### Report on the State of Conservation of the UNESCO World Heritage Property "The Golden Mountains of Altai" (Russian Federation, № 768rev) in 2016

#### **SUMMARY**

At the present time no decisions on the development of the project documentation for the construction of the gas pipeline of the project "Altai" including its exact route have been made.

No works threatening the conservation of the World Heritage Property "The Golden Mountains of Altai" and having impact on the outstanding universal value of the site have been undertaken. The government of the Altai Republic doesn't plan to construct and reconstruct linear infrastructure and other capital construction projects within the borders of the World Heritage Property.

The recommendations of 2012 UNESCO mission are being implemented in the territory of the World Heritage Property.

The territory of the World Heritage Property is protected by the federal state budgetary establishments (Altaiskiy State Nature Reserve and Katunskiy State Nature Reserve, zones around Lake Teletskoye), and the Altai Republic budgetary establishments (Nature Parks "Ukok quiet zone", "Belukha").

The monitoring of snow leopard and argali as well as the field research of reindeer summer habitat are being carried out in the territory of the World Heritage Property. The work on the project "The Organization of the System of Long-Term Monitoring of Climate and Ecosystems Change" is being continued.

The increase of tourist visits to the territory of the World Heritage Property has been observed. In the territories of state reserves and nature parks the educational tourism is adapted to the ecological itineraries. Visitors' access to the allowed territories of nature reserves is being regulated. Monitoring of the number of tourists and recreational impact is being carried out. Tourist routes are being provided with the necessary facilities in order to minimize the anthropogenic impact on the natural sites.

# 1. Response of the Russian Federation with Regard to Resolution No. 40 COM 7B.96 Adopted by the World Heritage Committee

The Russian Federation confirms previously provided information on the state of the "Altai" project preparation (gas pipeline "Power of Siberia 2"): up to the present time the decision on the development of the project documentation of the mentioned gas pipeline construction including its exact route has not been made.

No works threatening the conservation of the World Heritage Property "The Golden Mountains of Altai" and having impact on the outstanding universal value of the site have been undertaken. The government of the Altai Republic doesn't plan to construct and reconstruct linear infrastructure and other capital construction projects within the borders of the World Heritage Property.

The UNESCO mission experts twice visited all five Altai sites inscribed on the World Heritage List: Katunskiy Nature Reserve, Altaiskiy Nature Reserve, Ukok Plateau, Belukha Mountain and Lake Teletskoye. According to the results of the mission of 2012 the experts concluded that the UNESCO World Heritage Property "The Golden Mountains of Altai" is still in a very good state, the same as it was during the previous visit of the mission in 2007.

The transboundary cooperation between the Altai region of Russia and the neighboring territories of the Republic of Kazakhstan is being actively developed. In September of 2016 the Russian Federation together with the Republic of Kazakhstan submitted an application for the transboundary biosphere reserve "Great Altai" to the UNESCO "Man and the Biosphere" Secretariat. The transboundary biosphere reserve "Great Altai" comprises the Katunskiy Biosphere Reserve (Russian Federation) and Katon-Karagaiskiy National Park (Republic of Kazakhstan). The establishment of the transboundary biosphere reserve will enable to strengthen the bilateral cooperation between Russia and the Republic of Kazakhstan and to guarantee the preservation of biological and landscape diversity of the unique natural complexes of Altai as well as the sustainable development of the vast territories around them. It will also ensure the harmonious coexistence of local communities and the environment. All this will lead to the balanced development and the increase of social and economic well-being of the regions by means of the traditional forms of natural resource use and educational tourism.

The monitoring of snow leopard and argali as well as the field research of reindeer summer habitat are being carried out in the territory of the World Heritage Property. The work on the project "The Organization of the System of Long-Term Monitoring of Climate and Ecosystems Change of the Altaiskiy Nature Reserve" is being continued.

