and its umbrella species since June 2003. The stated objectives of the projects are (1) strengthen the management of the Great Gobi SPA; (2) improve stewardship of Great Gobi buffer zone and (3) respond to cross cutting issues.

2. Objectives of Evaluation

The final evaluation has been initiated by the UNDP Mongolia CO in consultation with the MNE. In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation.

The final evaluation will assess the relevance, performance and success of the project by looking at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The evaluation will identify lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

Main stakeholders of the evaluation are UNDP Mongolia CO, the Ministry of Nature Environment, Institute of Biology and Great Gobi Strictly Protected Area Administration. The evaluation shall determine to what extent the project has achieved its objectives and impact indicators.

[5] These three paragraphs are the standard introduction for final evaluations (as per source mentioned in Footnote 1).

3. Scope of Evaluation

The evaluation shall review the operations of the entire project in the Great Gobi SPA and Ulaanbaatar over 40 working days.

4. Issues to be addressed by Evaluation

A. The project staff has worked over the past four years to:

a) determine causes of decline in umbrella species abundance and diversity,
b) improve technical and human capacity of SPA Management Authority,
c) implement revised PA Management Plan
d) create on-going monitoring and assessment framework
e) strengthen the underlying policy framework
f) promote trans-boundary policy framework

The evaluation shall hence assess the project's attainment of global environmental objectives, outcomes/impacts, project objectives, and delivery and completion of project outputs/activities. The evaluation of the project's achievements shall be according to the GEF Project Review Criteria [6] : Implementation approach; country ownership/driveness, stakeholder participation/public involvement, sustainability, replication approach, financial planning, cost-effectiveness and monitoring and evaluation (some of these are elaborated below in points D, E and F). The evaluation shall include ratings of these criteria of highly satisfactory, satisfactory, marginally satisfactory, unsatisfactory and n/a.

A. The evaluation team shall assess the management of the protected area supported by the project by a GEF introduced "Tracking Tools". The tracking tool has two sections. Section one provides background and coverage information on the project, and section two provides an assessment of protected area management effectiveness. (Annex …)

B. The evaluation shall analyze main findings, lessons learned and extract best practices modeled by the project. The final report shall also describe the most significant achievements of the project. Any disagreements between the findings of the evaluation team, the IA/EA or the GEF recipient organization shall be explained in an annex.

C. The project has involved an array of international and national partners to achieve its objectives. The evaluation shall determine the adequacy of the support provided to the project by the UNDP country office, the MNE including the GGSPAA and Gobi-Altai and Bayankhongor aimags governments. Have the partnerships been appropriate and fully utilized to achieve the objectives?

D. The evaluation shall review national and local policies with regard to conservation and development and determine the contribution made by the project for long-term conservation of the umbrella species. The analysis should also document the challenges faced by the project that may have impeded successful implementation (factors beyond the control of the project).

E. The project has spent over US$ 1,05 million as of July 2007. The evaluation should determine if the project inputs such as training, public awareness campaigns, sub-contracts, personnel and equipment have been appropriate, managed wisely and used effectively.

F. The evaluation shall explore future options of assistance by GEF and UNDP in the area of SPA network development to replicate and augment the work done by this project.

5. Products Expected form the Evaluation

[6] These are mostly based on the GEF Council paper: GEF Project Cycle (GEF/C.16/Inf.7).

The evaluation shall report on the lessons learned from the project focusing on GGSPA management, conservation of the Bactrian camel, Gobi Bears and mobilization of the buffer zone soums and councils. The evaluation shall also report on the opportunities for future assistance for the protection of the Great Gobi. In addition to the evaluation report, presentation of findings is requested.

The evaluation report outline should be structured along the following lines:

1. Executive summary
2. Introduction
3. The project(s) and its development context
4. Findings and Conclusions
   4.1 Project formulation
   4.2 Implementation
   4.3 Results
5. Recommendations
6. Lessons learned
7. Annexes

6. Evaluation Approach

The work will be divided between review of documentation and interviews with stakeholders in Ulaanbaatar, Bayantooroi and rural centers. The evaluation team shall undertake the following tasks:

1. Review background documents in the project files including but not limited to the following:
   - Mid-term Evaluation Report of Feb 2006
   - Project Document of June 2003
   - Project Implementation Reviews (PIRs)
   - Annual and Quarterly Workplans
   - Correspondences between UNDP, MNE, GGSPAA and IB
   - ROAR of the UNDP CO
   - Audit Reports on the project

