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УВС Аймаг

Conservation Action Plan for a Local Protected Area "Gulzat" of Uvs Aimag

Mission:

"For better living of communities in harmony with nature through the sustainable use of natural resources within a wildife home"

(First Draft, August 2008)

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Brief Introduction on Local Protected Area "Gulzat" of Uvs Aimag

An area, about 126,772 ha, near the State border within Bukhmurun and Sagil Soums of Uvs Aimag was protected by Decision No: 36 of the Aimag Citizen's Representative Khural (CRKh) as a local Protected Area in 2008 with the purpose of conservation and sustainable use of rare/endangered and game species reserves.

In practice, initiatives and attemtps to ensure balance between sustainable use of environment and natural resources and human needs are rasied by local communities and gradually incorporated in local government decisions.

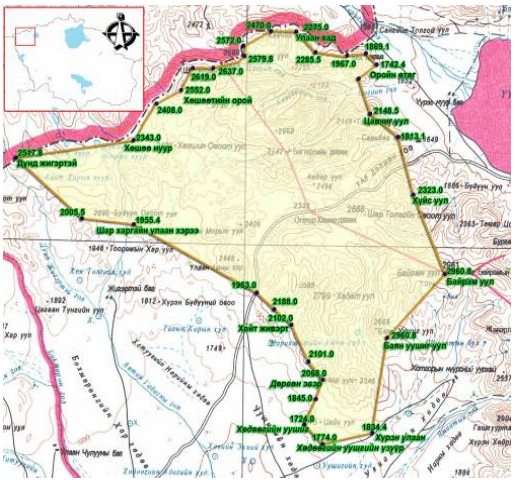
The areas that are taken under local (Aimag/Capital City, and Soum/District) protection with the purpose to conserve natural original and specific conditions, historically and culturally important sites, recreational and tourism sites, and sutainable use of natural resources, are called as "**Local Protected Areas**".

"Gulzat" area was taken under local (Aimag) protection by Decision of Uvs Aimag CRKh dated on March 21, 2008 as **wildlife and water reserve land** with the following purposes: first, it covers territories of two different Soums, secondly, it needs to protect and preserve natural original conditions, historically and culturally important sites, and to use natural resources in sustainable ways, and thirdly, it needs to introduce and develop community based hunting management.

Area "**Gulzat**" covering totally 126,772 ha in Sagil and Bukhmurun Soums of Uvs Aimag was taken under local protection with the following justifications:

1. The area supports a main habitat of Argali sheep that is one of important hunting/ game species for throphy hunting. As an option of protection and sustainable use of its reserve through community participation and benefits and introduction of community based hunting management is selected and applied, it will make good contribution in improvement of local community livelihood.
2. This area also supports a habitat of about 40 heads of Black tailed gazelle that is found in its northernmost range/altitude of the globe. The Black tailed gazelle is listed in the Mongolian Red Book as rare species. Thus it needs to protect the species population.
3. The area is regarded as one of the areas, where the highest number of Siberian marmot in the Aimag/Province is found. However, in recent years, the species is unsustainably harvested and its population has been drastically decreased. Thus, it needs to take the area under local protection in order to ensure long term conservation of the species.

Map 1. Boundary of Gulzat, local Protected Area



Uvs Nuur basin is one of nationwide and worldwide wonders supporting specific geographical formation, vertical natural zones, where the Central Asian Drainage rivers and lakes lie. A variety of conservation methods exist. Among those, an option to take certain areas under **special** protection for conservation and preservation of natural zone features, specific natural formation, endangered wildlife species, historical and cultural sites, & exploring/studying dynamics and evoluation, is given much priority. Main advantages of this approach include the protection of wildlife species along with their habitats under an integrated ecosystem conservation approach, prevention from ecological imbalance in order to ensure local and regional importance and well beings of humans at ultimost end.

Thus, World Wide Fund for Nature (WWF) Mongolia supports local herder and community based conservation initiatives and actions in Bukhmurun and Sagil Soums of Uvs Aimag. Main focus is given to the community based local Protected Area management through establishment of group/partnerships and allocation of certain pieces of land to the groups/partnerships for conservation.

MISSION of local community residing the local Protected Are "Gulzat" is as follows:

"For better living of communities in harmony with nature through the sustainable use of natural resources within a wildife home"

Summary

First draft of conservation action plan for Gulzat area was developed by communities of Sagil and Bukhmurun Soums under support of nature conservation/ environmental partnerships and WWF Mongolia in August 2008.

This report covers the methodology of conservation action plan, conservation planning process, and first draft of plan that was jointly developed in participation of local communities residing Gulzat local PA, environmental partnerships, Aimag and Soum level decision makers, and other environmental organizations.

Please refer to the following contact address regarding the report.

1. Yo. Onon, Wildlife Conservation Manager, WWF Mongolia Country Office: onon@wwf.mn;
2. O. Munkhtogtokh, Officer in charge of Altai Sayan eco-region conservation, WWF Mongolia Country Office: munkhtogtokh@wwf.mn;

World Wide Fund for Nature (WWF) Mongolia
Country Office

Telephone: +976-11-311659
Fax: +976-11-310237
Web page: http://www.wwf.mn

FOREWORD

In practice, any expected conservation action outputs are directly depended on how the actions are planned. Thus, planning is usually done through proper assessments of potential and actual negative impacts expected for the present and future time and finding their causes and potential solutions. Among these tasks the assessment of causes of expected negative impacts is much diffucult phase in planning. If the causes of expected negative impacts are not properly assessed or neglected/left out, proper and optimal actions will not be planned and implemented. Therefore, it is necessary to do planning through long term and precise discussions and consideration of expected outputs in order to achieve satisfactory outcomes.

