

State of Conservation Report

World Heritage Property “Central Sikhote-Alin”

1. Response to the Decision of the World Heritage Committee 44 COM 7B.105

In order to increase the effectiveness of measures to preserve the unique natural complexes of the Central Sikhote-Alin, the Sikhote-Alin Reserve is working to increase the territory of the reserve. In January 2022, cadastral work was carried out to describe the boundaries of the reserve and the buffer zone, taking into account the expansion of the land area of the reserve and the expansion of the marine area of the reserve. In March 2022, the staff of the scientific department of the Sikhote-Alin Reserve prepared a scientific justification for the inclusion of new land and sea areas in the reserve. Currently, work is underway to prepare a package of documents for submission to the Government of the Russian Federation in order to increase the area of the reserve.

To assess the degree of negative impact of anthropogenic activities on the ecosystems of the reserve, the staff of the scientific department of the reserve, as well as specialists from the Russian Academy of Sciences, carried out scientific research for several years to assess the state of forest ecosystems, the number of individual species of animals, including the Amur tiger in the reserve and adjacent territories. These studies have shown that the existing protected (buffer) zone is sufficient to minimize the negative impact of economic activities (logging, hunting). Clear evidence of this is the high number of ungulates, as well as the Amur tiger, both in the border areas of the reserve and in the protected zone (data obtained using winter route counting, as well as counting using camera traps).

The process of preparing the rationale, draft regulations and location of the boundaries of the protected (buffer) zone of “Bikin” National Park” has been completed, and approval is currently being sought from the Primorsky and Khabarovsk Krai administrations. In 2023, the full package of necessary documents will be sent to the Russian Ministry of Natural Resources for approval.

In pursuance of a comprehensive management plan for the World Heritage property “Central Sikhote-Alin” in terms of improving the efficiency of managing the World Heritage site, in 2019 a coordinating council of the World Heritage property “Central Sikhote-Alin” was established. The Council included representatives both of the Sikhote-Alin Reserve and the Bikin National Park. The tasks of the council include the development of a joint action plan aimed at developing educational tourism, expanding the territories of scientific research, including work on the study of the Amur tiger.

According to the Regulations on the Coordinating Council, meetings are held as necessary to resolve topical issues on the joint management of the World Heritage Property.

In order to develop eco-tourism in the Sikhote-Alin Reserve, an eco-tourism strategy was developed in 2020. The strategy includes measures aimed at minimizing and controlling the recreational impact of tourism on the ecosystems of the reserve, measures to develop a network of tourist routes, measures to involve local residents in

the tourist activities of the reserve, as well as measures to enhance the environmental effect and the environmental and educational component of tourism in Sikhote-Alin Reserve. In accordance with this strategy, in 2021, on all tourist routes of the reserve, researchers laid monitoring plots, carried out an inventory of the flora, and installed camera traps to assess the reaction of animals to the tourist infrastructure. In 2022, the administration of the reserve held seminars and business meetings for representatives of the tourism business of Primorsky Krai and local residents in order to involve them in the provision of services for tourists (accommodation, food, transport services). In 2022, a new tourist route "Trail of Tigers" was opened in the reserve, the task of which, firstly, is to acquaint visitors with the central part of the reserve and the zone of the cedar-broad-leaved taiga, and, secondly, to unload the tourist flow from the main tourist cluster of the reserve. These activities make it possible to increase the number of visitors to the reserve every year, without harming the unique natural ecosystems.

The situation of the Central Sikhote-Alin World Heritage Property is in good condition and does not raise concerns. Indicators of effective work to preserve a unique natural object are the growth in number of ungulates, Red Book animals (Amur tiger, Amur goral), as well as the stable state of all ecosystems in the reserve, thus reflecting the data of constant scientific monitoring.

No negative irreversible changes in the natural landscapes and their components were found.

2. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value

Regarding the cluster «the Sikhote-Alin Reserve »

Organizational structure

There are following departments in the reserve structure - management, territory protection department, accounting, economics and planning department, scientific department, environmental education department, main activity support department. The approved staff is 79 units, the actual number of the employees in 2020 is 61 people.

Protection of natural complexes and objects.

The protective functions of the reserve territory and its protection zone are realized by the department of protection of the territory of the Sikhote-Alin Reserve.

