IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 08 November 2014

Please note: this is an archived Conservation Outlook Assessment for Golden Mountains of Altai. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Golden Mountains of Altai

SITE INFORMATION

Country:
Russian Federation
Inscribed in: 1998
Criteria:
(x)

Site description:
The Altai mountains in southern Siberia form the major mountain range in the western Siberia biogeographic region and provide the source of its greatest rivers – the Ob and the Irtysh. Three separate areas are inscribed: Altaisky Zapovednik and a buffer zone around Lake Teletskoye; Katunsky Zapovednik and a buffer zone around Mount Belukha; and the Ukok Quiet Zone on the Ukok plateau. The total area covers 1,611,457 ha. The region represents the most complete sequence of altitudinal vegetation zones in central Siberia, from steppe, forest-steppe, mixed forest, subalpine vegetation to alpine vegetation. The site is also an important habitat for endangered animal species such as the snow leopard. © UNESCO

SUMMARY

2014 Conservation Outlook

Significant concern

While the current state of conservation of the site is fairly good, its conservation outlook depends primarily on whether the Gazprom Altai pipeline project within the site will be revived. The construction of the Gazprom Altai pipeline would put the values of the site, and particularly of Ukok Quiet Zone Nature park (one of its five component protected areas), at high risk from a number of expected negative impacts on ecosystems and biodiversity. In addition, potential increases in already existing threats (tourism development, climate change) could turn these into high threats for the site. The current management at the site level is adequate in general, but could be improved particularly by strengthening the legal framework, as well as stronger participation of local people in management, improving finances, staff and institutional capacity particularly of the component Nature Parks, and a more strategic approach to sustainable tourism development. Cooperation with the neighboring countries is also essential to ensure the long-term conservation of the site.

Current state and trend of VALUES

Low Concern
Trend: Stable

The key terrestrial and freshwater ecosystem values of the site have a high level of integrity and will probably remain stable unless major changes to the management occur (such as the construction of the Gazprom Altai Pipeline). However, there are some concerns about poaching of Snow Leopard, Argali and other large vertebrates within and outside the reserves.

Overall THREATS

High Threat

Overall, the site is currently in a good state. However, the integrity and values of

the site are mainly under indirect threat, particularly from the planned Gazprom Altai pipeline project. The construction of the Gazprom Altai pipeline would put the values of the site, and particularly of Ukok Quiet Zone Nature park (one of its five component protected areas), at high risk from a number of expected negative impacts on ecosystems and biodiversity. In addition, potential increases in already existing threats (tourism development, climate change) could turn these into high or even critical threats for the site.

Overall PROTECTION and MANAGEMENT

Some Concern

The current management of the site is effective in general, but could be improved particularly by strengthening the legal framework, as well as stronger participation of local people in management, improving finances, staff, authorities and institutional capacity particularly of the component Nature Parks, and a more strategic approach to sustainable tourism development. Four of the five component Protected areas of the site are transboundary protected areas, and their effectiveness depends on cooperation with their respective neighboring countries. Efforts are underway to extend the site to China, Kazakhstan and Mongolia. These should be pursued as a matter of priority as they may be able to address this issue (Debonnet & Lethier, 2012, Michel et al., 2004).

FULL ASSESSMENT

Description of values

Values

World Heritage values

► Mountain ecosystems

Criterion:(x)

Exceptionally complete sequence of altitudinal zonation of mountain ecosystems including forest-steppe (with Siberian Spruce Picea obovata), open forest (dominated by coniferous forests of Siberian Larch Larix sibirica, Siberian Stone Pine Pinus sibirica, Siberian Silver Fir Abies sibirica and Scots Pine Pinus sylvestris), mixed forest (with the above coniferous species plus Aspen Populus tremula White Birch Betula pendula, on northern slopes Dwarf Siberian Birch Betula nana siberica, and other species) , sub-alpine meadows, alpine tundra (characterized by Betula rotundifolia, Salix glauca, S. krylovii and Dryas oxyodonata), rocky tundra and glacial ecosystems, with their associated flora and fauna (UNEP-WCMC, 2011).

