

## **Transboundary Ecosystem Protection Issue**

(in Case Khentii Mountain Region, Mongolia)

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The transboundary strictly protected areas are playing a vital role in conservation of world biological diversity. It is based on the thought that the natural pollution and degradation processes are not have any boundary, these are reflected not for one country or sub-region or region and it is become world wide concern aspects. In natural cases the boundary line is fragmented area of rare and endangered flora and fauna and landscape composition. Therefore, development effort of transboundary protected areas network are playing a vital role for conservation of unique natural assemblages. The "Human and Biosphere" program which started in 1995 in aim to increase and develop a biosphere protected area network, among them special priority was given on developing of transboundary protected area network.

Us we understood that distinctive features of the tranboundary ecosystem are their low density population and human activity, viable diversity of rare, threatened species of true wilderness. In present days of globalization, many countries pay a special attention to the organization of transboundary protected areas. These efforts will

be become one of the important basis for developing of world ecosystem monitoring network through several countries protected area and national parks. Also it's given a good chance to create close relationship between ethnic groups and native people.

The first transboundary protected area was established in 1932 as world international park under jointed Glacier National Park of USA and Woterton-Leiks National Park of Canada. Transboundary Protected Areas are important for rare species, biodiversity, migration of fauna and nature protection. It is important for nature protection of Mongolia as well. First transboundary protected area of Mongolia includes Daguur Strictly Protected area of Mongolia, Daurskii Strictly protected area of Russia and Dalai nuur Strictly protected area of China was established in 1994.

The total length of the Mongolia boundary is more then 7670 km. Where more than 3000 km with Russia and 4670 km with China. The territory along with Russia and China are untouched, with rare and very rare species and plants. The territory of Mongolia is the frontier of

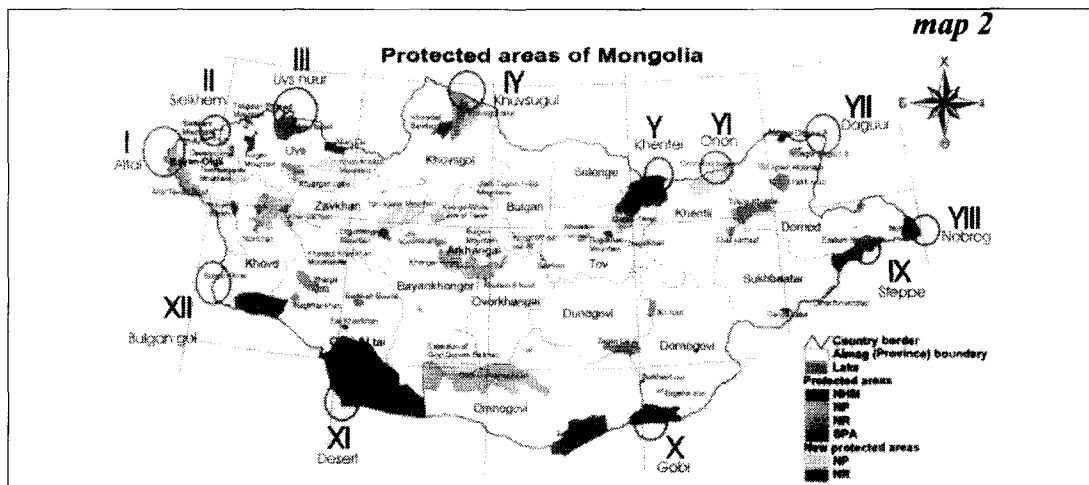
	Proposed transboundary protected area	Joint Strictly protected area
1	Altai mountain	Altai Tavan Bogd National Park (Mongolia) Markakolskii SPA (Kazakhstan) Katunskii SPA (Russia) Ha-Na-Si Reserve (China)
2	Siilkhem	Siilkhemmountain national Park (Mongolia) Kosh-Agacheskii Reserve (Russia)
3	Uvs lake	Uvs lake SPA (Mongolia) Uvs basin SPA (Russia)
4	Khuvsgul lake	Khovsgol lake natural park (Mongolia) Tunkin natural park (Russia)
5	Selenge basin	Selenge basin (Mongolia) Selenge basin (Russia)
6	Khentii	Khan Khentii SPA (Mongolia) Chikoy-Minj SPA (Russia)
7	Onon-Sokhondo	Onon-Balj NationalPark (Mongolia) Sokhondo Biosphere SPA (Russia)
8	Dauria	Mongol Dauria SPA (Mongolia) Daurskii SPA (Russia) Dalai lake SPA (China)
9	Nomrog	Nomrog SPA (Mongolia) Khyangan SPA (Russia) Fin-ling (China)
10	Dornod steppe	Eastern Mongolia SPA (Mongolia) Bai Yin Ao Bao Natural Reserve (China)
11	Gobi	Small Gobi SPA (Mongolia) Xilin gol Cao Yuan Natural Reserve(China)
12	Desert	Great Gobi SPA (Mongolia) Nu Deng Natural reserve (China)
13	Bulgan river	Bulgan river Natural reserve (Mongolia) Bu Er Gen He Natural reserve (China)