2. Locate and review additional documentation regarding the policy environment but not limited to the following:
   - Biodiversity Action Plan (1997)
   - Management Plan for CCSPAA (2005)
   - Mongolia Environment Monitor of the World Bank
   - Mongolia State of the Environment 2005
   - National Biodiversity Conservation Action Plan

3. Arrange a schedule of meetings in Ulaanbaatar and interview people both inside and outside of the project to collect their views on the policy environment and the implementation of the project. These people should include but not be limited to representatives from the following organizations:

Government
   - Ministry of Nature and Environment (MNE)
   - Institute of Biology, Mongolia Academy of Sciences
   - GGSPAA
   - Ministry of Food and Agriculture
   - Hydro-Meteorological and Environmental Monitoring Agency

International Organizations
   - United Nations Development Programme (UNDP)

- International Takhi Group
- Wild Camel Conservation Society
- Secretariat of Mongolian National Commission of Rare and Endangered Species

Non-Governmental Organizations

- Consortium of Mongolian Environmental NGOs
- Mongolian Association for Conservation of Nature and Environment (MACNE)
- World Wildlife Fund (WWF)

4. Undertake a site visit to the Great Gobi to review additional documentation and conduct additional interviews. Meet with buffer zone council members in five buffer zone soums, including Erdene, Altai, Tsogt, Bayan-Undur and Jinst, to receive a general briefing on conservation and development in the Great Gobi and meet also with and interview representatives of the following organizations:

- Governments of Gobi-Altai and Bayankhongor
- GGSPAA
- Community beneficiaries
- Secondary school environmental clubs

5. Present a report covering major findings and recommendations to UNDP, MNE, IB and GGSPAA.
6. Based on the above consultations, prepare a written Draft Report on the findings of the mission of not less than 20 pages, excluding annexes.
7. Based on feedback provided by these organizations and any additional information collected revise and finalize the report as appropriate based on these comments.

8. Submit 3 copies of the final, bound report to UNDP for distribution. Include an electronic copy of the report in MS Word.

7. Evaluation Team

The evaluation team shall consist of the following two national consultants, including consultant

The UNDP nominated consultant will be the team leader and should have an advanced university degree and at least 15 years of work experience in the field of sustainable environment, sound knowledge about results-based management (especially results-oriented monitoring and evaluation). S/he should be familiar with UNDP/GEF projects and GEF policies and strategies and have some familiarity with Mongolia. The team leader will take the overall responsibility for the quality and timely submission of the evaluation report in English.

The MNE nominated national expert shall have a degree related to environmental management and be familiar with the environmental conditions in rural and urban Mongolia. S/he shall have work experience with international development programs, preferably with UNDP. Ability to travel to rural Mongolia required. Working knowledge of English and computer literacy preferred.

8. The findings and conclusions

The categories of the findings and conclusions need to be rated in conformity with the GEF guidelines for final evaluations.

1. Executive summary
   - Brief description of project
   - Context and purpose of the evaluation
   - Main conclusions, recommendations and lessons learned
2. Introduction
   - Purpose of the evaluation
   - Key issues addressed
   - Methodology of the evaluation

- Structure of the evaluation

3. The project(s) and its development context
   - Project start and its duration
   - Problems that the project seek to address
   - Immediate and development objectives of the project
   - Main stakeholders
   - Results expected
4. Findings and Conclusions

In addition to a descriptive assessment, all **criteria marked with (R) should be rated** using the following divisions: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory

4.1. Project Formulation

- Conceptualization/Design (R). This should assess the approach used in design and an appreciation of the appropriateness of problem conceptualization and whether the selected intervention strategy addressed the root causes and principal threats in the project area. It should also include an assessment of the logical framework and whether the different project components and activities proposed to achieve the objective were appropriate, viable and responded to contextual institutional, legal and regulatory settings of the project. It should also assess the indicators defined for guiding implementation and measurement of achievement and whether lessons from other relevant projects (e.g., same focal area) were incorporated into project design.
- Country-ownership/Driveness. Assess the extent to which the project idea/conceptualization had its origin within national, sectoral and development plans and focuses on national environment and development interests.
- Stakeholder participation (R) Assess information dissemination, consultation, and "stakeholder" participation in design stages.
- Replication approach. Determine the ways in which lessons and experiences coming out of the project were/are to be replicated or scaled up in the design and implementation of other projects (this also related to actual practices undertaken during implementation).
- Other aspects to assess in the review of Project formulation approaches would be UNDP comparative advantage as IA for this project; the consideration of linkages between projects and other interventions within the sector and the definition of clear and appropriate management arrangements at the design stage.

