



**FORMAT FOR THE SUBMISSION OF
STATE OF CONSERVATION REPORTS
BY THE STATES PARTIES**

(in compliance with Paragraph 169 of the Operational Guidelines)

Landscapes of Dauria, Mongolia, Russian Federation (1448)

1. Executive Summary of the report

This report is a State of Conservation report of the World Landscapes of Dauria, a transboundary World Heritage Property Located in Mongolia and the Russian Federation. The report firstly provides information on the implementation of the World Heritage Committee's Decision 44 COM 7B.187 and presents additional information on activities undertaken to support and enhance the understanding and management of the natural property. These include: Reporting on the mining and mining exploration activities within the World Heritage property and ceasing their operations: Committing to establishing the "zones of peace" within the conversation area: Assessing the current management plans on Landscapes of Dauria: Assessing the "Onon-Ulz" Dam construction projects may effect the Outstanding Universal Value (OUV) of the property.

Response to the Decision of the World Heritage Committee

Decision: 41 COM 7 B.187

The World Heritage Committee,

Decision 3: Notes with utmost concern that the construction of the Onon-Ulz dam on the Ulz River, upstream of the property in Mongolia, has commenced without prior notification to the World Heritage Committee, despite the provisions of Paragraph 172 of the Operational Guidelines, and could impact the Outstanding Universal Value (OUV) of the property by modifying the natural flow regimes of the river and lake levels;

Response: Project underway to increase the flow of Ulz river

The main purpose of the project is to increase the flow of the Ulz River, create several reservoirs and ponds along the Ulz River, regulate the flow and maintain a balance of ecology and water consumption.

Importance of project:

- With a stable flow of the Ulz River, the stability of the river ecosystem will be ensured and favorable conditions will be created for the growth and habitation of biodiversity.
- Water flow will support Khukh Lake, which will improve ecosystems, increase biodiversity and create favorable conditions for the migration and breeding of migratory birds.
- Herder households living along the Ulz River will have a permanent water supply.

- In addition to developing local tourism and improving the local economy, there will be many positive environmental and socio-economic impacts.

Decision 4: Urgently requests the State Party of Mongolia to halt any further activities associated with the Onon-Ulz dam project until an Environmental Impact Assessment (EIA) that includes an assessment of potential impacts on the OUV of the property has been submitted to the World Heritage Centre and reviewed by IUCN, in line with Paragraphs 118bis and 172 of the Operational Guidelines;

Response: Ulz river that takes origin from Ikh and Baga Burd springs located in Norovlin soum of Khentii province. Flow-through Norovlin soum of Khentii province, and Bayan-Uul, Bayandun, Dashbalbar and Chuluunkhoroot soums of Dornod province. Over 90 percent of the 510 km long river flows through the territory of Mongolia. The first batch of project funding has been provided, materials necessary for the project implementation have been obtained, and the earthworks underway.

Nevertheless, the project implementation has been currently suspended as the State Party of Mongolia has received a letter from the Director of World Heritage Center (CLT/WHC/APA/FJ/KN/21/003) on January 2021 with a request to halt activities until the World Heritage Committee reviews the property during the 44th extended session. Subsequent to the 44th extended session, The State Party of Mongolia remains committed to following the World Heritage Committee's Decision 44 COM 7B.187, and no activities will be implemented until an Environmental Impact Assessment (EIA) is conducted in compliance with the paragraphs 118bis and 172 of the World Heritage Convention's Operational Guideline. Due to the COVID-19 pandemic situation in Mongolia, conducting EIA is not currently possible, nonetheless, the State Party of Mongolia is well-aware of the concern from the World Heritage Center, Advisory Bodies, and other stakeholders. Mongolia is also aware of our international obligation and will conduct it at the appropriate time.

2.3 Decision 5: Welcomes the continued coordination between the States Parties through the framework of the China-Mongolia-Russia International Protected Area Agreement (DIPA) to manage transboundary conservation issues relating to the wider steppe ecosystem in which the property is located, and also requests the States Parties of Mongolia and the Russian Federation to further strengthen their coordination for the management of the property;

Response: Dauria international Protected Area /DIPA/ Dornod Protected Areas Administration has cooperation with Russia and China. The Dauria International Protected Area consists of the Mongol Daguur BR in Mongolia, Daurian State Protected Area in Russia and Dalai lake National Nature Reserve in China. The Mongolian, Russian and Chinese parties have been organizing many activities for conserving nature and biodiversity on Daurian steppe and needle-grass steppe since 1994. Therefore, Mongolia remains committed to strengthening the coordination for the management of the property.

"Dornod Protected Areas Administration of Eastern Mongolia" activity's type

- Study and survey, and monitoring
- Conserving, inspection
- Training and ecological educational

- Buffer zone development
- Tourism
- International Cooperation
- Usage of landscape, System of geological data

Mongol Daguur SPA is one of the intact ecosystems that includes diverse habitats such as wetland, forest- steppe ecosystem and specific features of the landscape.

The Daurian steppe ecosystem stretches across China, Mongolia, and Russia.