Over 80 per cent of land fund in Mongolia is pastureland/rangeland. Use of pastureland/rangeland and water resources in pastureland and nomadic animal husbandry practices have been conducted until the threshold of the 21st century. However, during last 20 years, negative impacts of global climate warming and destructive human activities are followed by desertification, droughts, dzud (heavy snow falls in winter time), and lack of water and grazing areas throughout the country. In Mongolia, main economic source of rural population is pastoral animal husbandry that is directly depended on livestock, wildlife community productivity, re-productivity, water supplies, and state of pastureland/rangeland. Thus, lack of pastureland/rangeland and water resources leads to treats and risks for pastoral livestock husbandry and wildlife species. One of more applicable solutions is to ensure sustainable use of natural resources and joint conservation planning through the use of natural resources by organized community groups/partnerships (environmental partnerships). In order to tackle the issues, local communities residing the local PA "Gulzat" in cooperation with environmental partnerships developed the draft action plan through their hard work and joint efforts.

Ecological process seems "mutually dependable/interrelated integrated process" like "ant's net". It is clear that this integrated action requires more comprehensive and integrated action plan for the protection and sustainable use of natural resources with the least human impacts. Additionally, much fund, investment, man power, and time will be required for restoration and conservation of biodiversity that are rapidly destroyed from time to time.

Nevertheless, we are still lacking man power, time and funding. Thus, we need to more effectively plan and consider "what, where, and how sustainably". Therefore we did planning based on the methodology developed by the Nature Conservancty (USA).

Regarding geographical scope of environmental planning: there are 1) eco-regional planning; 2) national planning; and 3) specific local area planning. Regarding timeframe planning there is 1) long-term and 2) short term planning. For development of eco-regional and national planning, it is inevitably necessary to collect comprehensive researdch data under extensively planned tasks. On other hand, short term planning for specific local area requires efficient joint efforts of local communities, decision makers, researchers, and environmental and other respective organizations/institutions.

Conservation efforts are not independent action, so that they are usually planned and implemented within all sectors of social development and human living cycles. Development and implementation of conservation action plan for the local PA "Gulzat" should be one of important wishes and interests of local residents.

Planning process and discussion of conservation action plan for local PA "Gulzat"

Stakeholders to deal with development and implementation of conservation action plan:

1. Local communities, environmental partnerships and volunteer rangers;
2. Governing board of local PA;
3. Decision makers of Sagil and Bukhmurun Soums;
4. Citizen's Representative Khural (CRKh) Presiduem;
5. Uvs Aiamg Governor's Office;
6. Sub-units 1 & 2 of Military Frontier Unit No: 0245;

First draft of conservation action plan for local PA "Gulzat" was developed by joint efforts and discussions of over 50 representatives of local communities and environmental partnerships organized on 20-22 July, 2008.

Participants were divided into five working groups; each of them consisted of 5-10 respresentatives of local communities. The working groups were guided by facilitators that were trained in methodologies of Conservation Action Plan (CAP). Discussions with stakeholders were conducted in accordance with especially development programme.

On ,.... September 2008, the decision makers and representatives of envirommental partnerships met and discussed the first draft of CAP for a final draft.

For the development of any CAP local stakeholders need know of conservation biological theoretical concepts. Thus, the participants were provided with basic understanding on biodiversity concept, planning methodological principles, and specific and general features/characteristics of biodiversity at the beginning of discussion.

At the beginning of each planning phase the participants were provided with comprehensive methodological concepts in order to have common understanding on the aspects during discussions. In some cases, the participants had few problems due to misunderstanding on methodology, but the problems were corrected by re-assessments during the disscussions.

First Draft of Conservation Action Plan for Local Protected Area "Gulzat"

Phase 1: Identification of what to protect/conserve

What parts of ecosystem, wildlife and community shall be protected for adequate conservation of local PA "Gulzat"?

The following seven types of biodiversity that could repressent the whole local PA "Gulzat" ecosystem at the **wildlife, community, and ecosystem** level are targeted and dealt with:

I. Ecological ecosystem to be protected:

1. Larch forest ecosystem in Sagil Soum;

II. Community to be protected:

2. River, spring, and mineral water sources

II. Wildlife Species to be protected:

3. Argali sheep (*Ovis ammon*)
4. Black-tailed gazelle (*Procapra gutturosa*)
5. Siberian marmot, (*Marmota sibirica*)
6. Altai snowcock (*Tetraogallus altaicus)*
7. Allium altaicum (*Allium altaicus*)





Based on these seven types of biodiversity, selected as main ecosystem representatives, (in terms of wildlife, communityand ecosystem), the CAP was first drafted.

Phase 2: Identification & Assessment of Threat Causes

Identification of key ecological features/characteristics

Firstly, much consideration was given to the identification of key ecological features/ characteristics of targeted biodiversity or wildlife, community, and ecosystem for immediate conservation within the local PA.

Assessment was made based on some features/characteristics e.g. biological process that is likely to impact on biodiversity and its structure, formation, composition, distribution, population, and dynamics and their historical evolution process. These dynamic features/ characteristics are assessed with three criteria: size, condition, and landscape and two time criteria: present and future expected outputs. These assesment results describe the natural regeneration rates of biodiversity. For instance, we selected larch forest ecosystem as one of the community to be immediately protected. Its ecological key feature /characteristics might be its natural regeneration. In other words, it means that the ecosystem shall be extinct when its regeneration process is ceased. Thus, the conservation and restoration plan of biodiversity within the selected site is developed based on this ecological key feature/characteristic.

