

**PROGRAM: CONSERVATION AND SUSTAINABLE
MANAGEMENT OF NATURAL RESOURCES
MONGOLIA**

**SITUATION ANALYSIS AND CONCEPTUALIZATION OF FUTURE SUPPORT TO
THE TWO DESIGNATED COMMUNITY-BASED NATURAL RESOURCE
MANAGEMENT AREAS (CBNRMAS)**

MUNGUNMORIT SUM AND BATSHIREET SUM

Located in the

**Eastern Buffer Zone of the
KHAN KHENTEE STRICTLY PROTECTED AREA**

**Implemented on behalf of:
Deutsche Gesellschaft für Technische Zusammenarbeit
(GTZ) GmbH**

Final Report

Dr. Goetz Schuerholz

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Mongolian Language Terms

<i>Aimag</i>	Second level of Government; largest political territorial division in Mongolia (English equivalent: “Province”)
<i>Sum</i>	Third level of Government; second largest political territorial division in Mongolia (English equivalent: “District”)
<i>Bag</i>	Fourth level of Government; smallest political territorial division in Mongolia
<i>Tugrig</i>	Mongolian national currency
<i>Sum Khural</i>	District Citizen Representative
<i>Ger</i>	Traditional Nomad Dwelling

Acronyms used

AG	Aimag Governor
Aimag	Aimag Government
AK	Aimag Khural
Bag	Bag Governor
BZ	Buffer Zone
BZC	Buffer Zone Council
BZF	Buffer Zone Fund
CBD	Convention on Biological Diversity
CBNRMA	Community Based Natural Resource Management Area
CBNRMU	Community Based Natural Resource Management Unit
CIS	Community of Independent States
CSMNR	Conservation and Sustainable Management of Natural Resources
GTZ	<i>Gesellschaft für Technische Zusammenarbeit</i>
ITC	Information and Training Center of the KKSPA
KKSPA	Khan Khentee Strictly Protected Area
MNE	Ministry of Nature and Environment
MoU	Memorandum of Understanding
NCBZD	GTZ Nature Conservation and Buffer Zone Development Project
NGO	Non-governmental Organisation
PA	Protected Area
SG	Sum Governor
SSIA	State Specialized Inspection Agency
SK	Sum Khural
SPA	Special Protected Area
SSEI	Sum State Environmental Inspector
Sum	Sum Government
WMA	Wildlife Management Area
WWF	World Wide Fund for Nature

PART A: SITUATION ANALYSIS

Section 1. INTRODUCTION

1.1. Background

The background and framework conditions of the GTZ implemented Eastern Buffer Zone Development Project of the Khan Khentee Strictly Protected Area (KKSPA)¹ have been aptly described by Mackenzie and Steinhauer-Burkart (2002) as follows:

“The purpose of the project is to build capacity amongst all stakeholders in Batshireet and Mungunmorit Sum, for conservation and sustainable resource management in the Eastern Buffer Zone of Khan Khentee Strictly Protected Area, with the ultimate goals of improving livelihoods of buffer zone residents and conserving Khan Khentee Special Protected Area (SPA) of North-East Mongolia.

Khan Khentee Strictly Protected Area occupies 1.2 million ha of mountain steppe and Siberian taiga forest stretching from just 100 km northeast of Ulaanbaatar, up to the Russian border, a further 200 km north. Comprising the mountainous parts of three Sums Khentee, Tuv and Selenge, it is the third largest of Mongolia’s protected areas and, largely due to its inaccessibility and lack of permanent human settlement, one of the last relatively unspoilt natural areas in the country. These mountains have the highest precipitation and the greatest diversity both of habitats and of animal and plant species. Mongolia's largest cities receive their water from rivers flowing from the Khentee Mountains. Approximately 40% of all animal species in Mongolia occur in the Khentee Mountains.”

Strictly Protected Areas (SPA) have been created for scientific and environmental purposes and have the highest status in Mongolia’s classification of protected areas. Legislation requires that they have internal zonation, into pristine, conservation and limited use zones, and that they are complemented by buffer zones in the inhabited areas immediately beyond their boundaries. These buffer zones have both conservation and development objectives.”

Although the designation of a buffer zone has to meet certain criteria, its area and boundaries are negotiable. The designation is followed up by boundary determination, the creation of Buffer Zone Councils and the establishment of a “BZ Development Fund”. The Buffer Zone Councils are requested to produce sustainable land-/resource plans on Sum level, to supervise conservation compatible land- and resource use and to approve successful applications from specific user groups (Sum residents) with interest in

¹ The project “Biodiversity Conservation and Development of sustainable livelihoods in the Eastern Buffer zone of KKSPA” is an integrated part of the overall GTZ program “Conservation and Sustainable Management of Natural Resources”. It is being co-financed by the Royal Netherlands Embassy of Beijing (RNE) since August 2003 under a Silent Partnership Agreement with GTZ. The project is limited to the interventions of the geographic Region Mungunmorit Soum/Tuv Aimag and Batshireet Soum/Khentee Aimag.

sustainable business opportunities related to conservation-compatible land- and renewable resource use.

GTZ has been supporting the development of Khan Khentee SPA and its buffer zone since 1995, as part of the Nature Conservation and Buffer Zone Development Project which was transformed into the current Program on Conservation and Sustainable Management of Natural Resources (CSMNR) in July 2005.

Within this new program structure, one of the GTZ implemented approaches to conserve biodiversity and develop income diversification options in the Eastern Buffer Zone of KKSPA² concentrates on the rehabilitation of game populations decimated by over-hunting and poaching within two designated community-based natural resource management pilot areas located in the Sums of Batshireet and Mungunmorit, both subject to the assessment described in this report.

GTZ partners for the implementation of the program activities at the local level are the authorities of the Mungunmorit and Batshireet Sums, the local representatives of the Ministry of Nature and Environment (KKSPA Rangers and Information Centers, Sum Rangers, the State Specialized Inspection Agency -Environmental Inspectors- and the State Police -Soum Detachment).

1.2. Methods and Approach

The assessment of the two pilot areas commenced with a comprehensive literature and archive review of GTZ files and documents, complemented by structured discussions with key stakeholders from the public and private sector in Ulaan Baatar and a two-weeks field trip to the target areas. The field trip of one week each in the Mungunmorit and Batshireet Sum covered site visits to the two model community-based natural resource management areas (CBNRMA), discussions with community stakeholders and Sum representatives, extensive interactions with the community rangers from both areas, and at the end of the field reconnaissance, two multi-stakeholder wrap-up workshops, one in each Sum.

The field evaluation focused on past and current project activities from the two target areas; more specifically, on a general assessment of the community ranger groups from areas, their functions and work programs, and their level of interaction with community stakeholders. Eight of the approximately 20 herder families bordering the Mungunmorit CBNRMA and 13 of the approximately 18 families bordering the Batshireet CBNRMA were interviewed in order to assess their level of interest in the concept of a CBNRMA and the level of support to the GTZ implemented project interventions.

One day was spent visiting the GTZ sponsored Maral deer farm in the vicinity of the Mungunmorit Sum, followed by a SWOT analysis with the members of the deer farm cooperative in order to assess the operation's financial sustainability and future.

² See Footnote 1

During the field trip the consultant was accompanied by Dr. Tsendjav, who provides ecological backstopping services to the project, in particular with respect to bio-monitoring implemented in cooperation with the community rangers in both model areas.

The preliminary findings of the CBNRMA review and recommendations regarding the future management and financial sustainability of the two model areas were presented at the end of the mission to the participants of a GTZ-implemented multi-stakeholder “wrap-up” workshop in Ulaan Baatar. The suggestions and observations resulting from the workshop form part of this report.

The report is composed of two Parts. Part A provides the results of the situation analysis of the two target areas that also includes an overview of pertinent framework conditions and an analysis of area-specific problems and issues. Part B concentrates on the “Way Forward”, defining milestones and priority actions needed to achieving financial sustainability for the two CBNRMAs.

GTZ retained the consulting services of Goetz Schuerholz for the implementation of this assessment.

1.3. Project Rationale and History

GTZ’s activities related to the two CBNRMA pilot areas located in the Buffer zone³ of the KKSPA, started in the Year 2000 with a contract awarded to “Monreal”, a local wildlife management company, in order to assess the status of game populations in the designated buffer zone of the KKSPA. The key recommendation by Monreal resulting from these inventories focused on the establishment of two wildlife management areas (“concessions”). One to-be located in the Mungunmorit Sum, the second in the Batshireet Sum, both showing a promising potential for future trophy hunting. Following this recommendation GTZ commissioned Monreal to prepare a management proposal for both areas which subsequently was submitted to GTZ and the two Sum Parliaments in 2002 for approval. The proposals focused on “biotechnical” and protection needs, also offering Monreal’s services for the implementation of the project and for assuming ultimate responsibility for the management of the two areas as hunting concessions.

With reference to the Batshireet local protected area, Monreal’s proposal was rejected by the local Sum Parliament asking Monreal for a thorough revision of the document to better reflect local needs. Following Monreal’s suggestion however to provide protection to the selected Batshireet area, the Sum Authorities decided to proceed with the registration of the land as a “local protected area” under the Land Act. The local protected area originally proposed by Monreal which was officially registered in 2003 in

³ Although the term ‘Buffer Zone’ has been replaced by the more fitting term ‘Support Zone’ in many countries of the world, the term buffer zone will be used in this report since it is still firmly anchored in the Mongolian Legislation related to protected areas. The reason for the change in terminology clearly centers on the need to involve protected area neighbours in the planning and decision-making processes related to protected areas. ‘Support of park neighbours is needed for the sustainable protection of a protected area and economic support has to be given to the local stakeholders in return in order to secure local livelihood.

the National Cadastre as “Khavtgar locally protected area”. The purpose for this decision was to rehabilitate the decimated game populations in the target area through better protection.

The revised version of Monreal’s management proposal was again turned down by the the local Sum Parliament, although a preliminary management agreement with Monreal stayed in effect until late 2004 when the newly elected Sum Governor declared the contract null and void.

Monreal’s proposal for the area selected within the Mungunmorit Soum served as basis for the establishment of some preliminary”monitoring” infrastructure, implemented by local people with financial support by GTZ.

The Mungunmorit Soum Authority in the early beginning appeared less enthusiastic about the designation of a local protected area than their Batshireet Sum colleagues. The official declaration and designation of the current area was postponed until 2005. The rae was registered in the national cadastre in 2006.

Prior to these developments, as early as 2002, GTZ prepared a comprehensive CBNRM-based funding proposal subsequently submitted to the Royal Netherlands Embassy in Beijing - RNE (Mackenzie and Steinhauer-Burkart, 2002) for approval. On approval of the project in August 2003 RNE awarded GTZ the contract for the implementation of the project named “Biodiversity Conservation and Development of Sustainable Livelihoods Options”. The project is composed of five components, of which component two⁴ aims at the protection of the two “locally protected areas”⁵.

GTZ kick-started the project in early 2004, initially continuing to work with Monreal. With the arrival of the newly assigned GTZ Local Coordinator to the project in late 2004, the agreement with Monreal was cancelled by both: GTZ and the Soum Authorities. At this point, GTZ assumed full responsibility for the community ranger groups that had been established for both areas and the overall implementation of the project.

In June 2005 GTZ entered into a formal three-years cooperation agreement with the Batshireet Sum Government, to implement conservation management of the “Khavtgar Locally Protected Area” aiming at the protection of wildlife in the Batshireet Sum, Khentee Aimag. A similar contract pursuing the same goals was signed by GTZ with the Mungunmorit Sum Government in May 2006.