Decision 6: Encourages the States Parties to consider, possibly jointly with the State Party of China, a potential future expansion of the transboundary World Heritage property in order to cover additional areas of forest-steppe and critical habitats, notably for migratory birds and the Mongolian gazelle;

Response: Since 1994 we have worked under the framework of the China-Mongolia-Russian International Protected Area Agreement (DIPA). This Agreement provides the member states a Forum on which they discuss a regular basis on all issues related to the preservation and the management, at both political and operational levels. DIPA working groups consist of a staff of the protected areas that meet twice a year and the Joint commission assists with international projects, approves the Working Groups plans and supports their works financially. Thus, each component of DIPA has its own management plan, moreover, the Joint Commission of DIPA adopts a mid-term programme at its sessions, acting as a brief common management plan for DIPA. In the last session which was held in Russia in 2019, the Joint Commission adopted a mid-term plan with concrete actions for improvements of the overall management of the property from 2020 to 2024. And in that Programme, we set out to do certain tasks (Annex 1).

Including:

- To develop scientific and nature-protecting cooperation among the Daurian, the Mongol Daguur, and the Hulun Lake reserves.
- Monitoring of the natural complexes' state and dynamics under the influence of climate change and human activities.
- Conservation and restoration of ecosystems and the populations of rare species. Finding out and preventing threats to them.
- Enhance the protection of the natural environment in DIPA and the adjacent transboundary area.
- Environmental education of the local people in DIPA and the adjacent transboundary area. Popularization of DIPA and the adjacent transboundary area.
- Expanding of cooperation among DIPA and other organization with the purpose of nature conserving in DIPA and the adjacent transboundary area.

- Searching and drawing additional funds for the development of nature-protecting activity DIPA.
- Conduct regular evaluation of DIPA activity.
- Effective using opportunities provided by the international nature-protecting status of DIPA implementing mechanisms of MAB program, World Heritage and Ramsar Convention.

Both Parties noted the extremely negative impact of the spring hunt, especially in the border steppes areas of Dauria. The Joint Commission of the DIPA also discussed the spring hunt in the 2019 session and suggested to the authorities to stop the Spring hunt of birds near the nesting areas on the territories of the neighbour DIPA. States Parties have committed to set up additional "green zone" in accords with the Outstanding Universal Value, which are our efforts for reduction of the Anthropogenic pressure on the ecosystems in DIPA in accordance with provisions of national regulations. We also adopt a joint working plan in order to minimize fires and poaching risks and have increased our capacities with external support from international NGOs and foreign countries.

Decision 7: Also welcomes the confirmation that there is currently no mining exploration or exploitation activity within the boundaries of the property or its buffer zone and the commitment made by the State Party of Mongolia not to allow any future mining operation within the Mongolian components of the property or their buffer zones;

Response: - Mining is not allowed in Special Protected Areas (SPAs) and its buffer zones in Russia, while in Mongolia, it is only allowed in buffer zones, but only with prior approval from the Ministry of Environment and Tourism of Mongolia. A foreign mining company was running mining exploration in the WH buffer zone near the soums of Gurvanzagal and Dashbalbar in Mongolia, and as of 2018 all known mining exploration activities have been ceased.

Mining is currently not occurring in the property but is seen as a potential danger as it is allowed in protected area buffer zones in Mongolia. As an assurance of the absence of mining in the future, IUCN received a letter in June 2015, signed by the Ministry of Environment and Tourism of Mongolia Deputy Minister of Environment, Green Development and Tourism of Mongolia, that guarantees no mining operations in the WH property and its buffer zone would occur.

Decision 8: Takes note that the management plans of the Mongolian components of the property are being revised, further requests the State Party of Mongolia to submit these revised management plans to the World Heritage Centre prior to adoption, and also encourages the State Party of Mongolia to strengthen its resources and capacities for the effective implementation of the updated management plans, once they are finalized;

Response: Landscapes of Dauria is a transboundary serial World Heritage property of four component parts. The inscribed property includes the nationally designated core

and buffer zones of most of the Daursky State Nature Biosphere Reserve and the Valley of Dzeren Federal Nature Refuge (Russian Federation), as well as the core zone and a large part of the buffer zone of the Mongol Daguur Strictly Protected Area and the Ugtam Nature Refuge (Mongolia). Existing management plans for the property components include the mid-term management plan of the Daursky SNBR (2018-2022) on the Russian side, and the management plan of the Mongol Daguur SPA (2014-2020) has come to its conclusion in last year on the Mongolian side.

For the past 10 years, the PAs in Mongolia developed their management plans according to the guidelines of Open standards, recommended by the Department of Protected Area Administrations at the Ministry of Environment and Tourism (MET). The Methodology on the development of the management plans improved over the years and the upgraded version was officially approved by the Minister of the MET on the 22nd of January, 2021 and it has been serving as the official guideline for all the PAs in Mongolia regarding the development of their management plans. Presently the State party of Mongolia has been revising the Ugtam Nature Refuge and Mongol Daguur SPA's management plans based on the methodology. Our objectives are mainly considering the programs towards strengthening the conservation aspect with local communities and with the support from international organizations and local NGOs. The new management plans will be adopted by the Administration of Strictly Protected Areas of the Eastern Mongolian Provinces once it is ready.

The advantages of the methodology are:

- Fully introduced all steps of the Conservation standard;
- Aligned with the Strategic Plan Development Methodology approved by the Government of Mongolia in 2020. It is an evidence-based tool and all state organizations must use it;
- PAA staffs' initiatives and experiences gained during the last 10 years are reflected into this new version;
- Included the recommendations and detailed guidelines on integration of climate change, human well-being targets, participatory approach and management plan implementation mechanisms to meet the needs of PAs and conservation.