The increase of tourist visits to the territory of the World Heritage Property has been observed. In the territories of state reserves and nature parks of regional significance the educational tourism is adapted to the ecological itineraries. Monitoring of the state of the ecological paths and routes is being carried out. Necessary measures to minimize the tourist activity impact on the natural ecosystems are being undertaken.

# 2. Information about Other Current Issues Related to the World Heritage Property Conservation

Altaiskiy state nature biosphere reserve as a key component of the territory of World Heritage Property is a regional center that forwards the spread of ideas concerning the sustainable use of natural resources among different social groups by means of the cooperation with the government institutions and non-governmental organizations. The Nature Reserve aims to become the leading eco-educational, research and coordination center in the sphere of preservation of natural heritage and biodiversity with the integration of its activity into the region's social and economic structure.

In order to attract additional resources the Altaiskiy Nature Reserve provides the conditions for the development of managerial partnerships between all stakeholders. Defining 'partnership' as the joint efforts of the parties to reach a common aim, the Altaiskiy Reserve's administration relies on such key principles as the solidarity of purpose, openness, equality of partners, mutual benefit, respect and responsibility.

For the period of 2007-2016 the Altaiskiy Reserve's administration ensured the change (transformation) of the role and functions of the Altaiskiy Reserve from a specially protected area of strict nature protection to the biosphere territory (reserve) of sustainable development and the preservation of landscape / cultural diversity by means of the cooperation with the local people and business (as well as other stakeholders):

- Administration of the Altaiskiy Biosphere Reserve assigns a great role in the management and the development of the reserve to the local population. Social councils were established within the reserve settlements (located in the central area of the territory of the biosphere reserve) in Yailyu and Bele. A local self-governing body "Zapovednoye selo" was registered in Yailyu in February, 2014.
- Lake Teletskoye Council was established: a dialogue between the government, travel business, public representatives, scientific research institute and biosphere reserve turned into business, friendly and partnership relations. Lake Teletskoye Council has become a special place for communication and interaction of different organizations located on Lake Teletskoye and being aware of their responsibility to preserve and develop the territory of the UNESCO property. Thus, with the involvement of Lake Teletskoye Council, environmentally determined tourist infrastructure is being set up on Lake Teletskoye and the adjacent territories; the development of the ecologically-friendly water transport is being supported.

- Altai-Sayan Mountain Partnership (its founders are Altaiskiy and Katunskiy Biosphere Reserves) was established. It aims to unite the efforts in conserving and developing mountainous territories being the UNESCO heritage.
  - Coordination Board of the Altaiskiy Biosphere Reserve was established.
- The conception of the Strategy of the sustainable development of Teletskoye natural area and Rules of the visit, accommodation and tour operations in the protected settlements and the ones in close proximity to the UNESCO World Heritage Property Lake Teletskoye were worked out with the active participation of the Altaiskiy Biosphere Reserve.
- Programs for the development of Yailyu and Bele ecological settlements were elaborated.
- A separate program is dedicated to the conservation of Lake Teletskoye as well as social and economic development of the settlements (Artybash, Iogach, Balykcha) located near Lake Teletskoye.
- Altaiskiy Biosphere Reserve took part in the elaboration of the Strategy for the development and management of the UNESCO World Heritage Property "The Golden Mountains of Altai" and became a member of the Coordination Board for the property management.
- The ecological approach to life sustenance as well as the alternative means for producing energy have been implemented (solar panels were installed and are used on all cordons, as well as several wind-driven and hydroelectric power plants).

The area protection and the control of the regime set by legislation on the specially protected areas are maintained by the state inspectorate of the protection of the reserve area. As a result of the security guard activities and raids in 2016 81 administrative proceedings on the violation of the Altaiskiy Biosphere Reserve regime were initiated. 57 protocols of illegal staying in the territory of the reserve, 21 protocols of illegal fishing, 2 – of fire security violations in forests, 1 – of illegal hunting were drawn up.