► Freshwater ecosystems

Criterion:(x)

Lake Teletskoye which is Siberia’s second largest lake after Lake Baikal is in a relatively pristine state and has a rich aquatic flora and invertebrate fauna, as well as 19 species of fish, among them the endemic salmonids Cisco teletski and C. pravdin (Ministry of Natural Resources and Ecology of the Russian Federation, 2012).

► Terrestrial fauna

Criterion:(x)

Typical Siberian forest and montane fauna, with 72 mammal species, 323 bird species, 11 species of herpetofauna and 5,000 invertebrate species (UNEP-WCMC, 2011). The terrestrial fauna includes several globally threatened species including Eastern Imperial Eagle Aquila heliaca (VU), Saker Falcon Falco cherrug (VU), Argali Ovis ammon ammon NT (Spitsyn et al., 2009), and Snow Leopard Panthera uncia (EN) (IUCN, 2012b, Paltsyn et al., 2012). The Gobi-Altai population of the latter (including that of the site) is an important stronghold and source population of this species for recolonization and replenishment of populations throughout Central Asia (Debonnet & Lethier, 2012). 13 birds are listed in the Red Databook of the Russian Federation, among them Black Stork Ciconia nigra and Golden Eagle Aquila chrysaetos. Other notable birds are Grey Crane Grus grus and Demoiselle Crane Grus virgo (UNEP-WCMC, 2011).

Other important biodiversity values

► Global centre of origin of plant communities

Major global centre of origin of the montane floristic assemblages of northern Asia, which have subsequently spread to the whole of Central Asia (Debonnet & Lethier, 2012). More than 2,000 species of vascular plants, 10.6% of which are endemic. 17 species are relic (UNEP-WCMC, 2011). Altaisky Reserve further has 200 species of aquatic plants, 500 lichens, and 250 mosses (Pavlov et al., 2000)

Assessment information

Threats

Current Threats

Low Threat

Overall, the site is currently in a good state and only affected by low and very

low threats, with the exception of poaching. Some of these (grazing, climate change) require further study and enhanced monitoring to ensure that they are and remain within acceptable limits.

▶ Livestock Farming / Grazing

Data Deficient
Inside site
Outside site

Both Mount Belukha Nature Park and (particularly) Ukok Quiet Zone Nature Park include traditional grazing lands of local communities. Signs of overgrazing were observed on Ukok Plateau in 2012, but the exact extent and impact on integrity and values is unclear (Debonnet & Lethier, 2012), and require further study and monitoring.

▶ Tourism/ visitors/ recreation

Low Threat
Inside site

No mass tourism is permitted or practiced in Altaisky Strict Nature Reserve (except Korbu waterfalls with a well managed 30,000 visitors annually) and Katunsky Strict Nature Reserve, and tourism management on Lake Teletskoye (including Artybash village) was considered effective in 2012. Mount Belukha Nature park receives 4,000 – 8,000 visitors annually (maximum capacity estimated as 9,000). The threat from tourism appears relatively limited currently, due to limited interest and relatively effective management (Debonnet & Lethier, 2012). However, in some parts of the site, especially in the Ukok Quite Zone Nature Park, there appear to be some minor negative impacts from tourism.

▶ Temperature changes

Low Threat
Inside site
Outside site

Although local shifts in temperature and precipitation in the Altai-Sayan region over the last 30 years have been limited, a trend towards glacial retreat, upward movement of vegetation belts as well as increased temperatures and decreased precipitation in the Mongolian steppe part of the area have been observed (Kokorin, 2011). Further changes in vegetation

cover, tree species composition, vegetation zonation, glaciation and hydrology of the area are expected (Kokorin, 2011). In Katunsky Strict Nature Reserve, temperature increases are of greater magnitude at lower altitude (Yashina, 2011). Climate change has not yet affected the values of the site to a significant degree.