If the property is inscribed on the List of World Heritage in Danger

Please also provide detailed information on the following:

- a) Progress achieved in implementing the corrective measures adopted by the World Heritage Committee
If needed, please describe the success factors or difficulties in implementing each of the corrective measures identified
- b) Is the timeframe for implementing the corrective measures suitable? If not, please propose an alternative timeframe and an explanation why this alternative timeframe is required.

- c) Progress achieved towards the Desired state of conservation for the removal of the property from the List of World Heritage in Danger (DSOCR)
3. Other current conservation issues identified by the State(s) Party(ies) which may have an impact on the property's Outstanding Universal Value

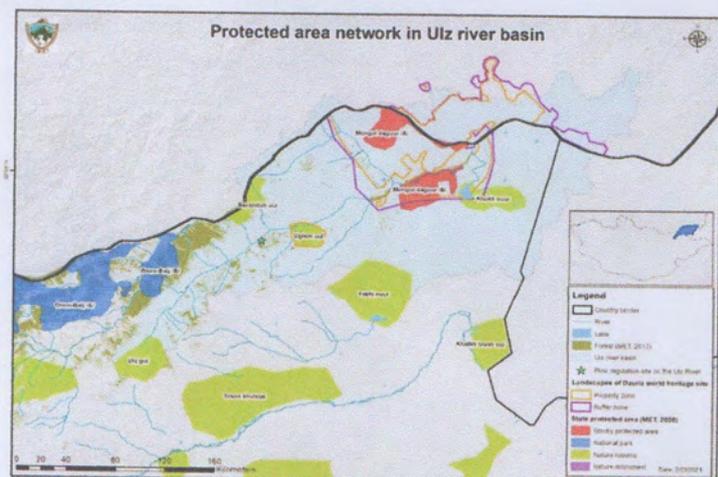
Presently, there are no other current conservation issues identified which may have an impact on the property's Outstanding Universal Value.

4. In conformity with Paragraph 172 of the Operational Guidelines, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.

The "ONON-ULZ" project implemented in near Teeg Mountain, Bayandun soum in Dornod aimag is being funded by the State of Mongolia. Within the framework of the "ONON ULZ" project to regulate the water supply of Ulz river and create a water reserve to be used during droughts and to maintain a stable ecological and water balance. The Dam construction project which started in July 2020 is located 24-28 km from Ugtam Nature Refuge of Landscapes of Dauria WHS and 90km from its buffer zone (attachment 1).

In the past decade, the Ulz Rivers water level has been declining due to dry climate and other various socio-economic factors such as human activities, livestock grazing and agriculture. But in the past year the water level has been improving to the point that the once dried ponds and lakes have been reappearing due to climate change. Currently, the observations made by the State Party of Mongolia regarding the construction of the Dam suggests that there will be no negative impact on the Outstanding Universal Value of the World Heritage Site in the Longterm.

Attachment 1. "Onon-Ulz" project location

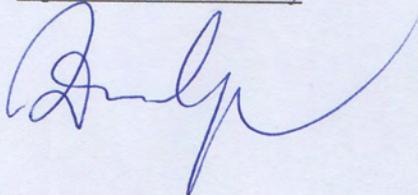


5. Public access to the state of conservation report

[Note: this report will be uploaded for public access on the World Heritage Centre's State of conservation Information System (<http://whc.unesco.org/en/soc>). Should your State Party request that the full report should not be uploaded, only the 1-page executive summary provided in point (1.) above will be uploaded for public access].

The State Party of Mongolia agrees to upload the full report on the World Heritage Centre's State of conservation Information System (<https://whc.unesco.org/en/soc>).

6. Signature of the Authority



Dashdorj Khurelbaatar
Head of the Mongolian site Administration Office
of the World Heritage Landscapes of Dauria

**Report on the State of Conservation of the Russian Federation of the UNESCO
World Heritage Site
"Landscapes of Dauria" (Russian Federation, No. 754) in 2021**

1. Response of the Russian Federation in accordance with Decision of the World Heritage Committee No. 44 COM 7B.187

Regarding the construction of the Onon-Ulz Dam on the Uldza River, upstream of the site in Mongolia

The implementation of projects on the Uldza River by the Mongolian side causes serious concern and is under control of the Ministry of Natural Resources and Environment of the Russian Federation. In September 2020, the Ministry of Natural Resources and Environment of Russia sent a letter to the Mongolian side via diplomatic channels with a request to submit research results confirming the safety of the project for the ecological state of the Uldza River and the Torey Lakes.

In addition, the Ministry of Natural Resources and Environment of Russia is conducting research on the topic: "Scientific research into the impact of regulating the Uldza River flow (MPR) on the biological diversity of the transboundary Daurian ecoregion within the borders of the Russian Federation (the Uldza River basin and the Torey Lakes within the borders of the Russian Federation, located on territories of the Ononsky, Borzinsky and Nerchinsko-Zavodsky districts of the Trans-Baikal Territory) and the preparation of scientifically based proposals for the conservation of the biological diversity of the ecoregion". Previously, a similar R&D was carried out on the Selenga River, which made it possible to stop the implementation of the project on the Selenga River by the Mongolian side and convince the partners of the need to choose an alternative solution.