The security service widely uses modern equipment (anti-poaching devices, GPS-navigators, satellite phones, photo- and video-recorders etc.). Monitoring of the poachers' activity, systematic patrol of the territory depending on the season and violators' activity, the use of anti-poaching devices and work under a rotation system increase the efficiency in the fight against poaching in the territory of the Altaiskiy Biosphere Reserve.

415 raids on the security of the reserve territory took place in 2016. A fire-chemical station with the necessary fire-fighting equipment was opened with the aim to protect natural complexes from fire.

Commercial, sport and amateur hunting is forbidden in the territory of the reserve by the Federal law "On Specially Protected Natural Territories" and Policy Statement of the Altaiskiy Nature Biosphere Reserve. The implementation of environmental protection measures, environmental education, awareness-raising activities and the preventive maintenance increase the efficiency of the inspectors' work within the specially protected natural area.

The main results of 2016 in regard to the protection of the World Heritage Property within the territory of the Altaiskiy Reserve and its buffer zone are the following:

- Infrastructure, facilities and equipment of the security service were improved.
- Alternative sources of electric power are widely used on cordons and in Yailyu village. The program on the improvement of alternative energy of the reserve has been launched.
- New technologies to record violations and to collect statistics are being implemented.

To overcome different kinds of crisis situations the reserve works out the control strategies including:

- the detection of risk zones and spatial arrangement of the potentially vulnerable areas (environmental mapping);
  - the development and exploitation of special technologies;
  - the development of the operational plans on fire preventive measures;
- the development of plans on cooperation with the media and the institute of public opinion;
- the control of the nearshore zone of Lake Teletskoye, the World Nature Heritage Property, in order to be aware of the unregulated constructions, to stop and demolish them in a judicial procedure.

In 2016 expeditionary, scientific, research and monitoring activities related to the study of snow leopard were conducted on Chikhachev Ridge (Russian and Mongolian sides) and in the Argut River basin. In the territory of the Altai Republic with the participation of the Altaiskiy Reserve employees, snow leopard was confirmed to inhabit the following areas: Shapshalskiy Ridge and Tsagan-Shibetu (Tsagan-Shuvut) – Shapshalskaya group (transboundary, at the junction of three borders: Altai, Tuva, Mongolia); Katunskiy, South- and North-Chuiskiy Ridges – Argutskaya group; Chikhachev Ridge and Talduair Massif – Chikhachevskaya group (transboundary, at the junction of three borders: Altai, Tuva and Mongolia); Kuraiskiy Ridge – Kuraiskaya group; South Altai Ridge (transboundary, at the junction of three borders: Russian Federation (Altai), China and Kazakhstan). Modern methods of snow leopard research are used, such as camera traps, DNA-analysis, SLIMS, snow leopard sign records and tracking.

The Altaiskiy Reserve initiated and organized anti-poaching raids in Argut River basin up to the period of time when the Sailyugemskiy National Park was established and it continued anti-poaching activities. The raids were organized involving endowed with powers inspectors of the Committee on protection, use and reproduction of fauna species of the Altai Republic. During the raids poaching snares on snow leopard and musk deer were destroyed, weapons were retrieved.

In accordance with the Program for monitoring transboundary groups of argali in the Russian Federation in the autumn of 2016 Altaiskiy Nature Reserve and Sailyugemskiy National Park conducted the survey of the number of argali within its habitat in the Altai Republic.

Winter survey on estimating fauna species population was conducted. The total distance of the routes covered in 2015-2016 was 274 kilometers.

At the premises of the Institute for Water and Environmental Problems of Siberian Branch of the Russian Academy of Sciences the program "Assessment of the impact of littoral biocoenosis on Lake Teletskoye ecosystem functioning: water regime, nature protection monitoring, bio-resources" was developed contributing to the ecological balance recovery within the site and the natural region in whole.