the various natural regions such as of the Siberian taiga, Central Asian semi desert, from west Altai Sayan mountain range, from east Daurian steppe and Khyangan mountain.

The biological complex jointed Mongolian - Russian expedition studied the area along a state boundary and the research jointed China had not so many times. Due to preliminary assessment of the biological expedition 2 centres of the biological species of Euro-Asian temperature zone are situated at the transboundary area. In this concern Uvs lake

basin ecoton zone and Khentii mountainous area and contacted zone of Daur steppe.

The largely special protected areas which were established due to natural zones, regions, ecosystems, biological species, historical and cultural precious monuments, opportunities to develop tourism and others are located to approach quite closely to the state boundary. In which: The Siilkhem mountain, (140.1 thous.Sq hectares) the Huvsgul lake (838.0 thous.Sq hectares) and the Onon Balj (415.7 thous.Sq



hectares) Natural Park and SPA Uvs lake basin (912.5 thous.Sq hectares) Khan Khentii (1.2 mill.Sq hectares) are located at the boundary. SPA as the east Mongolia (570.3 thous.Sq hectares)the Great Gobi (5.3 mill.Sq hectares) and the Small Gobi (1.8 mill.Sq hectares) are located at the part bonded with China. But the Altai Tavan Bogd National Park (636.1 thous.Sq hectares) and the Mongolia - Daur SPA (103.0 thous.Sq hectares) are located at the boundaries of 3 countries (map 1).

The Khentii mountain region possesses a great range of natural ecosystem and bio-geographical of Mongolia and Russia. Mongolia contains a great array of natural zones and associated flora and fauna. The territory of the Mongolia is divided into 6 main regions: Southern Baikal, Khangai mountains, Great Khyangan, Central Asian desert and semi desert by criteria of geostructure, morphostructure forms, climate and natural zones.

The southern Baikal main region covers 144639.4 sq km, 9.2% of the total area of Mongolia. Khentii mountain main region covers 759250.7 sq km and it is 6.9% of the total area. From the point

vegetation geography, the Khentii mountains are the continuation of the Siberian forest taiga. It is located in a low relative altitude. The area of this border region to Russia provide habitat for representative and often, examples of the wild plants and animals of Central and Northern Asia. Euro Asian 2 centers among the temperate zones of the Northern Hemisphere are showed in preliminary result of Mongolian-Russian joint biological expedition. One of these centers in Khentii mountain and Daur steppe contact region.

Today, Khan Khentii Strictly protected area, Gorkhi-Terelj Natural Park, Bogd Khan mountain Strictly protected area, and Onon-Balj Natural Park is established in the Khentii mountain region.

The Khentii mountains are the continuation of Chikoy mountain range. The Chikoy-Minj area is a proposed region for a Strictly Protected area in future and is located in the Minj-Chikoy mountain region, which is the mountainous main region around Baikal lake in Russia in sufficiency.

This region is corresponding with the Khan Khentii Strictly protected area from the point of

natural conditions and geographical peculiarities. Therefore it is possible, to establish a transboundary Biosphere (Protected Area) for Protection of Southern Siberian forest taiga ecosystem.

### **Khentii mountain transboundary Strictly protected area**

This area was Protected area prepared to establish to lean on Strictly protected area the Khan Khentii and proposed Chikoy-Minj area in the Russia. The Transboundary Biosphere reserve is situated in the Khentii mountains and Chikoy-Minj mountains and it is an important landscape ecosystem protection and forest taiga. The southern Baikal region contains a rare and endemic flora, migration corridors of forest taiga animals, and is additionally an area of water resources of many rivers and springs. This area should be protected from the Mongolin side. In the Khan Khentii area takes in more than 1.2 million hectares are located and that means 10% of Mongolia's forests, which are part of the southern edge of Siberian taiga.