The results of the first stage of research by the Academy of Sciences also showed that the creation of a reservoir and the combination with flow regulation regimes and irreversible water intake can lead to a significant change in the natural hydrological regime of the Uldza River and the Torey Lakes and, as a result, to irreparable negative consequences for the ecosystems of the Torey Lakes and the lower reaches of the Uldza River within the site boundaries of the Site.

in 2021, by order of the Government of the Russian Federation, the Daursky Nature Reserve conducted preliminary research to assess the potential impact of the creation of the Onon-Ulz hydroelectric complex on the state of the ecosystems of the Landscapes of Dauria WH site, and especially its Russian part. Background research has shown that the implementation of the project is likely to result in serious irreversible negative changes in the state of the Outstanding Universal Values of the Site, especially during the dry phases of the climate cycle. During the wet phase of the climate cycle, the regulating value of the dam will have an insignificant effect on the flow (no more than 3% of the river flow), but the operation of the reservoir in the dry phase will lead to catastrophic environmental and socio-economic consequences in the lower reaches of the Uldza River and on the Torey Lakes. Significant water losses will be associated with its evaporation from the surface of the reservoir. It is also supposed to take a significant amount of water from the reservoir for irrigation of nearby fields. In the dry phases of climatic cycles, this will lead to a decrease in the water resources of the Torey Lakes by 23–45% and to a 2–4-fold increase in the duration of the drying periods of the lakes.

The project threatens the well-being of dozens of bird species and the loss of the key role in East Asia of the wetland complex of the Torey Lakes, which will lead to a significant decrease in the number of dozens of aquatic and semiaquatic bird species not

only in the basin of the Uldza River but in the upper part of the Amur basin, in the Lena basin.

An indirect negative impact will also be exerted on the state of the Lake Baikal ecosystems. The effect of the project will also be manifested in a drop in the groundwater level in the Torey basin, a decrease in water quality for the local population, an increase in the duration of low-water and waterless periods of the Torey lakes, a decrease in fish stocks, which is of great importance not only for maintaining colonies of fish-eating bird species but also for the local population.

The strongest negative effect of the dam will be on four globally endangered bird species, for the conservation of which the Torey Lakes and the lower reaches of the Uldza River are extremely important in the world: relict gull (*Larusrelictus*), swan goose (*Ansercygnoides*), white-naped crane (*Grusvipio*), great bustard (*Otistardadybowskii*). In particular, the relict gull population is likely to disappear completely, and the presence of the white-naped crane population will decrease by more than 50%. A significant reduction in the bustard population is expected as a result of the disappearance of water sources (drying of small lakes and streams in the steppe zone of the Torey basin due to a decrease in groundwater levels. Populations of 119 species of aquatic and semiaquatic birds migrating along the East Asian-Australian Flyway will also suffer great damage within Northeast Asia. For these species, the Torey Lakes and the wetland network in the Torey Basin is a key stopover, rest, and feeding site.

The Daurisky Nature Reserve conducts extensive explanatory work with the population and administrations of the districts, which may suffer from changes in the hydrological regime and bio productivity of lands in the project impact area. Information about potential threats from the construction of the dam is published on the website of the reserve and in the media at the regional and federal levels. In March 2021, at the initiative of a deputy of the State Duma of the Russian Federation V. Pozdnyakov, a round table “Torey Lakes: what are the dangers of building a dam on the Uldza ” was held on the basis of the Daurisky Natural Reserve, which was attended by representatives of the local population and the administrations of the Ononsky and Borzinsky administrative districts of the Trans-Baikal Territory, representatives of the Ministry of Natural Resources and Environment of the Trans-Baikal Territory and Rosprirodnadzor (Federal Supervisory Natural Resources Management Service), director of the Institute of Natural Resources, Ecology and Cryology of the Siberian Branch of the Russian Academy of Sciences.

Regarding coordination between the participating states within the framework of the International Agreement on Protected Areas of the Russian Federation, Mongolia, and China (Dauria International Protected Area, DIPA) to address cross-border environmental issues related to the broader steppe ecosystems in which the site is located.

Coordination between the participating states continues within the framework of the International Agreement on the Trilateral Russian-Mongolian-Chinese Dauria International Protected Area (DIPA).

Cooperation in the Dauria International Nature Reserve is conducted in several directions: scientific research; environmental and educational activities. The first direction is developing most intensively in the form of international field expeditionary work. In particular, until 2020, 2-7 joint expeditions of the Daurisky and Mongol-Daguur reserves were carried out annually on the territory of Mongolia, most often devoted to the

study and monitoring of birds and animals. In 2020 and 2021 joint field work in Mongolia and China was not carried out due to quarantine (COVID-19). Nevertheless, scheduled synchronous bird censuses were carried out in the quarantine conditions - each side conducted a census on its territory, after which the parties exchanged data. Thus, according to the plan adopted for 2021, a census of dzeren, as well as two censuses of aquatic and semiaquatic birds were carried out on the territory of DIPA. In addition, a scheduled synchronous Russian-Chinese census of aquatic and semiaquatic birds was carried out on the Argun River - each side conducted a census on its territory, after which the parties exchanged data.

The International Nature Reserve is working on coupled monitoring of climatic and biological processes in order to obtain data on the characteristics of biodiversity during the new high-water phase and compare them with data collected during the previous high-water phase at the end of the 20th century. This knowledge is critical not only for the protection of Daurian ecosystems, but also for the protection of migratory birds along the East Asian-Australian Flyway.

