WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

UVS NUUR BASIN (MONGOLIA / RUSSIAN FEDERATION) ID Nº 769 REV

Background note: The IUCN technical evaluation of the Uvs Nuur Basin, nominated jointly by Mongolia and the Russian Federation in 1999, was presented to the 23rd extraordinary session of the Bureau in November 1999 (see Annex A). IUCN's evaluation noted that the site had the potential to meet natural criteria (ii) and (iv) but that the authorities should be requested to revise the boundaries from the 7.5 million hectares so as to exclude the 90% of the basin which currently has no protective status. IUCN also noted that *"the existing 9 strictly protected areas (SPAs) do not adequately cover the wide range of ecosystems within this large site. In particular, the wetlands in the lower 60km of the Tes-Khem need to be part of a protected area which can extend northwards across the border to Tuva, incorporating semi-desert, steppe and the slopes of the Vostochnyi Tannu Ola range (mixed forest/steppe, taiga and tundra)."* The Bureau decided to **defer** the nomination back to the States Parties to revise the boundaries and to prepare a joint management plan in a framework of transboundary cooperation.

On 13 November 2001, the Mongolian and Russian Federation State Parties submitted additional information to the World Heritage Centre. This information included a map of the revised boundaries of the nominated area showing a serial site with 11 separate clusters encompassing 971,165ha. All of the nominated area had protected status, made up of two protected area groupings: (i) The Ubsunur Hollow State Biosphere Nature Preserve (Russian Federation) which is comprised of seven core areas totalling 258,620ha; and (ii) The Uvs Nuur State Nature Preserve (Mongolia) made up of four discrete sites covering 712,545ha.

The State Parties also submitted at that time:

- Two management plans -- one for the Mongolian side and one for the Russian part;
- A Protocol of Co-operation between the Russian State Biosphere Nature Preserve and the Mongolian State Nature Preserve;
- A Treaty of scientific cooperation between the Republic of Tuva, of the Russian Federation and the Uvs Aimag of Mongolia; and
- Resolution on the expansion of the Russian Ubsunur Hollow State Biosphere Nature Preserve.

At its 26th session (Paris, 2002) the Bureau *"**referred** the nomination back to the State Party of Mongolia with the request that the nominated 'Uvs Lake' protected area cluster be enlarged to include more of the wetlands on the Mongolian side of the Tes-Khem delta (in the vicinity of the new 'Ubsu-Nur' and 'Oroko-Shinaa' clusters added by the Russian State Party and that the buffer zones be excluded from the nominated area. The Bureau commended the State Parties for the development of the two management plans, the signing of transboundary cooperation agreements on scientific research and management, and the steps taken by the Russian authorities to expand the nominated area."* (see Annex B for full IUCN report)

ADDITIONAL INFORMATION

Additional information was submitted by the State Party of Mongolia on the 31 January 2003 and 14 March 2003. This included:

- a letter from the Ministry of Nature and Environment of Mongolia noting that the Tes River Specially Protected Area (SPA) was established on 10 January 2003 by Resolution of Presidium of the Citizen's Representative Hural of the Uvs Aimag (Province), and a copy of this resolution;
- a copy of the Conservation regime of the Tes River SPA, also approved on 10 January 2003; and
- maps of the new area.

The Resolution (10 January 2003) to establish the Tes River SPA places the area under Provincial level legislation and protection, and requests that a proposal be prepared and submitted to the Ministry of Nature and Environment requesting its upgrading to a SPA under State legislation. The newly protected area covers a total of 97,688 ha.

EVALUATION OF ADDITIONAL INFORMATION

This extension of the nominated area to include the Tes River delta is in line with the recommendation of IUCN and the World Heritage Bureau (Paris, 2002). The revised nomination for the Uvs Nuur Basin now includes:

- The Ubsunur Hollow State Biosphere Nature Preserve (Russian Federation) which is comprised of seven areas totalling 258,620ha; and

- The Uvs Nuur State Nature Preserve (Mongolia) made up of five discrete sites covering 810,233ha.