Abiotic research and monitoring were conducted:

- the provision of the necessary facilities for meteorological station and the monitoring of the state of the environment;
- -complex research including hydrological, hydro-chemical and hydro-biological observations of the reserve water bodies by means of the modern analytic equipment according to the program "Assessment of the impact of littoral biocoenosis on Lake Teletskoye ecosystem functioning: water regime, nature protection monitoring, bioresources".

Biotic research and monitoring were conducted:

- the research of the population biology, phenology and regular registration of the dynamics of invertebrate and vertebrate animals' population;
- the control of the state of population of rare animal and plant species within the territory of the reserve;
  - the control of the dynamics of the ecological complexes' succession.

In 2016 in regard to the ecological education and the development of the ecological tourism the Altaiskiy Reserve:

- created the network of visit-centers and eco-educational routes visited by 66 640 people including the visitors of the Reserve's central manor and cordons in 2016;
- continues the provision of the necessary facilities of cordons and eco-educational routes in eco-style using natural materials;
- -continues the implementation of the programs "Nature and Children", "Teletskaya School of Youth Ecotourism", "Reading Hall of Altyn-Kol" aimed at involving children and youth in the protection of UNESCO World Nature Heritage Property and a sustainable development of the biosphere territory. Seminars and instructions for future tour guides are held. Education includes the information on the local history and culture;
- implements the project on the interaction with the local people: project "Glimmer of hope for the Russian villages" (contest of grants for the development of ecological tourism, activation of local self-government, implementation of partner projects).

In 2016 the Altaiskiy Biosphere Reserve organized exhibitions "UNESCO World Heritage" in Gorno-Altaisk State University during "El-Oyin" – the national festival of the native people of Altai.

As part of the volunteer movement development the following projects were implemented in 2016: "Uchar-2016" (assistance in regulating the number of visitors on the route "Uchar Waterfall"), "Volunteer Divers" (mechanical pollution inspection and cleaning of the reserve water area), "On the Trace of Snow Leopard" (volunteer research expedition on the snow leopard study and conservation).

A new partner project of the Altaiskiy Reserve "Green Robots" was implemented: within the framework of the project students of the neighboring the reserve village schools study robotic technologies from the perspective of the ecological and nature protection themes.

Educational tourism is being developed in the reserve by means of the ecological routes located in the vicinity of cordons. Korbu Waterfall is the major tourist attraction, which was visited by 58 680 people in 2016. There is a wooden board walkway to the waterfall that enables to minimize the negative impact of tourism on the reserve territory.

In 2016 works on the construction of the support-fixing system for the most difficult parts of the trail continued on the eco-educational trail "Uchar Waterfall" by the reserve together with the installation staff of LLC "Irbis of Altai"; the security post at the beginning of the route was equipped. Apart from that, experts examined part of the trail "Viewing platform of Korbu Waterfall" and cleaned it up from dangerous rocks.

Within the framework of the project "Glimmer of hope for the Russian villages" the eco-trail dedicated to the UNESCO World Nature Heritage was made in Artybash village near the visit-center of the Altaiskiy Reserve.

<u>Katunskiy State Nature Biosphere Reserve</u> is located in Central Altai; its southern border coincides with the state borders of Russia and Kazakhstan.

The World Heritage site within the borders of the Katunskiy Reserve is protected by means of patrolling the territory on cordons on a rotational basis as well as patrolling the territory on certain routes. 30 state inspectors are employed in the reserve protection service. Alongside territory patrolling and the detection and restraint of violations of the reserve regime, the inspectors' responsibilities include assistance in ecological monitoring, scientific research and environmental education.

According to the results of 2016, the protection service detected 24 reserve regime violations. Most violations dealt with the unauthorized transit of tourist groups through the reserve's territory and, therefore, they have no significant impact on the natural complexes of the reserve.

For purposes of wildfire prevention and fighting the reserve supplies 4 points on cordons with firefighting equipment and implements the preventive measures through educational information campaign.