In 2021, the Chinese side organized a trilateral online meeting of the DIPA Working Group, at which:

- The parties reported on the implementation of the joint work plan for 2019-2020;
- The parties discussed and adopted a work plan for 2021-2022.
- At the suggestion of the Russian side, the DIPA Working Group discussed the problems associated with the construction of dams and water abstraction and introduced a joint position into the Protocol:

1) Delegates attending the Tripartite Meeting should pay close attention to the Kerulen River Drainage Project and the Onon-Uldz Dam and Reservoir Project on the Uldza River due to their negative impacts on the wetland ecosystems of Dauria International Protected Area (DIPA).

2) It is proposed to stop/suspend the implementation of these projects and conduct a comprehensive transboundary impact assessment. The results of the environmental impact assessment should be jointly reviewed by interested countries and international organizations.

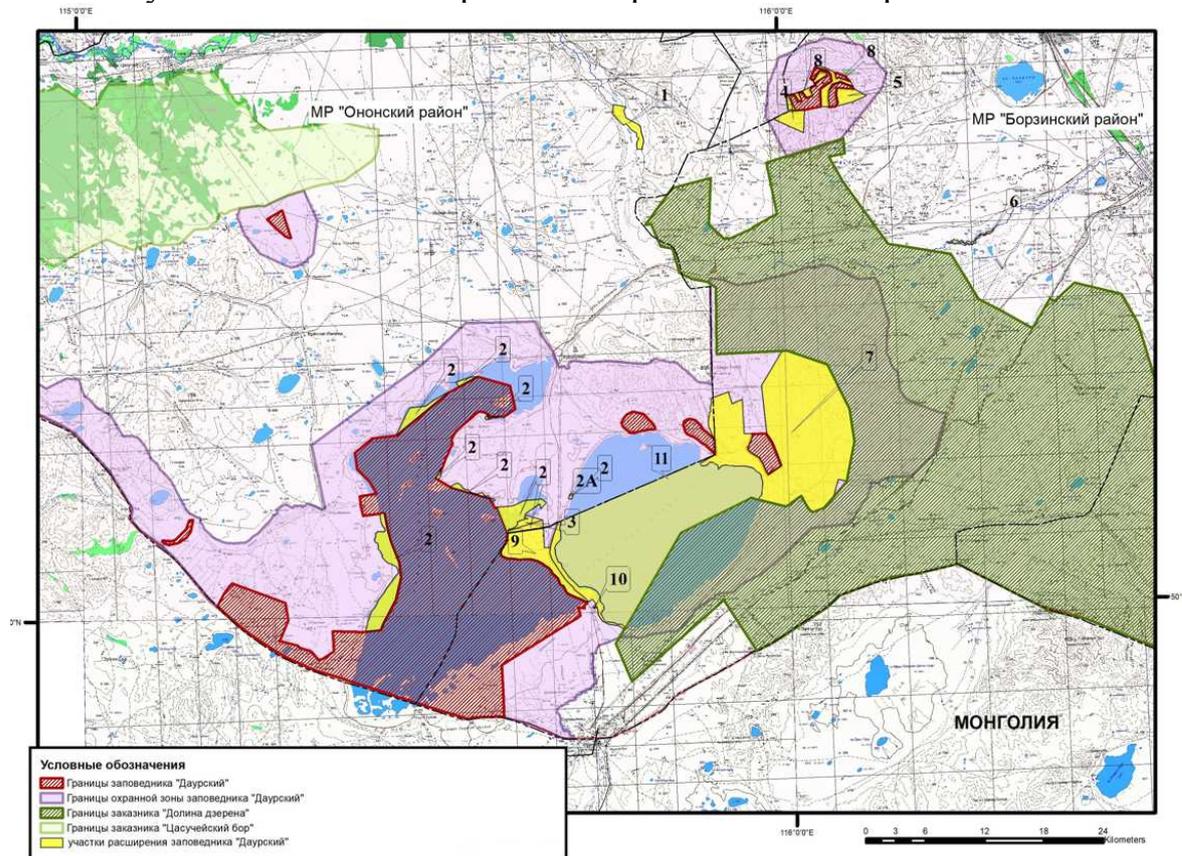
3) The assessment should take full account of the impact on the wetlands of the World Heritage site and the Ramsar Convention, and avoid violations of international law.

Regarding the possibility of further expansion of the territory of the transboundary World Heritage site in order to include additional forest-steppe areas, as well as habitats critically important for migratory birds and habitats associated with the migration of dzeren;

Prospects for scientifically grounded expansion have previously been discussed at joint tripartite meetings of the Dauria International Protected Area (DIPA). Specific steps and prospects for expansion of the DIPA and the Site may be discussed at the next meeting of the DIPA Working Group in 2022. The protection of wetlands and rare species of animals is included in the development tasks of the China-Mongolia-Russia Economic Corridor.

In 2021, there was a significant change in the zoning of the Daurian Nature Reserve on the territory of the Russian part of the Site. 39,000 hectares of steppe and wetlands were added to its strictly protected area (nuclear zone) (by Decree of the Government of the Russian Federation No. 1302 dated August 4, 2021). This made it possible to connect

previously separated sections of the core and improve conditions for the protection of biodiversity, including dzeren and aquatic and semiaquatic bird species. In addition, a small area of wetlands in the floodplain of the Borzya River outside the boundaries of the Site is attached to the nuclear zone of the reserve - an important habitat for white-naped cranes and other species of aquatic and semiaquatic birds. In addition, the Russian side is considering the possibility of expanding the protection (buffer) zone of the Daursky Nature Reserve to include other wetlands of the Borzya River, which are an important habitat for many rare and common species of aquatic and semiaquatic birds.