In relation to the buffer zones, all buffer zones have been excluded from the Mongolian clusters. Buffer zones, however, of five of the seven clusters on the Russian side are still included in the nomination. The most important of these is the buffer to cluster 1 ('Mongun Taiga'), an area of 84,510ha. This area remains in a very natural state, consisting of high altitude tundra and meadows, and is an integral part of the whole mountain ecosystem around this glaciated massif. Similarly, the 50,000 ha buffer zone around cluster 6 ('Tsuger els'), an area of desert/desert steppe, is indistinguishable in quality from the small core area of 4900 ha. There are no problems relating to the quality of management of buffer zones around clusters 4, 5 and 7 (as shown on attached map) and these should be kept within the nominated area.

APPLICATION OF WORLD HERITAGE CRITERIA

The Uvs Nuur basin was nominated under all four natural criteria (as described in 1999).

Criterion (i): Earth's history and geological features

The nomination document does not present any compelling evidence in support of this criterion. The western Mongolia mountains sector of the site contains a good range of glaciers and landforms of glacial origin but these are only of regional significance and probably better represented in the Golden Mountains of Altai site. IUCN does not consider that the nominated site meets criterion (i).

Criterion (ii): Ecological processes

The closed salt lake system of Uvs Nuur is of international scientific importance because of its climatic and hydrological regimes. Because of the unchanging nature of the nomadic pastoral use of the grasslands within the basin over thousands of years, current research

programmes should be able to unravel the rate at which Uvs Nuur (and other smaller lakes within the basin) have become saline (and eutrophic). These processes are on-going and because of its unique geophysical and biological characteristics, the basin has been chosen as an IGBP site for monitoring global warming. IUCN considers that the nominated site meets criterion (ii).

Criterion (iii): Superlative natural phenomena, scenic beauty

The diversity of landscapes within Uvs Nuur basin, and especially the uncluttered horizons of the steppes broken only by colourful ribs of weathered rocks ('skerries'), have their own subtle aesthetic appeal. Overall, however, they are not superlative in character, thus IUCN does not consider that the nominated site meets criterion (iii).

Criterion (iv): Biodiversity and threatened species

The Uvs Nuur site has a large range of ecosystems, representing the major biomes of eastern Eurasia, with a number of endemic plants. Although the basin is inhabited and has been used for nomadic pastoralism for thousands of years, the mountains, forests, steppes and deserts are extremely important habitats for a wide range of wild animals, many of them threatened or endangered. The steppe ecosystem supports a rich diversity of birds and the deserts a number of rare gerbil, jerboas and the marbled polecat. The mountains at the western end of the basin are important refuges for the globally threatened snow leopard, mountain sheep (argali) and the Asiatic ibex. Uvs Nuur itself is an important habitat for waterfowl as well as for birds migrating south from Siberia. IUCN considers that the nominated site meets criterion (iv).

RECOMMENDATION

IUCN recommends that the Committee **inscribe** the Uvs Nuur Basin on the World Heritage List under natural criteria (ii) and (iv). IUCN also recommends that the Committee:

- urge the State Party of Mongolia to place priority on upgrading the Tes River Specially Protected Area, currently protected at a provincial level, to a Specially Protected Area under State legislation; and

- encourage both States Parties to ensure that adequate resources are made available quickly and maintained for the effective implementation of the management plans.

The Committee may wish to commend the Mongolian State Party for steps taken to expand the nominated area, and both States Parties for their efforts to date in developing transboundary cooperation for the conservation of the site. The consolidation of such collaboration should be encouraged and maintained.

ANNEX A

The IUCN Technical Evaluation report, October 1999

1. DOCUMENTATION

i) **IUCN/WCMC Data Sheet:**

ii) **Additional literature consulted:** Dompke, S. & Succow, M. 1998. **Cultural Landscapes and Nature Conservation in northern Eurasia**, NABU/AID Environment/Nature Conservation Bureau, Bonn. 330pp.; Henwood, W.D., 1998. An overview of Protected Areas in the Temperate Grassland Biome, **PARKS Vol. 8, No. 3.** 3-8; IUCN, 1994. **Protecting Nature: regional reviews of protected areas**, Ed. McNeely, J.A., Harrison, J., Dingwall, P., p.13; Ministry for Nature and the Environment of Mongolia, 1998; Biological Diversity in Mongolia. MNEM/UNDP/Regional Bureau for Asia & Pacific, Ulaanbaator. 106pp. Ministry for Nature and the Environment of Mongolia, 1996. **Mongolia's Wild Heritage**. MNEM/UNDP-GEF/WWF, Ulaanbaator, 42pp. UNESCO/Mongolian Ministry of Enlightenment, 1997. Mongolian Tentative List: Cultural & Natural Heritage. World Heritage Centre, 53pp. USSR Academy of Sciences, 1991. **Uvs Nuur Hollow: an unique test region for Biospherical Research**. Pushchino, 47pp. Russian Academy of Sciences (Siberian Division), 1993. Experiment Uvs Nuur. Puchchino, 432pp. Russian Academy of Sciences (Siberian Branch), 1994. **Uvs Nuur Hollow World**. 156pp.