We assessed the current status of key ecological feature/characteristics of targeted wildlife, community, and ecosystem existence and regeneration process in terms of size, condition and landscape categories with evaluation degrees: “poor”, “moderate”, “good”, and “excelent”. Considering the assesment results, we identified objectives to be achieved after five years.

Table 1 Identification of key ecological features/characteristics of targeted wildlife, community, and ecosystem

Remarks/Notes:
Column 1: Biodiversity/wildlife, community, and ecosystem, main representatives/
Column 2: Categories /geographical statement, size, and condition /
Column 3: Key ecological features/characteristics/main features of existence and regeneration of wildlife, communityand ecosystem that are consistent to given category/
Column 4: Coefficient /measurements or descriptions of key ecological features/characteristics/
Column 5: Assessment /quantative statement of ecological features/ characteristics/
Column 6: Description of current coefficients of ecological features/ characteristics /Assessment description of current status/
Column 7: Current Status /current status of quantative assessment of ecological features/characteristics/
Column 8: Objectives /Expected outputs and potential upgrading levels of current status of quantitative assessment of ecological features/ characteristics/
Column 9: Date /Current assesment date/
Column 10: Proposed time /time, when the propesed outputs are achieved/

Table 1. Key ecological features/characteristics or capacity of targeted ecological system, community and wildlife

1	2	3	4	5				6	7	8	9	10
Biodiversity	**Category**	**Key ecological features**	**Coefficient**	**Poor**	**Moderate**	**Good**	**Excelent**	**Description of current coefficient**	**Current status**	**Objective**	**Date**	**Proposed time**
Argali sheep	Landscape	Habitat fraction	Length of fencing newly erected along the State border	Fencing around Argali movement area - 100 %	Fencing around Argali movement area - 80%	Fencing around Argali movement area -60%	Fencing around Argali movement area -40%	As of 2008, fencing was done around Argali movement area – 80 %	**Mode-rate**	Good	Aug 2008	2012.VIII
Argali sheep	Landscape	Rangeland /grazing areas	Size of overlapped grazing areas of livestock & Argali sheep	100%	70-80%	50-60%	40-50%	Overlapped area: 35 % in Bukh-murun Soum in winter, 68% in Sagil Soum, & 28.7 % in Bukh-murin in spring;	**Mode-rate**	Good	Aug 2008	2012.VIII
Argali sheep	Landscape	Rutting	Sizes of areas released from livestock grazing during rutting period	Up to 30 %	30-50%	60-80%	100%	38 herder families from Turgen spend winters in Sagil; 30 outside households spend winters in Bukhmurun;	**Mode-rate**	Good	Aug 2008	2012.VIII
Argali sheep	Condition	Impacts of predators	Heads of gray wolf within 10 êì^2	> 5	2-5	2	1	Informal reports on increased heads of gray wolf	**Mode-rate**	Good	Jul-08	2012.VIII
Argali sheep	Size	Reproductivity	Population size	100	100-250	250-350	350-450	As of 2004 census about 200-220 (Palizin, Onon al et)	**Mode-rate**	Excelent	Jul-08	2012.VIII

1	2	3	4	5				6	7	8	9	10
Biodiversity	**Category**	**Key ecological features**	**Coefficient**	**Poor**	**Moderate**	**Good**	**Excelent**	**Description of current coefficient**	**Current status**	**Objective**	**Date**	**Proposed time**
Black-tailed gazelle	Landscape	Areas with accumulated water	Size of areas, where water accumulated due to rainfall/precipation	0	10 m x 10m	20 m x 20 m	50 m x 50 m	According to the observation of "Zakhir" partnership members: water is accumulated with 5-10 ì diameter in parts;	**Mode-rate**	Good	2008.VIII	2012.VIII
Black-tailed gazelle	Condition	Snow cover	Thickness of snow within 10 days	> 10 cm	4-7 cm	2-4 cm	2 cm	No snow cover more than 10 cm has been recorded for longer period since 2002;	Good	Good	2008.VIII	2012.VIII
Black-tailed gazelle	Size	Population size	Numbers of individuals in a herd in autumn	<10	10-50	50-100	>100	According to inventory done by "Zakhir" partnership in 2008 spring: 35;	**Mode-rate**	Good	2008.VIII	2012.VIII
Siberian marmot	Landscape	Range/ distribution area	% of range of marmot in steppe zone	< 30%	30-50%	50-70%	> 70%	Marmot is distributed within 184 êi^2 or 80 % of local PA (Tsogtjargal, 2008)	Excellent	Excellent	2008.VIII	2012.VIII
Siberian marmot	Condition	Illegal hunting	Number of individuals hunted within one ha- area	3	1	0	0	No official researches conducted.	**Mode-rate**	Mode-rate	2008.VIII	2012.VIII
Siberian marmot	Condition	Illegal hunting	Number individuals illegally hunted per year	> 300	200	100	50-80	According to the inspection report by Irves-1 in Aug 2008:	**Mode-rate**	Good	2008.VIII	2012.VIII