The Katunskiy Reserve has been monitoring the state of natural complexes and their components since 1998. Starting from 2004 it has been implementing the Program for monitoring climate and ecosystem changes in the reserve and its adjacent territories aimed at observing the changes of meteorological parameters and induced by them changes of biota. This program is based on the GLOCHAMORE (Global change in mountain biosphere reserves) Research Strategy and is focused on the application of the international monitoring protocols. At present the reserve carries out the following types of monitoring:

Hydro-Meteorological monitoring is being carried out in the reserve since 2010 by means of automatic meteorological observing stations and autonomous recorders of meteorological parameters (atmospheric temperature and amount of precipitation) established along the altitude gradients. In addition to this data, snow survey is being carried out in the territory of the reserve.

Monitoring of the number of large mammal species is being carried out since 1999. Monitoring results show that the number of large mammal species in the territory of the reserve remains stable. For monitoring purposes trail cameras are being used since 2011.

Monitoring of the state of natural complexes on the eco-educational routes of the reserve provides the data on the recreational impact on the natural complexes (since 2004) and is focused on the management of eco-tourist activity of the reserve. Monitoring results show that the impact is local and doesn't broaden ecosystems beyond their natural functioning.

Glacier monitoring is long-term and is carried out together with the concerned educational establishments (Saint-Petersburg State University, Tomsk State University and Altai State University). The results of the repeated glacier survey showed that at present glacial retreat continues even though at a slower rate. Most small cirque glaciers began to correspond to the enclosing cirques where they are preserved due to a high concentration of snow. Glacier areas are assumed to be insignificantly reduced.

Alpine ecosystem monitoring in accordance with the international GLORIA protocols, which started in the reserve in 2005, includes cross observation of phytocoenosis and temperature in the ecotones of high-altitudinal zones of the mountains. This type of monitoring makes a significant contribution to understanding ecosystems change affected by climate change not only at a regional level but on the global scale as well as it is part of the world observation network.

Upper tree line monitoring was established in the reserve in 2011 and it enhances the program of alpine ecosystem monitoring. The monitoring includes cross observation of microclimatic conditions and the process of growth and regeneration of tree-stand in the ecotones of the upper tree line.

Monitoring of phytocoenotic dynamics, established in 1999, shows not only the natural changes of vegetation of the reserve territory but also the speed of regeneration processes in mountain ecosystems which in the past were used for grazing.

Geochemical monitoring has been carried out since 2007 together with the Institute of Geography of the Russian Academy of Sciences. It is aimed at detecting territory pollution caused by transboundary transport of air pollutants.

Hydrological monitoring includes the observation of elements of water balance of high-altitude territories – the amount of precipitation, water content of snowpack, water level of lakes and flow of rivers.

Whereas climate change is considered to be one of the most significant threats for the biodiversity of this high-altitude territory the Katunskiy reserve developed general principles and regulations for the adaptation to climate change. They include the following activities:

increase of capacities for wildfire prevention and fighting, reduction of non-climate impacts on vulnerable species and ecosystems, development of combined monitoring of climate and ecosystem changes, promotion of the renewable power supply sources, provision of migration corridors for mammal species,

implementation of educational and interpretative programs on climate change issues for different target groups.

Transboundary cooperation with Katon-Karagaiskiy National Park (the Republic of Kazakhstan) was initiated in 2004 and is carried out according to the Conception of cross-border cooperation of Russia. An intergovernmental agreement was signed on September 15, 2011 for the creation of a transboundary reserve "Altai" between the Katunskiy Biosphere Reserve (Russia) and Katon-Karagaiskiy National Park (Kazakhstan).

