

**Development strategy and Management of
the World Natural Heritage Property
“Golden Mountains of Altai”**

Preface

The Strategy has been developed based on analysis of the state of conservation, management options and problems of functioning of protected areas – the component parts of “Golden Mountains of Altai” World Heritage property.

During the development of the Strategy positions of the Convention Concerning the Protection of the World Cultural and Natural Heritage, Operational Guidelines for the Implementation of the World Heritage Convention, recommendation of the joint UNESCO-IUCN Assessment Mission held in the Altai Republic in 2007 as well as other operational documents of the UNESCO World Heritage Center were used.

The Ministry of Natural Resources of the Altai Republic Strategy initiated the process of the Strategy development in the frameworks of regional program “Support of protected areas of the Altai Republic” (2007 - 2009). The Strategy has been developed by Katunskiy Biosphere Reserve in collaboration with Altaiskiy Nature Reserve and Natural Heritage Protection Fund. The draft of the Strategy was discussed during several regional meetings in the fall 2008 with participation of experts from protected areas designated as the component parts of the WH property, national World Heritage Committee, Ministry of Natural Resources of the Altai Republic, Division of Russian National Commission for UNESCO in the Altai Republic, local authorities, environmental NGOs and local communities, living nearby the WH site in the Altai Republic.

1. Brief Description of the World Heritage Property “Golden Mountains of Altai”

By the decision of the World Heritage Committee WHC-98/CONF.203/18 VIII.3 A-1 five most significant natural territories of the Altai Republic were inscribed into UNESCO World Natural Heritage List as component parts of “Golden Mountains of Altai” property in 1998. The site was nominated by several criteria; however it was designated as the World Heritage under x criterion as region representing an important and original centre of biodiversity of mountain plant and animal species in northern Asia, a number of which are rare and endemic. This region represents the most complete sequence of altitudinal vegetation zones in central Siberia, from steppe, forest-steppe, mixed forest, subalpine vegetation to alpine vegetation, as well as unique combinations of tundra and steppes within high-elevated Ukok plateau. The site is also an important habitat for endangered animal species such as the Snow leopard and Altai argali.

According to the nomination dossier, the property consists of three separate areas, namely Altaiskiy Nature Reserve (872 000 ha) and its buffer zone around the Lake Teletskoe (93 753 ha); Katunskiy Nature Reserve (156 664 ha) and its buffer zone around Mt. Belukha (262 800 ha); and the Quiet Zone Ukok (252 904 ha). The total area of the WH site is 1 611 457 ha.

Nowadays the property is presented by five legally-designated protected areas, which are briefly characterized below.

Altaiskiy State Nature Reserve is situated in the north-eastern part of the Altai Republic within Turachakskiy and Ulaganskiy municipal districts. From the east its territory borders with Republics of Tyva and Khakassia. It's important to mention that several clusters of Khakasskiy Nature Reserve and Ubsunurskaya Kotlovina Biosphere Reserve (Republic of Tyva) adjoin to the territory of Altaiskiy Reserve. The reserve was established in 1932. Currently its area is 881238 ha; all the lands and any other natural resources are of federal property.

Altaiskiy Reserve is located in mountain area at altitudes from 434 to 3143 m above sea level. Part of the Lake Teletskoye – the largest natural water reservoir in the Altai – is included into the reserve. Different types of ecosystems including foothills covered with mountain taiga, subalpine and alpine meadows and tundra, glacial and nival complexes are represented within this strictly protected area.

Biodiversity of the territory is quite high and presented by 3101 species of plants (2050 of them are higher vascular plants, 550 species of moss, 1500 species of lower vascular plants, 668 species of alga, 118 specie of fungi and 271 species of lichens). More than 250 species of plants are endemics of the Altai-Sayan region, 120 species are relics of different epochs of pre-glacial period. The fauna of the reserve is represented by 16 species of fish, 2 species of amphibians, 326 species of birds and 70 species of mammals

Within the reserve, habitats of endangered species from IUCN Red Lists (Snow leopard, Altai Argali and Siberian musk deer, etc) are located. Moreover, 32 species of plants, 35 species of birds and 1 species of invertebrates are inscribed into the Red Lists of the Russian Federation. Four sites within the reserve are designated as internationally important bird areas within the frames of the BirdLife International initiative.

There are 108 persons of the permanent staff in the reserve, and 37 of them work in the ranger service. The reserve is divided into 4 forest areas; service settlement Yailyu and 8 ranger stations with total permanent population of 265 people are located within the protected area. In Yailyu

and surroundings of the rangers stations limited economic activity such as grazing etc. are allowed. The central office of the reserve is located in Gorno-Altai.

The major infringements of the strict protection regime are caused by illegal hunting and logging. The ranger service of the reserve reveals about 50-70 of such illegal activities annually.

General directions of activities of the reserve are described in the Federal Law “About specially protected natural areas” and include following:

- A) Realization of the protection of natural territories in order to conserve biological diversity and to sustain in natural conditions protected natural complexes and objects;
- B) Organization and conducting scientific researches, including environmental monitoring in the frames of “The Chronicles of Nature” program;
- C) Conducting ecological monitoring in the frameworks of state system of environmental monitoring;
- D) Ecological education and raising public awareness including development of ecotourism.

Monitoring of the state of ecosystems and its components of the reserve is being conducted by employees of its research department and other partner universities and institutes. These works include monitoring of population of rare, endangered and flagship species of mammals (Snow leopard, ibex, argali) and birds. Dynamics of natural vegetation communities as well as effects of tourism and recreation are investigated also. Monitoring of threats caused by space start up activities is being conducted systematically by Federal Space Agency.