iii) **Consultations:** 2 external reviewers; relevant officials from government and non-government organisations in Mongolia and Republic of Tuva (Russian Federation).

iv) **Field Visits:** J. Thorsell & Y. Badenkov, June 1996 (Tuva section only); L.F. Molloy, August 1999 (Tuva and Mongolia).

2. SUMMARY OF NATURAL VALUES

The nominated site is the northern-most of the enclosed basins of Central Asia, lying between latitudes 49-51 degrees N and longitudes 91-99 E. The basin is enclosed on the north (Tuva) by the Tannu Ola Range and the Sangilen Mountains in the north-east (2,600-3,200m); the Tannu Ola Range marks the northern limits of Central Asia, for its northern slopes drain to one of the major rivers of Siberia, the Yenisey, which runs directly north for 3,000km from Tuva to empty into the Arctic Ocean. In the west, the basin is bounded by outliers from the Mongolian Altai – the glaciated Tsagan Shuvuut - Turgen Uul ranges, extending from Mongun Taiga (3,976m) in Tuva south to Turgen (3,955m) and Harkhiraa (4,057m) in western Mongolia. In the south, the Khan Khohiy Range (2,300-2,900m) extends along the full length of the main drainage system, the Tes-Khem River. Estimates of the size of the basin vary (because of the complex topography) but is considered to be in the range of 7.5 million hectares (5,400,000ha in Mongolia; 2,160,000ha in Tuva).

At the bottom of the basin lies Uvs Nuur (759m a.s.l), the large, roughly-circular lake (60-70km in diameter) from which the site takes its name. The main feeder to Uvs Nuur is the Tes-Khem River, which has its source in a fresh-water lake, Sangyn Dalai Nuur, in the alpine meadows and larch forests of the Sangilen uplands at the eastern extremity of the basin (in Mongolia). The Tes-Khem then flows 500km westwards, through steppe and desert, into southern Tuva, and then back into Mongolia, before emptying into Uvs Nuur. For its last 100km, the river meanders through an extensive wetland complex, a green swathe in an

otherwise semi-desert landscape; its delta is nearly 40km wide and is an important wildlife habitat. Uvs Nuur itself is by far the largest (335,000ha) of 7 lakes larger than 5,000ha within the basin. Uvs is relatively shallow (10-20m depth) and very saline (18g salts/l) and alkaline (pH 9.0). In all, the lakes display a range of hydrological character, water quality and biomass productivity; like Uvs Nuur, some of them have no surface outlet and those with the lowest level of dissolved minerals (such as Tere-Khol) are fed by springs from the surrounding dunelands. Uvs is the 'sea' of western Mongolia; it is so wide that the other side is often not visible, and it is frequented by a range of seabirds, even though the nearest ocean is 3,000km away.

The climate of the basin is sharply continental. The basin is in the rain-shadow of the Tannu Ola Range, which shelters it from the prevailing moisture-bearing north-westerly winds from Siberia. This is a significant bioclimatic transition, where the south Siberian taiga gives way to the deserts and steppes of Central Asia. The Uvs Nuur basin has an extraordinary temperature range; the lowest winter temperature in western Mongolia (-58° C) has been recorded here but summer temperatures can rise to 40° C. Because of the sharp topographic and climatic gradients, the basin contains representative samples of seven continental ecosystems.

Within the site there are 9 strictly protected areas (5 in Tuva; 4 in Mongolia) with a total area of 805,400ha, representing the main ecosystems. The 5 Tuvan 'cluster reserves' constitute the 'Uvs Nuur zapovednik; four of them are grouped around the protected area administrative centre of Erzin and cover the taiga/steppe/desert (and 'desert lake') systems. The fifth Tuvan strictly protected area, Mongun Taiga (core 940ha, buffer 99,460ha), is in the extreme west and protects the Mongun Taiga massif, with its glaciers and tundra/alpine meadow landscapes.