1	2	3	4	5				6	7	8	9	10
Biodiversity	**Category**	**Key ecological features**	**Coefficient**	**Poor**	**Moderate**	**Good**	**Excelent**	**Description of current coefficient**	**Current status**	**Objectivse**	**Date**	**Proposed time**
Siberian marmot	Size	Population	Number of individuals per 100 ha	< 30	30-40	40-60	>60	As of 2008: 21-186 per 100 ha area (Tsogtjargal, 2008)	**Mode-rate**	Good	2008.VIII	2012.VIII
Altai snow-cock	Landscape	Habitat	% of habitat within the territory;	< 30%	30-40%	40-50%	50-60%	No research data so far; based on only observation findings;	**Mode-rate**	Good	2008.VIII	2012.VIII
Altai snow-cock	Condition	Population	Incidents of illegal huntings	20	10	5	0	No research data so far; based on only observation findings;	**Mode-rate**	Good	2008.VIII	2012.VIII
River, spring, & mineral water bodies	Landscape	Covering area;	Total area of mineral water body	0	10 x10 cm 2	15 x15	30x 30 more	Based on observation findings;	Good	Good	2008.VIII	2012.VIII
River, spring, & mineral water bodies	Landscape	Soil collapse	Potential collapse to water discharge;	> 5%	< 5%	0	0	Based on observation findings;	**Mode-rate**	Excellent	2008.VIII	2012.VIII
River, spring, & mineral water bodies	Condition	Tree cutting at water discharge part	Number of trees to be found per 1 êì2	>0.5 m3	0.5-1	1-1.5	<1.5	Based on observation findings;	Good	Excellent	2008.VIII	2012.VIII
River, spring, & mineral	Condition	Precipitation	Amounts of annual precipation	< 200 mm	200-300 mm	300-350 mm	> 350 mm	Based on observation findings	**Mode-rate**	Good	2008.VIII	2012.VIII

1	2	3	4	5				6	7	8	9	10
Biodiversity	**Category**	**Key ecological features**	**Coefficient**	**Poor**	**Moderate**	**Good**	**Excelent**	**Description of current coefficient**	**Current status**	**Objective**	**Date**	**Proposed time**
water bodies												
River, spring, & mineral water bodies	Size	Water discharge	Amount of water discharge per a minute	<500 gr	500-800	800-1 liter	>1 liter	Based on observation findings	Good	Good	2008.VIII	2012.VIII
River, spring, & mineral water bodies	Size	Numbers of water points	Number of dried out water points	>1	0	Increase number of water points by 1;	Increase number of water points by 2-3;	Include data from Water Inventory Report, 2007;	**Poor**	Good	2008.VIII	2012.VIII
Allium altaicum	Landcape	Its distribution within Zuun Bel area	Size of distribution area	Be reduced in comparing to current state	Remain the same as the current state	Be increased by 10% in comparing to the current state	Be increased by 30% in comparing to the current state	Research needs to be done; At this time it is only based on observation findings;	**Mode-rate**	Good	2008.VIII	2012.VIII
Allium altaicum	Condition	Over harvesting	Number of people unsustainably harvesting e.g. harvesting before seed spread	30-50% of people harvest it before seed spread	30 % of people harvest it before seed spread	100 % of people use it sustainably;	100 % of people do not collect it before seed spread;	Research needs to be done; At this time it is only based on observation findings;	Poor	Good	2008.VIII	2012.VIII
Allium altaicum	Size	Amounts of Allium altaicum	Amounts of Allium altaicum to be found within 1 ì^2 area;	< 2	2-4	*5-6*	> 8	Research needs to be done; At this time it is only based	Mode-rate	Good	2008.VIII	2008.VIII

1	2	3	4	5				6	7	8	9	10
Biodiversity	**Category**	**Key ecological features**	**Coefficient**	**Poor**	**Moderate**	**Good**	**Excelent**	**Description of current coefficient**	**Current status**	**Objective**	**Date**	**Proposed time**
								on observation findings;				
Larch forest	Size	Population size	Larch forest area	< 9 ha	9-10 ha	> *10 ha*	> 10 ha	Research needs to be done; At this time it is only based on observation findings;	Mode-rate	Good	2008.VIII	2012.VIII
Larch forest	Condition	Unsustainable & over harvesting	Areas of forest affected by use;	> 20%	10-20%	<10%	*0*	Research needs to be done; At this time it is only based on observation findings;	Poor	Excellent	2008.VIII	2012.VIII

Assessment of causes of threats and pressures

Amounts/sizes of potential and actual threats (negative consequences) to biodiversity or targeted wildlife, community and ecosystem as ecosystem representatives were assessed based on key ecological features/characteristics. For the assessment of pressure and threats we used 4-score assessment that includes "very serious", "serious", "moderate", and "low" under "pressure degree" and "a scope".

Degrees: under this category, we assessed how the pressure and threats would affect the ecological capacity of targeted biodiversity.
A scope: under this category we assessed what geographical areas of targeted wildlife, community and ecosystem would be affected by the pressure and threats.

Sources of threats (causes) were assessed with four assessment scores "very serious", "serious", "moderate", and "low"", under the categories of "amounts/ sizes of threat causing effects" and "potentiality of reduction and elimination of threat causes".

Amounts/sizes of effects: under this category, we assessed how the threat causing effects or threat causes would impact on the threat.
Potentiality of reduction and elimination: under this category we consisered what potentiality of reduction and elimination of threat causes would be available.

1. Argali Sheep

Threats to the Argali sheep: reduction in population and habitat fragmentation are very serious according to the assessment.

	Threats	Degrees	A scope	Cumulative sum
1	Reduction in population heads	Very serious	Serious	Serious
2	Habitat degradation	Very serious	Serious	Serious
3	Habitat fragmentation	Very serious	Serious	Serious
Cumulative threats				Serious

Main causes of threse threats and negative impacts are assessed as follows: 1) due to frequent movements of livestock going on *otor* (moving to better conditioned pastures) in winter time, the competitation for grazing areas/pastureland between domestic animals and Argali sheep has been increased; 2) due to increased number of herder households and expanded pastureland of domestic animals, the habitat of Argali sheep has been reduced; 3) increased artisanal and small scale mining operation; 4) due to lack of

sustainable hunting management, local communities are short of Argali sheep conservation attitudes and inspirations; 5) Herder families moving on *otor* (moving to better conditioned pastureland) frequently reside the migration path of Argali sheep. 6) Fences newly erected along the State border are significant barrier to the species movements and migration.