Ecotourism is allowed within the reserve along special equipped trails in the surroundings of the ranger stations. The mostly visited sites are Korbu waterfall and Yailyu settlement which are equipped with recreational facilities. The number of visitors during last 5 years changes from 25 to 35 thousands of visitors per year. In order to reduce negative impacts onto environment at major sightseeing points wooden floorings are constructed. Currently admissible recreational loads onto protected ecosystems and quotes for visitation of the reserve are not determined yet.

In 2009 the application of the Altaiskiy Nature Reserve for its inscription to the World Network of Biosphere Reserves was approved by UNESCO-MAB International Consultation Council. According to the ideas and positions of the Seville Strategy and Madrid Acton Plan for Biosphere Reserves, the functions of the Altaiskiy Nature Reserve will be extended and include fostering regional sustainable development.

The major threats to conservation of biological diversity of the Altaiskiy Reserve are caused by effects of space start up activities, pollution of the Lake Teletskoye aquatory, illegal hunting and logging and forest fires.

State Nature Biosphere Reserve “Katunskiy” is located in the south-western part of the Altai Republic within the Central Altai geographic province. It is situated in Ust-Koksinskiy municipal district. The reserve was established in 1991 for conservation of habitats of the Snow leopard and restoration of ecosystems of Katunskiy mountain range. From the south the reserve borders with Katon-Karagaiskiy State National Park in Kazakhstan, from the east – with Nature Park “Belukha” in the Altai Republic.

The reserve occupies middle- and high-elevated parts of Katunskiy and Listvyaga mountain ranges. Its altitudes vary from 1200 to 3280 m above sea level. Within protected territory Western-Katunskiy center of modern glaciation with 148 glaciers of total area 79.8 sq.km is situated.

In 2000 Katunskiy Reserve was designated as UNESCO Biosphere Reserve.

Biological diversity of the reserve is represented by 665 species of higher vascular plants, 215 species of mosses, 793 species of lichens, 264 species of fungi, 56 species of mammals, 161 species of birds, 3 species of reptiles, 2 species of amphibians and 8 species of fish. 17 species of higher vascular plants, 27 species of birds and 2 species of mammals are inscribed into the Red Lists of Russian Federation and Altai Republic. Migratory routes of endangered Snow leopard cross the reserve territory.

There are 64 employees among the reserve staff, and 32 of them work in the ranger service. The central office is located in Ust-Koksa village (330 km from Gorno-Altai).

The general directions of the reserve's functioning comprise following activities:

- guard of the territory;
- scientific studies and monitoring (including implementation of the UNESCO and Mountain Research Initiative international project "Global Change Research in Mountain Biosphere Reserves" with usage of international monitoring protocols);
- environmental education and public awareness;
- development of ecotourism;
- fostering sustainable development of the Ust-Koksinskiy region;
- transboundary cooperation with Katon-Karagayskiy National Park (Kazakhstan).

The guard is realized by different methods on four ranger stations, combined with patrolling on beforehand marked route. Specifics of the position of the reserve far from populated areas of Ust-Koksinskiy region, as well as absence of the roads, determines the main type of illegal activities within the reserve – illegal access of the touristic groups. Annually from 20 to 70 illegal activities are revealed.

Monitoring the condition of natural complexes and its components is conducted by biosphere reserve staff and other research institutions and includes systematic observations of microclimate, glaciers dynamics, hydrological regime, dynamics of vegetation communities on altitudinal gradient, counts of mammals and birds. Monitoring of alpine environments in the frameworks of GLORIA multi-summit approach is implemented in 2005. Also in 2007-2008 assessment of ecosystem goods and services under methodology of the *Millenium Ecosystem Assessment* has been conducted in the frames of UNESCO-MAB Young Scientist Award. It is important to emphasize that the program of environmental monitoring has been designed based on *Global Change in Mountain Regions Research Strategy* – an outcome from joint UNESCO-MAB and the Mountain Research Initiative project entitled “Global Change Research in Mountain Biosphere Reserves”. This monitoring program tends to detect the signals of global changes (firstly, climate warming and biological invasions) and to provide adequate inputs for modeling projected changes in ecosystems and land use. Several monitoring activities are management-oriented, in particular, monitoring the state of touristic trails and recreational sites, which provides an information platform for regulation of allowed visitor number.

Before the establishment of Katunskiy Reserve its territory was actively used for recreation and tourism since it includes popular touristic sites in the region. That is the basic reason of the development of ecotourism within the biosphere reserve is being one of the activities of the protected area. Visitation of the reserve is allowed only at several trails with total extent of about 100 km. Based on the results of researches and monitoring, the admissible recreational loads has been determined as 2000 persons per year. However, normally there are 300-700 visitors per

year within the protected area. The trails are equipped with garbage containers, bridges, floorings, sightseeing decks and other recreational facilities.

Being vastly removed from populated areas and industrial centers, the ecosystems of Katunskiy Biosphere Reserve are characterized by low level of the threats to biodiversity. However, several studies (*Galakhov, Mukhametov, 2001 etc.*) show the pollution of Katunskiy mountain ridge glaciers with heavy metals, derived from polluted air masses came from Kazakhstan where large non-ferrous metallurgic enterprises are located. The other threats to biodiversity are related to climate change, causing changes of ecosystem pattern and conditions of habitats for many species including endangered Snow leopard.

