## RESOLUTION

## The IX International Symposium "Steppes of Northern Eurasia"

## 7 -11 June 2021, Orenburg

The IX International Symposium "Steppes of Northern Eurasia" was finished in Orenburg; it was organized by the Institute of Steppe UB RAS and the Russian Geographical Society. The Ministry of Science and Higher Education of the Russian Federation, the government of the Orenburg region, the Orenburg State University, and the united directorate of "Orenburgskiy" and "Shaytan-Tau" state natural reserves supported the Symposium.

More than 300 scientists from 10 countries and 18 regions of the Russian Federation took part in the Symposium. They represented 110 reports, including ten presentations on plenary meetings, held five thematic sessions, the roundtable discussion "Heritage of the late Pleistocene in the Holocene steppe landscapes," and scientific excursion "Steppe breath."

Having heard and considered the represented reports, participants noted that steppe conservation in a line of regions was exacerbated due to the current economic situation in the country and not always ecological approaches in the rural politics of the state. Also, threats to forfeit the steppe were strengthened due to extensive agriculture and plowing of old-fallow and virgin lands. Broadening of a network of local and federal steppe SPNT happened by a low rate, and high parameters of a portion of natural reserves in the steppe regions were reached thanks to the formation of vast SPNT and SNT with soft nature conservation regime. As before, true steppe occupied small areas in SPNT located within the steppe zone. Training of specialists in the area of steppe nature management and territorial conservation was not paid proper attention. Meanwhile, scientific funds did not practically support fundamental researches in the steppe zone, including interdisciplinary studies. However, the steppe biome contributed to the country's economy and its natural and social capital more than the forest zone and Arctic.

Based on suggestions addressed to the organizing committee and taking into account their discussions on plenary meeting and sessions, the Ninth International Symposium performs the following initiatives and recommendations:

1. Taking into account a considerable role of the Orenburg region, Orenburg city, and the Institute of Steppe located there in the study and conservation of Steppe Eurasia, one should apply to the Government and Legislative Assembly of the Orenburg region for an application to decide for the establishment of "the Steppe Eurasia Museum" in Orenburg as a science education center under the aegis of the Russian Geographical Society and Russian Academy of Sciences.

2. One should apply to the Russian Geographical Society for a request to give grant support of the following projects and initiatives:

- making of Atlas of national parks of the Russian Federation;

- continuation of "Steppe Bulletin" edition as a body of the community of steppe scientists of Steppe Eurasia;

- development of the Program for conservation of the gene pool of local livestock breeds in Russian regions;

- development and creation of an ecological network of nature conservation areas in the mountain and foothills steppe regions of the country;

- support of working out the project "An Assessment and Mapping of changes of a state of the Great Eurasian Natural Massif as a factor of the ecological stability and source of ecosystem services" in the frame of the state mission for institutes of RAS.

Participants of the Symposium declare that despite success for the last years, steppe landscapes were insufficiently in the SPNT's system, first of all, in federal SPNT. The problem concerning the survival of steppe ecosystems outside of SPNT is urgent. The Russian Federation's Government is offered to discuss repeatedly the neo-virgin land project for plowing of remained fallow lands in Russia, engaging geographers, soil scientists, steppe scientists, and leading scientists-agrarian. It is necessary to make alterations in law differentiating requirements to the intended use of agricultural lands, paying attention to the fact that almost all of remained fallows in the steppe zone occupy low-productive or periphery areas. However, we can see a sharp reduction of cultivated lands in the forest zone.

Please notice that Russia entered to WTO with unsolved steppe problems. Firstly, it was an overestimated official arable land with a large part of low-productive areas in the steppe zone inherited from the Soviet period. Secondly, it was a technological lag from global agriculture in the steppe zone of Russia and adjacent countries. Therefore, it is necessary to revise obligations to WTO, to decline per hectare support for field-crop cultivation and turn to a principle of "paid and shortage of land resources under maximal state support of technological re-equipment of agriculture." One should pay special attention to introduce new advanced technologies using the whole complex of soil-protecting measures, plant nutrition, and protection with a progressive transit of steppe farming to the digital base. It is ascertained that a potential of Russia for valuable (meat) ungulates, due to systemic reasons, is used only by 10-20%. There are substantial territorial and potential opportunities for rapid multiple increases in wild ungulates, including pasture species. In addition to solving many problems concerning the open landscapes of the south of Russia, this will increase the productivity and, consequently, the economic value of large territories, bringing to a fundamentally new level not only agriculture but also the accompanying forest and hunting economy with steppe specifics. The most effective and promising branch of the steppe economy, which has shown its prospects at the world level, is ranching - semi-voluntary breeding of pasture animals in large fenced areas with managed populations. For the experimental justification of increasing the productivity of steppe landscapes in Russia, state support is needed to create a network (framework) of centers for breeding pasture animals, including support for steppe ranching.

In the steppe regions of Russia, it is necessary to legislate the priority of state support for those functions of agricultural land that are associated with the production of essential goods for society, including ecosystem and life-supporting services.

To ensure environmentally safe and sustainable land use in the regions of the Eurasian steppe zone, it is necessary to strengthen the interaction and coordination of scientists from different countries in international and regional scientific projects.

The forum participants made the following suggestions:

1. Organize a system of transcontinental monitoring of the steppe space of Northern Eurasia and develop a plan of international agreements that regulate the transport of pollutants.

2. Step up work on the creation of new steppe protected territories, primarily on the preserved areas of the steppes identified as a part of the inventory work of the UNDP/GEF Steppe Project.

3. Initiate a movement to create a network of seed nurseries of steppe flora based on regional botanical gardens and steppe protected areas.

4. Support initiatives for the conservation of certain areas of the steppes, including the plots in the protected area of the Priokosko-terraced Reserve in the Moscow region, the regional nature park "Ptichiya Gavan" (Bird Harbor), and the Pelican Islands in the Omsk region, pay attention to the threat of lands alienation of the largest regional protected area in the Samara region – the natural monument "Mulin Dol" (5.90 thousand hectares).

5. To express concern about the fate of the "Khomutovskaya Steppe" Nature Reserve – one of the first protected steppe areas in the Azov Sea region.

6. Initiate the working out of scientific foundations for the balanced and symmetrical development of the ecological framework and residential areas of the steppe zone.

7. To hold an All-Russian meeting with international participation on the introduction and reintroduction of mammals of the steppe zone of the Russian Federation.

8. To support the initiative of the Biological Faculty of the Altai State University to establish a research laboratory of steppe studies at the faculty.

9. Strengthen cooperation and supervision with the management and employees of the Donguz Test Polygon of the Federal State Budgetary Institution of the 3rd Central Research Institute of the Ministry of Defense of the Russian Federation, operating on the largest area of untilled real steppes in Northern Eurasia.

10. To raise the issue of the need to register in the State lists of historical and cultural monuments of Muslim ancestral cemeteries and cultural heritage objects of the multinational population of the region.