► Logging/ Wood Harvesting, Other Biological Resource Use, Subsistence hunting

High Threat
Inside site
Outside site

Medicinal plant collection and poaching have been listed as threats in Ukok Qiet Zone Nature Park (Debonnet & Lethier, 2012), and poaching has also been listed as a (minor) threat to Altaisky Strict Nature Reserve, with 20 cases detected and prosecuted in 2006 (Rao & Brüggemann, 2007). Helicopter hunting has also been reported (IUCN, 2009). Poaching threatens Argali Ovis ammon and (partly indirectly or through accidental snaring) Snow Leopard Panthera uncia (Spitsyn et al., 2009, Paltsyn et al. 2012). While timber extraction throughout the Altai Republic appears modest (only 15% of possible harvest quota set by the Government of the Russian Federation realized in early 2000s), local communities do collect non-timber forest products, including for commercial use and export (Rao & Brüggemann, 2006). The recently adopted by the Ministry of Natural Resources and Ecology of the Russian Federation new Hunting Rules leave room for interpretation and can be interpreted as legalizing the use of mechanical transport means and aircrafts for hunting which may lead to an increase in poaching of species popular among trophy hunters, including Argali and Snow Leopard (Greenpeace, 2012).

► Fire/ Fire Suppression

Low Threat
Inside site
Outside site

Almost 18,000 wild fires were recorded by satellite monitoring between 2000 and 2009, affecting 8.3 million ha. 6,000 fires occurred in forests. Altaisky Strict nature Reserve is the most prone to wild fires (Onuchin, 2012). However, wild fires have so far not had a strong impact on the values of the

site, also owing to the fact that most plant species in the area are fire adapted.

Potential Threats

High Threat

The construction of the Gazprom Altai pipeline would put the values of the site, and particularly of Ukok Quiet Zone Nature park, one of its five component protected, at high risk from a number of expected negative impacts on ecosystems and biodiversity. In addition, potential increases in already existing threats (tourism development, climate change) could turn these into high or even critical threats for the site.

► Oil/ Gas exploration/development

High Threat
Outside site

Construction of the proposed Gazprom Altai pipeline, a natural gas pipeline from Russia to China which would pass through the Ukok plateau which is one of the components of the property, would constitute a high threat to the values of the site (IUCN, 2012a). Specific negative impacts on the values of the site would include habitat destruction/degradation through soil movement, engineering works during construction of the pipeline and service road, hydrological alterations, disturbance, pollution and secondary threats such as increased poaching through improved access (Rao & Brüggemann, 2006).
In August 2012 the Government of the Altai Republic adopted the Decision N 202 which allows construction, use and reconstruction of “linear facilities” (which according to official terminology includes pipelines) and their associated technological parts on the territory of the Ukok Quite Zone Nature Park (http://www.garant.ru). This decision in effect legalizes construction works.
To date, no detail on the project design, nor on the Environmental Impact Assessment has been officially submitted to the Russian Ministry of Natural Resources and the Environment (Debonnet & Lethier, 2012). The most recent State Party report states that no decision has been made on the construction of the Altai gas pipeline and therefore no environmental impact assessment has been prepared (SOC report, 2013). More recent information on the

project is not available. The next State Party report is to be submitted by February 2015.

▶ Temperature changes

Data Deficient
Inside site
Outside site

All available projections point to increased climate change impacts on the Altai-Sayan region, including the Golden Mountains of Altai World Heritage Site, in the long term (Kokorin, 2011, Yashina, 2011). Since these projections are based on various assumptions, the exact extent and impact of enhanced climate change on the site are currently unclear.

▶ Fire/ Fire Suppression

Low Threat
Inside site

Although wild fires have so far not had serious adverse impacts on the site, this may well occur in the future (Debonnet & Lethier, 2012), particularly if there is accelerated climate change. Therefore, wildfires remain a significant if low potential threat.

Protection and management

Assessing Protection and Management

▶ Monitoring

Mostly Effective

There is no overall monitoring system for the entire site, but regular monitoring activities, including of iconic vertebrate species like Snow Leopard and Argali, is carried out in Altinsky and Katunsky Strict Nature Reserves (Debonnet & Lethier, 2012).

▶ Education and interpretation programs

Mostly Effective

Education and awareness raising programmes are part of all management

plans of component protected areas, and particularly the Strict Nature Reserves engage in intensive activities in this field (Debonnet & Lethier, 2012).

► Tourism and interpretation

Some Concern

Although there is some tourism within the site, this could be developed further based on an overall tourism development strategy for the entire site, which is currently missing. Interpretation for the few visitors inside the Strict Nature Reserves is offered by guides (Debonnet & Lethier, 2012), while the extent of interpretation activities in the other component protected areas is currently unclear.