Katunskiy Biosphere Reserve borders with Katon-Karagaiskiy National Park in Kazakhstan along 106 km. Transboundary cooperation of these protected areas was initiated in 2004 and currently covers number of issues, namely co-ordination of the ranger services, information exchange, joint scientific studies and ecological monitoring. In order to officially designate this protected area, the project of the Intergovernmental Agreement between Russia and Kazakhstan is prepared. The further prospective of the joint activities is targeted to the establishment of the UNESCO transboundary biosphere reserve. Also, currently the territory of Katon-Karagaiskiy National Park is inscribed into Kazakhstan's tentative lists of the World Natural Heritage Sites, and appropriate nomination is being prepared as an extension of the Russian property "The Golden Mountains of the Altai".

Mount Belukha is located within Ust-Koksinskiy and Kosh-Agachskiy administrative districts of the Altai Republic. Its southern slope is situated in the Republic of Kazakhstan within Katon-Karagayskiy State National Park. For conservation of its unique natural ecosystems the Nature Park "Belukha", covering the area of 132 455 ha, was created in 1997 within Ust-Koksinskiy district. The part of the massif, located in Kosh-Agachskiy district, is designated as the monument of the nature of republican importance and is not provided by due guard.

Mt. Belukha is a highest peak of Siberia. One of the largest areas of modern glaciation in Siberia, counting 169 glaciers by area 151 km², is situated here. These glaciers give birth to the largest river of the Altai Mountains – river Katun.

The biological diversity of the Nature Park "Belukha" is high enough. On preliminary estimates, there are over 750 species of higher vascular plants (including 8 species from the Red data book of Russia and 17 species from the Red data book of the Altai Republic and 38 endemics of the Altai-Sayan ecoregion), 61 species of mammals (including endangered Snow leopard), 142 species of the birds (including 20 rare and endangered ones). The territory of the nature park is a western periphery of the *argut* grouping of the Snow leopard, which is the most multiple one in the Altai-Sayan ecoregion.

The territory of the nature park "Belukha" is significant tourist destination not only for Ust-Koksinskiy district, but for Altai Republic and Siberia as a whole. The most visited trails to Lake Kucherlinskoe and Lake Akkenskoe are located beside the foothills of Belukha massif. Alpinist ascents to the top of the mountain are also made within the nature park. Annually, the park is visited by 3,5-9 thousand of people. In 2008 appropriate researches were conducted, which provided as scientific basis for implementation of the quotas for park visitation. The admissible recreational load was determined as 9000 persons annually.

It is important to note that Mount Belukha is a sacred site not only for local people, but also for followers of the different religious groupings.

The Nature Park was created without changing the land ownership on the lands of the state reserve, managed by the authorities of Ust-Koksa district, state forest service and agricultural enterprises.

Currently there are 6 persons, full-time working for the nature park, including 2 rangers. The park's office is located in Tyungur village of Ust-Koksinskiy district. However, the rangers of the park do not provided with authorities of the state rangers of protected areas, and this rapidly obstructs the organization of effective guard of the park's territory.

The primary tasks of the nature park are conservation of the natural environment and landscapes, creating conditions for development of recreation and tourism, including mass tourism, and introducing the efficient methods of nature conservation as well.

The main threats to biodiversity of the territory are caused by poaching and uncontrolled development of recreation and tourism that can lead to degradation of its recreational attractiveness. The negative effects of the uncontrolled tourism in the park are accumulation of garbage and degradation of touristic trails. The significant threat to ecosystem diversity is also caused by global climate warming, which affects the glaciation of the Mt. Belukha massif, hydrological regime of rivers and lakes, as well as structure of altitudinal belts and high-altitudinal habitats of plants and animals.

The Ukok Quiet Zone is located in the southern part of the Altai Republic within Kosh-Agachskiy administrative district. This territory occupies transboundary position bordering with Kazakhstan, China and Mongolia. The area, designated as the World Heritage, completely locates within established in 2005 Nature Park "Ukok Quiet Zone". From the Kazakhstan side, Katon-Karagayskiy State National Park adjoins to this protected area (namely, its strictly protected zone and zone of ecological stabilization); from the Chinese side National Park "Kanas" is located not far from state border, and from Mongolian side National Park "Altai Tavan Bogd" borders with Ukok Quiet Zone.

The territory of the Ukok Quiet Zone is characterized by extremely high landscape diversity. The altitudes of the territory vary from 2000 to 4117 m above sea level. On the declivities of mountain ranges of the southern part of the park mountain forests (*taiga*), subalpine and alpine meadows and shrubs, as well as glacial and nival complexes with glacier, snow fields and rocky peaks are represented. Within high-altitudinal Tableland Ukok unique landscapes with combination of tundra and steppes, formed on permafrost grounds, are spread.

Large number of archeological monuments of different types and epochs (from Stone Age and epochs of bronze to late Medieval) is found on the Tableland Ukok. The monuments are presented by burials of the different types and pethroglyphic complexes. Here in frozen tombs worldwide-known mummies of the Scythian epoch were found.

The Nature Park is created on the lands of the state reserve, managed by the administration of Kosh-Agachskiy district, lands of the state forest service, agricultural enterprises and industry. On the Tableland Ukok winter grazing, tourism and recreation, fishing, and border control activities are conducted. Kalgutinskiy mine is located within the nature park but outside of the World Heritage property and does not essentially affects its environment and outstanding universal value.

The territory of the park is removed enough from populated areas, and the access to the territory is complicated (only by off-road cars and horses), that does not allow to develop mass tourism. The counts of visitor number are not conducted systematically, but as of State Border Control

Report, in 2007 the protected area was visited by 260 persons. Currently the admissible recreational loads onto protected ecosystems are not determined.

The staff of the Nature Park includes 6 persons, 1 of them is ranger. Similarly to situation in Nature Park "Belukha", the ranger is not allocated with authority of the state ranger of protected area.