Section 2. Framework Conditions

2.1. The Sums of Mungunmorit and Batshireet

⁴ Component 2: Participatory Conservation and Monitoring of Wildlife and other Natural Resources

⁵ Instead of the term “locally protected areas”, the term “community-based natural resource management areas” (CBNRMA) will be used in this report, since CBNRMA appears to better reflect the purpose of the project.

Mungunmorit Sum. The total Sum area (three Bags) is 672 000 ha of which 50% form part of the KKSPA limited use zone; the other 50% part of the KKSPA constitute the designated Buffer Zone. The distance from the Sum center to Ulaan Baatar is approximately 200 km. The total Sum population is approximately 3000 (620 families). The Sum center is connected to the national electrical grid and telephone service. The Sum has no internet service provider. 100 persons are employed by official Sum institutions (city hall, Sumhural, elementary school and kindergarten, “cultural center”, post office, etc.). Further 100 Sum residents are employed by the six small companies located in the Sum. All other residents live of subsistence ranching with livestock numbers per family ranging between 7 and 300. Cashmere goats are the most valuable livestock species. The dependency on natural resources is very high. Many families depend on the annual collection of pine nuts (*Pinus sibirica*) sold as cash crop to the Chinese market, and wild berries, partly used as cash crops. The nut collection takes place inside the KKSPA. There are no stands of *Pinus sibirica* outside the KKSPA boundaries in the Mungunmorit Sum. All Sum residents depend on firewood as only energy source for heating and cooking.

Batshireet Sum. The Sum has a total surface area of 700 000 ha, composed of 80% uninhabited forest (no livestock grazing inside). Twenty percent of the Sum land base is available for livestock grazing. The Sum has a total population of 2000 (561 families) living of subsistence livestock ranching. The total number of livestock in the Sum is approximately 25 000 (8000 cattle, 300 horses, 8 camels, 5000 goats and 10 000 sheep). The Sum is very isolated and can be reached only by 4x4 vehicles from Ulaan Baatar within a 7-9 hour drive via mostly unpaved tracks tracks. The Sum is not connected to the national electrical grid and has very limited communication facilities, concentrated in the Sum Center. There are 18 registered small enterprises registered in the Sum of which two are timber-related. The Sum population has a very high dependency on natural resources, mostly related to nut collection from both inside and outside the KKSPA as cash crop and berries for personal use, to a lesser extent as cash crop.

2.2. Legal framework

Mongolian Law on Land The two CBNRMAs of the Batshireet and Mungunmorit Sums were established under the “Mongolian Law on Land” (Chapter 23, paragraph 3). The Law stipulates that:

“Land that has no other designated purpose can be taken under “special protection” on the Sum Governor’s request acting on behalf of the Sum District Citizen Council (SDCC) who has full authority to make land use decisions. The law authorizes the SDCC to designate an area for special protection, define its boundaries, size and use.”

The areas designated for “special protection” are registered with the national land cadastre. The Batshireet Sum made use of its right to declare protected areas as early as 1998 when an endangered Pine Grove (*Pinus sibirica*) was placed under protection and registered with the national cadastre in the same year. This was followed by the registration of an archaeological site within the Batshireet Sum, with designated

protection status in 1999. The CBNRMA “Khavtgar” was the third “local protection area” entered into the national cadastre in 2003. According to the Mongolian Law on Land, areas under Sum Protection cannot be revoked and/or altered by any other authority and do not permit other rights to be registered against it by third parties without prior approval of the Sum District Citizen Council. Under the same law the Sum District Citizen Council is requested to pass a resolution specifying stakeholder rights and management options for the areas with designated protection status. The corresponding resolution for the Batshireet CBNRMA defines the overall goal for the CBNRMA as follows:

“To secure the livelihood of families neighbouring the CBNRMA and other Sum families at large and to provide protection to the biodiversity of the CBNRMA.”

Other key Laws related to the CBNRMAs are the:

“Mongolian Law on Hunting” (inventories, game species, seasons, bag limits, licences, fees, fines and penalties etc.) which will apply once hunting in the CBNRMAs commences on recovery of the targeted game species populations. The Hunting Law allows the Sum to establish zones specifically dedicated to hunting (Hunting Act, Article 7 (3)). This Article further allows for the designation by the Sum of specific regions as “animal habitat” with exclusive user rights by individuals (Johnstad Mark, 1998).

“Mongolian Law on Protected Areas” (Both CBNRMAs share a common boundary with the KKSPA; management and protection policies for both have to be compatible)

“Buffer Zone Law” (The CBNRMAs are both located in the “buffer zone” of the KKSPA. The Buffer Zone Council representing the interests of the Sum constituents should therefore be involved in the future management of the CBNRMAs).

“Mongolian Law on Forests” (Both target areas are largely covered by forests; if the Sum Council decides in the future to zone part of the CBNRMA for sustainable forest management, the Law on Forests defining inventories, forest management plans and use restrictions will have a major bearing).

2.3. Institutional analysis of Mungunmorit and Batshireet Sums

The organizational structure of the Sum level administration is exemplified by the organizational chart for the Mungunmorit Sum (see Annex 1). The same structure applies to the Batshireet Sum and any other of Mongolia’s 33 Sums linked to the 21 Aimags of the country. Most Sums have an average of 30 – 40 full time employees as shown on the organizational chart (Annex 1). Each Sum has one Environmental Inspector reporting to the central State Specialized Inspection Agency (SSIA). Typically, each Sum has at least one Sum Ranger on the Sum’s payroll but with reporting responsibilities to the Ministry of Nature and Environment (MNE). The State Inspectors have all-encompassing enforcement rights for resource- and land-use (land, mining, forestry, hunting, fishing, wildlife, water, air, etc.), and work hand-in-hand with the local police force. The police are administratively attached to the Sum. Until the year 2000 the SSIA and MNE worked

under the same umbrella. Today the two are different entities, a cause of continuing problems⁶.

A group of KKSPA Park Rangers is stationed in each of the Mungunmorit (5) and Batshireet (5) Sum with law enforcement responsibilities confined to two sections of the KKSPA. Prior to the year 2003 all Park Rangers had “inspector” status with law enforcement rights extending to the buffer zone of the KKSPA. With the changes from 2000 the inspector authority status was taken away from most Park Rangers. There is no direct administrative link between the Sum and KKSPA Park Rangers who are paid by and report to the MNE (the Headquarters of the KKSPA is located in Ulaan Baatar).

The Bag is the link between Sum constituents and Sum authorities. Each Bag has only one full time employee, the Bag Governor who reports to the Sum Governor. The Bag Governor is responsible *inter alia* to call for and to chair monthly Bag meetings with Bag constituents. At the meetings -all Bag families are invited- local problems, Sum matters and future projects are discussed. Contrary to the Sum, Bags don’t have a fixed budget, but maintain a “common fund”, composed of voluntary contributions by Bag families. The common fund is mostly used for common festivities, and only occasionally to cover expenses related to humanitarian and medical emergencies.

The annual operational budget of the Mungunmorit Sum including wages and running expenses is approximately US\$ 110,000; the budget of the Batshireet Sum only US\$ 40,000.⁷

One of the key responsibilities of the Sum is to collect taxes on behalf of the Central Government and for the Sum. The tax officer is part of the Sum administration. Income tax in Mongolia is only paid by “employees”. Since most of the Sum constituents in Batshireet and Mungunmorit are self-employed (herders), taxes on livestock and taxes for range use apply. Of the US\$ 27,000 annual taxes collected by the Batshireet Sum, 18,000 are retained by the Sum, 4,000 have to be forwarded to the Aimag of Khentee and 5,000 to the Central Government. The remainder of the budget (mostly wages) of 22,000 US\$ are paid to the Sum by the Central Government.

In summary, although both Sums of Batshireet and Mungunmorit have a relatively stable administrative structure and a fixed annual budget, both are poorly equipped in terms of vehicles, machines and (electronic) office equipment. Additionally, power and communication facilities are very restricted. Both Sums are under-staffed and under-budgeted, severely limiting their capabilities. Against this background it is unlikely that Sum budgets can absorb additional costs for community guards and/or infrastructure establishment and maintenance for the two designated CBNRMAs once donor funding terminates. It is expected, however, that both CBNRMAs will be able to generate sufficient revenues in the future to cover their operational costs, providing that an

⁶ Personal communication with B.Dorjgotov, MNE, 18. Oct. 2006.

⁷ Personal communication with Sum Authorities.

agreement can be reached between Sum Authorities and the Central Government on a more favourable distribution of funds to-be generated through hunting.

2.4. The KKSPA Buffer Zone and Buffer Zone Councils

The KKSPA Eastern Buffer Zone was established in 1998 following a consultation process by KKSPA personnel in the Sums bordering the KKSPA. Each Sum had the liberty to decide whether to be part of the Buffer Zone. Because of their isolation and limited potential for economic development, the Batshireet and Mungunmorit Sum Councils opted to become part of the Buffer Zone in 1998, in expectation of promising economic alternatives from future conservation-compatible development to be facilitated by the Buffer Zone. There was a common belief that Sums showing “Good Governance” would easier qualify for international donor assistance, which would provide economically attractive opportunities for technical transfer and skill development in an impoverished and economically disadvantaged region.

According to the previous Local Parliament’s Speaker of the Batshireet Sum it was hoped that by voting in favor of a Buffer Zone, donor assistance for teaching the Sum’s mostly resource-dependent constituents conservation management could be attracted. This would be of benefit to the resources and the economic benefit of the local people⁸.

Each Sum being part of the KKSPA Buffer Zone is obliged to establish a Buffer Zone Council –BZC (see Mongolian Law on Buffer Zones). The BZC is composed of two representatives each of the Sum and the KKSPA and three representatives of the Sum constituents. The BZC members work pro bono. The main function of the BZC is the establishment of a Buffer Zone Fund. Both Buffer Zone Funds for Mungunmorit and Batshireet have been established with GTZ funding, although minor voluntary contributions by wealthy buffer zone constituents have been received additionally. The fund is used for training and capacity development and land restoration following natural disasters. In urgent cases the fund may be used to provide livelihood support. It also provides small-scale soft-loans for business development. Proposals for natural resource use in the buffer zone are first screened by the BZC before submission to the Sum Parliament.

It is the joint responsibility of the BZC and the KKSPA personnel to elaborate a conservation-compatible business plan for the Buffer Zone. This has not been accomplished yet for either of the two target Sums.

In brief, due to its voluntary nature and unsecured funding, the BZCs of the Mungunmorit and Batshireet Sums are generally weak with little visible impact on the sustainable development of the two corresponding Buffer zones. Due to the limited capacity of the BZCs it appears unrealistic to expect the BZCs to play an important future role in the

⁸ Personal communication with Erdenebayr, former Local Parliament’s Speaker of Batshireet Sum and current director of the BZC Batshireet.

management of the CBNRMAs although their cooperation for this project will be a valuable asset.

2.5. Project Partners

The two principal partners of GTZ for the implementation of the CBNRMA project are the Sum authorities of Mungunmorit and Batshireet. A three-year cooperation agreement between GTZ and Batshireet was signed in June 2005 permitting GTZ to develop the Batshireet CBNRMA according to the terms defined in the agreement. In May 2006 a similar cooperation agreement between the Sum authorities of Mungunmorit and GTZ was signed with respect to the development of the Mungunmorit CBNRMA. All work performed to date is in accordance with these two agreements.

The KKSPA is a critical partner in the CBNRMA project in both target areas which share a common boundary with the KKSPA. Currently, the KKSPA rangers closely cooperate with the community rangers through implementing joint patrols, especially in the peak season of nut collection. The KKSPA personnel will play an important role as a member of the future planning group to be assembled for the participatory elaboration of CBNRMA management plans.