The activity of Sikhote-Alin Reserve protection department is carried out in the following main directions:

1. The actual protection of the territory (identification and suppression of violations of the reserve's regime and its protection zone; fires)
2. Forestry activities and fire prevention (clearing trails and roads, harvesting firewood, regime haying, prevention and suppression of the forest fires).

In 2014, there were formed 2 operational groups in the reserve, which equipped with the transporting vehicles and all the necessary equipment for autonomous work during a long time. By December 31, 2020, 7 state inspectors had been working working in these groups. They are the most experienced inspectors with extensive skills of work in the field, work with violators and compiling the primary

administrative documents when identifying violations of the reserve's regime and its security zone.

Currently, the work of the territory protection department is being structured in such a way that the main protection efforts are distributed taking into account the most vulnerable and most depending on the time of a year, and natural factors (for example, pine nut harvest or berry harvest). This approach allows to effectively preventing the violations of the reserve regime in conditions of a low number of inspectors. In 2021, the length of patrol routes was 201871.72 km.

During the period of permitted navigation for small crafts, protection department staffs regularly patrol the marine area of the reserve in order to detect and suppress violations of the reserve regime. Sea raids are carried out jointly with employees of the Primorsky State Marine Inspectorate (PSMI) and the State Inspectorate for Small Boats (GIMS).

Besides that, in order to control the marine area during the period of active fishery of the marine biological resources, in the reserve is organized the watch of inspectors in the huts and observation posts, located on shore of the Sea of Japan. Also, in the tract Blagodatnoye, round-the-clock video surveillance for the sea was organized with the usage of a webcam, having the possibility of remote online viewing.

Sixteen fire prevention and warning signs and 120 signs marking the border of the reserve were installed along the perimeter of the reserve.

Since 2012, with the support of ANO "Wildlife Conservation Society" and Phoenix Foundation, the SMART program has been operating in the Sikhote-Alin Reserve.

The purpose of this program is to increase the effectiveness of anti-poaching activities by monitoring raids (duration, territory coverage) using the SMART computer program and adaptive raid management based on the results of this monitoring (re-distributing raid activities in less covered areas, strengthening of anti-poaching activities in places with the highest number of identified violations, etc.).

An important part of the SMART program is the data collecting on the traces of the tiger's life (as one of the main indicators of the effective work of protection department).

An indicator of the effectiveness of the protection department and the effectiveness of the chosen strategy for planning the department's work is an increase in number of ungulates, the main objects of illegal hunting.

Existing factors and potential threats, negatively affecting the nature reserve complexes.

Natural:

Fires caused by the natural reasons are the main negative factor of natural origin, which negatively affects the nature complexes of the reserve. As shown by the data analysis conducted by the scientists of the reserve's scientific department - there is a direct correlation between the number of fires that resulted after natural reasons and the climate change, that has been observed for the latest 30 years (analysis of data from weather stations in Temey and Melinichnoye).

Typhoons - are species of tropical cyclone that is typical for the northwestern Pacific Ocean. The season of typhoons in Primorsky Territory usually begins in the

second half of July and ends in the first half of September, the peak of typhoon activity occurs in August. The frequency of occurrence and the power of mega-storms in a tropical zone has been increased significantly over the latest 50 years and may increase even more in the future due to the global climate changes.

The repeatability of tropical cyclone passing in temperate and boreal forests of the monsoon zone has been increased over the latest 100 years.

The main negative impacts of typhoon are associated with their consequences in the form of floods and windfalls. The most catastrophic impact on the forest ecosystems of the reserve was exerted by typhoon Lion rock that passed through the territory in August 31, 2016 and caused extensive wind phenomena, the area of which in the territory of the reserve was about 30 thousand hectares. One of the main consequences of these windfalls is a significant raise of the fire hazard class of the reserve forests and an increase of a highest fire hazard level in the forest area.