2. Information on other current issues related to the preservation of the heritage site

Key natural factors affecting the OUV of the Site

Key natural hazards and limiting factors for the biodiversity of the Site are associated with unfavorable periods of long-term climatic cycles lasting about 30 years. Fluctuations in the water content of wetlands during long-term climatic periods most strongly affect the populations of animal and plant species closely related to this type of land. First of all, this concerns a large group of aquatic and semiaquatic bird species, which includes 119 species (which is 36% of the list of all bird species recorded on the site), including 14 species included in the IUCN Red List. Wetland changes also affect some mammal species (eg muskrat), fish, amphibians, plants (eg fennel-leaved pondweed and common reed). At the peak of dry periods, there is a sharp decrease in the number or complete disappearance of these animal and plant species, primarily due to the extreme limitation or complete absence of wetlands suitable for their habitat. Such periods are critically difficult for the survival of populations of rare species. The final phases of dry periods are especially difficult when the area of habitable places is repeatedly reduced, the food base deteriorates, and, in addition, the pressure of many anthropogenic threats increases.

During dry periods, the proportion of breeding birds in the populations of local bird species decreases, but the proportion of single individuals increases; breeding success decreases; the total population size significantly decreases. There is also a significant decrease in the number of birds migrating through the Site. The impact on the biodiversity of other natural threats is disproportionately less significant: sudden temperature changes, floods, extremely hot weather in the summer months, high numbers of predators, and interspecific competition.

During the multi-year dry phase of the climate cycle, the area of wetlands on the Site in Dauria decreased in the period from 2000 to 2019. At the end of 2019, the filling of the Torey Lakes and many other wetlands of the Site began, accompanied by an increase in the biodiversity, biological productivity and global significance of the Site for migratory bird species. Thus, at present, the ecosystems of the Site are experiencing changes characteristic of the initial stage of long-term wet climatic periods.

Key man-made factors affecting the OUV of the Site

Currently, there are practically no man-made threats in the strictly protected area of the core of the Daursky Reserve, however, the expected change in the natural hydrological regime of the Uldza River and the Torey Lakes in connection with the implementation of the dam construction project on the Uldza River in Mongolia poses a great potential threat. The following man-made threats and limiting factors are identified in the rest of the territory of the Site, where limited economic activity is carried out: 1) spring floodplain and steppe fires; 2) disturbance by people and domestic animals; 3) poaching; 4) disappearance, degradation and fragmentation of habitats as a result of economic development; 5) death of birds on overhead power lines from electric shock; 6) predation by shepherd dogs; 7) poisoning with pesticides and fertilizers in agricultural fields; 8) death of animals on roads; 9) death of animals from a collision with wire fences (fences with barbed wire are especially dangerous). It is extremely important that during dry periods the effect of natural limiting factors (primarily the lack of habitats) is significantly enhanced by man-made factors No. 1, 2, 4 of which disturbance has the strongest effect. Employees of the Daursky Nature Reserve often, in cooperation with the local population, do a lot of work to minimize the above threats on the Site and in its vicinity: measures to extinguish and prevent fires, inspection, and protection of the territory, equipping bird-hazardous power lines with bird protection devices, educating the population and attracting to the conservation of biodiversity.

Fires in the Daurian ecoregion most often occur in the spring (most frequent in April and May). They occur during the period of nest building, incubation of clutches and hatching of chicks, and therefore cause great damage to bird populations. Since the weather in spring in Dauria is dry and windy, the fire spreads at high speed and covers vast areas. To prevent fires, work is underway to form an equipped team to extinguish fires from among the employees of the reserve, as well as work to organize cooperation with the local population to carry out joint activities to prevent and extinguish fires. A volunteer fire brigade (VFB) has been created in the reserve, consisting of reserve inspectors, equipped with the necessary fire equipment (air blower-sprayer - 8, fireman's backpack - 18, chainsaw - 4, water tanks - 6, motor pumps - 2, etc.). In 2021, 2 new small forest patrol complexes (SFPC) were purchased based on UAZ vehicles, and their total number is now 4. Each of the three cordons and the central estate has its own SFPC

Since 2010, in order to prevent the death of birds on power lines, the reserve's employees have been annually conducting a survey of power lines in order to identify

bird-hazardous power lines and their sections and oblige the owners of such power lines to equip them with bird protection devices to prevent the death of birds. In total, more than 15,000 sets of bird protection devices (plastic casings that prevent birds from contacting the wire) were installed on the Site and in its vicinity over the period from 2017 to 2021. As a result of the work carried out over the period from 2017 to 2021, almost all bird-hazardous power lines have been equipped with bird protection devices on the Site and in its vicinity, which has significantly reduced the death rate of such a rare bird species as Saker Falcon (*Falco cherrug*). Due to this, the population of Saker Falcons for the period 2014-2021 increased by 4 times.