The primary tasks of the park are conservation of the natural environment and landscapes, creating conditions for development of recreation and tourism, including mass tourism, and introducing the efficient methods of nature conservation under recreational use of the territory. In accordance with Regulations of the Nature Park "Ukok Quiet Zone ", for implementation of these tasks park executes the following functions:

- Involvement of the local population in the nature conservation;
- Ecological education and raising public awareness;
- Development and support of traditional forms of land use based on cultural heritage of the Altai Mountains;
- Development of different types of tourism;
- Creation of a field museum in natural environment, equipment of touristic trails etc.;
- Reconstruction of broken natural and cultural complexes and objects;
- Assistance in realization of the ecological monitoring.

The Ukok Quiet Zone occupies favorable position in system of protected areas, bordering with Katon-Karagayskiy State National Park (Kazakhstan), National Park Altai Tavan Bogd (Mongolia). Besides, National Park Kanas in China is located nearby; on Russian territory the creation of Saylyugemskiy National Park is planned not far from the Ukok. This creates the premises for transboundary cooperation of these protected areas for conservation and study of migrating populations of flagship species.

The main threats to biodiversity, natural and cultural heritage of the territory of the Ukok Quiet Zone are as follows:

1. Potential implementation of infrastructure projects (road, gas pipeline through protected area to direct Russian-Chinese border),
2. Uncontrolled development of the tourism,
3. Poaching, illegal stocking up medicinal plants.

Lake Teletskoe is the largest lake in the Altai Mountains. The lake is located in northeastern part of the Altai Republic within the territory of Turachakskiy and Ulaganskiy administrative districts. More than 50% of the aquatory of the lake is included into the Altaiskiy State Nature Reserve, while the other part of the water area with its water-protection zone is designated as the monument of the nature of republican importance.

There are 16 species of fish in the lake, some of them are endemics. Also many other groups of animals, including 15 rare and endangered species of birds and 9 species of mammals, are associated with the lake. The Lake Teletskoe is one of the largest freshwater reservoirs in Siberia. As of the Institute of Water and Ecological Problems estimates, the water of the lake is enough for providing the whole Russia with drinking water during 3 years (at condition of the daily consumption of 250 l per person). The general volume of water is 41,1 km³. The significant volume of water as well as intensive external water exchange, protection of more than half of the water areas, and concentration of the main anthropogenic load in its northern part, provide the purity of water.

At the same time, Lake Teletskoe is one of the most significant recreational sites and destinations in the Altai Mountains. As of expert estimations, 70-100 thousand people visit the coasts of the lake annually. Herewith the recreational load increases, as on the water area (at present over 250 small vessels are registered at the lake), also and on its water-protection zone, where varied hotels and campsites are located. The results of the environmental monitoring, conducted by the Institute of Water and Ecological Problems, show the increases of concentrations of nitrogen, heavy metals, oil-derivates and phenols in lake water during the last years, and in some cases its content exceeds allowed concentrations. Nearby village Artybash macrophyte brushwoods are noted recently, and this fact indicates organic pollution of water. The main factors of the lake pollution are related to increasing human pressure onto coast ecosystems, as well as with bad technical condition of the vessels, causing penetration of the oil and petrol into the water. Besides, logging the woods in the water protection zone also affects ecosystems of the Lake Teletskoe.

Cultural heritage

In September 2008 UNESCO consultative sub-regional workshop on development of transboundary cooperation for conservation of the cultural heritage of the Altai Mountains held in Ulan Bator, Mongolia. It was organized by the UNESCO World Heritage Center for discussing the issues of conservation of cultural heritage of the Altai region, located in four countries - Russia, Kazakhstan, China and Mongolia.

During this event the outstanding universal value of the Altai as the cradle of the nomadic civilizations of the Central Asia, possessing high abundance and variety of historic monuments of different epochs, unique traditions of nomadic lifestyle, well-conserved intangible culture as well as honored sacred sites, was emphasized.

The most important outcome of the meeting was the principle readiness of all four countries of the region to unite the efforts for conservation of cultural monuments and objects, as well as traditional culture of the Altai. For implementation of this goal appropriate working groups will be established in all four countries for preparing the nomination.

In the Altai Republic the Tableland Ukok, Karakolskaya valley, pethroglyphs of Kalbak-Tash and Elangash, as well as other significant historic and sacred sites are discussed to be nominated as the UNESCO World Cultural Heritage site.

2. Purposes and tasks of the World Heritage Properties

Protection and management of the World Heritage properties must provide safety of its outstanding universal value and integrity. According to Operational Guidelines for the Implementation of the World Heritage Convention, all the World Heritage properties must be provided with the long-term legislative, legal, institutional and/or traditional mechanisms of conservation with clear delimitation of the boundaries as its essential part. Legislative and regulation measures should provide protection of the property from changes and economic activity, which can negatively affect the state of conservation of the site. The boundaries of the natural sites should correspond to the spatial pattern of habitats, natural processes or phenomena. The area of the property should be sufficient for conservation of its outstanding universal value, and adjoining areas (as buffer zones) could be included into the property in order to provide effective protection of the value from direct and indirect human pressure.

The important task is popularization of the outstanding universal value of the World Heritage properties and raising public awareness and support. Besides, various types of environmentally-

sound activities can be developed within the property. Herewith it is necessary to be clearly certified that these types of activity do not cause any damage to the outstanding universal value and integrity of the site. One of the most widely-spread types of such activities is sustainable tourism, which provides a balance between conservation of natural and cultural environment and socio-economic development under wide involvement of local population.