The Sum Buffer zone Committees of Batshireet and Mungunmorit are other partners of GTZ, currently only marginally involved in the CBNRMA components of the GTZ KKSPA Buffer Zone Project. However, since the SZCs are responsible for screening resource- and land-use management proposals originating from constituent groups of the respective Sums, SZCs should play a more pro-active role in the future by assisting the project in defining and implementing projects and interventions related to the CBNRMAs (The SZCs should therefore be part of the management planning group proposed for the CBNRMAs as a follow-up recommendation of this assessment).

Other partners are the Sum rangers⁹ as local representatives of the MNE, cooperating with the community rangers in environmental law enforcement. The MNE will be a key player in the future, responsible for the approval of wildlife inventories and hunting quotas for the CBNRMAs.

The State Specialized Inspection Agency, locally represented by an “inspector” attached to the Sum, is another CBNRMA project partner, assisting the community rangers in enforcement matters. This also applies to the local police force, hosted by the Sum administration.

2.6. Geographic Target Areas

The two target areas were first selected by Monreal because of their unique, relatively unaltered and highly productive ecosystems in terms of game species and wildlife at large.

⁹ Only valid for Mungunmorit Sum. At current there is no Sum ranger located in the Batshireet Sum.

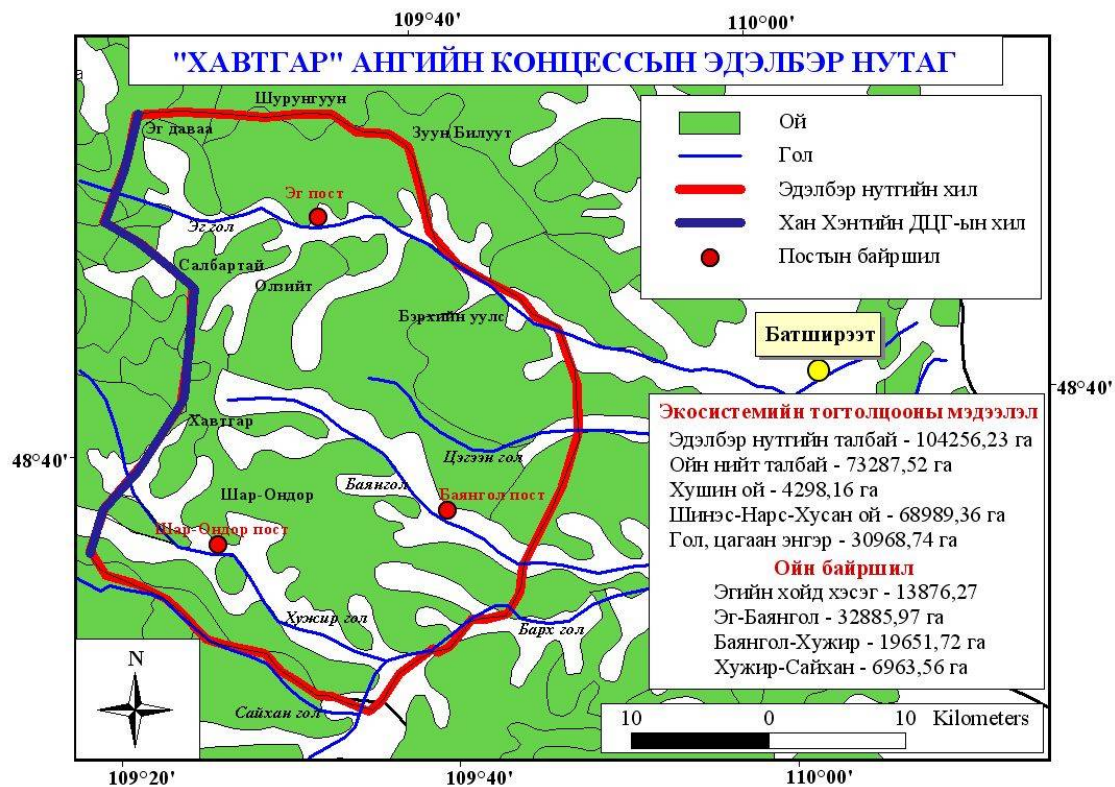
The areas found the approval of the two Sum Parliaments interested in setting aside locally protected areas for biodiversity conservation and future sustainable resource use.

The Batshireet CBNRMA covers a proposed area of approximately 104 000 ha¹⁰ with re-aligned boundaries suggested by the State Biologist Dr. Tsendjav in February 2006. The new boundaries are still under discussion pending approval by the Sum Council. The area is composed predominantly of Larch Forest mixed with Birch in lower elevations and Common Pine in the upper reaches, covering the slopes and plateaus of the mountains typifying the CBNRMA landscape. The CBNRMA is dissected by three major watersheds originating from the upper, western most reaches of the area, partly extending into the Khan Khentee Strictly Protected Area. The upper drainages and side channels are typified by grassy and herb-rich plant associations. The wide and open U-shaped floodplains of the three major rivers draining the CBNRMA are composed of deep-soiled boggy terrain, covered by a lush growth of dwarf birch and willows, interspersed with grassy openings. Side hills of southern exposure are very dry, treeless and covered by grassy meadows of seemingly low productivity. Northern slopes are stocked by mostly conifer-dominated forests.

To the west the Batshireet CBNRMA borders the KKSPA (as proposed by Dr. Tsendjav), to the east the mostly grassy plains of the western Batshireet Sum (Map 1). To the south-west it shares the hilly terrain that also characterizes the Mungunmorit CBNRMA located approximately 50 km to the south west. Most of the Batshireet CBNRMA area appears to be covered by natural climax vegetation in different stages of seral development, reflecting a distinct fire history. The multitude of side channels, upper drainages and extensive floodplains covered by highly productive shrub-dominated plant communities offer excellent wildlife habitat conditions to ungulates, furbearers and birds alike. The grass-covered lower foothills and the shrub/grass-covered extensive valleys offer ideal winter range to large ungulates such as moose and elk.

Although most of the CBNRMA area has not been traditionally used by herders and their livestock, the lower floodplains of the three major drainages currently provide winter range to the herds of some Sum families. The south-western section of the CBNRMAs has been subject to logging in the past and has been repeatedly damaged by fires, severely retarding the regeneration of Larch and Pine. There are no permanent settlements inside the CBNRMA.

¹⁰ Recommendation by Dr. Tsendjav in February 2006.

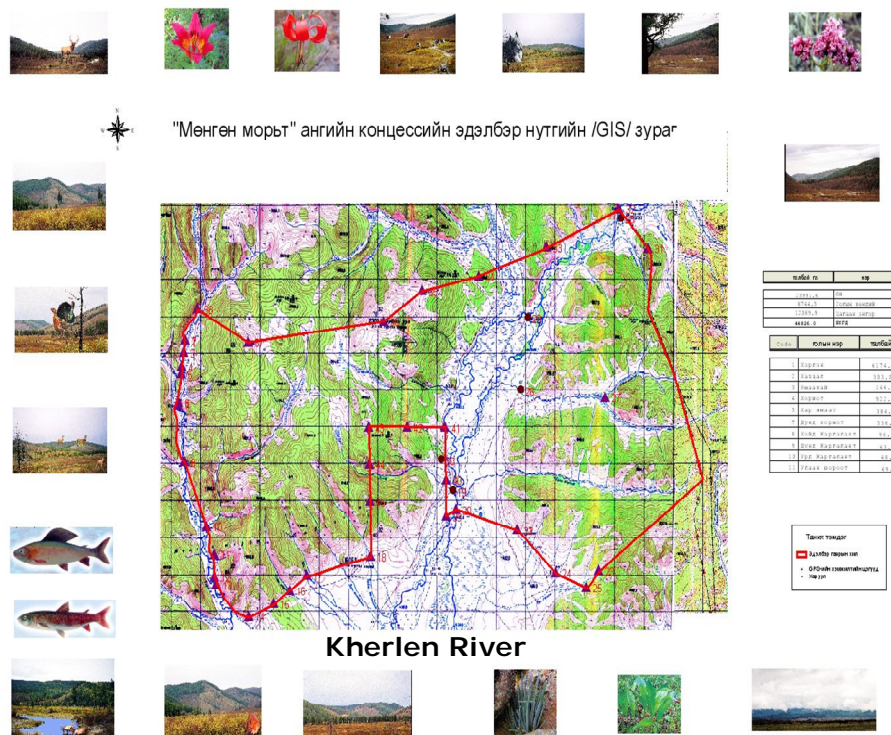


Map 1: The Batshireet CBNRMA protects three key watersheds of critical importance to the Batshireet Sum. The red dots on the map show the strategic location of the three ranger posts controlling the access to the KKSPA.

Two bags border the CBNRMA Batshireet: Onon and Barkh. Onon has 90 families with an estimated livestock total of 4000 animals, Barkh 82 families and a livestock total of 6000 animals.

The CBNRMA Mungunmorit of approximately 45 000 ha is composed of 53% forests, 20% floodplains and 20% treeless grasslands mostly found along south-facing slopes, lower foothills, mountain-tops and areas neighbouring the floodplains (Map 2). The tree-, shrub- and grass-dominated plant communities are similar in species composition and distribution to Batshireet. To the north the CBNRMA shares a common boundary with the KKSPA, to the south it borders the open grasslands covering the lower floodplain of the Kherlen River. The CBNRMA is dissected into two parts (east and west) by the Kherlen River. The western section is characterized by a forest covered pristine mountain ridge draining to the east into the Kherlen River. The western section is typified by three major watersheds and tributaries to the Kherlen River. The CBNRMA provides protection to most of the upper watershed and tributaries of the Kherlen River which originates in the KKSPA to the north of the locally protected area. The immense floodplain of the Kherlen River and the grass/shrub covered lower tributaries to the east provide prime ungulate winter range.

Although the CBNRMA Mungunmorit is free of human habitation and has not been used in the past as livestock pasture, the lower and central section of the Kherlen River floodplain is currently used by six of the neighbouring families as winter pasture for approximately 1000 animals. Since this habitat constitutes prime winter range for moose and elk, range competition with livestock is likely.



Map 2: The 40,000 ha Mungunmorit CBNRMA protects most of the upper watershed of the Kherlen River.

Section 3. Assessment of Project Components

3.1. Background

The CBNRMA Batshireet and Mungunmorit project is composed of three principle components: (A) capacity development of Community Rangers and implementation of an effective and efficient control system; (B) development and implementation of a bio-monitoring system; and (C) elaboration and establishment of a practical policy and legal framework. This will be achieved within three phases:

- Phase 1 (2004-2006): Capacity development and area protection;
- Phase 2 (2005-continuing): Monitoring, evaluation and protection;
- Phase 3 (2009-continuing): Monitoring, evaluation, protection and sustainable resource use.

Within Phases 1 and 2 the following achievements related to the three project components have been made:

Component (A): “Capacity development of rangers and design and implementation of control system”:

- Recruitment of two ranger groups, one for each CBNRMA by Monreal;
- Basic ranger training implemented by Monreal;
- Establishment of ranger posts (three in each CBNRMA) by Monreal;
- Ranger exchange with Hustai National Park through GTZ;
- Purchase of ranger uniforms and basic ranger equipment (including GPS units and digital cameras) through GTZ;
- Finalizing construction of ranger posts and access gates through GTZ;
- GPS-training of rangers by Dr. Tsendjav on behalf of GTZ;
- Designation of post-related control areas, design and implementation of control system;
- Agreements (and implementation) regarding joint patrols and access control between community rangers, KKSPA rangers, Sum inspectors and local police.
- Training of rangers in record keeping, monthly activity report writing and processing of violations;
- Posting CBNRM area along major access routes.