Two of the Mongolian protected areas, Turgen Uul and Tsagaan Shuvuut, also lie in the western mountains. Together with Mongun Taiga, they effectively encircle the second-largest lake in the site, Ureg Nuur, which nestles in a mountain steppe basin at 1450m (and also has no surface outlet). Studies in the two Mongolian protected areas have shown the presence of 173 bird and 41 mammal species within their boundaries. Both are important habitats for the endangered Snow Leopard and there is active research into the conservation of this species. Other important mammals are large herbivores such as the Asiatic ibex, argali mountain sheep, wild boar, red deer and musk deer and the Mongolian and black-tailed gazelle; predators include: wolf, red fox, lynx, polecats and weasels, and many different kites, falcons, eagles and vultures. Monitoring of large mammals in the two protected areas indicated that Turgen Uul contains around 7,000 ibex and 200 argali, while Tsagaan Shuvuut probably holds 2,000 ibex and 800 argali.

Within the ecologically-diverse Uvs Nuur site, some 359 bird species have been recorded. Many of these are of international importance, including: Dalmatian pelican, red-crowned crane, Siberian crane, Houbara bustard, Asian dowitcher, relict gull, white-tailed sea eagle, and black griffon. Some of the migrating birds that use Uvs Nuur as a temporary habitat are rare: Bewick's swan, lesser white-fronted goose, red-breasted goose, and the Baikal teal. There are 81 resident rare and endangered bird species found within the wider Uvs Nuur basin, including the Eurasian spoonbill (more than 100 pairs breed around the lake), black stork, relict gull, Altai ular, swan goose, bar-headed goose, shelduck, osprey and white-tailed sea eagle. Many of these are entered in the Red Book(s) of Tuva and Mongolia. The vegetation also reflects the conjunction of the Siberian and Central Asian floras, with 19 species endemic to Tuva and Mongolia, 51 relict species and 94 plant species classified as rare.

3. COMPARISONS WITH OTHER AREAS

Biogeographically, Uvs Nuur is a very diverse site but one which has a high degree of ecological integrity because it all lies within one closed catchment. Consequently, it is not valid to compare individual ecosystem components of Uvs Nuur with other similar ecosystems; instead, the whole basin needs to be compared with other closed Central Asian lake systems.

The only other listed natural World Heritage site with some of Uvs Nuur's features is the Golden Mountains of Altai (GMA) lying 400km to the WNW in the Altai Republic of the Russian Federation. The western high mountain sector of Uvs Nuur is indeed an outlier of the Altai Mountains and shares with the GMA similar glacial landforms, tundra and boreal forest vegetation, and habitats for endangered large alpine mammals, especially the Snow Leopard. However, Uvs Nuur contains much more climatic and landscape diversity than GMA; it includes this Siberian mountain element (the Altai Highlands biogeographic province) but extends right into the Central Asian steppe and desert environment.

Most of the Uvs Nuur site lies within the Mongolia-Manchurian Steppe biogeographic province which currently has less than 1% of its large area (2.6 million sq km) in protected areas (McNeely et al, 1994) – and no World Heritage sites. The steppe grasslands are one of the major biomes of Eurasia, extending from Manchuria to Hungary, but they generally have a low level of protection – a conservation problem of world-wide concern. IUCN estimate that less than 1% of the world's natural grasslands are protected (IUCN, 1994; Henwood, 1998) and the Mongolian-Manchurian Steppe province is no exception.

The most famous of Central Asia's 'inland seas' is Lop Nur and the Tarim River system within the Taklamakan Desert basin of Xinjiang (Uygur Autonomous Region) in western China. The environment of this vast basin is severely modified through human use. There are other salt lake systems in western Mongolia (in both Uvs and Hovd aimags) but they do not have the diversity of the Uvs Nuur system. Within the Arjin Mountains Nature Reserve (nestled between the Altun Shan and Kun Lun Shan of southern Xinjiang) there are two salt lake systems – Ayakkum Hu and Aqqikkol Hu – but these are at a much higher altitude and have a very different alpine desert climate. There are a number of salt lakes (such as Ebinur Hu and Manas Hu) in the Dzungarian basin of northern Xinjiang (between the Tian Shan and Altai Mountains) but neither has protected area status. Further west, in Kyrgyzstan, Lake Issyk Kul is one of the largest (slightly saline) intermontane lakes in Central Asia but it is affected by urbanisation, industrialisation and intensive agriculture in its large catchment.