3. SWOT-analysis of the component parts of "Golden Mountains of Altai" property in the field of implementation of the World Heritage Convention

The analysis of strengths, weakness, opportunities and threats (SWOT-analysis) of the component parts of "Golden Mountains of Altai" property is based on the report of joint UNESCO-IUCN mission, targeted to assess state of conservation of the property, held in 2007, as well as on the results of the assessment of the management effectiveness of protected areas in the Altai-Sayan Ecoregion, conducted in the frameworks of the UNDP/GEF project "Conservation of biodiversity in the Russian portion of the Altai-Sayan Ecoregion" in 2008. The results of the SWOT-analysis are shown in the Table 1.

4. Management of "Golden Mountains of Altai" World Heritage Property

All component parts of the property are protected areas acting in the frames of the Federal Law of the Russian Federation "About Specially Protected Natural Areas" and of the Law of the Altai Republic "About Specially Protected Natural Areas and Sites of the Altai Republic".

Table

SWOT-analysis of the component parts of “Golden Mountains of Altai” for implementation of the World Heritage Convention

<i>Component part</i>	<i>Altaiskiy Nature Reserve</i>	<i>Lake Teletskoe</i>	<i>Katunskiy Biosphere Reserve</i>	<i>Nature Park “Belukha”</i>	<i>Nature Park “Ukok Quiet Zone”</i>
Strengths	Effective guard of the territory Monitoring of the ecosystem state is being conducted as well as public awareness activities		Effective guard of the territory Monitoring of the ecosystem state using international protocols is being conducted as well as public awareness activities		
Weakness		No effective control of the use of the water area		No effective guard of the territory and no system of control of tourist activities	No effective guard of the territory and no system of control of tourist activities
Opportunities	Establishment of the biosphere reserve, cooperation with reserves Khakasskiy and Ubsunurskaya Kotlovina for conservation of populations and habitats of flagship species and provision of effective guard service	Inclusion into Altaiskiy Biosphere Reserve as a buffer zone	Transboundary cooperation with Katon-Karagaiskiy National Park (Kazakhstan) or conservation of populations and habitats of flagship species and provision of effective guard service	Implementation of effective guard service based on the collaboration with Katunskiy Biosphere Reserve. Transboundary cooperation with Katon-Karagaiskiy National Park (Kazakhstan) or conservation of populations and habitats of flagship species. Cooperation with planned Saylyugem SPA.	Transboundary cooperation with Katon-Karagaiskiy National Park (Kazakhstan), Altai Tavan Bord National Park (Mongolia) and Kanas National Park (China) for conservation of populations and habitats of flagship species Cooperation with planned Saylyugem SPA.
Threats	Impact of space rocket	Water pollution	Transboundary pollution of	Uncontrolled tourism,	Possibility of practical

	activities, poaching, forest fires	caused by increasing human pressure Wood logging in the water protection zone	glaciers, climate change, forest fires	poaching, forest fires, climate change	implementation of infrastructure projects, uncontrolled tourism, climate change, forest fires
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Altaiskiy State Natural Reserve and State Natural Biosphere Reserve "Katunskiy" are strict protected areas of federal importance and are governed by the Ministry of Natural Resources and Ecology of the Russian Federation. Activities and regime of these protected areas are specified by the Federal Law "About Specially Protected Natural Areas" and defined by individual Regulations.

Operative management of the territories is realized by corresponding Federal State Institutions (FSU): FSU "Altaiskiy State Natural Reserve" and FSU "State Natural Biosphere Reserve "Katunskiy". The authorized directions of the activity of these institutions are as follows:

- protection of the territory,
- conducting scientific researches and environmental monitoring,
- ecological education of local people and public awareness.

Except named above, state nature reserves have a right to perform business and other income-generation activities within the framework of performing of the authorized tasks.

According to ideas and positions of The Seville Strategy and Madrid Action Plan for Biosphere Reserves, fostering sustainable development of the region is among the main tasks of Katunskiy Biosphere Reserve. These activities include ones within its biosphere polygon (transition zone of the biosphere reserve). Currently, Nature Park "Belukha" has been selected for this zone, but because of poor and insufficient legal basis for function the biosphere reserves, formal establishment of this zone is complicated. However, signed in 2008 Agreement on joint conservation activities between FSU "State Natural Biosphere Reserve "Katunskiy" and State Institution of the Altai Republic "Nature Park "Belukha" provides a background for implementation of joint nature protection, research and educational actions.

Two permanent settlements (Yailyu and Bele) are located within Altaiskiy Nature Reserve. The village Yailyu is included into Artybashskoe rural settlement; and the management is maintaining by Altaiskiy reserve and administration of the rural settlement jointly. For harmonization of the management, Public Councils of villages Yailyu and Bele were established.

Currently middle-term management-plans of these two protected areas (Altaiskiy and Katunskiy Reserves) are under development.

The Nature Parks "Belukha" and "Ukok Quiet Zone" are protected areas of the regional level and are governed by the Ministry of Natural Resources of the Altai Republic. Operative management of the territories is performed by state institutions of the Republic Altai "Nature Park "Belukha" and "Nature Park "Ukok Quiet Zone". Activities of these institutions are performed within the frames of its individual Regulations.

Since the nature parks in the Altai Republic are established on the lands of the other users and owner without their withdrawal, involvement of all stakeholders becomes crucial for management of these protected areas. For this purpose the Public Council with participation of all interested parties, who use differently natural resources of the protected area (including forest service, agricultural enterprises, local authorities, travel agencies and tour operators, hunter companies and administration of the nature park), was established for the Nature Park "Belukha". Tasks of this Public Council include:

- 1) Involvement of all stakeholders into management of the nature park;
- 2) Strengthening cooperation between the Nature Park and organization and persons, using natural resources within the park's territory;
- 3) Usage the available potential of the public associations for implementation of the park tasks;

4) Informing the stakeholders about state of conservation and activities of the park management;

5) Assessment of the effectiveness of park's management and development of recommendations for its further improvement;

6) Assessment of prospects of implementation scientific and practical developments in the field of nature conservation and land use within the park territory.