Assessment of threat causes to Argali sheep

Due to increased number of herder families moving on otor (to better conditioned pastureland) in winter time, the species rangeland is getting reduced.	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects	**Very serious**	**Very serious**	**Very serious**
Potentiality of reduction and elimination of threat causes	**Very serious**	**Very serious**	**Very serious**
Cumulative sum of threat an its causes	**Serious**	**Serious**	**Serious**

Due to increased number of herder households and expanded pastureland of domestic animals, the habitat of Argali sheep has been reduced;	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects		**Very serious**	**Very serious**
Potentiality of reduction and elimination of threat causes		**Serious**	**Very serious**
Cumulative sum of threat an its causes		**Serious**	**Serious**

Increased Artisanal and Small Scale Mining operations	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects		**Very serious**	
Potentiality of reduction and elimination of threat causes		**Moderate**	
Cumulative sum of threat an its causes		**Serious**	

Unsustainable hunting management	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects	**Very serious**		
Potentiality of reduction and elimination of threat causes	**Serious**		
Cumulative sum of threat an its causes	**Serious**		

A number of herder families going on *otor* reside migration path of Argali sheep	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects		**Serious**	**Serious**
Potentiality of reduction and elimination of threat causes		**Serious**	**Serious**
Cumulative sum of threat an its causes		**Serious**	**Serious**

Fences along the State border	Reduction in population	Habitat degredation	Habitat framents
	1	2	3
Amounts/sizes of threat causing effects			**Very serious**
Potentiality of reduction and elimination of threat causes			**Moderate**
Cumulative sum of threat an its causes			**Serious**

2. Black-tailed gazelle

Threats to the Black-tailed gazelle: reduction in its population and habitat degredation are serious according to the assessment.

	Threats	Degree	A scope	Cumulative sum
1	Reduction in population	Very serious	Very serious	Very serious
2	Habitat degredation	Moderate	Moderate	Ãóíä

Cumulative sum of threats	**Serious**

These threats particularly deficiency of water and rangeland are mainly caused by 1) climate change (droughts & dzud heavy snow falls in winter) and 2) unsustainable use by human.

Assessment of threat causing effects for Black-tailed gazelle

Climate change	Reduction in population	Habitat degredation
	1	2
Amounts/sizes of threat causing effects	**Very serious**	
Potentiality of reduction and elimination of threat causes	**Low**	
Cumulative sum of threat an its causes	**Very serious**	

Climate change	Reduction in population	Habitat degredation
	1	2
Amounts/sizes of threat causing effects		**Serious**
Potentiality of reduction and elimination of threat causes		**Serious**
Cumulative sum of threat an its causes		**Moderate**

3. Siberian marmot

Threats to the Siberian marmot: reductin in population and habitate loss and degredation are serious according to the assessment.

	Threats	Degree	A scope	Cumulative sum
1	Reduction in population	Very serious	Very serious	Very serious
2	Loss of habitat	Serious	Very serious	Serious
3	Habitat degredation	Low	Low	Low
Cummulative sum of threats				**Serious**

These threats are mainly caused by 1) unsustainable use and over-harvesting, 2) increased artisanal and small scale mining operation, 3) unsustainable use of pastureland, 4) climate change and soil erosion due to earth sliding.

Assessment of threat causing effects for the Siberian marmot

Unsustainable use and over-harvesting	Reduction in population	Loss of habitat	Habitat degredation
	1	2	3
Amounts/sizes of threat causing effects	**Very serious**		
Potentiality of reduction and elimination of threat causes	**Moderate**		
Cumulative sum of threat an its causes	**Very serious**		

Artisanal and small scale mining operations	Reduction in population	Loss of habitat	Habitat degredation
	1	2	3
Amounts/sizes of threat causing effects		**Very serious**	
Potentiality of reduction and elimination of threat causes		**Moderate**	
Cumulative sum of threat an its causes		**Moderate**	

Unsustainable use of pastureland	Reduction in population	Loss of habitat	Habitat degredation
	1	2	3
Amounts/sizes of threat causing effects			**Serious**
Potentiality of reduction and elimination of threat causes			**Serious**
Cumulative sum of threat an its causes			**Serious**

Climate change	Reduction in population	Loss of habitat	Habitat degredation
	1	2	3
Amounts/sizes of threat causing effects			**Low**
Potentiality of reduction and elimination of threat causes			**Low**
Cumulative sum of threat an its causes			**Low**

4. Altai snow cock

Threats to the Altai snow cock: reductin in population and habitat loss and degredation are serious according to the assessment.

	Threats	Degree	A scope	Cumulative sum
1	Reduction in population	**Very serious**	**Serious**	**Serious**
2	Habitat loss & degredation	**Serious**	**Serious**	**Serious**
Cummulative sum of threats				**Serious**

These threats are mainly caused by 1) illegal harvesting/overharvesting for use of traditional medicine, 2) illegal trade of snow cock meat, and 3) goats prefer to eat snow cock's waste so that they destroy their nests and move away.