Component (B): “Development and implementation of a bio-monitoring system”:

- Capacity development of rangers related to bio-monitoring by Dr. Tsendjav on behalf of GTZ;
- Design of bio-monitoring transects for each CBNRMA;
- Implementation of 3 transect surveys by rangers under guidance from Dr. Tsendjav on behalf of GTZ;
- Establishment of new mineral licks and improvement of existing mineral licks under guidance of Dr. Tsendjav on behalf of GTZ;
- GIS-based processing of bio-monitoring data using Arc-View 3a software by Dr. Tsendjav on behalf of GTZ.

Component (C): “Elaboration and establishment of practical policy guidelines and legal framework”:

- Advisory services to Sum authorities related to the establishment of and policy design for the designated CBNRMAs by Monreal in 2004, replaced by GTZ;
- Designing and signing management contract (GTZ and Sum authorities) specifying proposed activities to be implemented by GTZ;
- Registering both CBNRMAs in national cadastre;
- Revising CBNRMA boundaries based on proper geo-referencing and in according ecological principles (GTZ);
- Advisory services to Sum authorities regarding controlled and sustainable pine nut collection (GTZ).

Phase 3 (2009-continuing): “Monitoring, evaluation, protection and sustainable resource use” will be subject to the recommendations made in this report, based on the situation analysis.

3.2. Assessment of Generic Project Components (Applicable to Both CBNRMAs)

3.2.1 Boundaries of the CBNRMAs

The original boundaries of the two CBNRMAs were identified arbitrarily using prominent mountain peaks as key references, connected on the national cadastre map by straight lines. In the year 2005 GTZ commissioned Dr. Tsendjav, an ecologist of the Mongolian Academy of Sciences, to revise the boundaries according to ecological principles and in due consideration of existing user rights. The newly defined geo-referenced boundaries meet the required criteria in principle and have been ratified by the Sum authorities.

With reference to the boundaries of the Mungunmorit CBNRMA it is little understood why the geo-referenced, newly defined boundary excludes approximately 7000 ha of prime ungulate habitat to the west of the lower floodplain of the Kherlen River (Map 1). The boundaries cutting out a rectangular section of the CBNRMA make no sense from an ecological perspective. It is understood that this may have happened because of the location of a 70 ha breeding enclosure located at the perimeter of the section partitioned off. However, this does not justify the elimination of 7000 ha prime ungulate habitat.

Recommendations:

- The Mungunmorit and Batshireet Sum authorities to register the revised and adjusted boundaries with the national cadastre as soon as possible.
- **The Mungunmorit Sum to include the section of prime ungulate habitat in the CBNRMA which has been partitioned off within the boundary re-alignment process, by simply re-connecting the two southern geo-referenced points along the edge of the western Kherlen River floodplain.**

3.2.2 Community ranger selection and training

Selection and training history. Eleven community rangers were selected in 2004 for the Mungunmorit CBNRMA and twelve for the Batshireet CBNRMA and trained by Monreal. The selection criteria for the ranger recruitment focused mostly on (a) place of origin –should be local; (b) preferably un-employed –to provide jobs; (c) local knowledge and familiarity with local herders; and (d) knowledge of wildlife and game species in the target area as acquired through poaching; and (c) genuine interest in nature- and protection-related work.

The initial ten-day training period starting in June 2004 covered following topics:

- History of nature conservation;
- Ecological conditions of target area;

- Conservation and management of natural resources;
- Control and environmental laws;
- Participatory rural appraisal and communication;
- Job description;
- First aid;
- Field equipment and use;
- Concept of sustainable wildlife management;
- Bio-technical methods (inventories etc.).

The initial 10-days training session included a final examination of the candidates and the awarding of a certificate which “qualifies” the successful candidates to become community rangers.

In the year 2005, in-service training continued with a brief exchange visit to Hustai National Park and practical training in the use of GPS equipment by Dr. Tsendjav from the Academy of Sciences. This was followed by introductory lessons regarding basics of bio-monitoring along established transects, animal species to be recorded on formal data-sheets, the use of field books and the establishment of artificial mineral licks. In 2006 the rangers conducted three wildlife transect surveys under the supervision of Dr. Tsendjav.

Shortcomings: It is apparent that a ten-day crash course is insufficient to qualify community rangers for a challenging and multi-faceted job. Any community ranger training should start with a 20-days “boot camp” involving all applicants for the locally advertised positions. The boot camp involves fitness training, discipline and obedience training, building of team spirit, guidance on personal conduct and appearance, personal hygiene, and basic equipment training.

Based on the performance and final exams the most successful candidates would then be selected for further training. The boot camp also serves the trainer to identify candidates with obvious leadership qualities. During training they will be placed in charge of candidate teams. From these potential future leaders, candidates suitable to independently and responsibly operate future ranger posts would be selected.

After successful selection of the community rangers the second training session would focus on basic topics as delivered in the training by Monreal. This should be followed by in-service training to-be applied in modular form including topics not covered by the base-training (see Annex 2).

In this context it is advised to proceed with “on-the-job training” by bringing in trainers to deliver training modules related to subject matters not covered by previous training events, to-be based on a need assessment to be implemented as soon as possible. The advantages of site-related training in comparison to off-site training are obvious. It is generally more cost-efficient and more effective (training takes place in an environment familiar to the trainees).

Distinct shortcomings related to both community ranger groups noticed during the current assessment to-be addressed in future training are:

- Poor team spirit and rather undisciplined;
- Poor personal conduct and communication skills;
- Little appreciation of importance of uniforms and insignia with respect to conduct in public and interaction with people;
- Insufficient dedication to the job;
- Poor relationship with families neighbouring the CBNRMAs.

The more than 25 families interviewed during the field reconnaissance unanimously complained about the community rangers who isolate themselves from the community. There appears very little interaction between the community rangers and the families neighbouring the CBNRMAs. The community rangers are seemingly unaware that they are the custodians of the CBNRMAs working on behalf of the Sum constituents who communally own the CBNRMAs.

Recommendations:

- To conduct a proper training need assessment;
- To design and deliver (on-the-job and on-site) training in modular form on a priority need basis;
- To provide training in communication skills and interaction with the Sum constituents (key priority);
- To design and implement a public relation schedule with appropriate follow-up (regular evaluation based on personal contacts with CBNRMA neighbours).

3.2.3 Community Ranger Posts

The current locations of the six community ranger posts have been chosen well, controlling the major access to both CBNRMAs. The community ranger posts and surroundings however would benefit from a proper site development plan. None of the posts blends in well into the surrounding landscape as desirable for a conservation-dedicated protected area. The buildings and access barriers resemble international border crossings rather than entrance gates to a protected area. The current appearance of the ranger post setting may give a wrong message to the public (heavy-handed, top-down police approach).

The buildings are very small in size and should be expanded to provide community rangers on duty with more space and privacy. This could easily be accomplished by the community rangers who appear skilled in log construction.

At current there is no horse shelter provided at any of the posts. Again, it would not require much effort for the rangers to construct simple shelter to protect horses in rough weather.

Recommendations:

- To change the appearance of the current ranger posts to better fit into the surrounding landscape.
- To add a simple but aesthetically pleasing horse shelter to each post.

3.2.4 The Control System

The control system appears to be appropriate and effective. Several CBNRMA neighbours interviewed for this assessment positively commented on the noticeable come-back of ungulate populations as a result of patrols and enforcement activities by the community rangers.

Numerous CBNRM neighbours also expressed interest in voluntary community patrolling (*pro bono*) and participation in access control, especially during the pine-nut collection period. Neighbouring herders appear to have true ownership in the CBNRMAs and are very supportive of conservation efforts that will help to bring back wildlife populations. By using voluntary community help, the total number of rangers could possibly be reduced for both areas which would assist in reducing the operational costs for the CBNRMAs.

It is noteworthy that enforcement activities during the nut-collection season are jointly implemented with other enforcement personnel, especially KKSPA rangers, the Sum inspectors, and the police. However, cooperation agreements need to be formalized. Memoranda of Understanding (MoUs) should be elaborated and signed by the corresponding enforcement agencies, specifying the extent of cooperation, procedures, cost-sharing, and benefit sharing amongst enforcement personnel from confiscated goods to be auctioned off, and fines levied against violators. This would provide proper incentives to all enforcement personnel and would further promote team spirit and cooperation.

Recommendations:

- To assess the possibility of engaging voluntary help from CBNRMA neighbours as *pro bono* “community scouts” with enforcement authority to be awarded by the Sum (assistant community ranger, community scout).
- To officialize enforcement cooperation between the different enforcement agency by designing and signing cooperation agreements (MoU).

3.2.5 Bio-monitoring

The locally used term “Bio-monitoring” refers to the recording of sightings and signs of 22 designated animal species of potential economic value (i.e., trophy hunting, fur and other animal parts mostly of interest to the Chinese market) along geo-referenced transects. Of special concern are large ungulate species. For each sighting, the species, group size, sex and relative age (adult, juvenile, young) are recorded on standardized field-forms (monitoring template). Each sighting is geo-referenced and the elevation and

relative habitat cover is recorded. The transect system is based on a random sampling design covering all ecosystems of the CBNRMAs. The transect design and standardized field-forms have been elaborated by Dr. Tsendjav, the scientific technical advisor to the CBNRMA project from the Mongolian Academy of Sciences. The transect surveys have been implemented since 2005 every second month by the rangers under supervision of the scientific technical advisor who also is responsible for the data assessment and processing.

In this context it is pointed out that the results of the transect surveys provide only information on the relative abundance and relative distribution of species. If the same transect surveys are carried out every year at the same time using the same geo-referenced transects and the same observers, the survey results may still only be used as indicators for species-specific **population trends** over time (i.e., stable, expanding or declining population). These random transect survey data should not be mistaken for a **species census**, and can by no means be used to estimate total population sizes of a species.

The determination of the population size (total numbers) of any given species requires a statistically viable sampling technique. For ungulate species of the target areas, a suitable method could be **stratified random sampling**. This requires the systematic stratification of the target area into habitat blocks. For each block a statistically viable sample area has to be selected based on key criteria such as known species-specific preference at the time of sampling etc. Each of the selected blocks will then be systematically surveyed (complete cover along equally spaced geo-referenced linear transect lines) in order to permit the extrapolation of the data to the entire target area. It is strongly recommended to implement such ungulate census in March/April 2007, in order to establish baselines on species-specific population sizes against which to measure population growth. This census should be completed every four years as a monitoring tool regarding population developments and in order to provide reliable statistical data on which to base species-specific hunting quotas.

The current trend surveys along the geo-referenced transects provide useful data and an opportunity for the community rangers to hone their monitoring skills. However, the data collected are biased by the subjectivity and personal idiosyncrasies of the observer, compounded by the bias inherent to the sampling design.

It is recommended to confine the current bio-monitoring surveys to three events per year with focus on ungulate and game bird species. Additionally, information on habitat type should be recorded for each sighting on the field forms (see Annex 3, revised template). The habitat information will be useful to provide useful information on species-specific seasonal habitat use/preference. The three proposed seasonal transect surveys should take place as follows:

Survey 1: Late March/early April. (The so-called “carry-over” count is implemented at the end of the winter when wildlife populations are at their lowest level within the annual cycle due to winter mortality).

Survey 2: Late June early July. (The so-called “recruitment” count provides data on birth-rates and population growth. Low recruitment rates of large ungulate species could be indicative of many factors: low fertility rate, retarded sexual maturity of females, early sterility of aging females, high poaching/harvest of males, high disturbance during the mating season preventing successful mating, etc.). Low recruitment should always be reason for concern requiring more in-depth investigations.

Survey 3: Mid October/early November (“recruitment survival and pre-winter” count. This survey provides post-mating data on large ungulates, and the pre-winter female-young ratio used as index for annual breeding success and as a indicator for population development.

Recommendations:

- To limit the geo-referenced transect surveys to three seasonal surveys/year which better reflect the annual biological cycle of animals.
- To reduce the overall number of species to be recorded in the annual surveys as suggested in Annex 3.
- To conduct a complete ungulate census in March/April 2007 for both CBNRMAs in order to establish sound baseline data on population sizes in the target areas.