The general problems of management for both Nature Parks "Belukha" and "Ukok Quiet Zone" are low number of staff, especially in the ranger services, and absence of appropriate authorities for adequate guarding for the rangers of the parks. All these do not allow providing effective control of the protected territory, and, consequently, effective protection of the outstanding universal value of the World Heritage site's clusters "Mt. Belukha" and "Ukok Quiet Zone". Meantime, for "Mt. Belukha" cluster this problem could be solved by closer interaction and cooperation with adjoining Katunskiy Biosphere Reserve, which has 17-years experience in guard of its territory, trained staff and adequate material and technical potential. According to Code about Administrative Offenses of the Russian Federation, rangers of Katunskiy Reserve are vested by all necessary rights and authorities within the territory of the reserve and its buffer zones. However, the status of UNESCO biosphere reserve expects presence of the transition zone (in terms of Russian legislation – biosphere polygon). This position enables to spread the rights and authorities of the rangers of Katunskiy Biosphere reserve to the territory of the Nature park "Belukha" by official inclusion of the park into transition zone of Katunskiy BR. In prospective, given scheme can be applied to the territory of the Nature Park "Ukok Quiet Zone", which could be suggested as a buffer zone of planned Saylyugem National Park, as well as to water area of the Lake Teletskoe and its water protection zone – as potential buffer or transition zone of the Altaiskiy Nature Biosphere Reserve.

Currently middle-term management-plan for the Nature Park "Belukha" for 2009-2011 is developed and approved by the Ministry of Natural Resources of the Altai Republic. Management-plan of the Nature Park "Ukok Quiet Zone" was developed under financial support of the UNDP-GEF project "Conservation of Biodiversity in the Russian Portion of the Altai-Sayan Ecoregion" for a period of 2009-2013.

The Monument of Nature "Lake Teletskoe" is also a protected area of republican importance and is managed by the Ministry of Natural Resources of the Altai Republic. Currently, a project of the Federal Law "About Protection of the Lake Teletskoe", providing control of the use of this protected area by the Coordination Council, is under development.

The main issues of management of the "Golden Mountains of Altai" World Heritage Property are as follows:

1. The status of the World Heritage property is not fixed neither in federal, nor in regional legislation.

2. The management of the component parts of the property is separated and disassociated: state natural reserves are governed by the federal Ministry while nature parks – by republican (regional) Ministry. As a whole, there is no effective co-ordination of activities of all clusters.

3. At present time, nature parks can not provide protection of outstanding universal value of the property because of: (1) low number of the personnel, (2) absence of adequate rights and authorities for the park's ranger services and (3) the weak interaction with other nature protection service and organizations on undertaking joint patrolling.

4. In spite of neighboring position of some component parts of the property, namely Altaiskiy Reserve and Lake Teletskoe as well as Katunskiy Reserve and Nature Park "Belukha", there is no coordination of the activities of these protected areas.

5. For the Lake Teletskoe as integral ecosystem mechanism of control of human activities is not developed.

According to Operational Guidelines for the Implementation of the World Heritage Convention, every World Heritage property should have management-plan or any other official document, regulating issues of conservation of its outstanding universal value and site management. The efficient management system of the World Heritage site should consist of following elements:

1. Clear understanding of outstanding universal value of the territory by all stakeholders;
2. The flexible cycle of planning, implementation, monitoring and evaluation;
3. Involvement of all stakeholders;
4. Provision of necessary resources;
5. Capacity building;
6. Adequate and transparent description of management and responsibilities.

Since the management of the “Golden Mountains of Altai” property is separated and disassociated nowadays, this Strategy is suggested as such document.

5. The Strategy

The Goal of the Strategy

The basic goal of the Strategy is determination of the measures necessary for implementation of the Convention on protection of the World cultural and natural heritage in the Altai Republic for the period 2009-2015

The major goals and purposes of development and management of “Golden Mountains of Altai” World Heritage Property for a given period are as follows:

Goal 1: Provision of the long-term conservation of the outstanding universal value and integrity of the component parts of “Golden Mountains of Altai” property

Conservation of the outstanding universal value as well as integrity of the World Heritage property is the basic obligation of the state party in the frames of the World Heritage Convention. Within “The Golden Mountains of the Altai” property these obligations are fully executed only in two clusters – Altaiskiy and Katunskiy Biosphere Reserves. In this connection, for provision of the long-term conservation of all five clusters following tasks should be solved:

- 1.1. Provision of the effective guard service of component parts “Mt. Belukha” and “Ukok Quiet Zone”,
- 1.2. Decreasing the level of threats caused by forest fires for all the component parts,
- 1.3. Development and implementation of the system of effective control of touristic activities in the nature parks “Belukha” and “Ukok Quiet Zone”, including implementation of quotas for visitation, for prevention of spontaneous use of recreational resources,
- 1.4. Development and implementation of the joint system of monitoring the state of conservation and threats for all five component parts,
- 1.5. Strengthening the protection status of the Lake Teletskoe,
- 1.6. Fostering the development of alternative forms of the land use on the World Heritage property, including implementation of low-cost mechanisms of raising the employment and income of local people in the environmentally-friendly activity.