Main criteria for the Transboundary Protected Area of the Khentii mountain:

1. Continuation of Southern Siberia
2. Minj and Zahar rivers, which belong to the catchment area of the Pacific and Arctic Ocean, flow in the border area.
3. Migration corridors between Russia and Mongolia for a moose (*Alces Alces*) wild boar (*Sus Scrofa*) musk deer (*Moschus Moschiferus*) brown bear (*Ursus arctos*) Daurian hedgehog (*Erinaceus dauritus*) Daurian Protected areartridge (*Perdix Dauricae*) hooded crane (*Grus monacha*)

White naked crane (*Grus vipio*) between Russia and Mongolia.

4. This area one of large wilderness areas of Mongolia, and almost entirely uninhabited.

The head water of three major river systems spring from the Khan Khentii protected area: The Tuul flows into Russia's lake Baikal and in the Arctic ocean and the Onon and Kherlen flow east to join the Amur river running into the Pacific Ocean.

More than 1150 species of characteristic taiga and steppe plants have been identified to in this taiga landscape. The protected area is more than fifty species of mammals, 253 species of birds, 28 species of fish. To protect Khentii taiga means the protection of a landscape including Onon Balj in the Daurian region of Mongolia and Sokhondo strictly protected area of Russia.

Onon Balj is situated in the north east of Mongolia it is protected as National Park by criteria for tourism development and natural conditions.

Basin of Onon - Balj rivers is situated near to Sokhondo International Biosphere reserve of Russia. It shows natural geographic complex formation.

Onon-Balj region of Mongolia, Sokhondo Strictly protected area of Russia is included in 200 ecoregions which are attended by WWF in XXI. (map 2) Onon-Balj is based as Natural park by criteria for tourism, culture historical events, biodiversity natural and geographical peculiarities. Onon-Balj is

### **Onon Balj National Park**

This Protected Area was established in 2000 by criteria for tourism , culture historical events,

biodiversity natural and geographical peculiarities. The Protected area includes Forest Steppe landscape ecology and mountain forest steppe species and their protection.

Mixed coniferous forest is found on cooler moister northern slopes, while steppe vegetation predominates on other slopes. Providing habitat for species from steppe and forest, this zone has a high degree of biological diversity.

Sokhondo protected area is established in 1973 December. And has an extension of 211000 hectares. Covered by forests wetlands and alpine thundra highest peak is 2505 meters This Protected Area is important rare species biodiversity mixed forests of Southern Siberian rivers of Protected areacific basin and aquatic insects of East Asian. The watershed of the world is situated in the Disermaltai-Indogin Depression. Rivers of Arctic Ocean sourceng from this watershed. Many glacial lakes are situated in the Sokhondo region. Most spectacular is Bukukun lake (1.5 km long).

Main criteria for the Onon Balj Sokhondo Transboundary protected area:

1. This area is situated in the transition zone between Siberian Forest taiga and Daurian steppe.
2. Peculiarities and changes of tundra, taiga, forest steppe and steppe landscapes.
3. Headwaters of the major river systems spring from the this area: The Onon which flows to Protected areacific Ocean. Protection of this area would be influenced into world's system of fresh water. Migration corridors between Russia and Mongolia for moose (*Alces Alces*) wild boar (*Sus Scrofa*) musk deer (*Moschus Moschiferus*) brown bear (*Ursus arctos*)

Daurian hedgehog (*Erinaceus dauritus*)  
Daurian Protected areartridge (*Perdix Dauricae*) hooded crane (*Grus monacha*)  
White naked crane (*Grus vipio*).

4. Sokhondo strictly protected area is situated 15 - 20 km from the state border. Therefore this is influenced by socio - economic agreeable conditions.
5. Sokhondo is one of International Biosphere reserve. If it would be protected like transboundary protected area it would be possible to extend as an International Biosphere protected area. Significance of Transboundary protected area: Khentii and Onon Transboundary protected area would be provide protection for ecosystem, rare species, source of fresh water and stabilize ecological condition and provide sustainable development of region.

### **Significances of Transboundary Strictly Protected Areas**

Transboundary Protected Areas are important for rare species, biodiversity, migration of fauna and nature protection. In addition friendly co-operation and mutual confidence for many years of Mongolian and Russian people's will play an important role in establishing International Strictly Protected Areas.

The significances of establishing the international transboundary jointly strictly protected area.

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