It is difficult to find data on the waterfowl populations of the other lakes of Central Asia for comparison purposes. The importance of Uvs Nuur for waterfowl migrating through Central Asia is well known.

Because of its high salinity, Uvs Nuur does not carry any fish which are edible for human populations, so it has never been subject to commercial exploitation. It does, however, contain two small fish which are endemic to the salt lakes of western Mongolia. Each is considered to be a relict species from the fish that populated the lakes of large extent in western Mongolia at the close of the last glaciation of the ice age.

It is difficult to assess whether Uvs Nuur contains the best of the world's steppe landscapes without a detailed knowledge of a biome that extends across 8,000km of Eurasia. However, virtually all the steppe landscapes of eastern Europe, the Ukraine, the central Russia uplands of the Don and Volga, Kazakstan, the western Siberian plain and Manchuria have been significantly modified – by arable agriculture and industrial development.

In conclusion, Uvs Nuur basin contains an outstanding diversity of ecosystems and spans one of the major geoclimatic boundaries of Asia, that between Central Asia and Siberia. No existing World Heritage sites within this bio-geographic region contain this diversity. In addition, Uvs Nuur contains one of the best remaining natural steppe landscapes of Eurasia.

4. INTEGRITY

4.1. Legal Status and Scientific Research

The 5 Tuvan 'cluster areas' making up the Uvs Nuur zapovednik were given protected area status by both the governments of the Republic of Tuva and the Russian Federation in 1993. The 4 cluster areas in Mongolia were listed under the "Mongolian Law on Protected Areas" in 1994 and their buffer zones by law in 1997.

However, the 85% of Uvs Nuur basin that lies outside the 9 protected areas seems to have no specific protective legal status, other than the protection afforded to State-owned land. This issue is of concern (see 'Management' below) because of the threat of over-grazing, particularly in the desert steppe landscape around Uvs Nuur in the vicinity of the capital of Ulaangom.

The existing 9 strictly protected areas (SPAs) do not adequately cover the wide range of ecosystems within this large site. In particular, the wetlands in the lower 60km of the Tes-Khem need to be part of a protected area which can extend northwards across the border into Tuva, incorporating semi-desert, steppe, and the slopes of the Vostochnyi Tannu Ola range (mixed forest/steppe, taiga and tundra). This proposal was discussed with senior officials in Ulaan Baator who stated that it had merit and that both countries were on the point of signing a protocol to establish better trans-border conservation management. Also the nomination document admits that the additions of other SPAs are desirable.

4.2. Management

Management of the Tuvan Uvs Nuur zapovednik is vested in the State Committee for the Protection of the Environment, and exercised through the Tuvan Minister for the Environment and an administration centre in the village of Erzin at the junction of the Erzin and Tes-Khol rivers. The Mongolian Administration of the Uvs Nuur Basin Strictly Protected Area is based in Ulaangom.

However, the crucial integrity issue for the site is how the rest of the basin – nearly 7 million hectares – can be managed in a way which will sustain the natural values currently exhibited within the site. There is no comprehensive management plan for the basin, although this is stated to be "under preparation" by the Mongolian Ministry for Nature and the Environment in Ulaan Baator.

Although most Mongolian land is still the property of the State, Mongolia privatised grazing herds in 1992; since that date there has been a spectacular increase in the domesticated grazing animal population of Mongolia – from an estimated 20 million in 1992 to 30 million in 1999. Mongolia's most important sustainable natural resource is its fertile soils and grasslands, so the threat of continually increasing stock numbers leading to over-grazing (and rural conflicts over traditional family pasturage rights) is a very serious issue facing the country. It is certainly a key issue in maintaining the integrity of the natural and cultural values of the steppe and desert steppe ecosystems of Uvs Nuur.

4.3. Other Human Uses

There is a small open-cast coal mine near Ureg Nuur but at present it only has a very local impact. The lack of any controls over rural road development within the basin is another localised detrimental human impact that can probably only be improved through environmental education. The opportunities for large-scale tourism in the basin are very limited compared with more popular natural attractions like Khovsgol National Park. Small-scale cultural/eco-tourism will develop naturally but any tourism strategy is a very low priority at this stage of Uvs Nuur's development.

