

**ANNEX II**

# **Transboundary cooperation on the conservation of Amur tigers, Amur leopards and Snow leopards in North-East Asia**

## **Project Completion Note**

**Prepared by NEASPEC Secretariat**

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The opinions, figures and estimates set forth in this completion note are also the responsibility of the implementing partners and should not necessarily be considered as reflecting the views or carrying the endorsement of the United Nations.

## OVERVIEW

Amur tigers, Amur leopards and Snow leopards are key species that constitute the subregion as a single ecological community, and North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) identified them as flagship species by adopting the NEASPEC Nature Conservation Strategy at the 12th Senior Officials Meeting (SOM-12) in 2007. The Project “*Transboundary cooperation on the conservation of Amur tigers, Amur leopards and Snow leopards in North-East Asia*” was jointly developed by experts from China, Mongolia, and the Russian Federation, as a follow-up of the project “*Study on transborder movement of Amur tigers and leopards using camera trapping and molecular genetic analysis (2014-2016)*”<sup>1</sup>. The first joint scientific analysis of the precursor project proved that a simple sum of separate survey outcomes could overestimate the actual population size of each species by ignoring cross-border movements by 42.2% for Amur tigers and 21.5% for Amur leopards; and emphasized the importance of cross-border cooperation among the range countries, especially in the field of scientific assessment, for the effective conservation and transboundary management of the protected species.

This project on three big feline species was initially discussed during the Workshop on Transboundary Conservation of Big Cat Species in North-East Asia<sup>2</sup>, and endorsed at the 23rd Senior Officials Meeting of NEASPEC (2019). NEASPEC is the implementer of “*Transboundary cooperation on the conservation of Amur tigers, Amur leopards and Snow leopards in North-East Asia*” Project in 2020-2022.

Funded by the Russian Government, the Project includes three components:

- 1) Transboundary cooperation between the Northeast China Tiger and Leopard National Park and the Land of the Leopard National Park of the Russian Federation to conserve Amur tigers and leopards;
- 2) Transboundary cooperation between neighbouring protected areas in Lesser Khingan Mountains to conserve Amur tigers; and
- 3) Assessment of the current status of two snow leopard subpopulations in transboundary areas between Mongolia and the Russian Federation.



**Figure 1. Target study areas of the project** (prepared by NEASPEC Secretariat)

Note/ 1. TLNP + LLNP; 2. Lesser Khingan Mountain areas; and 3. Chikhachev ridge (left) and Eastern Sayan ridge (right)

<sup>1</sup> NEASPEC Project report: Saving the Amur tiger and Amur leopard, available at [https://neaspec.org/sites/default/files/2018\\_12\\_17\\_UNESCAP\\_Tiger.pdf](https://neaspec.org/sites/default/files/2018_12_17_UNESCAP_Tiger.pdf)

<sup>2</sup> The Workshop was held as one of the parallel sessions of the International Forum on Tiger and Leopard Transboundary Conservation (Harbin, China, 2019). For more details, <https://neaspec.org/content/international-forum-tiger-and-leopard-transboundary-conservation>

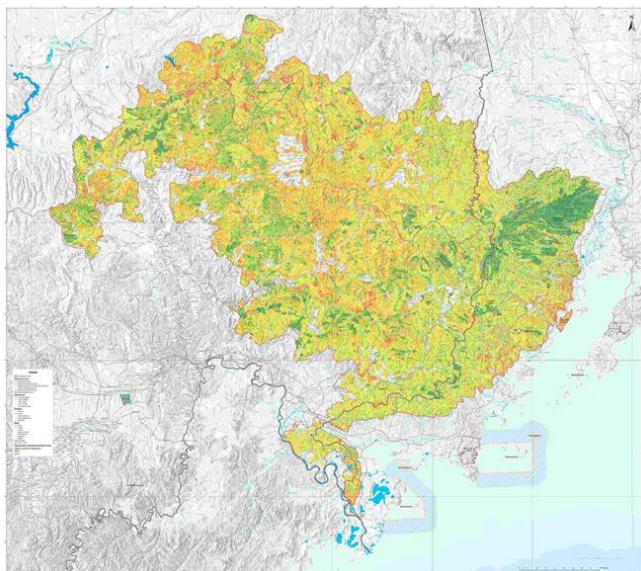
This completion note briefly summarizes key activities and recommendations based on the progress reports prepared by implementing partners.