4.2. Project Implementation

- Implementation Approach (R). This should include assessments of the following aspects: (i) The use of the logical framework as a management tool during implementation and any changes made to this as a response to changing conditions and/or feedback from M and E activities if required. (ii) Other elements that indicate adaptive management such as comprehensive and realistic work plans routinely developed that reflect adaptive management and/or; changes in management arrangements to enhance implementation. (iii) The project's use/establishment of electronic information technologies to support implementation, participation and monitoring, as well as other project activities. (iv) The general operational relationships between the institutions involved and others and how these relationships have contributed to effective implementation and achievement of project objectives. (v) Technical capacities associated with the project and their role in project development, management and achievements.
- Monitoring and evaluation (R). Including an assessment as to whether there has been adequate periodic oversight of activities during implementation to establish the extent to which inputs, work schedules, other required actions and outputs are proceeding according to plan; whether formal evaluations have been held and whether action has been taken on the results of this monitoring oversight and evaluation reports.
- Stakeholder participation (R). This should include assessments of the mechanisms for information dissemination in project implementation and the extent of stakeholder participation in management, emphasizing the following:
  - (i) The production and dissemination of information generated by the project.

(ii) Local resource users and NGOs participation in project implementation and decision making and an analysis of the strengths and weaknesses of the approach adopted by the project in this arena.
(iii) The establishment of partnerships and collaborative relationships developed by the project with local, national and international entities and the effects they have had on project implementation.
(iv) Involvement of governmental institutions in project implementation, the extent of governmental support of the project.

- Financial Planning: Including an assessment of:
  (i) The actual project cost by objectives, outputs, activities
  (ii) The cost-effectiveness of achievements
  (iii) Financial management (including disbursement issues)
  (iv) Co-financing [7]

- Sustainability. Extent to which the benefits of the project will continue, within or outside the project domain, after it has come to an end. Relevant factors include for example: development of a sustainability strategy, establishment of financial and economic instruments and mechanisms, mainstreaming project objectives into the economy or community production activities.

- Execution and implementation modalities. This should consider the effectiveness of the UNDP counterpart and Project Co-ordination Unit participation in selection, recruitment, assignment of experts, consultants and national counterpart staff members and in the definition of tasks and responsibilities; quantity, quality and timeliness of inputs for the project with respect to execution responsibilities, enactment of necessary legislation and budgetary provisions and extent to which these may have affected implementation and sustainability of the Project; quality and timeliness of inputs by UNDP and GoC and other parties responsible for providing inputs to the project, and the extent to which this may have affected the smooth implementation of the project.

4.3. Results

- Attainment of Outcomes/ Achievement of objectives (R*):* Including a description *and rating* of the extent to which the project's objectives (environmental and developmental) were achieved using Highly Satisfactory, Satisfactory, Marginally Satisfactory, and Unsatisfactory ratings. If the project did not establish a baseline (initial conditions), the evaluators should seek to determine it through the use of special methodologies so that achievements, results and impacts can be properly established.
- This section should also include reviews of the following:

- Sustainability*:* Including an appreciation of the extent to which benefits continue, within or outside the project domain after GEF assistance/external assistance in this phase has come to an end.
- Contribution to upgrading skills of the national staff

5. Recommendations

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives

6. Lessons learned

This should highlight the best and worst practices in addressing issues relating to relevance, performance and success.