Assessment of threat causing effects for the Altai snow cock

Illegal harvesting/overharvesting for use of traditional medicine	Reduction in population	Loss and destruction of habitat
	1	2
Amounts/sizes of threat causing effects	**Very seriou**	
Potentiality of reduction and elimination of threat causes	**Seriou**	
Cumulative sum of threat an its causes	**Serious**	

Illegal trade	Reduction in population	Loss and destruction of habitat
	1	2
Amounts/sizes of threat causing effects	**Very seriou**	
Potentiality of reduction and elimination of threat causes	**Very seriou**	
Cumulative sum of threat an its causes	**Serious**	

Due to increased number of goat, the species nests are more likely to be destroyed	Reduction in population	Loss and destruction of habitat
	1	2
Amounts/sizes of threat causing effects	**Very serious**	
Potentiality of reduction and elimination of threat causes	**Very serious**	
Cumulative sum of threat an its causes	**Serious**	

5. Discharges of mineral water, springs, streams and rivers

Threats of reduction of discharging amounts and pollution of mineral water, springs, streams and rivers are serious according to the assessment.

	Threats	Degree	A scope	Cumulative sum
1	Reduced water discharing amount	**Very serious**	**Serious**	**Serious**
2	Pollution	**Serious**	**Serious**	**Serious**
Cummulative sum of threats				**Serious**

Assessment of main causes of reduced water discharging and pollution of mineral water, springs, streams and rivers

Main causes are 1) Increased tree cutting/over-exploitation of trees along rivers, 2) trampling by livestock, and 3) throwing household wastes into mineral water, springs, streams and rivers.

Over-exploitation of trees along rivers	Reduced water discharge	Polluted by household wastes
	1	2
Amounts/sizes of threat causing effects	**Moderate**	
Potentiality of reduction and elimination of threat causes	**Serious**	
Cumulative sum of threat an its causes	**Moderate**	

Trampling by livestock	Reduced water discharge	Polluted by household wastes
	1	2
Amounts/sizes of threat causing effects	**Serious**	
Potentiality of reduction and elimination of threat causes	**Serious**	
Cumulative sum of threat an its causes	**Serious**	

Household wastes	Reduced water discharge	Pollution
	1	2
Amounts/sizes of threat causing effects		**Moderate**
Potentiality of reduction and elimination of threat causes		**Serious**
Cumulative sum of threat an its causes		**Serious**

6. Allium altaicum

At present, threats of reduction of its reserve and distributions are assessed.

	Threats	Degree	A scope	Cumulative sum
1	Reduction in its reserve	**Very serious**	**Very serious**	**Very serious**
2	Reduction and loss of its distribution	**Serious**	**Serious**	**Serious**
Cumulative sum of threats				**Serious**

Assessment of main causes of threats to Allium altaicum:

The treats are mainly caused by: 1) unsustainable use & over-harvesting and 2) increased number of goat.

Unsustainable use and over-harvesting	Reduction in its reserves	Reducition in its distribution
	1	2
Amounts/sizes of threat causing effects	**Serious**	
Potentiality of reduction and elimination of threat causes	**Very serious**	
Cumulative sum of threat an its causes	**Very serious**	

Increased number of goat	Reduction in its reserves	Reducition in its distribution
	1	2
Amounts/sizes of threat causing effects		**Serious**
Potentiality of reduction and elimination of threat causes		**Low**
Cumulative sum of threat an its causes		**Moderate**

7. Larch forest

A threat of reduction in its reserve is serious.

	Threat	Degree	A scope	Cumulative sum
1	Reduction in its reserve	**Serious**	**Serious**	**Serious**
Cumulative sum of threat				**Seriou**

Assessment of threat causing effects for larch forest:

Main causes are 1) unsustainable use & over-harvesting and 2) climate change.

Unsustainable use and over-harvesting	Reduction in its reserve
	1
Amounts/sizes of threat causing effects	**Very serious**
Potentiality of reduction and elimination of threat causes	**Serious**
Cumulative sum of threat an its causes	**Serious**

Climate change	Reduction in its reserve
	1
Amounts/sizes of threat causing effects	**Serious**
Potentiality of reduction and elimination of threat causes	**Serious**
Cumulative sum of threat an its causes	**Serious**

There are totally 10 types of threats being assessed for targeted biodiversity or wildlife, community and ecosystem including Argali sheep, Siberian marmot, Black-tailed gazelle, Altai snow cock, Allium altaicum, larch forest, and water bodies. More serious threats are assessed for the Siberian marmot and Altai snow cock, commonly useful species. Please refer to the following table for more details.

Cumulative Sum of Threats to Targeted Biodiversity

	Threats to key ecological features/ characteristics of biodiversity	Argali sheep	Black tailed gazelle	Siberian marmot	Altai snow cock	Mineral water, springs, & rivers	Allium altaicum	Larch forest
		1	2	3	4	6	7	8
1	Failure in seed spreading	-	-	-	-	-	Very serious	-
2	Pollution	-	-	-	-	Serious	-	-
3	Habitat degredation	Serious	Moderate	Low	Serious	-	-	-
4	Habitat fragmentation	Serious	-	-	-	-	-	-
5	Occupance of habitat	Serious	-	Serious	-	-	-	-
6	Reduction in population due to impacts of predators	Moderate	-	-	-	-	-	-
7	Reduction in reserves	-	-	-	-	-	Serious	Serious
8	Reduction in water discharge	-	-	-	-	Low	-	-
9	Reduction in population	Serious	Serious	Very serious	Serious	-	-	-
10	Lack of precipitation/rainfall	-	-	-	-	-	-	Serious