Drying of oak forests is a potential threat in the oak forest strip of the coastal reserve. For the first time, the drying of Mongolian oak in the territory of the reserve was recorded in 1979. At that time, the area of the affected oak forests was 16 hectares. Currently, the known area of dead oak standings, resulted after impact of the fungi *Biscogniauxia maritima* (Xylariaceae, Ascomycota) in the coastal zone of the reserve is 115.2 hectares. According to the result of monitoring, the growth rate of affected areas of the forest has been increasing recently. As a result of drying, firstly, the productivity of the affected ecosystems is significantly reduced, they become less attractive for ungulates, and secondly, the fire hazard class increases due to the increase of the volume of dry wood.

Forestry and fire-fighting activities.

Every year, the Sikhote-Alin State Reserve Federal State Budgetary Institution develops and timely submits a Forest Fire Extinguishing Plan and Forestry Regulations to the Ministry of Natural Resources of Russia for approval.

A patrol of the borders of the reserve in order to locate the fire origin points is carried out daily, especially in areas with the highest risk of fire.

In the reserve is used a system of satellite monitoring for thermal anomalies, this increases the effectiveness of fire-fighting measures and allows fire-fighting groups arriving to the fire site in the shortest possible time after the fire began.

Regular patrol and the use of modern techniques (space monitoring, the usage of the drones) allow timely locating the fires in the territory adjacent to the reserve and promptly taking actions to prevent the fire transfer to the territory of the reserve.

In recent years, the number of fires in the conservation area is insignificant (less than 10); the areas impacted by fire are not significant, while the forest ecosystems, the most valuable of all ecosystems in the reserve, were not affected. The reason of fires in the reserve territory is dry thunderstorms.

Organization of research activities.

Scientific research in the reserve is carried out by both the full-time employees and by the third-party specialists on the basis of agreements on the scientific and technical cooperation.

The staff of the scientific department consists of 9 employees, of which 8 employees have a higher education.

Since the moment the reserve was set, a scientific research has been a priority direction of the reserve's activity, along with the protection of this unique territory.

Scientific work in the reserve is carried out in accordance with the Research Plan, which is to be approved annually at a meeting of the Scientific and Technical Council. The annual research plan is compiled in accordance with the long-term plan of research work, which is approved by the Ministry of Natural Resources of Russia. The 2018-2022 Long Range Research Plan was approved at the December 14, 2017 meeting of the Scientific and Technical Council and submitted to the Department of State Environmental Policy and Regulation for approval.

The main directions of scientific research in the reserve:

- Changes of the climate
- Natural dynamics of the primary and derivative ecosystems
- Transformation of vegetation under the influence of extreme factors
- Dynamics of populations of background species of plants and animals
- Study of rare species of plants and animals

A chronicle of nature has been kept in the reserve since 1936 and has 94 volumes. This form of presenting the results of observations remains the only unified system for all reserves. The annual volume of the Chronicle of Nature is a continuation of previous studies and, in most cases, and the continuity of observations from year to year from observer to observer is maintained.

Also, as part of the monitoring work, a constant inventory of animals and plants living in the reserve is being carried out. Lists of species are constantly updated.

The Sikhote-Alin reserve is forest-related (more than 97% of its territory is covered by various types of forests), and therefore, more attention in the scientific research is paid to monitor the forest ecosystems: the dynamics of natural ecosystems is observed, and work is underway to study the transformation and restoration of vegetation under the influence of various factors (fires, clearings, windfalls, etc.) For these purposes, in the reserve were laid 45 permanent probe sites in the native ecosystems and in the secondary ones. By 2020 were run 8 topo-ecological profiles. Audits in areas and profiles are carried out regularly.

Maintaining of the state cadastre, as well as monitoring the number of animals and birds in winter route counts, is also an annual work that is carried out by the scientific department of the reserve.

To account the number of animals in the reserve, a dense network of routes was laid to cover the entire territory of the reserve, including the central inaccessible area. The total length of the accounting routes is about 500 km.

Individual topics of research work are developed and implemented depending on the relevance of the work and the specialization of researchers.

The employees of the scientific department annually publish the results of their research in the foreign journals and collections, and also annually participate in foreign and international meetings and conferences.

Keeping fulfilled the necessary requirement for UNESCO biosphere reserves; the reserve's scientists conduct research not only in the reserve's territory, but also within the so-called cooperation zone, i.e. in the territory adjacent to the reserve. First of all, this is work on hydro biological monitoring of watercourses in the transit zones of the reserve, which are located in areas of mining, and therefore, undergoing a strong negative anthropogenic load. Work on the study of rare species - the Amur goral and

Amur tiger is also carried out in the territory adjacent to the reserve, which allows obtaining the most complete information about the status of groups of these Red Book species.