► Relationships with local people

Some Concern

It appears that no specific measures have been taken to involve local people and civil society in the management of the site. It has further been reported that NGOs and civil society stakeholders have been prevented from attending the stakeholder meetings with the 2011 UNESCO/IUCN monitoring mission team (Debonnet & Lethier, 2012). The UNESCO World Heritage Centre (WHC) and IUCN have recommended that the State Party strengthen cooperation with, and involvement of, the local people in site management, given the very strong interest of several civil society groups for the conservation of the property and the strong cultural attachment of local and indigenous communities to its natural heritage (IUCN, 2012a).

► Legal framework and enforcement

Serious Concern

Overall, the legal framework has up to now allowed effective management. However, Federal Law No. 365-FZ has significantly weakened the protection status of Strict Nature Reserves in the Russian Federation, although it has not been applied to the site to date (IUCN, 2012a). The legal protection status of the three regional component Protected areas of the site appears insufficient. A national framework law on the management of natural World Heritage site, as has been recommended by the World Heritage Committee,

is still lacking (IUCN, 2012a).

▶ Integration into regional and national planning systems

Data Deficient

No information on the integration of the conservation values of the site into regional and national planning systems is currently available.

▶ Management system

Some Concern

There are management plans for the five individual component protected areas of the site (outdated in the case of Katunsky Strict Nature Reserve and soon in need of review for the other Protected areas). An overall management strategy for the site as a whole was developed in 2008, and is being partly implemented, but does not meet the need for a joint management framework as required by the World Heritage Convention's Operational Guidelines (Debonnet & Lethier, 2012).

▶ Management effectiveness

Some Concern

Lack of funding and staff, lack of enforcement mandate of Nature Park staff, as well as complicated and fragmented management authority and land ownership situation in Nature Parks, reduces overall management effectiveness (Debonnet & Lethier, 2012).

▶ Implementation of Committee decisions and recommendations

Serious Concern

Significant efforts have been made to implement some of the management-related recommendations of the 2007 reactive monitoring mission (Debonnet & Lethier, 2012). However, most of the Committee decisions and recommendations have dealt with the question of the Gazprom Altai pipeline (24th, 30th, 31st, 32nd, 35th and 36th sessions; IUCN, 2012a).
At its 36th session in 2012 (Saint Petersburg, Russia), the Committee noted the State Party's affirmation that no official decision has been made on the Altai gas pipeline project and that such a decision will be based on an environmental impact assessment in accordance with the Russian legislation.

The Committee also expressed its utmost concern that in spite of this affirmation, the pipeline developer Gazprom is conducting preparatory work on the pipeline route, including within the World Heritage property in violation of Russia's protected area legislation, and reiterated that any decision to go forward with the gas pipeline project through the property would constitute a threat to the site's Outstanding Universal Value and represent a clear case for inscription of the property on the List of World Heritage in Danger. The Committee urged the State Party to make an unequivocal decision to abandon the construction of the Altai gas pipeline through the property, and ensure that no further preparatory works are undertaken within the property, and to ensure that the pipeline developer Gazprom considers alternative routes. At its 37th Session the World Heritage Committee reiterated its request that an unequivocal decision to abandon the project be taken.

► Boundaries

Mostly Effective

The Strict Nature Reserves and Nature Parks that comprise most of the site have clearly defined boundaries and a clear zonation with corresponding permitted/prohibited activities, although the legal status of some of the zones is unclear (Debonnet & Lethier, 2012).

► Sustainable finance

Data Deficient

No exact information on the financing of the Protected areas constituting this site is available. The financing of the regional Nature Parks that form part of the site has been considered insufficient (Debonnet & Lethier, 2012).

► Staff training and development

Some Concern

Altaisky Strict Nature Reserve and Katunsky SNR have a sufficient 100 and 70 staff, respectively, while the Nature Parks and natural monument have insufficient staff (6-8 each) (Debonnet & Lethier, 2012). No information about staff training and development programmes is available.

▶ Sustainable use

Some Concern

Sustainable use zones are part of the Nature Parks and some sustainable non-timber forest products use occurs throughout the site (Debonnet & Lethier, 2012). There may be a need to monitor and control this more closely. Since legal hunting of some large herbivores is not possible in the Russian Federation, an important incentive for sustainable management of species such as Argali may be missing.