Goal 2: Extension of the area and justification of additional criteria for “The Golden Mountains of Altai” property

The possibility of the expansion of the World Heritage property appears with designing of Saylyugemskiy National Park by inclusion of its territory with habitats of the flagship species of the Altai Mountains, namely Altaian argali and Snow leopard. Besides, during last years the issue of designation the cultural values of the Altai as the World Cultural Heritage is actively discussed. Technically it is possible by nomination of the separate property of the cultural heritage (possibly, consisting of several cluster areas), or by expanding the boundaries and value of existing WH site. In the last case the first Russian mixed World Heritage property will appear in the Altai Republic.

For achievement of this goal following tasks should be solved:

- 2.1. Study the possibility of the territorial expansion of the property by inclusion of the planned Saylyugemskiy SPA;
- 2.2. Study the possibility of the expansion of value of the property by appropriate cultural criteria, or preparation of the independent nomination for the World Cultural Heritage.

Goal 3: Provision the information about values of "The Golden Mountains of Altai" WH property to the wider public

Raising public awareness about the WH property "Golden Mountains of Altai", its particularity and outstanding universal value is one of the most important aspects of the property's activity. Though in the reserves this work is performed at rather high level, in nature parks this type of activity is still weakly developed. In this relation, co-ordination of similar activities of all component parts of the WH site in the sphere of informing and raising public support becomes crucial. It is possible by means of performing following tasks:

- 3.1. Adjust the general work on raising public awareness, covering different target groups, in all five component parts;
- 3.2. Mark in the field the boundaries of the WH property by information stands;
- 3.3. Create the web-site of the property;
- 3.4. Systematically inform the visitors of the region as well as local inhabitants about the regime and outstanding universal value of the property.

Goal 4: Strengthening interregional and international cooperation

The Republic Altai as a whole and three separate areas of the World Heritage property "Golden Mountains of Altai" occupy transboundary position. So, Katunskiy Biosphere Reserve and Mount Belukha have a joint border with Katon-Karagayskiy National Park in the Republic of Kazakhstan; Quiet Zone Ukok borders with Katon-Karagayskiy National Park and National Park Altai Tavan Bogd in Mongolia. Two reserves of the other regions of Russia – Khakasskiy and Ubsunurskaya Kotlovina – adjoin to the territory of the Altaiskiy Nature Reserve. Through all these borders transboundary migration of flagship species (Snow leopard and Altaian argali) is performed. All abovementioned creates the premises for strengthening cooperation of all neighboring protected areas for conservation of biological, landscape and cultural diversity of the Altai Mountains. The idea of transboundary cooperation in the region was firstly announced more than 10 years ago and was offered in different forms - from transboundary biosphere territory to transboundary World Heritage site located in four countries – Russia, Kazakhstan, Mongolia and China. However due to various reasons, the full cooperation is not released yet. In this relation, for achievement of the marked goal at the period 2009-2015, following tasks should be performed:

- 4.1. Fostering creation of transboundary World Heritage property in the Altai Mountains;
- 4.2. Fostering creation of the transboundary biosphere reserve "Altai" on the base of Katunskiy Biosphere Reserve in Russia and Katon-Karagayskiy National Park in Kazakhstan with participation of the Nature Park "Belukha" as the transition zone;

- 4.3. Adjust the transboundary cooperation between Nature Park "Ukok Quiet Zone" and National Parks "Altai Tavyn Bogd" (Mongolia) and Katon-Karagayskiy (Kazakhstan) for conservation of habitats, populations and migratory routes of the flagship species of mammals;
- 4.4. Consolidate the cooperation of the reserves Altaiskiy and "Ubsunurskaya hollow" for conservation of habitats, populations and migratory routes of the flagship species of mammals and maintenance the regime of the protected areas;
- 4.5. Perform work on inscribing the Altaiskiy State Nature Reserve into the UNESCO World Network of Biosphere Reserves;
- 4.6. Adjust the contacts with foreign analogue properties.

Goal 5: Strengthening the legal base for management of "The Golden Mountains of Altai" World Heritage property

As a whole, the legal base for management the property exists. All cluster areas are designated as protected areas, acting on the basis of federal and regional legislation. However, for ensuring effective guard within all clusters, it is necessary to develop legislative background for providing the rangers of the nature parks with the rights and authorities of the state ranger of protected area. Moreover, the status of the World Natural Heritage property does not reflected in federal and regional legislation.

Tasks:

- 5.1. To introduce the status of the World Natural Heritage property into federal and regional legislation;
- 5.2. To develop legal background for provision of the rangers of the nature parks "Belukha" and "Ukok Quiet Zone" with adequate rights and authorities for protection of the territory.

Goal 6: Provision of the financial sustainability of "The Golden Mountains of Altai" World Heritage property

In the light of the insufficient funding of the most of protected areas – component parts of the World Heritage property, provision of their financial sustainability plays one of the most important roles in increasing of the efficiency of their work. Particularly this pertains to nature parks "Belukha" and "Ukok Quiet Zone", which are not only conservational but also recreational institutions and have a big potential for tourism development. Besides, it is offered to use the possibility of the Partnership Program of the World Heritage Center to attract business structures for technical support of the property.

The primary tasks for 2009 – 2015 are as follows:

- 6.1. To develop and introduce the program of the income-generation for protected areas;
- 6.2. To attract the business to technical support of the WH property under the WHC Partnership Program.

Goal 7: Optimization of management of the World Heritage property "Golden Mountains of Altai"

Disassociated and separated management of the component parts of the property is one of the main problems, reducing efficiency of work of these protected areas for implementation of the World Heritage Convention. Several component parts (Altaiskiy Reserve and Lake Teletskoe and Katunskiy Reserve and Mount Belukha) have general borders, but activities of these protected areas are not coordinated. In this relation creation of coordination management body for all component parts areas becomes crucial. The management-plans for Katunskiy and Altaiskiy Reserves as well as for the Lake Teletskoe Monument of nature are not developed.