4.4. Other Threats

Notwithstanding the above concern about the potential for over-grazing, there are currently few other serious threats to the natural environment of Uvs Nuur. The low level of urban population and complete lack of industry in both the Tuvan and Mongolian sectors affords protection; its geographic isolation, climatic extremes, and lack of surface water flow make it an unattractive locality for agricultural industries. There has been talk of pressures for mining within Tuva but the Tuvan government has blocked this industry initiative pending a decision on World Heritage. If rural populations continue to increase at their current rate, however, the impact of hunting and forest clearance could become a threat to the taiga and forest steppe ecosystems. Indeed, as per Operational Guidelines 44(vi), only the core zone would be appropriate for World Heritage nomination with the buffer and occupied zones excluded.

In conclusion, the Uvs Nuur basin has important integrity issues which need to be solved. The 1999 nomination differs significantly from the 1996 proposal, in that the original nomination of 12 'cluster reserves' (covering 838,000ha) has now been expanded to encompass the entire basin (of more than 7.5 million ha). Whilst the present nomination is much stronger because it is now a continuum of all the ecological diversity in the basin; on the other hand, it now includes all the villages, some agricultural areas, and vast areas of grazed mountain, steppe and desert lands, which are not subject to any form of explicit management controls over grazing levels, buildings, roading, discharges to waterways, etc. Economic and social/demographic pressures are steadily building on Mongolia's grazing lands and no assurances have been given by the State parties that this large site can be maintained in its current state through management planning and strict land-use regulations. Thus there are major questions of integrity relating to the nominated site.

5. CULTURAL LANDSCAPE VALUES

The Uvs Nuur basin has a rich historical and cultural heritage. The site has also been nominated for cultural heritage status, largely on the basis of 2900 sites containing burial mounds ('kurgans') and stone tablets ('steles'), many of late Palaeolithic age. These will be reported on separately by ICOMOS. However, IUCN would like to note the following:

- Historically, a large proportion of the Eurasian steppe would have undergone a vegetation succession to forest as the post-glacial climate became warmer – had wild herbivores and humans (as they domesticated wild grazing animals) not worked to maintain the grassland environment.

- There is a close relationship between the domesticated grazing animals (traditionally sheep, cattle, goats and horses) and the grassland plants of the steppes, a relationship which has moulded this landscape over thousands of years. To an extent the increasing domestication of livestock supplemented (and supplanted) the wild grazing animals of the steppe – such as Przewalski's horse, the Saiga Antelope and the wild Bactrian camel. Over the millennia, the nomadic seasonal herding patterns transferred plants and nutrients

spatially within the steppe ecosystems. Some grasses and herbs will have been eliminated; others will have thrived. Soil organic matter (humus) gradually accumulated as plant leaf litter, dead roots and animal excreta were decomposed and their constituent nutrients recycled back into new plant growth. To a large extent, it can be argued that the great soils of the steppes – the chernozems and chestnut soils – are partly cultural by-products. They are indeed zonal soils but the domesticated herbivores (as well as wild ones) of the steppes have contributed to their development. In fact, some soil ecologists would argue that domesticated herbivores have been essential to the development of the steppe soil landscape.

- The nomadic herders of the steppes of Tuva and Mongolia have traditionally relied upon their grazing animals for most of their domestic needs. Animal protein and fat provides most of their diet; bone has a myriad uses as a raw material; felted wool is used to provide shelter (yurts/gers) and clothing. Sustainable hunting of marmots and other wild animals has traditionally supplemented food and skins from domesticated animals. The culture of the Tuvan and Mongolian herding society is inextricably linked to their land-use – nomadic pastoralism and a relationship to wild Nature. This is particularly reflected in their stories, songs, arts and crafts, and religious beliefs.

The only remaining question, then, is whether the Uvs Nuur basin is the best 'universal' example of a steppe cultural landscape. It could be that there are better steppe cultural landscapes in eastern Mongolia. Nevertheless, all the major varieties of steppe landscapes are well represented within the Uvs Nuur basin and the site would appear to have high value as a cultural landscape.

6. APPLICATION OF WORLD HERITAGE CRITERIA

The Uvs Nuur basin has been nominated under all four natural criteria, as well as criterion (v) for cultural properties:

Criterion (i): Earth's history and geological features

The nomination document does not present any compelling evidence in support of this criterion. The western Mongolia mountains sector of the site contains a good range of glaciers and landforms of glacial origin but these are only of regional significance and probably better represented in the Golden Mountains of Altai site. IUCN consider that this site does not meet criterion (i).