- [7] Please see guidelines at the end of Annex 1 of these TORs for reporting of co-financing

7. Evaluation report Annexes
   - Evaluation TORs
   - Itinerary
   - List of persons interviewed
   - Summary of field visits
   - List of documents reviewed
   - Questionnaire used and summary of results
   - Comments by stakeholders (only in case of discrepancies with evaluation findings and conclusions)

8. Implementation Arrangements

The assessment will be carried out over 40 working days in July – August 2007. The work will commence on 3 July and be completed by 31 August 2007. A preliminary workplan is shown in the following table:

No	Task	03 -10 July 16-24 July	25 July – 05 Aug	06 – 24 August	27-31 August
1.	Review project documents				
2.	Meet with UNDP, MNE, Project Staff				
3.	Meet with Stakeholders in UB				
4.	Field Trip to Great Gobi				
5.	Meet with Stakeholders outside of UB				
6.	Present Findings to UNDP and MNE				
7.	Draft Report writing and submission				
8.	Finalize Report				

The Great Gobi project staff shall provide any necessary logistical support. The staff will assembly the suggested documents and prepare for the field trip. The evaluation team shall use the office space of the Great Gobi project. Team members are expected to bring their own computers/laptops for the written work. The mission will produce the following deliverables by the dates specified:

- A draft report submission by 24 August 2007.
- A final report 31 August 2007.

Annex 2. Itinerary of field visit (Ulaanbaatar – Bayankhongor – GobiAltai –Bayantooroi)

Trip Agenda to Conservation of the Great Gobi and its Umbrella Species Project area (July 26 - August 2, 2007.

Date	Location	Meetings
June 26	Trip to GGSPA	Trip was joined by Mr. Dashzeveg, Community development Officer, GG Project
June 27	Shinejinst *soum*, Bayankhongor *aimag*	Mr.Munkhtur, Head of *Soum* Representative *Khural* and Buffer Zone Council Visit s to underground well, information center and pressed fuel/briquette production
June 28	Erdene *soum*, Gobi-Altai *aimag*	Mr. Batsukh, Head, Governors Administration Office Mr.Batzorig, Head of the Buffer Zone Council Visit to information center Meeting with the group producing pressed fuel
June 29	Bayantooroi, Gobi-Altai *aimag* GGSPA Administration	Meetings with GGSPA Administration staff Dr. Mijiddorj, Director Mr. Nyambayar, Research & Monitoring Officer Mr. Dorjgotov, Law enforcement and Buffer Zone Officer Mr. Dorjbat, Park Ranger Mr. Ganzorig, Park Ranger Ms. Ankhbayar, Project field assistant im Bayantooroi Gobi Rare Tree Nursery Visit of the information center at the park Visit local shower house
July 30	Fieldtrip to Mother Mountain, *Maikhan bulag* (spring/oasis) in GGSPA - Tourism Zone,	Meeting GGSPA ranger Visit the tourist camp
July 31	*Tsagaan burgas* (White willow), Center for Gobi bear reproduction, *Zahyn us* (Center for wild camel breeding)	Meeting GGSPA ranger
1-2, August	Trip back to Ulaanbaatar	

Annex 3. List of persons interviewed

Name and position	Organization
Ulaanbaatar	
Mr. A. Enkhbat, Director General, GEF Operational Focal Point	Strategic Planning and Policy Coordination Department, MNE
Dr. A. Namkhai, Director, NPD	Special Protected Area Administration Department, MNE
Dr. Mijiddorj B., Director	Great Gobi SPA Administration
Mr. Nyambayar, Research and Monitoring Officer Mr. Dorjgotov, Law enforcement and Buffer Zone Mr. Dorjbat, Park ranger Mr. Ganzorig, Park ranger	
Ms. P. Ongonsar, Programme Officer	UNDP Mongolia Office
Mr. B. Ganbaatar, Coordinator	UNDP – GEF Small Grants Program
Ms. Tuya Ts, Project Manager	Conservation of the Great Gobi and Its Umbrella Species Project
Ms. Bayasgalan, Research Officer	
Mr. Ts. Dashzeveg, Training and Community Development Officer	
Mr. Galkhuu, Administrative and Financial Assistant	
Ms. L. Ankhbayar, Field Office Assistant in Bayantooroi	
Dr. Amgalan, Researcher	Institute of Biology, Mongolian Academy of Sciences
Mr. Adya, Researcher	Institute of Biology, Mongolian Academy of Sciences
Mr. Enkhbileg D., Coordinator	Mongolian Commission for the Conservation of Rare Species, Foundation for Wild Camel Conservation– Captive Wild Camel Breeding Programme Mongolia
Mr. Dorjraa, Secretary In capacity of representative of Foundation for Wild Camel conservation	Mongolian Commission for the Conservation of Rare Species
Bayankhongor aimag	
Mr. Munkhtur	Shinejinst *Soum,* Head of *Soum* Representative *Khural* and Buffer Zone Council
Gobi Altai *aimag*	
Mr. Batsukh, Head,	Gobi Altai *Aimag*, Erdene *soum* Governors Administration Office