The other important problem is the low level of qualification and skills of protected area staff, which is particularly typical for the nature park. In order to increase the professional level of the protected area staff, creation of the Altai School of management of natural and cultural heritage for organization of training is proposed.

The Primary tasks are as follows:

- 7.1. To create Coordination Council for the management of the WH property;
- 7.2. To co-ordinate the management of neighboring component parts, namely Altaiskiy Reserve and Lake Teletskoe as well as Katunskiy Reserve and Nature Park "Belukha";
- 7.3. To create the Altai school of management of natural and cultural heritage under the umbrella of the regional branch of the Commission of the Russian Federation for UNESCO;
- 7.4. To develop the management-plans for all the component parts of the property.

Goal 8: Provision of the adequate scientific and methodological support for implementation of the World Heritage Convention within “The Golden Mountains of Altai” property

Performing the positions of the World Heritage Convention in practice requires adequate scientific support. First of all, this is related to the assessment of the state of conservation of the property, determination of the main threats and development of approaches to their reduction. All above is also an obligatory part of the periodic reporting, provided for the UNESCO World Heritage Center. Aside from this, before perspective planning of the protected areas activity it is necessary to analyze existing and potential conflicts between conservation law enforcement and social-economic realm, as well as to develop the principles of harmonic solution of the conflict situation.

The international experience also indicates the importance of economic evaluation of ecosystem goods and services. These assessments could be prescribed as a background for implementation of the payments for ecosystem services principles.

Obviously for adequate performing of all abovementioned, experienced research institution should be closely involved.

The primary tasks are as follows:

- 8.1. To develop and introduce the general system of monitoring the state of conservation and threats for all five component parts of the property as a background for periodic reporting;
- 8.2. To preparing periodic reports to the UNESCO World Heritage Centre systematically;
- 8.3. To update materials of nomination in accordance with new requirements of the World Heritage Centre;
- 8.4. To analyze existing and potential conflicts between conservation and social-economic priorities, to development methodologies and approaches for its solving;
- 8.5. To evaluate the cost of the ecosystem goods and services of the property;
- 8.6. To develop and introduce the principles and quotas of the ecologically acceptable economic activity for the component parts of the property.

Institutional Principles of Implementation of the Strategy

Co-ordination of the implementation of the Strategy should be performed by the Coordination Council, which involves the representatives of all interested organizations, first of all, the Ministry of Natural Resources of the Altai Republic, all protected areas included into “The

Golden Mountains of Altai” World Heritage property (Altaiskiy and Katunskiy Reserves, Nature Parks "Belukha" and "Ukok Quiet Zone "), as well as invited experts.

Mechanism of implementation of the Strategy

The main instrument of implementation of the Strategy is the Action Plan. It defines concrete actions, required for implementation of the Strategic tasks, along with organizations responsible for execution of these actions, as well as timetable of its execution.

The most important mechanisms of implementation of the Strategy are as follows:

Legal:

- Approval of the Strategy and Action Plan action at regional and federal levels;
- Contributing the changes and additions to existing regional legislation for realization of the strategic tasks and Action Plan;
- Creation of coordinated management system of "The Golden Mountains of Altai" World Heritage property for increasing the effectiveness of conservation and raising public awareness of the outstanding universal value of the property.

Financial and Economic:

- Implementation of the payments for ecosystem services principle (e.g. payments for natural recreation services), use penalties, methodologies of assessment environmental damage, tax and other privileges for cluster areas of the property;
- Ensuring the possibility of the additional funding for protected areas.

Management:

- Creation of the Coordination Council for the management of the clusters of the World Heritage property with participation of the representatives of the Ministry of Natural Resources of the Altai Republic, administrations of protected areas and other interested organizations and experts
- Ensuring effective interaction between different organizations, coordination of its actions, planning and performing of joint activities.

Informational:

- Increasing the level of ecological education;
- Propaganda of the ecological knowledge, shaping the public opinion and involvement of the wider public into concrete actions for conservation of the outstanding universal value of “Golden Mountains of Altai” World Heritage Property.

Expected Outcomes:

Implementation of the Strategy will allow to:

- Provide conservation of the outstanding universal value and integrity of ”Golden Mountains of Altai” World Heritage Property;
- Improve legislation in the field of conservation of the environment in general and in the field of implementation of the World Heritage Convention in particular; to avoid the contradictions with adjacent subject of law without prejudice to the interests of protected areas, forming “Golden Mountains of Altai” World Heritage Property; to bring regional legislation in accordance with federal;
- To create adequate material, technical and financial capacities for management of the protected areas, included into “The Golden Mountain of Altai” World Heritage Property;

- To organize effective guard services within "Golden Mountains of Altai" property, for in-situ conservation of key ecosystems, biological and landscape diversity, as well as cultural heritage;
- To provide on regular basis the monitoring of the state of the World Heritage Property in order to receive adequate and duly information about the threats and human influence onto this area;
- To provide wider community with information about outstanding universal value of the World Heritage Property "Golden Mountains of Altai" and to propagate ecological knowledge;
- To create conditions for development of sustainable tourism in protected areas without damage to natural environment;
- To develop interregional and international cooperation of the Republic Altai in the field of conservation of the environment, including experience and staff exchanges, as well as execution of the international obligations on biodiversity and natural heritage conservation.
- To involve local population, living nearby or within the World Heritage Property in the Altai Republic into the ecologically-oriented activity;
- To stimulate local social-economic development under efficient use the status of the World Heritage Property.