Criterion (ii): Ecological processes

The closed salt lake system of Uvs Nuur is of international scientific importance because of its climatic and hydrological regimes. Because of the unchanging nature of the nomadic pastoral use of the grasslands within the basin over thousands of years, current research programmes should be able to unravel the rate at which Uvs Nuur (and other smaller lakes within the basin) have become saline (and eutrophic). These processes are on-going and because of its unique geophysical and biological characteristics, the basin has been chosen as an IGBP site for monitoring global warming. IUCN considers that this site has the potential to meet criterion (ii).

Criterion (iii): Superlative natural phenomena, scenic beauty

The diversity of landscapes within Uvs Nuur basin, and especially the uncluttered horizons of the steppes broken only by colourful ribs of weathered rocks ('skerries'), have their own

subtle aesthetic appeal. Overall, however, they are not superlative in character and the site is not considered to meet criterion (iii).

Criterion (iv): Biodiversity and threatened species

The Uvs Nuur site has a large range of ecosystems, representing the major biomes of eastern Eurasia, with a number of endemic plants. Although the basin is inhabited and has been used for nomadic pastoralism for thousands of years, the mountains, forests, steppes and deserts are extremely important habitats for a wide range of wild animals, many of them threatened or endangered. The steppe ecosystem supports a rich diversity of birds and the deserts a number of rare gerbil, jerboas and the marbled polecat. The mountains at the western end of the basin are important refuges for the globally threatened snow leopard, mountain sheep (argali) and the Asiatic ibex. Uvs Nuur itself is an important habitat for waterfowl as well as for birds migrating south from Siberia. IUCN considers that this site has the potential to meet criterion (iv).

7. RECOMMENDATIONS

That the Bureau recommend to the Committee that noting that Uvs Nuur Basin has the potential to meet natural criteria (ii) and (iv), **defer** the nomination back to the State Parties involved (Mongolia and the Russian Federation) until the management plan for the site is prepared, including the feasibility analysis of its implementation. Further, the authorities should be requested to revise the boundaries from the 7.5 million hectares to exclude the 90% of the basin which currently has no protective status.

The Bureau may wish to recommend to the two State Parties involved to continue their efforts to enhance transboundary cooperation to ensure the conservation of this site. The preparation and implementation of a joint management plan for this site might be a good framework for transboundary cooperation.

Noting the economic difficulties facing the State Parties involved, the Bureau may wish to encourage them to submit a request to the World Heritage Fund for technical assistance for the preparation and implementation of a management plan for the Uvs Nuur Basin.

ANNEX B
The IUCN Technical Evaluation Report, May 2002

Background note: The IUCN technical evaluation of the Uvs Nuur Basin, nominated jointly by Mongolia and the Russian Federation in 1999, was presented to the twenty-third extraordinary session of the Bureau in November 1999. IUCN's evaluation noted that the site had the potential to meet natural criteria (ii) and (iv) but that the authorities should be requested to revise the boundaries from the 7.5 million hectares so as to exclude the 90% of the basin which currently has no protective status. IUCN also noted that "the existing 9 strictly protected areas (SPAs) do not adequately cover the wide range of ecosystems within this large site. In particular, the wetlands in the lower 60km of the Tes-Khem need to be part of a protected area which can extend northwards across the border to Tuva, incorporating semi-desert, steppe and the slopes of the Vostochnyi Tannu Ola range (mixed forest/steppe, taiga and tundra)." The Bureau decided to defer the nomination back to the States Parties to revise the boundaries and to prepare a joint management plan in a framework of transboundary cooperation.

ADDITIONAL INFORMATION

On 13 November 2001, the Mongolian and Russian Federation State Parties submitted the additional information to the World Heritage Centre. This information included a map of the revised boundary (see Map 1). The site now encompasses 971,165ha and is a serial nomination with 11 clusters. All the nominated area now has protected status and is made up of two protected area groupings:

1. The Ubsunur Hollow State Biosphere Nature Preserve (Russian Federation) which is comprised of seven core areas totalling 258,620ha; and

2. The Uvs Nuur State Nature Preserve (Mongolia) made up of four discrete sites covering 712,545ha.

The State Parties also submitted:

- Two management plans -- one for the Mongolian side and one for the Russian part;
- A Protocol of Co-operation between the Russian State Biosphere Nature Preserve and the Mongolian State Nature Preserve;
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- Resolution on the expansion of the Russian Ubsunur Hollow State Biosphere Nature Preserve.