3.2.6 Technical Backstopping

Technical backstopping services are needed for “bio-monitoring”, ungulate censusing, data storage and data processing until a better and more cost-effective solution can be found for both CBNRMAs (possibly future CBNRMA Management Unit to assume this responsibility).

Since the ranger posts appear capable of implementing the transect surveys without technical backstopping support, the services by the backstopper should be limited to:

- Four days per survey in the Mungunmorit CBNRMA (14 days/year).
- Four days per survey in the Batshireet CBNRMA (14 days/year).
- Two days data processing for each survey for each target area (12 days/year).
- Ungulate Census in 2007: design and implementation for both target areas (20 days).

3.2.7 “Bio-technical Measures”

The original proposal by Monreal for the two CBNRMAs aimed at the management of the two areas as hunting concessions modelled after typical east European commercialized hunting concessions as known from Hungary, Poland, Romania etc. Such intensive wildlife management is labour-intensive, costly and has little in common with conservation management and more general community-base renewable resource management, the defined goal for the target CBNRMAs. Monreal’s management proposals were turned down by both Sums for exactly such reasons. The rationale for designating the two areas was conservation for communal benefits, recovery of formerly

over-hunted wildlife populations for the benefit of Sum constituents, in particular for families neighbouring the CBNRMAs (high natural resource dependency). Another important reason for the two CBNRMAs was sustainable protection of watersheds critical to the Sum residents and their animal herds in downstream areas outside the CBNRMAs.

Future use of CBNRMA resources will include trophy hunting as the most economically attractive option. Trophy hunting can commence as soon as game species populations have recovered sufficiently.

It is advised against any population and habitat enhancement measures which would only result in artificially high population densities. Artificially created high population densities make populations vulnerable (i.e., spread of contagious diseases and parasites, population crash as a result of harsh winters, droughts, fires etc.), Discontinuing artificial enhancement measures (i.e., as a result of budget cuts, change of policies etc.) may result in a population crash. Against this background it is recommended to confine activities targeted at game population enhancement strictly to protection. Protecting wildlife and their habitat will result in rapid recovery of currently depressed populations in both CBNRMAs.

Current “bio-technical” measures in both CBNRMAs include the establishment of artificial mineral licks and the “salting” of existing licks. Whether traditional natural mineral licks have disappeared or not, supplementary salting some of the known licks will cause no harm. However it is strongly advised against the establishment of additional licks, especially in areas close to the boundaries of the KKSPA for two reasons: (a) It may safely be assumed that the KKSPA and CBNRMA ungulate populations are contiguous (part of the same meta-population). (b) It is likely that ungulate populations, especially elk, historically will move from the high elevation KKSPA mountain ranges (i.e., summer range) onto the lower elevation winter ranges (less snow) that are located mostly in the floodplains and side valleys of the CBNRMAs. Additional mineral licks in the CBNRMAs would contribute to the habituation of elk moving into a high quality all-season habitat without returning to the traditional summer ranges in the KKSPA.

Drawing animals away from the KKSPA defeats the purpose of a strictly protected area, especially when the future intention for the CBNRMA is hunting which is not allowed in the KKSPA. The rationale for Community-based Wildlife Management Areas, established adjacent to protected areas is to protect wildlife habitat outside the protected area boundaries. In lieu of the voluntary protection, surplus animals spilling from the “reservoir” into the CBNRMAs may then be harvested according to a sustainable quota. In this light it appears un-ethical drawing animals out of the KKSPA by using dubious methods such as artificial salt licks.

Recommendation:

- Limit “bio-technical” measures in both CBNRMAs to the additional salting of existing mineral licks.

3.3 CBNRMA Mungunmorit Sum

3.3.1 Introduction

Past GTZ supported activities indirectly related to the CBNRMA Mungunmorit include the establishment of the KKSPA Information and Training Center (ITC) to be seen as a direct input into support measures for the Khan Khentee Strictly Protected Area. Due to the lack of interest and support by the KKSPA authority, the ITC has literally been abandoned, although a KKSPA financed information officer continues to be stationed in the Sum. Current efforts by the ITC officer and the KKSPA with financial support of the GTZ project are made to renovate the ITC building and to make it operational again. A management contract for the ITC has been signed between the Mungunmorit Sum and the KKSPA authority.

Sustainable utilization and management of *Pinus sibirica* inside the KKSPA with access through the Mungunmorit CBNRMA has been another area of past and current GTZ support. The annual pine nut harvest provides a substantial contribution to the local economy but has yet to be regulated and controlled in order to be sustainable. Nut harvesters from 21 Aimags have been registered in the area. Adverse environmental impacts due to unsustainable harvest methods, man-caused fires, pollution and wildlife disturbance during a critical time in the biological cycle of large ungulates (i.e., rutting season of elk, moose and roe deer) have to be mitigated.

With support of the GTZ project a pine-nut processing plant has been installed in the Mungunmorit Sum but operate below its capacity.

Thanks to the CBNRMA project, access control in the CBNRMAs has become more efficient as a result of joint enforcement by community rangers, Sum inspector, Sum rangers and rangers of the KKSPA.

A third area of GTZ support within the framework of the Buffer Zone Support Project, jointly implemented with the assistance of a DED technical expert, has been the establishment of community forest management groups aiming at future sustainable forest management in designated forest utilization areas. All potential forest concession areas are located outside the CBNRMA. GTZ assistance to this component has been confined to a low financial input used for information services on community forestry and the establishment of eight community forest groups. None of the groups has become operational yet. Meanwhile GTZ support has stopped and the DED technical advisor has left the project not to-be replaced. It would be desirable to continue this program component in order to operationalize the successfully established forest groups.

3.3.2 Elk Breeding Cooperative

The Elk breeding group ERDENESOGOO was formed in 2001 as a legal cooperative registered in accordance with the Mongolian Law on Cooperatives. Nine of its eleven members are Mungumorit Sum residents, two live in Ulaan Baatar. The original membership fee was a lump sum payment of US\$ 250. New members need the approval by the entire group and have to pay a shareholder entry fee of US\$ 500.

The infrastructure of the cooperative includes a 44 ha fenced wolf-proof enclosure to be expanded to 70 ha (fence posts are in place already) and a log-building used by the cooperative members for meetings and to accommodate visitors.

The enclosure is located at the southern boundary of the CBNRMA Mungunmorit, adjacent to the western floodplain of the Kherlen River. At current there are 33 elk inside the enclosure. The original stock from the neighbouring areas and the Hustai Nuru NP, was composed of newly born calves which were hand-reared inside the enclosure. Meanwhile reproduction has successfully started. Due to the absence of predators and optimum habitat condition offered by the enclosure elk mortality is low. Elk currently fend for themselves with little/or no additional winter feeding.

The rationale for the cooperative is to produce velvet antlers for the Chinese market. An adult stag grows approximately 2 kg of velvet antlers/year. Officially the elk breeding station forms part of the National Recovery Program of Maral Deer which currently is not hunted in Mongolia due its country-wide alarmingly low population size.

The natural carrying capacity of the 70 ha enclosure is an estimated 70 animals, providing year-round habitat. This number can be dramatically increased with proper feeding and enclosure partitioning. With proper management the economic prospects for the operation are excellent.

GTZ has provided financial support to the cooperative from its early beginnings, funding the fence of the 44 ha enclosure and the communal log-building. Recently the GTZ project has been approached by the Cooperative to also finance the fence for the 70 ha enclosure.

The Cooperative members argue that they provide a contribution to conservation management of the elk. It is evident however that this cannot be achieved by keeping elk inside the enclosure and by selling surplus stock to other cooperatives in the country as planned. A measurable contribution to wild-ranging neighbouring elk populations would consist of releasing surplus animals into the neighbouring CBNRMA in the future. It therefore is suggested that GTZ funding for the enclosure extension (70 ha fence) should be made conditional. Funds the fence should only be provided if the Cooperative agrees in writing to the release of a certain percentage of future surplus animals into the neighbouring CBNRMA.

Recommendations:

- For GTZ to finance the perimeter fence of the to-be expanded enclosure of 70 ha on the condition that an agreed number of future surplus animals are released into the wild..
- For GTZ to finance a short-term expatriate consultant to provide the cooperative with the technical know-how on how to commercialize the operation and how to set it on a professional footing including humane methods of velvet antler removal and the handling live animals.

3.4. CBNRMA Batshireet Sum

Past GTZ supported activities indirectly related to the CBNRMA Batshireet include the establishment of the KKSPA Information and Training Center (ITC) to be seen as a direct input into support measures for the Khan Khentee Strictly Protected Area as described for the Mungunmorit area. Like in Mungunmorit, ITC support and related activities have been steadily decreasing due to financial constraints and fading interest/support by the KKSPA authority. However, the ITC Batshireet building, established under the GTZ fire management project, is continued to be used as a suitable venue for environmental awareness building events involving Sum constituents and local school children. It also is used by the five KKSPA and community rangers stationed in the Batshireet Sum for their regular meetings and as a venue for training, workshops and other project-related events in Batshireet.

The Batshireet ITC is one of four ITCs located in the Buffer Zone of the KKSPA, originally established to strengthen the cooperation between local stakeholders and the KKSPA. It receives continuing support by the GTZ project. Environmental training to school children is provided by the ITC officer only. All school children of the Batshireet Sum have received training that is mainstreamed into school curricula. Current GTZ funds were used to completely renovate and equip the ITC with a computer and printer, DVD-Player, a library and furniture. Continuing support is provided in form of petty supplies?.

Other GTZ supported activities in the Batshireet Sum area include small-scale group projects which are expected to contribute to the improvement of local livelihood strategies. Technical and financial input in the past have addressed local initiatives related to income diversification. Examples are provided as follows:

- felt-processing (Achan Duus),
- leather pre-processing (Haslig),
- medicinal and tea plant processing (Delgerch),
- Slovakian cheese production (Gurvan Nertei).

Another GTZ-sponsored intervention directly linked to the CBNRMA and the KKSPA has been the financing of a study trip of the ITC Manager to the National Park Bayerischer Wald and Sumava Biosphere Reserve.

Furthermore, GTZ has given low-input support to Forest User Groups (distribution of information on communal forest management and support to the elaboration of forest cover maps). As part of the training complex a study tour for local residents with interest in communal forest cooperatives was financed and implemented in 2006, to visit the Selenge Aimag. Meanwhile seven community forest user groups have been founded by the decision of the Sum Khural.

Other project activities include technical assistance provided in the areas of local organizational- and policy development, institutional capacity building, organization and implementation of exchange visits and study tours (i.e. trip to Nepal in 2005; study trip for the benefit of environmental inspectors related to Buffer Zone Development and Community-Based Forest-Management to Vilm, Germany in 2005, etc.).

Section 4: Challenges and Barriers

4.1 Open Access

Mongolia's open range access policy may cause future conflicts in view of the long-term conservation goals of the CBNRMAs unless mutually agreeable arrangements can be made with herder families currently using part of the CBNRMAs as winter pasture for their livestock.

Range management inside the CBNRMAs will be a key topic to be addressed in the participatory management planning process proposed to take place in 2007 for both areas. Since the CBNRMAs are set aside as communal land, any resource use by a community member constitutes a **privilege** which has to be regulated and licensed as long as it is compatible with the overall conservation objectives of the CBNRMAs. In terms of permissible range use, grazing has to be confined to areas that minimize interference and competition for limited winter range with wild ungulates. The license agreement has to specify the number of livestock permitted (by species), the location and size of area to be used by the lessee's stock and the time-period of grazing. It may also be considered to levy fees for grazing permits, a privilege to be charged for in the communal interest.