Cumulative Sum of Threat Causing Effects to Targeted Biodiversity

Threat causing effects		Argali sheep	Black tailed gazelle	Siberian marmot	Altai snow cock	Mineral water, springs, & rivers	Allium altaicum	Larch forest	Overall Threat Rank
Project-specific threats		1	2	3	4	5	6	7	
1	Hunting	-	-	Very serious	Moderate	-	-	-	Их
2	Pre-mature harvest/over-harvesting	-	-	-	-	-	Very serious	-	Их
3	Artisanal and Small Scale Mining operaitons	Serious	-	Moderate	-	-	-	-	Moderate
4	Due to increased number of herder families moving on otor (to better conditioned pastureland) in winter time, rangeland is getting reduced.	Serious	-	-	-	-	-	-	Moderate
5	Lack of sustainable use	Serious	-	Serious	-	-	-	Serious	Moderate
6	A number of households reside the migration path of Argali sheep.	Serious	-	-	-	-	-	-	Moderate
7	Pollution with household wastes	-	-	-	-	Serious	-	-	Moderate
8	Trampling by livestock	-	-	-	-	Serious	-	-	Moderate
9	Unsustainable use of pastureland	Serious	Moderate	Serious	-	-		-	Moderate
10	Reduced green mass due to unsustainable use of pastureland	-	-	-	-	-	-	Serious	Moderate
11	Illegal hunting of wildlife species for use of traditional medicine	-	-	-	Serious	-	-	-	Moderate
12	Illegal trade of snow cock meat	-	-	-	Serious	-	-	-	Moderate

13	Climate change		Serious	-	-	Serious			
Threat Status for Targets and Project		Serious	Moderate	Serious	Serious	Serious	Serious	Serious	Very serious *

Phase 3: Conservation Action Planning

Goal, Objectives & Indicators

Main goal is to reduce and eliminate the threat causing effects/ causes assessed for targeted biodiversity or wildlife, community and ecosystem including Argali sheep, Siberian marmot, Black-tailed gazelle, Altai snow cock, Allium altaicum, larch forest, and water bodies in the local Protected Area "Gulzat" and to identify their indicators.

Objective 1.	**Allium altaicum reserve improved by 2010;**
Indicator 1.1	Illegal harvest of Allium altaicum reduced by 80 %;
Indicator 1.2	Distribution of Allium altaicum increased by 10 % in comparing to the current status;
Objective 2.	**Illegal hunting and unsustainable use of marmot eliminated by 2010;**
Indicator 2.1	Quantitive results based on surveys on illegal hunting…
Indicator 2.2	Number of individuals per 1 ha increased;
Indicator 2.3	Hunted Individuals per 1 ha reduced;
Indicator 2.4	Amounts of illegal trade of marmot skin…
Indicator 2.5	Enforcement of actions stated in community based hunting management;
Indicator 2.6	Capacity in terms of local PA management enforcement built;
Objective 3.	**Reserve of KHARGAIN? increased by 2015;**
Indicator 3.1	Illegal use of larch reserve eliminated;
Indicator 3.2	Reserve of larch increased at least by 10 %;

Objective 4.	**Distribution of Argali sheep stabilized and number of species increased by 50 % in comparing to data in 2007 /2008?;**
Indicator 4.1	Illegal Artisanal and small scale mining reducted by 80 % in 2012 in comparing to present data;
Objective 5.	**A mechanism to sustainably use Argali sheep reserve introduced and used;**
Indicator 5.1	30 % of incomces from Argali sheep hunting retained and spent for conservation of its habitat, and sustainable use of natural resources;
Indicator 5.2	Local communities benefited from Argali sheep hunting;
Objective 6.	**Increase Altai snow cock reserve**
Indicator 6.1	Nesting sites of the species identified;
Indicator 6.2	Illegal hunting of the species reduced by 80 %;
Objective 7.	**Regulation on sustainable pastureland use developed and introduced;**
Indicator 7.1	Grazing areas of Argali sheep expanded by 20 % in 2010 in comparing to that at present time;
Indicator 7.2	Number of outside households going on otor (moving to better conditioned pastures) in winter reduced 80%;
Objective 8.	**Prevent from reduction of water discharge in water bodies through conservation of green mass reserves**;
Indicator 8.1	Illegal use of trees along Kharig river reduced by 80 %;
Indicator 8.2	Water levels in rivers, springs and mineral water not reduced than the present level;

Actions

#	Objectives and Strategic Actions
Objective 1.	**Allium altaicum reserve improved by 2010;**
Action 1.1	Assess the current state of unsustainable use of Allium altaicum**;**
Action 1.2	Carry out monitoring by environmental partnerships in July – September according to established schedule;
Action 1.3	Conduct public awareness on sustainable use of Allium altaicum;
Action 1.4	Identify the distribution areas, where Allium altaicum is extinct and plant the species;
Action 1.5	Assess distribution areas of Allium altaicum and identify whole distribution area;
Action 1.6	Release some parts of distribution areas from livestock grazing prior to the species seed mature;
Objective 2.	**Illegal hunting and unsustainable use of marmot eliminated by 2010;**
Action 2.1	Annually conduct regular monitoring and patrolling through joint efforts of environmental partnerships and volunteer rangers according to fixed monitoring schedules;
Action 2.2	Regularly conduct law enforcement advocacy activities;
Action 2.3	Develop and implement community based hunting management through cooperation with respective researchers and decision makers;
Action 2.4	Conduct public awareness on prevention from illegal hunting e.g. trapping and hunting by dog and their negative consequents during Bag/(sub-unit of County) meetings and meetings with school children;