EVALUATION OF ADDITIONAL INFORMATION

Management
Separate management plans for the Russian and Mongolian parts of the nominated area have been prepared and these are considered to be adequate, along with the transboundary agreements, for the future management of the site.

Transboundary Cooperation
The protocol of co-operation between the reserves on both sides of the border, as well as the treaty of scientific cooperation between the Republic of Tuva, of the Russian Federation and

the Uvs Aimag of Mongolia, provides a solid foundation for trans-boundary cooperation on the management and protection of the site.

Boundaries
The current nomination contains 11 separate protected areas - seven on the Russian side and four in Mongolia.

On the Russian side, the resolution on the expansion of the Russian Ubsnuur Hollow State Biosphere Nature Preserve signed on 21 April 2000 expands the Nature Preserves in Tuva by 283,558 ha with the establishment of five new special protected areas. However, only two of these new protected areas are included within the nomination. IUCN has asked the State Party for clarification on why three of the new protected areas have not been included in the nomination. It appears that the other three protected areas only have protection at the Tuvan (not federal) government level as yet. The two new nominated protected areas ('Ubsu-Nur' and 'Oroku-Shinaa') are located on the northern side of the Tes delta/floodplain, along the border with Mongolia. The inclusion of these sites within the nomination partly responds to IUCN's 1999 request to include the wetlands in the lower 60km of the Tes-Khem and the semi-desert, steppe and the slopes of the Vostochnyi Tannu Ola range within the nominated area (see Background Note above). Coupled with the existing nominated 'Aryskannyg' cluster, the three protected areas also appear to satisfy IUCN's 1999 request to see a representative sequence of ecosystems, from the floodplain of the Tes to the crest of the Tannu-Ola Range, included in the nomination. The core area of one of the Russian SPAs -- 'Mongun Taiga' - has also been expanded from 940ha to 15,890ha (by decreasing the buffer zone). This is a satisfactory response to a recommendation made by IUCN during the 1999 field mission. Consequently, IUCN accepts that the Russian Federation State Party has adequately responded to the Bureau's request in the 1999 deferment.

On the Mongolian side, however, the four sites proposed as part of the nomination are still the same sites which were nominated in 1999. There has been no expansion of the 1999 nominated 'Uvs Lake' protected area cluster to include more of the wetlands on the Mongolian side of the Tes-Khem delta as recommended. The new nomination makes no mention of why the Mongolian partner has not responded – whether they consider that the narrow protected zone around Uvs Lake near the Tes-Khem delta is adequate, or whether the Mongolian State party is still working on a proposal to match the Russian response.

Buffer Zones
The buffer zones of the eleven clusters of the nominated site have been included in the nominated area. IUCN considers that these buffer areas are not adequately protected to merit inclusion in the nominated area. This would reduce the nominated 11 areas to a 'pristine zone' core of 483,530 ha (395,750ha in Mongolia, and 87,830ha in the Tuvan Republic of the Russian Federation).

Serial Site
When IUCN evaluates a serial nomination it asks the following questions:

a) **What is the justification for the serial approach?** The Uvs Nuur Basin is a naturally enclosed basin and the 11 clusters are representative of the main ecosystem types of the basin. Most of them are also large enough if their buffer zones are well managed. IUCN, however, remains concerned that there has been no response to it's request, accepted by the Bureau in 1999, to include the wetlands in the lower 60km of the Tes-Khem and the semi-desert, steppe and the slopes of the Vostochnyi Tannu Ola range on the Mongolian side.

b) **Are the separate elements of the site functionally linked?** IUCN notes that the sites are partially linked on functional terms.

c) Is there an overall management framework for all the units? As noted above, IUCN considers the management plans and transboundary agreements to be adequate for the management of the site.

RECOMMENDATION

The Bureau **referred** the nomination back to the Mongolian State Party with the request that:

1) The nominated 'Uvs Lake' protected area cluster be enlarged to include more of the wetlands on the Mongolian side of the Tes-Khem delta (in the vicinity of the new 'Ubsu-Nur' and 'Oroko-Shinaa' clusters added by the Russian state party ;
2) The buffer zones be excluded from the nominated area; and

The Bureau commended the State Parties for the development of the two management plans, the signing of transboundary cooperation agreements on science and management, and the steps taken by the Russian authorities to expand the nominated area.