Annex 4. GEF Tracking Tool Survey Result

Issue	Criteria	Score	Comments	Next steps
1. Legal status Does the protected area have legal status? *Context*	The protected area is not gazetted	0	*Note: see fourth option for private reserves*	
	The government has agreed that the protected area should be gazetted but the process has not yet begun	1		
	The protected area is in the process of being gazetted but the process is still incomplete	2		
	The protected area has been legally gazetted (or in the case of private reserves is owned by a trust or similar)	**3**	PA established formally in 1975 by the Ministry Cabinet Resolution N° 146	
2. Protected area regulations Are inappropriate land uses and activities (e.g. poaching) controlled? *Context*	There are no mechanisms for controlling inappropriate land use and activities in the protected area	0		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are major problems in implementing them effectively	1		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are some problems in effectively implementing them	**2**		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist and are being effectively implemented	3		
3. Law enforcement Can staff enforce protected area rules well enough? *Context*	The staff have no effective capacity/resources to enforce protected area legislation and regulations	0	*Possible issue for comment: happens if people are arrested?*	
	There are major deficiencies in staff capacity/resources to enforce protected area legislation and regulations (e.g. lack of skills, no patrol budget)	1		
	The staff have acceptable capacity/resources to enforce protected area legislation and regulations but some deficiencies remain	**2**	Insufficient number of rangers for patrolling and monitoring	According to the newly amended law on environmental protection (Nov 18 2005) additional rangers should be recruited by the Park Administration

Issue	Criteria	Score	Comments	Next steps
	The staff have excellent capacity/resources to enforce protected area legislation and Regulations	3		
4. Protected area objectives	No firm objectives have been agreed for the protected area	0		
Have objectives been agreed?	The protected area has agreed objectives, but is not managed according to these Objectives	1		
Planning	The protected area has agreed objectives, but these are only partially implemented	**2**	Due to restricted financial resources, the objectives were partially implemented	To follow the recommendations stated in the Management Plan in order to meet quality standards
	The protected area has agreed objectives and is managed to meet these objectives	3		
5. Protected area design	Inadequacies in design mean achieving the protected areas major management objectives of the protected area is impossible	0	*Possible issue for comment: does the protected area contain different management zones and are these well maintained?*	
Does the protected area need enlarging,	Inadequacies in design mean that achievement of major objectives are constrained to some extent	1		
corridors etc to meet its objectives?	Design is not significantly constraining achievement of major objectives, but could be improved	**2**	Data are currently being collected in order to delimitate the extent of the wild Bactrian camel distribution and determine whether the protected area	Research project is being conducted through satellite collaring of adult wild camels
Planning	Reserve design features are particularly aiding achievement of major objectives of the protected area	3		
6. Protected area boundary demarcation	The boundary of the protected area is not known by the management authority or local residents/neighboring land users	0	*Possible issue for comment: are there tenure disagreements affecting the protected area?*	
Is the boundary known and demarcated?	The boundary of the protected area is known by the management authority but is not known by local residents/neighboring land	1		
Context	The boundary of the protected area is known by both the management authority and local residents but is not appropriately demarcated	2		

Issue	Criteria	Score	Comments	Next steps
	The boundary of the protected area is known by the management authority and local residents and is appropriately demarcated	**3**		
7. Management plan	There is no management plan for the protected area	0		
Is there a management plan and is it being	A management plan is being prepared or has been prepared but is not being implemented	1		
implemented?	An approved management plan exists but it is only being partially implemented because of funding constraints or other problems	**2**	The management Plan has been approved on Jan 10 2006, therefore could not be implemented yet	
Planning	An approved management plan exists and is being implemented	3		
Additional points	The planning process allows adequate opportunity for key stakeholders to influence the management plan	**+1**		
	There is an established schedule and process for periodic review and updating of the management plan	+1		
Planning	The results of monitoring, research and evaluation are routinely incorporated into planning	**+1**		
8. Regular work plan	No regular work plan exists	0		
Is there an annual work plan?	A regular work plan exists but activities are not monitored against the plan's targets	1		
	A regular work plan exists and actions are monitored against the plan's targets, but many activities are not completed	2		
Planning/Outputs	A regular work plan exists, actions are monitored against the plan's targets and most or all prescribed activities are completed	**3**		
9. Resource inventory	There is little or no information available on the critical habitats, species and cultural values of the protected area	0		