4.2 Relationship between the KKSPA, Buffer Zone and CBNRMAs

Although the GTZ Buffer Zone Project clearly has been established in support of the Khan Khentee Strictly Protected Area there appears no direct link between buffer zone activities and the KKSPA. Buffer zone people in both target areas interviewed for this assignment are seemingly unaware that buffer zones are created only in connection with nationally protected areas.

On the other hand, the same families appeared to be fully aware of the nature of the CBNRMAs and the rationale for their establishment. There appeared to be unanimous and strong support for the conservation goals of the two areas. Again, the persons

interviewed, were generally unaware of the connection between the CBNRMA and the KKSPA.

In this context it is noteworthy that to-date no direct donor support has been channeled to the KKSPA, one of the largest and ecologically most important protected areas in Mongolia, although substantial donor support has been extended to the designated buffer zone of the KKSP. The KKSPA is badly under-staffed, under-equipped and under-funded. Park Rangers are unable to effectively comply with their duties due to lack of transport and the large size of the KKSPA. Poaching of wildlife and illegal use of forest products is common. Pine nut collectors camp inside the park for months at a time, causing forest fires, and severely disturbing wildlife.

It appears rather ironic to put all efforts into the protection of two CBNRMAs sharing a common boundary with the KKSPA but not providing any support to the KKSPA itself. The original GTZ project proposal which subsequently was approved by the Dutch Embassy in Beijing, includes environmental awareness building as significant project component. It appears however that apart from the scanty support provided by the project to the two ITCs, not much effort has been made to design and/or implement a proper awareness campaign. Any future environmental awareness building should focus on the conceptual understanding of linkages between the three areas: the KKSPA, Buffer zone and the two CBNRMAs.

4.3 Lacking Incentives to Engage in Biodiversity Conservation

There are no concrete incentives for Sum authorities to engage in conservation and nature protection. The initiatives of the Batshireet and Mungunmorit Sums in designating land for conservation purposes are purely voluntary. Furthermore, there are no incentives for Sum and/or Aimag authorities to mainstream biodiversity conservation into land-use planning and no incentives to embark on integrated land-use planning. There are also no incentives that could motivate Sum residents to engage in nature conservation. Water is free of charge and open range access has been a traditional Mongolian law. Both are taken for granted. The level of environmental awareness is generally poor on all levels, although the need to broadly address issues such as sustainable watershed protection, sustainable range use, erosion control and fire prevention appears to be obvious. The importance of conservation management as the most critical element of livelihood strategies in a rural environment appears to be not fully appreciated by the people in the target areas.

4.4 Buffer Zone Development Concept and Spatial Land-Use Plan

According to the Mongolian Buffer Zone Law each Buffer Zone Council (BZC) is required to elaborate a Buffer Zone Management Plan and to establish a Buffer Zone Fund. No Government funding however is available for buffer zones in general and no other resources for the BZCs to comply with their challenging tasks. It therefore is unlikely to expect any organized activity in the targeted buffer zones of the KKSPA without outside financial and technical assistance.

One of the most important and widely recognized needs for the buffer zones currently supported by GTZ is the participatory elaboration of a spatial land-use plan, the 'key' to sustainable economic development. This need is fully recognized by the Batshireet and Mungunmorit Sum authorities and corresponding Buffer Zone Councils, but there is neither the required expertise nor funding to embark on such ambitious undertaking.

It would be in the long-term interest of the GTZ project to develop local capacities for spatial-land use planning in both Sums. This could become a very important future project component if additional Dutch funding would become available beyond 2008.

4.5 Lack of management- and business plans for the CBNRMAs

One of the most pressing needs of the two CBNRMAs is the participatory elaboration of a comprehensive management plan for each of the two areas, involving all key stakeholders in the planning and implementation process. Proper representation of local herder families on the planning team as key stakeholders in the CBNRMAs is evident. The management plans have to be guided by a well defined long-term vision for the locally protected areas, that truly reflects local interests and ambitions to-be embedded in the over-arching conservation objectives characterizing the locally protected areas.

The management planning process should be kick-started with a brain-storming multi-disciplinary stakeholder workshop. The workshop should be used as a venue to highlight current and potential problems facing the two areas as well as to discuss actual and potential resource- and land-use options. This would be followed by the participatory elaboration of a practical zoning concept, the design of management prescriptions for each of the chosen use zone, the planning of specific use programs and the design of a practical and simple administrative structure for the CBNRMAs. The management plan would also address issues related to habitat manipulation, wildlife management, pine nut collection, berry harvest, user rights, user fees, control and law enforcement, status of community rangers, their future role and reporting responsibilities, voluntary control and any other issue of common interest. The management plan would also provide details on infrastructure development and maintenance needs (see Annex 5).

The management plan would be complemented by a "**business plan**". A business plan serves as vital tool for long-term financial planning and the preparation of annual work-plans. The financial spreadsheets as integral part of the business plan compare operational costs with revenues to-be generated to cover the recurring costs. The business plan will also indicate whether the CBNRMAs would be able to generate a revenue surplus that either could be re-invested into CBNRMA improvement or used to support other priority activities of communal benefit in the corresponding Sums.

The purpose of the management plan and the complementary business plan is to assist the existing CBNRMAs to function effectively while reaching social, economic and environmental sustainability and to effectively manage and conserve their natural resources in partnership with all their key stakeholders.

4.6 Insecure legal status of WMA rangers

The Community Rangers working in the Batshireet and Mungunmorit CBNRMAs are employed by GTZ, operating under a licence agreement with the Aimag Governor and a special enforcement permit provided by the local Sum police. Within the current constellation the rangers have no reporting responsibilities to the Sum authorities.

Apart from the operating licence and Aimag agreement the Community Rangers have no official legal status, since the status of protection personnel of locally protected areas is not defined by any law.

Ideally, the legal status of community rangers should be defined and anchored in either the buffer zone legislation (Buffer Zone Law in connection with the Protected Area Law), the Protected Area Law, or the Land Law under which the “locally protected areas” had been created in the first place. Most appropriate, however, would be the inclusion of locally protected areas that are specifically created for conservation purposes, under the Protected Area Law as a new protected area category in Mongolia. The corresponding amendment to the existing Protected Area Law should specify the legality of local governance with full local autonomy and empowerment. The same amendment would have to clarify the legal status of the Community Rangers who need long-term security and official enforcement authority.

In view of the un-defined legal status of the Community Rangers, the GTZ project currently supports advanced training of 13 selected rangers¹¹ to be provided by the Eco Asia Training Institute in Ulaan Baatar (training provided for 2006 to 2008 period). Successful completion of the Eco Asia curriculum entitles the Community Rangers to obtain “Inspector” status, hence full potential enforcement authority, currently only given to SUM inspectors under the authority of the SSEI. However, this is not an ideal solution to the current dilemma. Community rangers do not need higher level training to comply with their job requirements. Well targeted on-the-job training would be much more appropriate to prepare community rangers for their work, as long as their legal status is secured.

Since the Batshireet and Mungunmorit CBNRMAs are intended to serve as models for other CBNRM areas in Mongolia, it appears prudent to address the issue of legalizing the status of Community Rangers on the highest Government level **on a priority basis** (an activity to be tackled by the GTZ project within its “policy and legal support” component).

4.7 Sustainability of targeted CBNRMAs

Financial sustainability is by far the most critical issue related to the model CBNRMAs Batshireet and Mungunmorit. Given sufficient financing to effectively and efficiently

¹¹ Seven candidates from the Batshireet Community Rangers group; four candidates from the Mungunmorit Community Rangers group, 2 local residents /candidates for KKSPA ranger positions

manage the two areas, the administrative and legal sustainability would not be a problem. At current, both areas are fully subsidised by the GTZ project with funds mostly used for the protection program (infrastructure, Community Ranger wages and equipment).

Both areas have been set aside by Sum authorities as “locally protected areas”, aiming at sustainable ecosystem protection for the rehabilitation of depleted game species populations. It is apparent that this will only be possible through strict protection against poaching and other adverse impacts on wildlife and the ecological integrity of the areas. Protection comes at a cost (i.e., wages for rangers and running expenses), to be offset by revenues to-be generated from the two areas. In the long-run this will only be possible through sustainable trophy hunting. The revenue potential from resource use licences and potential entry fees would not be sufficient to cover expected running expenses. There is no doubt that trophy hunting would be the most lucrative renewable resource use option in the long run. Berry collection and the use of other minor forest products by CBNRMA neighbours may be of significant economic benefit to the local users but could not provide the revenues needed to cover the operational costs of the areas.

Pine-nut collection on the other hand plays a key economic role for local families and collectors coming from far-away for this lucrative annual event. Although most of the important pine forests (*Pinus sibirica*) are located inside the KKSPA, these areas are only accessible via the CBNRMAs. There are no pine stands in the CBNRMA Mungunmorit but significant Pine areas are found in the Batshireet CBNRMA where they are subject to exploitation. Undoubtedly, Pine nut collection could generate substantial revenue for both CBNRMAs if well managed. Revenues from access fees, fines, the sale of confiscated nuts, collection permits and a levy to-be charged per kg of pine nuts collected could substantially enhance the operational budget of both CBNRMAs but may still not be sufficient to cover future expected operational costs. Therefore revenues generated from trophy hunting would still be the most economically and ecologically viable option in the future.

4.8 Community Empowerment

Mongolia’s current legal system related to trophy hunting by international clients is not conducive to CBNRMAs because 70% of the so called "natural use fee" and species license fees enter the national treasury, the remainder is given in equal parts to the Aimag and Sum where the hunting takes place. At current, none of the revenue generated through trophy hunting is channelled to local people, nor is it used for the conservation management and habitat improvement of the hunted species. Apart from the mandatory 15 % of fees provided to the Sum offering the hunting opportunity, very little other benefits result from a hunt. Practically none of the local herders and other Sum residents, the actual stewards of the game populations, receives direct benefits from hunting except for limited employment as guides and camp servants.

Ideally, the CBNRMAs should be empowered to issue the hunting licences for the hunting quota allocated to the corresponding CBNRMA, and -most important- should be allowed to retain the larger portion (70%) of the proceeds from trophy hunting to be used

to cover operational expenses for the protection of the CBNRMAs. 30 % of the revenue could be returned to the MNE to be used for biodiversity conservation in the country at large.

This **local empowerment** implies that the Sum Parliaments would be given full rights over resource use and revenue retention from CBNRMAs by the MNE. At present, the Policy Implementation Department of the MNE issues resource use and hunting permits directly to outfitters who have entered hunting agreements with the Aimag and Sums where the hunting activities are planned to take place, without much benefit to the Sum where the hunting takes place (approximately 10% of the overall proceeds).

The economic attraction of trophy hunting is apparent when considering the international market value of trophy species offered by the target areas (i.e., average value of US\$ 8,000/seven-point elk, US\$ 3,000/roe deer and US\$ 3,000/moose).

However, as long as the current revenue-sharing system related to trophy hunting does not change as suggested (full local empowerment), CBNRMAs with designated sustainable resource use options including trophy hunting will not be economically viable.

PART B: The Way Forward

Section 5. Strengths and Pillars of the CBNRMAs

5.1. Strengths of the CBNRMAs

Strong points in favour of the Batshireet and Mungunmorit CBNRMAs are (a) the legal basis established under the Land Law with full rights by Sum authorities to manage the areas as communal property; (b) the geo-referenced boundaries and registration of the designated areas in the national cadastre; and (c) the sound protection by well-equipped and financed Community Rangers. Other strengths are that both areas are free of human settlements and free of conflicts that could not be resolved through proper mitigation. Both areas are mostly 'pristine' providing high quality habitat to ungulates, furbearers and game bird species, important prerequisites for a rapid recovery of currently low game population densities. Sound habitat protection in the CBNRMAs will benefit the entire spectrum of biodiversity, also enhancing Mongolia's overall conservation efforts at large.