Scientific research and ecosystem monitoring (for the period from 2018 to 2021)

Scientific research on the Russian part of the Site is carried out mainly by staff members of the Daurian Nature Reserve, as well as by third-party specialists on the basis of agreements on scientific and technical cooperation. In 2021, the staff of the scientific department included 14 employees, including 10 researchers (of which 7 have a candidate of biological sciences degree or Ph.D. degree). Scientific work is carried out according to annual and multi-year plans of scientific research, which are approved at meetings of the Scientific and Technical Council.

The main tasks of the scientific department:

1. Collection of scientific data on the state of ecosystems; the study of the biology of organisms and the processes occurring in their populations and in the ecosystem as a whole; monitoring of ecosystems (primarily populations of rare species of animals and plants);
2. Timely detection of changes occurring in ecosystems, and clarification of the causes of these changes, as well as identification of existing and potential threats to ecosystems;
3. Development of recommendations for preventing or minimizing the negative impact of man-made threats.

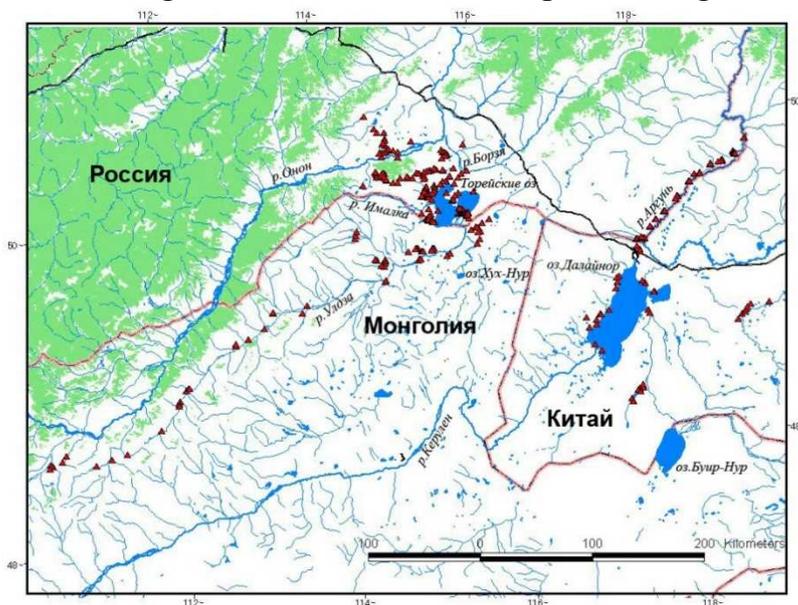
All data are annually recorded in a special report - Chronicles of Nature and in reports on research programs.

The main directions of scientific research:

1. Observation and monitoring of phenomena and processes in the natural complexes of Dauria;
2. Study of the impact of climate change on the state of wetlands, fauna of wetland birds and vegetation of the Daurian ecoregion;
3. Study of the diversity (inventory) of the flora and fauna of the Daurian International Nature Reserve;
4. Study of biology and development of measures for the conservation of rare species of animals and plants of the Daurian International Nature Reserve (dzeren, white-naped crane, swan goose, bustard, etc.);
5. Study of the impact of tourist activities and recreation on natural complexes;
6. Study of the impact of fires on natural complexes;

In order to monitor ecosystems, dozens of censuses and descriptions are annually carried out on monitoring sites, profiles, and routes. In 2010, a Transboundary Environmental Monitoring Network (TEMN) was created to study the impact of climate change on ecosystems on the basis of the Daurian International Nature Reserve (Dauria

International Chinese-Mongolian-Russian Protected Area, abbreviated as DIPА). The TEMN monitors 1) the area of wetlands and their general condition; 2) bird populations; 3) semiaquatic and steppe vegetation. At the moment, the TEMN includes more than 200 ornithological sites for studying the state of aquatic and semiaquatic bird species. Most of these sites are located on the territory of Russia and Mongolia within the bilateral section of the Daurian Landscapes Object. The TEMN includes lakes and their basins, as well as sections of rivers and river floodplains. All monitoring sites are divided into four levels according to the frequency of observations: I - the survey is carried out at least once a year, II - once every 2-3 years, III - once every 4-6 years, IV - auxiliary sites. At each survey, a complete census of all aquatic and semiaquatic birds is carried out on the lakes. Coastal vegetation is also described on key lakes on one or several geobotanical transects, laid from the border with the steppe to the water's edge or the center of the basin (when the lake is completely dry), and the area of lakes is monitored by analyzing satellite images. Bird censuses on the TEMN are carried out at least 5 times annually (in spring, summer, and autumn). All major varieties and types of lakes, rivers, and steppes of the northeastern part of the Daurian ecoregion are represented in the TEMN.



Other measures for biodiversity conservation

In 2017, in order to restore the Saker Falcon population (listed in the IUCN Red List) and other rare bird species, the reserve launched a program to install artificial nests. For the period from 2017-2021, 50 nesting sites were established, which, in combination with the elimination of death on power lines, made it possible to restore the Saker Falcon population. 5 artificial watering places were made for ungulates.



In 2019, within the framework of the national project "Ecology", a program was developed for the restoration (reintroduction) of wild sheep (argali) in Transbaikalia, in connection with which the construction of an aviary for their semi-free keeping on the territory of the Adonchelon section of the reserve was started. To date, the main part of the aviary has been built. In the next couple of years, it is planned to complete the construction of the enclosure and begin the process of reintroducing the argali. To transfer the data necessary for work, a wireless connection to the Internet via Wi-Fi was established at the Adon-Chelon and Utochi cordons.