Issue	Criteria	Score	Comments	Next steps
Do you have enough information to manage the area?	Information on the critical habitats, species and cultural values of the protected area is not sufficient to support planning and decision making	1		
Context	Information on the critical habitats, species and cultural values of the protected area is sufficient for key areas of planning/decision	**2**	Research is ongoing on key umbrella species (Bactrian Camel and Gobi bear) but complete results have not	Complete research projects and integrate relevant information into management plan
	Information concerning on the critical habitats, species and cultural values of the protected area is sufficient to support	3		
10. Research Is there a programme of	There is no survey or research work taking place in the protected area	0		
	There is some ad hoc survey and research work	1		
	There is considerable survey and research work but it is not directed towards the needs of protected area management	2		
Inputs	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs	**3**	Research is being conducted in the framework of a GEF project	Coordination of research according to management needs beyond the project life
11. Resource management	Requirements for active management of critical ecosystems, species and cultural values have not been assessed	0		
Is the protected area adequately managed (e.g.	Requirements for active management of critical ecosystems, species and cultural values are known but are not being	1		
	Requirements for active management of critical ecosystems, species and cultural values are only being partially addressed	**2**		Demand- and priority-based survey and research programmes need to be improved. Expand monitoring and assessment of pastureland and water resources
Process	Requirements for active management of critical ecosystems, species and cultural values are being substantially or fully	3		

Issue	Criteria	Score	Comments	Next steps
12. Staff numbers	There are no staff	0		
Are there enough people employed to manage the	Staff numbers are inadequate for critical management activities	1		
	Staff numbers are below optimum level for critical management activities	**2**	At least 2 more rangers and botanists are needed for effective management	MNE is developing new standards for regulating the number of rangers according to PA type
Inputs	Staff numbers are adequate for the management needs of the site	3		
13. Personnel management	Problems with personnel management constrain the achievement of major management objectives	0		
Are the staff managed well enough?	Problems with personnel management partially constrain the achievement of major management objectives	1		
Process	Personnel management is adequate to the achievement of major management objectives but could be improved	**2**		Improvement is needed in terms of management and administration leadership – improving work environment and social life quality (very remote isolated area)
	Personnel management is excellent and aids the achievement major management objectives	3		
14. Staff training	Staff are untrained	0		
Is there enough training for staff?	Staff training and skills are low relative to the needs of the protected area	1		
	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management	**2**	More advanced training is needed to develop research methodology and monitoring capacities, computer	International and national exposure to develop advocacy and research capacities
Inputs/Process	Staff training and skills are in tune with the management needs of the protected area, and with anticipated future needs	3		

Issue	Criteria	Score	Comments	Next steps
15. Current budget	There is no budget for the protected area	0		
Is the current budget sufficient?	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage	1		
	The available budget is acceptable, but could be further improved to fully achieve effective management	**2**	Actual budget is supported by the UNDP/GEF project which enables the implementation of most part of the management plan	Income generating activities should be developed, i.e. ecotourism, fund-raising activities to protect umbrella species, develop clubs to contribute to the advocacy of umbrella species and their habitat conservation; endemic tree nurseries
Inputs	The available budget is sufficient and meets the full management needs of the protected area	3		
16. Security of budget	There is no secure budget for the protected area and management is wholly reliant on outside or year by year funding	0		
Is the budget secure?	There is very little secure budget and the protected area could not function adequately without outside funding	1		
Inputs	There is a reasonably secure core budget for the protected area but many innovations and initiatives are reliant on outside funding	**2**	An average of 20,000 US$ is secured from the State budget (Actual budget is supported by the UNDP/GEF	
	There is a secure budget for the protected area and its management needs on a multi-year cycle	3		
17. Management of budget	Budget management is poor and significantly undermines effectiveness	0		
Is the budget managed to	Budget management is poor and constrains effectiveness	1		
meet critical management needs?	Budget management is adequate but could be improved	**2**	Budget is always overspent on travel expenses	