Based on the results of scientific research, the employees of the reserve annually develop recommendations on the conservation of certain species or on the rational use of biological resources.

Since 2015, the Sikhote-Alin Nature Reserve has been participating in the International Project "Annals of Nature in Eurasia, and since 2019, the Sikhote-Alin Nature Reserve has been participating in the Global Mushroom Spore Collection Project. This is an international project designed for several years, the Sikhote-Alin Reserve was chosen as one of the sites for participation in this project, after a strict selection by the project organizers.

To conduct the scientific research, reserve employees use the modern methods and equipment: the results of satellite tracking of vegetation, camera traps, radio and GPS collars / transmitters, etc.

Sikhote-Alin Nature Reserve has a unique extensive scientific archive including reports and diaries of the first nature researchers of Sikhote-Alin (Abramov, Salmin, Kaplanov, etc.), the volume of the Chronicle of Nature since 1936, as well as scientific reports of the reserve's staff and third-party specialists, who conducted research in the reserve (totally about 1000 units).

Since 2013, a continuous work has been ongoing on digitizing of this unique archive.

All scientists of the reserve have working experience with GIS and actively use these skills in their scientific work. There were created 118 thematic layers and constantly replenished in the reserve.

Since 2006, photo-camera traps have been used for scientific research in the reserve (primarily monitoring Amur tiger group). Since 2014, the reserve has completely introduced the digital models of camera traps.

Therefore, the electronic databases of the reserve contain hundreds of thousands of photographs and videos of great scientific value.

Scientific monitoring of the reserve's ecosystems and their individual components indicates a stable state, no disturbances and no degradation or threats were found. Thus, the reserve effectively performs its main function - the preservation of unique natural complexes.

In the reserve, are constantly monitored two species of animals listed in the International Red Book and the Red Book of Russia - Amur tiger and Amur goral. The results of observations of groups of these rare animals show that their condition is stable with an upward trend, which is an indicator of the effective fulfillment of the main objective of the reserve - the preservation of unique natural complexes and their individual components.

Environmental education and community outreach.

Nature conservation is impossible without public support. In order to attract supporters to environmental protection, the environmental education department of the reserve is systematically working with various audiences - local population and tourists, the media, educational, cultural and public organizations of Primorye and Russia.

The reserve pays special attention to the development of the infrastructure of cognitive tourism on its territory, the development of new routes and the improvement of existing ones. Today, the reserve has 7 approved walking ecological routes with a length of 4.1 to 95 km (by car) and 1 water route.

Active improvement of eco-trails in the reserve was begun in 2014 thanks to the support of the ANO "Center" Amur Tiger" in the form of student teams, that work annually for 1.5 months in the territory of the reserve for equipping and landscaping the trails: to build the flooring, stairs in difficult places, construction of arbors and observation towers for observing wild animals, etc.

Under the terms of the project, all participants must be trained in specialties directly or indirectly related to nature conservation. Since 2014, the student squad has received more than a hundred children from different parts of Russia and foreign countries, who are united by love of nature and a desire to contribute to the improvement of the protected area.

In 2021, the student team "Tiger" began work on the improvement of the "Yasnaya tract" ecotrope, which was damaged by the typhoon in 2016. The goal of the ecotrope is to acquaint visitors with the habitat of the Amur tiger and peculiarities of its life activity. The tour is accessible to almost everyone and will be of great interest to visitors. It is planned to be completed in 2022.

Regarding the cluster «the Bikin National Park »

The Bikin River Basin is characterized with a high concentration of rare and relict plant species. Only in its upper part is noted a growth of more than 20 species of plants, listed in the Red Book of the Russian Federation. In accordance with a magnificent set of plant associations, very favorable biotopes were formed for the inhabitation of Amur tiger, white-breasted bear and the Far Eastern forest cat, which inhabit the territory almost everywhere, that is very important for maintaining the state of their populations in the Far East. Favorable conditions for rare animals such as fish owl and scaly merganser have also been preserved.