Infrastructure development

In 2021, with the joint efforts of the reserve and Ecocenter Zapovedniki LLC, two wooden pedestrian crossings were built across the Utochi channels near the international biological station Kordon Utochi. To carry out scientific research and perform tasks in the field, a frame house was built for the reserve's scientists at the Telli cordon. To ensure the storage of vehicles, a parking place was built at the Adon-Chelon cordon. A wooden observation deck was built on the Kuku-Khodan hill for observing wild animals. A hiking trail has been equipped at the Adon-Chelon site.



Protection of territory and biodiversity

The protection of natural complexes and facilities on the territory of the Site is carried out by a special state inspection in the field of environmental protection, located in the staff of the Federal State Budgetary Institution "Daursky State Reserve". The

inspection includes 24 people of the main inspector staff under the leadership of the head of security and an operational group of four people, which is directly subordinate to the director.

Inspections to protect the territory of the Site are carried out daily. The main security department carries out operational protection of controlled territories in the background, relying on a system of cordons. During periods of increased fire danger, the department switches to high alert mode for timely detection and elimination of fires. The operational group

(4 people) is focused on areas of increased violations depending on the season of the year and animal migrations, uses operational information from adjacent territories, in cases of external threats to protected natural complexes, participates in joint inspections on the adjacent territory with the border service, hunting supervision, police, fish inspection on the basis of cooperation agreements. Due to the vast area of protected areas and the openness of its areas, patrolling is predominantly by car, less often on foot. The inspections last from one day to a week. Over the five years of the Site's existence, the reserve's inspectorate conducted more than 2,150 inspections on its territory, during which 160 violations of environmental legislation were identified and suppressed, 32 landscape fires were eliminated, with a total area of 187298,042 hectares.

Poaching in controlled areas is reduced to a minimum. The result is an increase in the number of dzeren, tarbagan, manul, and roe deer in local populations. The protection of migratory birds during migration and sedentary birds in places of accumulation, feeding and breeding has been established. Valuable fish spawning grounds on the Borzya River within the reserve "Dzeren Valley" are taken under protection.

Environmental and educational work with the local population (2018-2021)

The Department of Environmental Education of the reserve was established in 1996. Currently, the department employs 7 people: deputy director for environmental education, public relations specialist, press secretary, 4 methodologists.

On the territory of the central estate there is a visitor center and a conference hall where visitors receive initial information about the reserve, there is an opportunity for events for all age groups from preschoolers to pensioners. In 2017, the building of the new office of the reserve was put into operation.

A visitor center has been set up on the territory of the Utochi cordon, and another visitor center is located in the regional center of Chita. Press conferences, meetings, lessons, lectures, game programs, and other events are held here.

The reserve is doing a lot of work on environmental education of the population of all age groups. Every year, according to the work plan, environmental holidays, promotions, quests, round tables, field events, scientific and practical conferences are held. On average, about 4,000 people visit them every year.

Ecological and educational competitions organized by the reserve are very popular among the local population. The international competition of children's and youth creativity has a 25-year history, and every year gathers 1500-2000 participants from most regions of the Trans-Baikal Territory and the border regions of China and Mongolia as part of the international cooperation of the Dauria Chinese-Mongolian-Russian Nature Reserve. In addition, 5-6 district and regional competitions are held. For the winners of creative competitions, ecological camps are held annually (except for 2020 and 2021) on the basis of the Utochi cordon of the reserve. During the week the children live in the buffer zone of the reserve, go on field trips along the ecological routes developed by the

reserve staff, get acquainted with the work of the reserve departments. Recently, due to the pandemic, some of the events have been transferred to an online format. More than 60 events took place in this form.

For residents and guests of the Trans-Baikal Territory, the reserve annually organizes up to 15 exhibitions of photographs and children's creativity about the unique nature of Dauria at various sites in the city of Chita and districts of the region: at the railway stations of Chita-2, Borzya, Zabaikalsk, Chernyshevsk, Petrovsk-Zabaikalsky, in Chita City Art Gallery, Transbaikal Regional Museum of Local Lore, the Trans-Baikal Regional Children's and Youth Library, in the district and rural cultural and health institutions. 10-14 thousand people visit the exhibitions every year.

In 2020-2021, the Daurian Nature Reserve was presented at the All-Russian Nature Festival Primordial Russia in Moscow.

On the territory of the reserve and its buffer zone there is an ecological trail "Adon-Chelon - a steppe miracle" with a length of 3.5 km and a bus and foot ecological route "Reserved Torey" with a length of 160 km. Equipped ecological routes do not require special training and additional equipment.

The routes are equipped with information stands about the flora and fauna of the area, and places of rest.

Improvement and renewal of ecological routes and trails on the territory of the reserve are planned. So in 2021, an observation deck was equipped at the highest point of the terrain along the route "Reserved Torey" in the city of Kuku-Hodan and an entrance group on the route "Adon-Chelon - a steppe miracle".

In 2022, In order to reduce the recreational load on the territory of the reserve, it is planned to build a flat trail on especially vulnerable sections of the ecological route "Adon-Chelon - a steppe miracle".

Dynamics of the tourist flow of protected areas (Daurian State Reserve): 2018 - 805 people; 2019 - 463 people; 2020 - 401 people; 2021 - 553 people

3. No major changes are foreseen within the World Heritage Site.