Issue	Criteria	Score	Comments	Next steps
Process	Budget management is excellent and aids effectiveness	3		
18. Equipment	There are little or no equipment and facilities	0		
Are there adequate equipment and facilities?	There are some equipment and facilities but these are wholly inadequate	1		
	There are equipment and facilities, but still some major gaps that constrain management	**2**	Appropriate equipment has been acquired but its use is severely limited because of major gaps in electricity	Solar energy equipment will be provided by the UNDP/GEF project
Process	There are adequate equipment and facilities	3		
19. Maintenance of equipment	There is little or no maintenance of equipment and facilities	0		
Is equipment adequately maintained?	There is some ad hoc maintenance of equipment and facilities	1		
Process	There is maintenance of equipment and facilities, but there are some important gaps in maintenance	**2**	Gaps in computer equipment maintenance due to lack of local technical capacity for maintenance	
	Equipment and facilities are well maintained	3		
20. Education and awareness programme	There is no education and awareness programme	0		
Is there a planned education programme?	There is a limited and ad hoc education and awareness programme, but no overall planning for this	1		
Process	There is a planned education and awareness programme but there are still serious gaps	**2**		More public awareness activities in the buffer zone will be conducted amongst the Environmental Clubs, especially in Bayantooroi, according to the recommendation of the National Audit conducted in 2005

Issue	Criteria	Score	Comments	Next steps
	There is a planned and effective education and awareness programme fully linked to the objectives and needs of the protected area	3		
21. State and commercial neighbors	There is no contact between managers and neighboring official or corporate land users	0		
Is there cooperation with adjacent land	There is limited contact between managers and neighboring official or corporate land users	1		
users?	There is regular contact between managers and neighbouring official or corporate land users, but only limited co-operation	**2**	Limited cooperation with herders	Improve education and awareness of herders through meetings; increase the number of volunteer rangers
Process	There is regular contact between managers and neighbouring official or corporate land users, and substantial co-operation on	3		
22. Indigenous people	Indigenous and traditional peoples have no input into decisions relating to the management of the protected area	0		
Do indigenous and traditional peoples resident	Indigenous and traditional people have some input into discussions relating to management but no direct involvement in	**1**	PA management plan was developed in consultation with herder communities – however the	Initiate broad-based consultations through including herder communities into the Board of Directors of the SPA
	Indigenous and traditional peoples directly contribute to some decisions relating to management	2		
Process	Indigenous and traditional peoples directly participate in making decisions relating to management	3		
23. Local communities	Local communities have no input into decisions relating to the management of the protected area	0		
Do local communities resident or near	Local communities have some input into discussions relating to management but no direct involvement in the resulting decisions	**1**	See question 22.	See question 22.
	Local communities directly contribute to some decisions relating to management	2		
	Local communities directly participate in making decisions relating to management	3		

Issue	Criteria	Score	Comments	Next steps
Additional points	There is open communication and trust between local stakeholders and protected area managers	**+1**		
Outputs	Programmes to enhance local community welfare, while conserving protected area resources, are being implemented	**+1**		
24. Visitor facilities	There are no visitor facilities and services	0	*Possible issue for comment: Do visitors damage the protected area?*	
Are visitor facilities (for tourists, pilgrims etc) good	Visitor facilities and services are Inappropriate for current levels of visitation or are under construction	1		
enough?	Visitor facilities and services are adequate for current levels of visitation but could be improved	**2**	No commercial tourism activities	Develop ecotourism
Outputs	Visitor facilities and services are excellent for current levels of visitation	3		
25. Commercial tourism	There is little or no contact between managers and tourism operators using the protected area	**0**	Not applicable – there is no commercial tourism	
Do commercial tour operators contribute to protected area management?	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	1		
	There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain protected	2		
Process	There is excellent co-operation between managers and tourism operators to enhance visitor experiences, protect values and resolve	3		
26. Fees If fees (tourism,	Although fees are theoretically applied, they are not collected	0		
fines) are applied, do they help protected area	The fee is collected, but it goes straight to central government and is not returned to the protected area or its environs	1		