The Amur tiger population is being preserved annually. Thanks to photomonitoring, the database on the registration of Amur tiger in the territory of the national park is growing.

The following monitoring and research activities are carried out annually on the territory of the "Bikin" National Park": meteorological observations, monitoring of the main species of animals and birds, monitoring of the Amur tiger population, research the flora and vegetation of the "Bikin" National Park", bird watching (counting the scaly merganser), inventory of species and accounting the small mammals, studies of the complex of predatory vertebrates in the reference ecosystems of the Bikin river basin.

To strengthen the protection of the World Heritage Site, in particular, from poaching, there has been significantly improved material and technical support for the activities of state inspectors. Every year, the quantity of raids to patrol the territory has been increasing. As at December 1, 2021, there are five cordons in action in the territory of the national park (Ulyma, Tahalo checkpoint, Omorochka, Khomyakovo checkpoint, Valinku scientific station), and it is planned to set another 5 cordons in the territory.

To strengthen the protection of the territory of the “Bikin” National Park”, identify the violations against the special protection regime and conduct the research activities, were purchased two 12 cars, 12 snowmobiles, four ATVs and 15 boat motors and boats.

In addition to the efforts of state inspectors to protect and guard the protected areas, there was organized an operational detachment, a special working group to combat poaching, which is working round year.

«Bikin” National Park” is the first national park in Russia that fully takes into account the interests of the indigenous peoples living here (hereinafter referred to as KMN).

There are 790 thousand hectares are allotted for their traditional occupations - hunting and fishing. Since the ancient times, the banks of Bikin have been inhabited mainly by Udege people. Most of the representatives of this people live in the village of Krasny Yar, Olon, Sobolinoe, Yasenevoe.

Today in Russia, the “Bikin” National Park” is the one and only, officially facing the task of preserving the traditional way of life of indigenous peoples on the territory.

All the problems and issues of current life, whether it is hunting or fishing, tourism or social sphere of settlements, which are located in the immediate vicinity from the protected areas, are a subject to discuss at the Council of Indigenous Minorities, which was created and acting within the administration of the national park, and then submitted to a general meeting of the village hunters.

Currently, in order to increase the socio-economic benefits for a local population from the development of tourism in the protected areas, the «Bikin” National Park”, together with the KMN, is working to create an integrated network of tourist routes, passing through the national park and visitor’s stopping places, which are located in areas of the traditional lifestyle of indigenous peoples in the territory of the “Bikin” National Park”. Also, in order to increase the professional competence of KMN guides and residents of nearby villages, the trainings classes are held.

By the moment, there are 17 tourist routes and 38 stop grounds for visitors in the “Bikin” National Park”. The number of visitors to the World Heritage Site for the period of 2020-2021 is amounted about 1150-1250 people.

To reduce the impact of tourism on the natural complexes of the World Heritage Site is being conducted an annual monitoring of the state of natural complexes along the tourist routes (impact on the soil, vegetation cover, wildlife habituation, etc.), and counted the recreational load on a particular area.

Educational activities play a huge role in preventing a poaching and educating the local population, as well as in informing the public about a value of the UNESCO World Heritage Site.

In 2020-2021, FSBI “Bikin” National Park” conducted the following events dedicated to the environmental and educational activities:

1. March - the ecological festival “Va: kchay ni”, dedicated to the closure of the hunting season among the indigenous peoples of the Primorsky Territory and the day of foundation of the Federal State Budgetary Institution “Bikin” National Park” ”. The event was colorful and spectacular due to the competitions in national sports:

skiing, jumping over sledges, archery and air rifle shooting. Also at this day, local and invited national groups set a performance. This day, not only residents of the village of Krasny Yar and employees of the “Bikin” National Park” compete in agility and retirement, but also representatives of the indigenous minorities (Chukchi, Eskimos, Nanai) who are representing the other regions.

2. The first weekend of August - is the “Bikin Day” environmental festival, dedicated to the International Day of Indigenous Peoples of the World. The festival, annually gathering about 500 representatives of indigenous peoples, is not disregarded by foreign guests. During this festival, one not only can enjoy the beauty of national dances, music with national instruments, but also try their strength in the national sports. Playing “Zelighe”, jumping over sledges, javelin throwing, archery and air rifle shooting would not leave anyone untouched. The same day, according to tradition, is held a Round table, dedicated to organization of the activity of protected areas and interaction with local residents.