Both areas have well designed and implemented control systems with permanently manned ranger posts controlling major road access. The bio-monitoring system for both areas has been professionally designed and is backed up by the Mongolian Academy of Sciences.

Both CBNRMAs have the full support of the highly motivated Batshireet and Mungunmorit Sum Authorities and the Buffer Zone Councils. Most important, both CBNRMAs enjoy a majority support by the CBNRMA neighbours as could be substantiated through the interviews conducted for this assessment. The general

commitment to the CBNRMAs and the ownership in the conservation management concept for the target area by both Sums and their constituents is remarkably high, setting excellent framework conditions for a successful continuation of the CBNRMA project. This is augmented through the promising revenue prospects from sustainable trophy hunting for both areas.

5.2 The Four Pillars of CBNRMAs and Proposed Priority Interventions

The widely recognized ‘pillars’ that CBNRMAs and other protected area categories appear to have in common are:

- i. *Ecological Integrity*
- ii. *Governance*
- iii. *Social Participation and Community Empowerment*
- iv. *Financial Sustainability*

The following chapters highlight some of the priority interventions proposed in support of the four pillars related to the CBNRMAs Batshireet and Mungunmorit. It is apparent that not all challenges related to the four key pillars can be addressed at the same time and not all barriers removed at once. The biggest challenge therefore is to address the right issues at the right time in order to maximize the impacts of future interventions.

Generic macro-strategies at the Sum level expected to result in long-term benefits for both the CBNRMAs and the Sum territories include:

- Spatial-land- use planning on a macro-, and micro level.
- Consolidating existing- and collecting additional biophysical and socio-economic baseline data to be processed in GIS format as critical underpinnings for participatory spatial land-use planning and wise land-/resource-use decision-making.
- Establishing Sum-wide monitoring and evaluation system, creating data processing centers and socializing data base.
- Designing and implementing a comprehensive information and awareness campaign with focus on the CBNRMAs and the need for mainstreaming land conservation.

It is apparent that these challenges exceed the scope of the current GTZ project but should be addressed in the future.

The most pressing priority action identified is **the need of a management plan complemented by a business plan for each CBNRMA** (for details on the management planning process see Annex 5)

5.2.1 Proposed Actions related to “Ecological Integrity”

- Review of existing- and design of new policy guidelines for permissible sustainable resource use, and user fees in the CBNRMAs (**part of management planning process**).
- Design of zoning concept emphasizing the need for “intangible zones” as critical wildlife habitat (**part of management planning process**).
- Design of policies and fee structure related to (a) access of the CBNRMAs for pine- nut collection and use of other non-timber products, (b) access to the hot springs located in the KKSPA, and (c) access to the holy mountain located in the KKSPA etc. (**part of management planning process**).
- Review of existing legal base of CBNRMA and applicable bylaws. Design of more appropriate rules and regulations regarding use and access (**part of management planning process**).
- Enforcement of rules and regulations through community rangers in cooperation with CBNRMA neighbours (enforcement system and cooperation with voluntary community members (**part of management planning process**)).

5.2.2 Proposed Actions related to “Governance”

- Design, structure and reporting responsibilities of the proposed CBNRMA Management Unit (CBNRMA-MU) (to be decided as **part of the management planning process**).
- Establishment, composition, functions and responsibilities of the proposed multi-stakeholder CBNRMA Steering Committee with proposed full decision-making power for budget approval and annual work plans (**part of the management planning process**).
- Elaboration of the proposed Business Plan as critical financial planning tool for the CBNRMA-MU (**part of the management planning process**).
- Design of proper communication channels and -means between the CBNRMA structure and local constituents as key shareholders (**part of the management planning process**).

5.2.3 Proposed Actions related to “Social Participation and Community Empowerment”

- Kick-starting the **management planning process** through a broadly-based multi-stakeholder inception workshop with full participation of community members as key stakeholders of the CBNRMAs, to be preceded by a comprehensive stakeholder analysis.
- Identifying key stakeholders to-be fully integrated into the management planning and subsequent management plan implementation process. Elected representatives of the different stakeholder groups will form part of the management planning

- team producing the management plan (**part of the management planning process**).
- Integrating stakeholders (herders and WMA neighbours) into the future decision-making process for the CBNRMAs through membership in the CBNRMA Steering Committee.
 - Designing resource-use conflict resolution procedures for problems related to the CBNRMAs (i.e., wolf-control, traditional resource use rights, etc.) as **part of the management planning process**.

5.2.4 Proposed Actions related to “Financial Sustainability”

- Bridge-funding to be provided until game populations in both CBNRMAs have sufficiently recovered in order to permit sustainable trophy hunting. Trophy hunting expected to generate sufficient revenue to cover expected operational costs of the CBNRMAs (with good protection hunting is expected to start by the year 2009/2010).
- GTZ to provide technical support for the elaboration of the proposed CBNRMA business plans, addressing the full range of revenue generating options.

A Concerted effort involving all parties interested in CBNRMA models in Mongolia is needed to lobby Central Government regarding a change to the legislation in favour of full community empowerment (full retention of hunting revenues by CBNRMAs). For further detail on hunting economics it is referred to Annex 4.¹²

The economic potential from non-consumptive nature-based tourism in the two target areas is relatively low, mostly due to: (a) the isolation of the areas requiring long and complicated travels, (b) the lack of suitable infrastructure and (c) the abundance of highly bothersome insects during the summer, the peak tourist season. Furthermore, a generic problem characterizing the tourism industry is its high volatility. Increasing prizes of crude oil or any terror act may be sufficient to trigger sharp declines in international travel, resulting in a collapse of tourism. Income from tourism should therefore be considered a “bonus”, and not something to rely on for long-term financial stability of CBNRMAs. (This does not apply to ‘hunting’ tourism).

Other financial prospects related to the two CBNRMAs such as gate fees, resource use fees etc. are minor compared to trophy hunting, although commercialized sport-fishing may have a good economic potential. All such issues will be addressed as **part of the management planning process**.

¹² The proposed business plan to be elaborated within phase three of the project (2007) will provide details on expected revenue potential of the two areas.

Section 6. Risk Assessment and Milestones

6.1. Risk Assessment

The greatest risk associated with CBNRMAs in Mongolia is the potential failure to achieve financial sustainability. Regarding the two targeted model CBNRMAs, it has become apparent that financial sustainability may only be achieved through community empowerment by the Central Government related to trophy hunting. Other revenues to-be generated from the two areas will not be sufficient to cover future operational costs resulting from sustainable conservation management and protection. In general, the framework conditions for both CBNRMAs to become successful models for sustainable resource use and conservation management are highly favourable. Both areas have a sound legal status and enjoy full support from both the CBNRMA neighbours and local authorities.

6.2. Milestones

- Elaborate topographic base map in a scale of 1:50 000 for both areas (by January 2007).
- Initiate preparation of vegetation cover map (satellite photo interpretation December 2005/January 2006).
- Design and prepare ungulate inventory (January 2006).
- Implement first bio-monitoring transect survey of 2007 in March/April 2007.
- Conduct ungulate inventory using systematic random sampling design (March 2007).
- First consulting mission for the preparation of management plan for both areas (March 2007, 3 weeks).
- Full stakeholder inception workshops in Mungunmorit and Batshireet (March 2007).
- Establishment of planning team and work groups with persons to be selected from amongst workshop participants (March 2007).
- Work program design and implementation of programs by designated work groups (April May 2007).
- Ground-truthing of satellite vegetation mapping by plant ecologist; finalization of vegetation map (June 2007: 4 weeks).
- Consulting mission related to Mungunmorit elk cooperative (June 2007: 2 weeks).
- CBNRMA planner's second mission (May/June 3 weeks).
 - Work group results analysis
 - Gap analysis
 - GIS processing of thematic maps
- CBNRMA planner to assemble and write management plan (4 weeks for both plans to be produced at home base; draft of first plan to be ready for circulation by mid-June).
- CBNRMA plans to be submitted for approval by August 2007.
- Second bio-monitoring survey for both CBNRMAs (July 2007).

- Establishment of CBNRMA-MU and Steering Committee.
- Third mission CBNRM planner for the production of business plans for both CBNRMAs (September 2007, two weeks).
- Third bio-monitoring survey (October/November 2007).
- CBNRMA Planner finalizing business plans at home base (October 2007, 2 weeks).

Section 7: Summary Conclusions and Recommendations

7.1 Conclusions

In summary, the first phase of the GTZ supported CBNRMA target areas Mungunmorit and Batshireet Sums rightly focused on the establishment of an effective and efficient protection system for both areas, successfully achieved between 2004 and 2006. This was followed by the design and implementation of a sound bio-monitoring system designed and implemented with the assistance of the Mongolian Academy of Sciences.

A recognized area in need of priority attention is communication between the Community Rangers and CBNRMA neighbours.

The next steps in the systematic development process of the two CBNRMAs are the participatory elaboration of sound state-of-the art management plans to be supported by business plans. The plans will aim at achieving the long-term conservation and sustainable use goals of the targeted CBNRMAs for the benefit of the local people and biodiversity conservation.

The management plans will be implemented by the CBNRMA –MUs under supervision of the CBNRMA Committee.

The proposed exit strategy for the two CBNRMAs aims at financial sustainability by the Year 2010 and the areas to-be managed effectively and efficiently by a well trained and highly motivated CBNRMA-MU.

If successful, the two areas may serve as a unique model to neighbouring countries as the first truly community-based natural resource management areas in the entire CIS Region.

Recommendation generic to both CBNRMAs, recommendations specific to one or the other CBNRMA and overarching recommendations of interventions that will assist in creating favourable framework conditions are summarized as follows:

7.2 Recommendations

7.2.1 Generic recommendations applying to both areas:

CBNRMA boundary issue:

- The Mungunmorit and Batshireet Sum authorities approve re-aligned boundaries to be registered as soon as possible with the national cadastre.
- The Mungunmorit Sum to include the section of prime ungulate habitat in the CBNRMA which has been partitioned off within the boundary re-alignment process, by simply re-connecting the two southern geo-referenced points along the edge of the western Kherlen River floodplain.

Additional Community Ranger training:

- To conduct a proper training need assessment.
- To design and deliver (on-the-job and on-site) training in modular form on a priority need basis.
- To provide training in communication skills and interaction with the Sum constituents (key priority).
- To design and deliver training module aimed at public relation skills and to embark on a follow-up implementation schedule (regular evaluation of pr success is required).

Ranger Posts:

- To change the appearance of the current ranger posts to better fit into the surrounding landscape.
- To add a simple but aesthetically pleasing horse shelter to each post.

Control System:

- To assess the possibility of engaging voluntary help from CBNRMA neighbours as *pro bono* “community scouts” with enforcement authority to be awarded by the Sum (assistant community ranger, community scout).
- To officialize enforcement cooperation between the different enforcement agency by designing and signing cooperation agreements (MoU).

Bio-monitoring:

- To limit the geo-referenced transect surveys to three seasonal surveys/year which better reflect the annual biological cycle of animals.
- To reduce the overall number of species to be recorded in the annual surveys as suggested in Annex 3.
- To conduct a complete ungulate census in March/April 2007 for both CBNRMAs in order to establish sound baseline data on population sizes in the target areas.

Technical backstopping:

- Four days per survey in the Mungunmorit CBNRMA (14 days/year).
- Four days per survey in the Batshireet CBNRMA (14 days/year).
- Two days data processing for each survey for each target area (12 days/year).
- Ungulate Census in 2007: design and implementation for both target areas (20 days).

Bio-technical measures:

- Limit “bio-technical” measures in both CBNRMAs to the additional salting of existing mineral licks.