In the reporting year the development of the management plan of the "Great Altai" transboundary reserve was completed and the nomination form for receiving the status of the UNESCO Transboundary Biosphere Reserve was filled in. The documents in accordance with the established procedure were sent to the UNESCO Secretariat. In case of a favorable decision, the territory of the transboundary biosphere reserve will include not only the Katunskiy Nature Biosphere Reserve and Katon-Karagaiskiy State National Park but also the adjacent border territories of Russia and Kazakhstan. The total area of the transboundary biosphere reserve will cover 1 543 810 hectares.

Quota management system of recreational load was introduced in order to reduce the potential negative impact on natural ecosystems. The system is based on the scientific research and the results of monitoring the state of recreational sites in the territory of the reserve.

The Agreement on joint environmental conservation activity was signed between the Katunskiy Reserve and Belukha Nature Park. At present the reserve protected zone is being established, it includes the World Heritage site – the Belukha Mountain. The creation of the protected zone will enable to improve the efficiency of the territory conservation measures.

<u>Ukok Quiet Zone Nature Park</u> is a specially protected area at a regional level.

The ecological state of the World Heritage site is estimated as a good one taking into account the insignificant scale of traditional land use by local population, the absence of hazardous industries in the territory of the park, difficult access to the territory, and a severe climate for tourist visits. By expert assessment the environment (the atmosphere, soil cover, natural water) in the prevailing territory of the park and natural resources of mineral and phytogenic origin are considered to be free from anthropogenic impact and pollution. The activity of the Altai Republic's establishment Ukok Quiet Zone Nature Park enables to preserve flora and fauna and to keep the ecological balance of its adjacent territories.

The territory of the Ukok Quiet Zone Nature Park provides:

- preservation of the unique natural complexes, rare flora and fauna species including snow leopard and argali;
  - preservation of the world-known historical and cultural monuments;
  - creation of conditions for the development of ecological and educational tourism;
  - assistance in the sustainable development of the region;
  - support for the traditional types of land use by the indigenous population.

<u>Mount Belukha Nature Park</u> preserves the unique natural complexes of the Belukha Mountain massif as part of the territory of the World Heritage Property and solves the following issues:

- preservation of the natural heritage including standard and unique natural zones as well as sites which are important for keeping biological diversity;
- development of the traditional types of land use, regeneration and development of national culture and crafts:
- creation of tourist and recreational attractions with the necessary infrastructure providing the conservation of the natural complexes;
- ecological, historical and cultural education and raising public awareness of the value of natural and cultural heritage.

Belukha glaciers storing atmospheric moisture serve as peculiar indicators reacting to the environmental changes. Over the last years their pollution by heavy metals, radionuclides and other toxicants has been detected. Local changes of natural complexes in the areas of cattle grazing and on tourist routes were observed.

Belukha with its modern types of recreational activities requires the preservation of biodiversity in both large and small ecosystems.

Nature Park employees patrol the territory, conduct biotechnological activities, raise ecological awareness of tourists, youth and local people and conduct different ecological campaigns.

Nature Parks "Ukok Quiet Zone" and "Belukha" are part of the network of tourist and information centers of the Altai Republic. The agreement for collaboration on the joint monitoring of the number of tourists in the territories of nature parks was signed with the Community of small indigenous groups "Otok". According to the data of monitoring in 2016 Nature Park "Ukok Quiet Zone" was visited by 2 332 people, Nature Park "Belukha" – by 6 935 people.

Annually nature parks take part in the All-Russian campaign "Water of Russia", ecological and educational campaigns on territory cleaning: "Pure Belukha", "Pure spring", "Headwater and water reservoir protection", "Earth Day", "Water Day", "Earth Hour", as well as "World Environment Day". One of the brightest ecological festivals is Land of Snow Leopard.

In order to preserve natural complexes and due to the increase of the number of tourists the activities to assess the level of anthropogenic impact and acceptable recreational impact on the territory of the Nature Parks "Ukok Quiet Zone" and "Belukha" will be conducted in 2017.

#### 3. Significant changes within the World Heritage Property are not expected.