▶ Research

Mostly Effective

There is some research being carried out, particularly in the Strict Nature Reserves and with participation of the research departments of the reserves, the Siberian Branch of the Russian Academy of Sciences, some universities and others. Five universities cooperate in a global change research programme (UNEP-WCMC, 2011). About 1,000 peer-reviewed articles in international scientific journals have focused on the ecology, biodiversity and conservation of this region (Web of Science 2012).

Overall assessment of protection and management

Some Concern

The current management of the site is effective in general, but could be improved particularly by strengthening the legal framework, as well as stronger participation of local people in management, improving finances, staff, authorities and institutional capacity particularly of the component Nature Parks, and a more strategic approach to sustainable tourism development. Four of the five component Protected areas of the site are transboundary protected areas, and their effectiveness depends on cooperation with their respective neighboring countries. Efforts are underway to extend the site to China, Kazakhstan and Mongolia. These should be pursued as a matter of priority as they may be able to address this issue (Debonnet & Lethier, 2012, Michel et al., 2004).

▶ Assessment of the effectiveness of protection and management in addressing threats outside the site

Mostly Effective

Four of the five component protected areas of the site are trans-boundary protected areas, and their effectiveness depends on cooperation with their respective neighboring countries. Efforts are underway to extend the site to China, Kazakhstan and Mongolia. These should be pursued as a matter of priority as they may be able to address this issue (Debonnet & Lethier, 2012, Michel et al., 2004). New buffer zones for Altaisky Strict Nature Reserve have been created as part of its designation as a UNESCO Biosphere Reserve, again contributing to minimizing outside threats.

▶ Best practice examples

Extensive efforts have been made to develop climate change adaptation strategies for parts of the site (Kokorin, 2011, Yashina, 2011). These may be examples for developing similar strategies for other, comparable areas.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ Mountain ecosystems

Low Concern
Trend:Stable

The mountain ecosystems of the site are considered to have a high level of integrity and be stable (Debonnet & Lethier, 2012). However, there are disturbances from grazing, fires, tourism, use of wild plants and animals, and anthropogenic climate change.

▶ Freshwater ecosystems

Low Concern
Trend:Stable

The integrity and the values of Lake Teletskoye and other aquatic ecosystems of the site are satisfactory, although there have been concerns about local deterioration of water quality near Artybash village (Debonnet & Lethier, 2012).

▶ Terrestrial fauna

High Concern
Trend:Data Deficient

As a consequence of the high integrity of the mountain ecosystems of the site, its function as an animal habitat is also considered intact. However, there are concerns about poaching of Snow Leopard, Argali and other large vertebrates within and outside the reserves.

Other important biodiversity values

▶ Global centre of origin of plant communities

Major global centre of origin of the montane floristic assemblages of northern Asia, which have subsequently spread to the whole of Central Asia (Debonnet & Lethier, 2012). More than 2,000 species of vascular plants, 10.6% of which are endemic. 17 species are relic (UNEP-WCMC, 2011). Altaisky Reserve further has 200 species of aquatic plants, 500 lichens, and 250 mosses (Pavlov et al., 2000)

Summary of the Values

▶ Assessment of the current state and trend of World Heritage values

Low Concern

Trend: Stable

The key terrestrial and freshwater ecosystem values of the site have a high level of integrity and will probably remain stable unless major changes to the management occur (such as the construction of the Gazprom Altai Pipeline). However, there are some concerns about poaching of Snow Leopard, Argali and other large vertebrates within and outside the reserves.

▶ **Assessment of the current state and trend of other important biodiversity values**

Low Concern

Trend: Stable

As a consequence of the high integrity of the mountain ecosystems of the site, its function as a global centre of origin of plant communities remains equally intact.

Additional information

Key conservation issues

▶ **Unclear participation of local communities in site management**

Local

Although detailed information is lacking, it appears likely that management of the site would benefit from a much stronger participation of local stakeholders, particularly regarding economic activities such as tourism and collection/marketing of non-timber forest products. This would also enable protected areas administrations to benefit more strongly from traditional knowledge of local people (IUCN, 2012a)

▶ **Lack of protected areas management resources and capacity**

National

The staff of the two regional Nature Parks that constitute the site are few and have only limited resources and capacity to manage the site effectively (Debonnet & Lethier, 2012). This reduces overall management capacity of the site.