7.2.2 Mungunmorit Sum

Elk farming:

- For GTZ to finance the perimeter fence of the to-be expanded enclosure of 70 ha on the condition that an agreed number of future surplus animals are released into the wild
- For GTZ to finance a short-term expatriate consultant to provide the cooperative with the technical know-how on how to commercialize the operation and how to set it on a professional footing including humane methods of velvet antler removal and the handling live animals.

7.2.3 Enabling framework conditions

The proposed participatory elaboration of a Management Plan and complementary Business Plan for both areas covers all recommendations and suggestions made in this report in context with the four supporting pillars of the two CBNRMAs:

Ecological Integrity, (b) Governance, (c) Social Participation and (c) Financial Sustainability.

The two Management Plans supported by the corresponding business plans will provide the enabling framework conditions for the CBNRMAs to become successful models of community-based natural resource management if properly implemented and approved by government authorities.

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ANNEX 1: Organizational Chart of the Mungunmorit Sum

Annex 2: Ranger Training Schedule and Modules (Curriculum designed by Schuerholz, 1994)**Selection Process**

20 days boot camp all candidates

(Discipline, obedience, team spirit, leadership, group performance and coherence, personal hygiene etc.)

Selection of best candidates

Selection of candidates with proven leadership qualities

Examination after 20 days (written and oral)

Module 1 Conservation Management and CBNRM (Concepts and Practice)

International Concepts of PA systems and Buffer zones

CBNRM and CBWMA concepts and principles

Mongolia's PA system, PA categories, buffer zones and CBNRM

PA management in Mongolia

Management Plans and operational plans for PAs

Concept of CBNRMAs in Mongolia (pilot projects)

Module 2 The new Community Ranger in Mongolia

Functions and responsibilities

Ethics and Conduct

Uniforms and insignia

Legal framework related to WMA

Module 3 Policies and laws related to CBNRMAs

Land Law

Hunting Law

Buffer Zone Law

Protected Area Law

Criminal code and civil law

CBNRM resource-use/access policies and rules

Module 4: Fundamentals to law enforcement

Personal defence (boot camp)

Search and Seizure,

Arrests and Evidence

Processing violations (violation reports)

Formalizing working relationships

Inter-agency Agreements

Module 5: Ecology

Introduction to elementary ecology (synecology: landscape, eco-zone, ecosystem, habitat

Principles of ecosystem functioning

Plant and animal identification

Habitat types (plant communities)

Habitat inventories (what, when, where, why and by whom)
Inventory design and implementation
Basic inventory statistics
Basics of animal population dynamics
Habitat and wildlife management concepts and options

Module 6 Equipment and use

Basic ranger kit
GPS
Binoculars and Spotting scopes
Compass
Altimeters
Map reading and interpretation
Etc. etc., etc.

Module 7 Monitoring, Keeping Records and Producing Reports

Bio-monitoring (design, transects, what to record, how to record)
Monitoring templates
Record keeping and processing
Use of field books
Monthly Activity reports
Annual reports
Data storage and processing
Principles of GIS

Module 8 Skill development (on-the-job training)

Driving motorcycles and vehicles (safe driver training and exams)
Basic carpentry
Basic mechanics and small repairs
Basic electrics (solar panels, inverters, batteries etc.)
Working with logs and building log structures
Use and safe handling of chainsaws and other power tools

Module 9 Human Relations

How to build team spirit
Communication and conduct with each other
Leadership
Crisis intervention
Sociology of ranger groups and group interaction
Dealing with the public
Communication with the public and stakeholder dialogue
Conflict resolutions

Module 10 Other Management Programs
Public Use Program (Entry gates and visitor logs)
Environmental Education and Awareness Building

Module 11 Ranger Beats and Control
Zoning concept related to control system
Design of control system
Protection program
CBNRMA boundaries
Geographical conflict areas
Resource use and access inside PA

Module 12 Patrolling
Planning a patrol (time schedule, emergencies, equipment checklist)
On Patrol (conduct, over-nighting etc.)
Proper horse care
Safety

Module 13 Search and Rescue
Search and rescue procedures
Inter-agency cooperation and procedures
First Aid

Module 14 Maintenance
Designing maintenance program (who, where, what, when and why)
Implementing maintenance program
Keeping maintenance records

To be addressed by maintenance program:

WMA boundaries

Access points

Boundary demarcation and signs

Ranger posts

Landscaping and aesthetics

Garbage

Equipment

Vehicles

Personal gear

Module 15 CBNRMAs Batshireet and Mungunmorit community ranger responsibilities

Preparing annual work plans (Post leaders)

Identify key annual events and consider in work plan

Bio-monitoring

Nut collection (includes MoUs)

Berry collection

Winter access to hot springs

Prepare plan for each event

Patrols

Vacations

Winterizing

Module 16 Winterization

Winterize posts (insulation of building)

Winter wood supply

Hay production and safe storage

Winterize equipment

Horse shelters

ANNEX 4 Trophy hunting

1. Background.

“At present, trophy hunting of big game species in Mongolia is the privilege of foreign hunters. Nationals are not allowed to hunt big game animals by law. Trophy hunting by foreigners was first introduced in 1964 and has taken place ever since. It is considered an important earner of foreign currency in a country with little resources. Until 1999, licensing was the responsibility of the "Environmental Protection Agency" (i.e., one of the three agencies of the MNE). It is now the responsibility of the "Policy Implementation Department" (i.e., one of the five Departments of the MNE).

Long years of management experience with trophy hunting of elk in North America and red deer in Germany shows that a stable elk/red-deer population can sustain a 4 % harvest of the male population if hunting selects for stags older than 8 years. Management experience stipulates that the ultimate management goal should be maintaining a mean age of 7 years for the male population. A harvest rate larger than 4 % disturbs the age structure of the male population that has an adverse impact on the population at large (Schuerholz, 2001).

The current procedure of setting quotas for trophy hunting is not satisfactory. The local Government recommends quotas to the Central Government. Proposed quotas are based on guesstimates and information received from local herders. For species classified as "endangered" the hunting law stipulates population surveys by professional organizations. Such surveys are assumed to be more systematic resulting in more reliable census data than estimates by local herders that are mostly based on chance sightings. Until 1990 wildlife census was the responsibility of the Academy of Sciences. Although this arrangement may officially be still in place, no funding is made available by the central government to implement population surveys on a fixed schedule basis. It appears that at present census takes place only if outside funding from international organizations or from local outfitters with vested interest is made available.

The Policy Implementation Department of the MNE is responsible for scheduling census of rare and endangered species that are subject to trophy hunting. Officially, the Central Government provides funding for mandatory population surveys of such species; funding, however, is sporadic and insufficient. The Department also issues and allocates licenses for such species (i.e., elk, wild boar, moose, roe deer and wolf) to be hunted only in areas that have been surveyed.

Trophy hunting by foreigners is organized by local safari outfitters. There are currently 26 hunting outfitters in Mongolia all competing for a limited number of highly prized species tags. Outfitters are legally obliged to enter into a hunting agreement with the Aimag and Sum where the hunt will take place prior to applying for licenses with the MNE. Contracts with Sums are negotiated on an annual basis. There is no hunting in protected areas. Outfitters may only receive requested licenses for their clients if a written agreement between the outfitter and the local authorities is in place.

Although the new hunting law (amended in May 2000) specifies the selection criteria to be applied to outfitters when allocating quotas, the allocation process is not transparent. Outfitters applying for licenses for foreign clients must have *inter alia* proven financial capability in order to pay for the licenses, proven access to foreign markets, well trained professional staff and clean legal track record. ” (Citation from Document: Schuerholz, 2001).

2. Potential Revenues to be generated by trophy hunting from the CBNRMA Mungunmorit Sum

The following highly conservative estimate is based on information from previous professional hunting confined to the eastern section of the target area (professional outfitter operations lasted until 1994). Game species harvested were elk, roe deer, boar and wolf. Game-bird species with great potential are that were not harvested are Black Grouse and Capercaillie. The hunted area is approximately 25,000 ha. The total area of the CBNRM is approximately 50,000 ha.

- 15 hunters/season (Sept.-October) were taken.
- Average hunting success per season: 10 elk, 10 roe deer.
- 10% of proceeds retained by the Sum = approximately US\$ 15,000 under current legal condition.

With full rights by the Sum to the revenues generated by hunting the amount grossed would have been US\$ 150,000.

The current minimum annual operational costs of the Mungunmorit CBNRMA are approximately US\$ 20,000 expected to rise to US\$ 35,000 by 2009. The operational costs include wages and running expenses.

Realistically, if black grouse and capercaillie hunting is offered additionally to the large ungulate species and exploiting the future full potential of the area the harvest rate for all species could be increased without damaging the hunted populations.

It is understood that this commercial hunting operation would only be possible with a continuing effective anti-poaching effort and least disturbance to wildlife populations and their habitat and/or competition with livestock on the winter range.

3. Potential Revenues to be generated by trophy hunting from the CBNRMA Batshireet :

In view of the superior habitat quality for ungulates, the availability of high quality, large-sized ungulate winter range and the size of the Batshireet CBNRMA (twice as large as the Mungunmorit CBNRMA), the financial prospects under similar conditions described for the Mungunmorit CBNRMA are even better

ANNEX 5: Management Plan and Business Plan

The proposed planning process is the same for each of the two target areas.

1. Start-up phase

Recruit experienced CBNRMA planner to initiate and guide process

Identify key stakeholders for both CBNRMAs

Implement participatory stakeholder inception workshop (Brainstorming, Zopp?)

- problems, objectives, goals
- vision development
- consensus on process and management plan structure
- zoning concept

Select core planning team and establish work groups

Formalize involvement of support persons community representatives

Establish work programs for work groups and support persons

2. Data Collection

Support persons and work groups to compile end complement existing baseline data family consultation

Mid-term planning workshop

Participatory zonation of park into use zones

Review of existing data

Data gap analysis

Work groups to design policies for each use zone

3. Elaboration of management plan

The management plan will be organized by management program:

- Protection Program
 - Rangers: profile, recruitment, training etc.
 - Establish and equip ranger posts and rangers
 - Establish ranger work program (ranger beats etc.)
 - Enforcement and agreements
 - Boundary demarcation
 - Entry points (gates, access, signs)
 - Fire management
- Awareness Program
 - Establish support groups
 - Develop information package
 - Environmental education, information
 - Establish continuing dialogue with communities + other stakeholders
- Research and Monitoring Program
 - Identify applied research and monitoring needs
 - Review current bio-monitoring system and amend if necessary
 - Standardize monitoring activities

- Establish cooperation agreement with academy of sciences (backstopping)
Design inventory plan for game species
- Tourism Program
 - Identify tourism potential
 - If suitable design tourism program
 - Access and infrastructure
 - Nature-based programs and marketing
 - Catering to tourists
 - Agreements with operators (concession basis)
 - Visitor Fees and payment procedures
 - Hunting
 - Design procedure to obtain hunting allocation from MNE
 - How to identify potential harvest quota of trophy animals
 - Hunting through operators or CBNRMA
 - Marketing
 - Fee collection and distribution
 - Resource Use Program
 - Identify resource user groups
 - Policies for use zones
 - Fees, use volume, time limits and other restrictions
 - User privileges
 - Maintenance Program
 - Design maintenance plan
 - How to implement maintenance program (responsibilities etc.)
 - Administration Program
 - Proposed Organizational Structure
 - Identify personnel requirements by program
 - Develop position profiles
 - Structure, responsibilities, functions
 - Infrastructure needs etc.

4. Approval of Management Plan

Produce draft proposal of management plan (external planner)
Widely circulate draft for comments
Incorporate suggestions as needed
Submit plan to Sum Parliament for approval
Approve plan

5. Elaboration of Business Plan

Task of the external consultant to-be based on management plan (2 weeks desk job)