#	Objectives and Strategic Actions
Action 2.5	Carry out observations and monitoring on marmot reserves based on preliminarily developed methodology, make comparison of findings and inform about findings to the public;
Action 2.6	Conduct public awareness activities targeting reduction and elimination of illegal marmot skin trade;
Action 2.7	Established mobile internal zones within the local PA "Gulzat";
Action 2.8	Develop draft regime of mobile internal zones of the local PA and have it approved by Governing Board;
Action 2.9	Establish the Governing Board of local PA consisting of representatives of Aimag/Province, Bukhmurun, and Sagil Soum/County authorities, communities and environmental partnerships;
Objective 3.	**Reserve of KHARGAIN? increased by 2015;**
Action 3.1	Assess the current reserve of larch forest;
Action 3.2	Conduct public awareness on negative impacts of unsustainable use of larch forest;
Action 3.3	Conduct observations and assessment on larch forest reserve and unsustainable use;
Action 3.4	Develop and enforce Recommendations on sustainable use of forest stand along Kharig river;
Action 3.5	Conduct inspection/monitoring on unsustainable use of larch forest reserve;
Objective 4.	**Distribution of Argali sheep stabilized and number of species increased by 50 % in comparing to data in 2007 /2008?;**
Action 4.1	Put natural salt and saline in some parts of Argali sheep grazing areas in springs;

#	Objectives and Strategic Actions
Action 4.2	Regularly carry out monitoring and observations on Argali sheep population and movements according to established methodology;
Action 4.3	Regularly conduct public awareness activities focusing on making Argali sheep habitats and ranges free of ASM operation through joint efforts of environmental inspectors and rangers;
Objective 5.	**A mechanism to sustainably use Argali sheep reserve introduced and used;**
Action 5.1	Draft an Argali sheep hunting management plan;
Action 5.2	Build capacities for operating hunting camps and community environmental partnerships;
Action 5.3	Develop and have approved policy papers on sustainable use of Argali sheep reserve at local level;
Action 5.4	Set up "Ugalz" fund by retaining incomes from the species hunting;
Action 5.5	Cooperate with honered hunting companies at the hunting market on contractual basis;
Objective 6.	**Increase Altai snow cock reserve**
Action 6.1	Identify main distribution and nesting areas of Altai snow cock;
Action 6.2	Make main distribution areas free of livestock grazing during nesting period;
Action 6.3	Conduct observations and monitoring on species food/preys;
Action 6.4	Assess the current situation of illegal hunting of Altai snow cock;

#	Objectives and Strategic Actions
Action 6.5	Conduct public awareness activities dealing with reduction and elimination of illelga hunting and trade of Altai snow cock;
Objective 7.	**Regulation on sustainable pastureland use developed and introduced;**
Action 7.1	Develop internal regulation on sustainable use and protection of pastureland and have it approved by the Citizen's Representative Khural and put in force;
Action 7.2	Conduct regular monitoring on the implementation of the regulation on sustainable use of pastureland;
Action 7.3	Make Argali sheep grazing areas free of livestock grazing during breeding season;
Objective 8.	**Prevent from reduction of water discharge in water bodies through conservation of green mass reserves**;
Action 8.1	Construct livestock exclosure around upper sides of springs and mineral water bodies;
Action 8.2	Have a bulletin board on traditional environmental conservation practices;
Action 8.3	Identify and assess distribution and population of Beech or stone marten? BULGAN SUUSAR
Action 8.4	Conduct observations and monitoring on use of forest stand along Kharig river for assessment;
Action 8.5	Develop and implement Recommendations on sustainable use of forest stand along Kharig river based on the assessment results and findings;
Action 8.6	Conduct promotion and public awareness on reduction and elimination of unsustainable use of forest stand along the river;
Action 8.7	Take measures on refilling holes and destroyed areas occurred by ASM and environmental restoration;

Conclusions:

Conservation action plan for local Protected Area "Gulzat", as an ecosystem representative, was developed with targeted biodiversity (7 types) including 1) Argali sheep, 2) Black-tailed gazelle, 3) Altai snow cock, 4) Siberian marmot, 5) Allium altaicum 6) larch forest stand, 7) water discharges of rivers, springs, and mineral water bodies.

Key ecological features/characteristics of these targeted biodiversity or wildlife, communities, and ecosystem co-existence and regeneration were identified and assessed. Thus, we assessed the current situation of each representative of targeted biodiversity and identified objectives of achievements within the nearest 5 years.

Actual and potential threats (negative consequences) to targeted biodiversity or wildlife, communities, and ecosystem, an ecosystem representative, (сөрөг үр дагаварын) and their threat causing effects are identified and assessed. There are totally 10 types of actual and potential threats and 13 threat causing effects/ threat causes identified. Among the identified causes, illegal hunting, overharvesting of Allium altaicum are **very serious** threats; the climate change and unstainable use of natural resources are **serious threats**. Cumulative sums of pressure causing sources are assessed as "**very serious**" for the targeted biodiversity.

There are 8 objectives stated for reduction and elimination of the abovementioned 13 threat causes and totally 19 indicators identified for the objective achievement. For the adequate achievement of the objectives (8) there are totally 42 actions planned to be implemented till 2012.

Annex 1.

List of participants in discussion on the action plan development

Soum	Bag	Names	Partnerships
Bukhmurun		Chimeddorj	**Zakhir**
		Tumennasan	**Zakhir**
		Namsrai	**Zakhir**
		Baasanjav	**Zakhir**
		Gurmandal	**Zakhir**
		Bayartogtokh	**Tsagaan-ovoo**
		Bayartai	**Tsagaan-ovoo**
		Ouyngerel	**Tsagaan-ovoo**
		Nyamgerel	**Tsagaan-ovoo**
		Gansukh	**Tsagaan-ovoo**

		Davaanyam	**Shar khargai**
		Namnandorj	**Shar khargai**
		Enkhbayar	**Shar khargai**
		Battsetseg	**Shar khargai**
		Batdelger	**Shar khargai**
		Nyamjav	**Azat khar**
		Davaasambuu	**Azat khar**
	Bukhmurun Soum Environmental Inspec	Namid	
		Jargalsuren	
		Uuganbayar	