▶ **Lack of sustainable tourism planning**

Local

A sustainable tourism strategy is needed to ensure that tourism development is managed in a sustainable and equitable way and does not increase threats

to the site.

▶ **Fragmented and complex management system without a central management authority**

National

The site consists of two Strict Nature Reserves, two regional Nature Parks and a Nature Monuments and lacks one central administration or Coordination Council that is responsible for the entire site (Debonet & Lethier, 2012). The latter categories do not afford a sufficient level of protection to the site, and this fragmentation poses a serious challenge to its overall management.

▶ **Lack of a unified legal basis for the management of natural World Heritage sites in the Russian Federation**

National

There is currently no national law establishing common standards for the overall management and institutional setups for all natural World Heritage sites on the territory of the Russian Federation. This also complicates the establishment of an effective management framework for the Golden Mountains of Altai (Debonnet & Lethier, 2012).

Benefits

Understanding Benefits

▶ **Does management of the site provide jobs (e.g. for managers or rangers)?**

The protected areas contributing to the reserve offer ca. 184 jobs (Debonnet & Lethier, 2012), in a remote area with little population. There is room for increasing the number of jobs, particularly in the Nature Parks that form part of the site. Beyond this, the values of the site offer opportunities for additional employment through sustainable natural resource use and tourism.

▶ **Collection of wild plants and mushrooms**

Wild plant collection is currently practiced, both for subsistence and for trade, including international trade, e.g. to Japan (Rao & Brüggemann, 2007).

Exact details about the quantities involved and the sustainability are not available. However, there is clearly a potential for sustainable wild plant collection schemes to create income for local businesses and indirectly (through fees) to the protected areas constituting the site themselves.

► Wilderness and iconic features

The significant cultural and spiritual values of the site are well-known (Debonnet & Lethier, 2012). The Ukok Plateau in particular is rich in petroglyphs and tomb mounts dating back to the bronze age, and also the place where the burial site of a 2,500 year old Ukok Princess was found in the1990s (Altai Republic, 2003).

► Outdoor recreation and tourism

Mountain tourism is practiced at a moderate intensity already on site. If developed in a responsible way, the site may offer a unique opportunity to experience undisturbed high-mountain landscapes and ecosystems, including the alpine Lake Teletskoye, and their wildlife. This might also contribute significantly to the socio-economic development of the region (Debonnet & Lethier, 2012).

► Importance for research

The site has contributed significantly to the overall scientific understanding of the Altai Mountains, with approximately 1,000 scientific articles published about its ecology, biodiversity and conservation (Web of Science, 2012). Existing local and traditional knowledge may offer additional benefits, and the site could be a case study of a relatively undisturbed temperate forest/mountain ecosystem affected by climate change, which might also function as a reference for ecosystem restoration efforts elsewhere (cf. Kokorin, 2011, Yashina, 2011)

► Collection of genetic material

The considerable diversity of endemic, relict and globally threatened plants in the site may offer the possibility for collecting genetic material for a wide range of uses.

Summary of benefits

The site already provides multiple conservation, economic and cultural/spiritual benefits and ecosystem services to local inhabitants, the citizens of Altai Republic and the Russian Federation, and also to interested parties worldwide. There is considerable potential to maintain and enhance these values through equitable participatory management of the site, particularly in areas such as non-timber forest product collection and marketing, tourism development, and the integration of natural and cultural values. Participation of local inhabitants in the sharing of benefits of the site should be an area of particular concern for future management.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	UNDP/GEF/ICI		Biodiversity Conservation in the Russian Portion of the Altay-Sayan Ecoregion
2	WWF Russia		Education and awareness raising
3	Greenpeace Russia		Addressing main threats, education and awareness raising

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	Development of sustainable tourism strategy (some preparatory work already included in UNDP/GEF/ICI project)	
2	N.A.	Training programme for PA staff (particularly staff of Nature Parks) of the site in general PA management	

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