3. September - the day of the Amur tiger, an ecological festival full of activities for children and teenagers: kvests, master classes and other entertainment.

4. October - the ecological festival “Va: kchay ni”, is dedicated to the opening of a hunting season with the indigenous peoples of the Primorsky Territory and a day of creation of the specially protected natural area “Bikin” National Park”. The festival is accompanied by a cultural program and sports competitions.

5. Environmental education staff are constantly working with the local schools. Environmental lessons are conducted for the different age groups; as a game for the smallest (1-4 grades) about the inhabitants of Bikin and people who have preserved the pristine taiga - Udege, for 5-7 grades - about the structure of trees, birds, forests, climate and animals living in the Bikin Valley, for the high school students-career guidance lessons, acquaintance with the peculiarities of the territory, ecology and environment-saving lessons. Besides the work with children over environmental lessons for preschool and primary age, constantly are held the contests (drawings, posters, poems, fairy tales and short stories) throughout the year, the results of which are later used by the department to popularize the “Bikin” National Park”. For example, more than 200 children's works were chosen for a district children's art competition “Let's Save the Forest from the Fire”. Winners received well-deserved awards. The inter-regional ecological and educational project “Letters to Animals” was attended by children, parents of educational institutions of the region, in total more than 200 people. In addition to a current exhibition, presented in the visit center of the “Bikin” National Park”, it also participates in exhibitions and museum displays at the district, regional, and international level. Photographs, showing a life of the inhabitants of the national village of Krasny Yar and a work of the employees of the Federal State Budgetary Institution "Bikin” National Park" are exhibited in Vladivostok, as well as China, Japan and South Korea. Display with the exhibition, dedicated to the traditional life of representatives of indigenous minorities of the Primorsky Territory, as well as household items and arts and crafts, participate in such a large exhibitions as PITE, WEF, the Congress of the Peoples of the Primorsky Territory, and also in thematic exhibitions and events.

6. In 2018, members of Club of Friends of the “Bikin” National Park”, living in the village of Krasny Yar developed and created the ethno- ecological trail

“Nyadiga Hokto”. There were conducted the field studies on the trail for children, resulted in the children decided to tell the guests on the trail about trees, plants and animals found on the trail. The trail was loved by the travelers and became one of the sights of the Krasniy Yar village, recommended for visiting to all the guests of the village.

7. At the visit center of the «Bikin” National Park”, located in Krasny Yar village, are engaged the children, who are members of the park friend’s club. As part of the classes, the children have not only the ecology, but also the hospitality lessons in English, and in the future, club children want to become guides for the village guests.

8. FSBI National Park "Bikin" tries to attract young people and craftsmen who work at home, to participate in every event. And embrace with attention as much as possible, the residents of Krasny Yar village and show the prospects of the village, that can be revealed with the creation of a national park.

9. In order to preserve the culture, traditions and customs of indigenous minorities, at the national park in Krasny Yar village, a workshop of decorative and applied art is equipped, where produced the souvenir and tailoring workshops. Exclusively for the Federal State Budget Institution “Bikin” National Park”, the staff table includes positions for masters of folk crafts and crafts: master of a wood carving, master of bone carving, master of national clothes sewing and souvenirs manufacture. There are also craftsmen, working at home, provided with the necessary materials. Upon having manufactured the work, they hand over the products to the gift shop.

10. Worth to note, that national park, due to its natural attractiveness and ethno-cultural features, is popular with the various mass media.

11. To create more comfortable living conditions in Krasny Yar National Village and improve working conditions in the Institution, as well as to resolve social issues, the Institution, supported by the Amur Tiger Center, a non-profit organization, built the following buildings in the village: a hospital, a boiler house, an administration office, a police station, a post office, a bakery, a community center, a kindergarten, a library, an office building with a garage and a repair box and 10 serviced comfortable apartments. There are also areas for cultural recreation and education: a memorial to World War II veterans, the Dersu Uzala Memorial, a square with playgrounds, and a place for worshipping the spirits of the “Meuu”.

3. No significant changes within the World Heritage Property are foreseen for the near future at this time.