Issue	Criteria	Score	Comments	Next steps
management?	The fee is collected, but is disbursed to the local authority rather than the protected area	2		
Outputs	There is a fee for visiting the protected area that helps to support this and/or other protected areas	**3**	Collected fees are exclusively used for the PA management purpose	
27. Condition assessment	Important biodiversity, ecological and cultural values are being severely degraded	0	*Possible issue for comment: It is important to provide details of the biodiversity, ecological or cultural*	
Is the protected area being managed	Some biodiversity, ecological and cultural values are being severely degraded	1		
consistent to its objectives?	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	**2**	Hybridization occurring between domestic and wild camel populations Increased drought and dzud occurrence resulting in decreased number of springs , availability of food for the wildlife, and size of oases	Water resource restoration Increase herders awareness about hybridization
Outcomes	Biodiversity, ecological and cultural values are predominantly intact	3		
Additional points Outputs	There are active programmes for restoration of degraded areas within the protected area and/or the protected area buffer zone	**+1**		
28. Access assessment Issue	Protection systems (patrols, permits etc) are ineffective in controlling access or use of the reserve in accordance with designated objectives	0		
Is access/resource use sufficiently controlled?	Protection systems are only partially effective in controlling access or use of the reserve in accordance with designated objectives	1		
  Outcomes	Protection systems are moderately effective in controlling access or use of the reserve in accordance with designated objectives	**2**	Insufficient patrolling, especially during the summer	Increase the frequency of patrolling
	Protection systems are largely or wholly effective in controlling access or use of the reserve in accordance with designated	3		

Issue	Criteria	Score	Comments	Next steps
29. Economic benefit assessment	The existence of the protected area has reduced the options for economic development of the local communities	0	*Possible issue for comment: how does national or regional development impact on the protected*	
Is the protected area providing economic	The existence of the protected area has neither damaged nor benefited the local economy	1		
benefits to local communities?	There is some flow of economic benefits to local communities from the existence of the protected area but this is of minor significance	**2**	Limited economical benefit to the local communities	The presence of this SPA provides some opportunities for income generating activities and occasional labor
Outcomes	There is a significant or major flow of economic benefits to local communities from activities in and around the protected area	3		
30. Monitoring and evaluation	There is no monitoring and evaluation in the protected area	0		
Are management activities monitored	There is some ad hoc monitoring and evaluation, but no overall strategy and/or no regular collection of results	1		
against performance?	There is an agreed and implemented monitoring and evaluation system but results are not systematically used for management	**2**	Regular monitoring exists in the form of semi-annual and annual reporting to the MNE. However, the results of	Adopt adaptive management approach and use evaluation results to improve the management decisions and their implementation
Planning/Process	A good monitoring and evaluation system exists, is well implemented and used in adaptive management	3		

Annex 5. List of documents reviewed

Government of Mongolia, UNDP, 2003, Project Document, the Conservation of the Great Gobi Ecosystem and its Umbrella Species

GEF, Tracking Tool for GEF Biodiversity Focal Area Strategic Priority One: "Catalyzing Sustainability of Protected Areas"

Ministry for Nature and the Environment and UNDP, 2006, "Conservation of the Gobi Desert Ecosystem and its "Umbrella Species" Project, Mid-Term Evaluation report and Follow-up Action Plan.

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Ministry of Nature and Environment and UNDP/GEF, 2007, "Conservation of the Great Gobi Ecosystem and Its Umbrella Species" Project, Exit Strategy Development for the Projects in the Final Year of Implementation.

Ministry of Nature and Environment, UNDP/GEF "Conservation of the Great Gobi Ecosystem and Its Umbrella Species" Project and the Wildlife Conservation Society, 2004, International Gobi Bear Conservation and Management Workshop Recommendations.

Mongolian National Audit Office, 2005, Audit Report for MON/02/G35 and MON/02/335.

UNDP, 2005, Measuring and Demonstrating Impact, UNDP/GEF Resource Kit (No. 2)

UNDP/GEF, 2003, "Conservation of the Great Gobi Ecosystem and Its Umbrella Species" Project, Project Impact indicators, Working document.

UNDP/GEF, 2003, "Conservation of the Great Gobi Ecosystem and Its Umbrella Species" Project, Logframe of Conservation of the Great Gobi Ecosystem and its Umbrella Species Project, Working document.

UNDP/GEF, 2005, "Conservation of the Great Gobi and Its Umbrella Species" Project. Project Institutional Chronology, Working document.

UNDP/GEF, 2005, "Conservation of the Great Gobi and Its Umbrella Species" Project, Annual Project Report (APR/PIR) for UNDP/GEF Projects 2005

UNDP/GEF, 2007, "Conservation of the Great Gobi and Its Umbrella Species" Project Exit Strategy, in Mongolian and English, Working Document.