## SUMMARY OF EACH PROJECT COMPONENT

### Component 1: Transboundary cooperation between the Northeast China Tiger and Leopard National Park (TLNP) and the Land of the Leopard National Park of the Russian Federation (LLNP) to conserve Amur tigers and leopards

An initiative to create the Sino-Russian transboundary protected area to conserve Amur tigers and Amur leopards dates back to late 1990s. For the past two decades, joint studies, working group meetings and intergovernmental agreements to create such transboundary reserve were conducted, and two national parks were established, namely, the Land of the Leopard National Park of the Russian Federation in 2012 and the Northeast China Tiger and Leopard National Park in 2017, respectively. The precursor NEASPEC project in 2014-2016 successfully supported joint scientific cooperation for the first time along the border areas of two national parks, followed by a Memorandum of Understanding (MOU) between TLNP and LLNP to create a Sino-Russian transboundary national park in 2019. As such, the Sino-Russian network of protected areas has been increased 12 times for 25 years, from 1,532 km<sup>2</sup> (1995) to 18,045 km<sup>2</sup> (2020), covering most of the current range of Amur tigers and leopards.

- **Implementing partner:** LLNP
- **Implementing period:** January – December 2022
- **Budget:** USD 96,000
- **Target areas:** TLNP and LLNP
- **Target species:** Amur tigers & leopards



**Figure 2. Habitats potential for the Amur tiger on the territory of projected Sino-Russian transboundary national park “Land of Big Cats”** (project progress report, created by the Pacific Institute Geography, Far Eastern Branch of Russian Academy of Science)

Activities of the Component 1 were designed to support the action plans under the MOU, including desk research to assess national legislation of China and the Russian Federation for transboundary protected areas (TBPAs), develop unified classification of habitats and prepare basic unified geographical map of the projected TBPA (tentatively named ‘Land of Big Cats’) and its adjacent territories, as well as information sharing and capacity building activities for experts and field staff. LLNP was designated as the main implementing partner, while TLNP provided necessary support based on MOU between two national parks. Key findings and progress of the Component 1 were especially brought to international attention at the Second International Tiger Forum held in Vladivostok in September 2022 during the special session for Amur tigers and leopards in the Sino-Russian border as well as the high-level meeting where the creation of the projected Land of Big Cats TBPA was announced while the agreement has not yet been signed.

Despite the progress made between two national parks during the implementation period and political support to conserve two species and their habitats, the implementing partner indicated several difficulties and problems that still hinder effective cooperation and conservation efforts along the border area. Lack of interaction between the relevant departments of both countries, insufficient funding, language barriers, departmental fragmentation and inconsistent monitoring and inventory methodologies are some of the key challenges.

Component 1 concludes with **recommendations** to create a formal coordination structure or mechanism by establishing a permanent secretariat or coordination council of the projected “Land of Big Cats”, including **a number of measures** to strengthen cooperation between China and the Russian Federation as follows, but not limited to:

- Ensure coordination of activities in the transboundary protected areas by designating a coordinator for international cooperation in participating protected areas, especially TLNP and LLNP;
- Ensure the regularity of interactions between protected areas based on, for instance, an intergovernmental agreement or joint commission with competent representatives of higher government departments which manage the national protected areas;
- Create a bilateral working group on biodiversity and protected areas under the intergovernmental agreement on cooperation for environmental conservation;
- Establish open-ended monitoring programmes and longer-term scientific projects;
- Develop a common management plan including a harmonized economic and environmental policy for TBPAs;
- Amend national legislation and regulations, if needed, to enhance the security of TBPAs and achieve its goals and objectives;
- Involve international environmental organizations and external experts for effective and positive impact on the activities of protected areas;
- Support field activities through a cross-border network of protected areas;
- Specially pay attention to systemic joint activities to improve capacity of staff and share best practices and experiences including educational and tourism activities; and
- Secure stable funding from government, international organizations, local NGOs and private sectors.

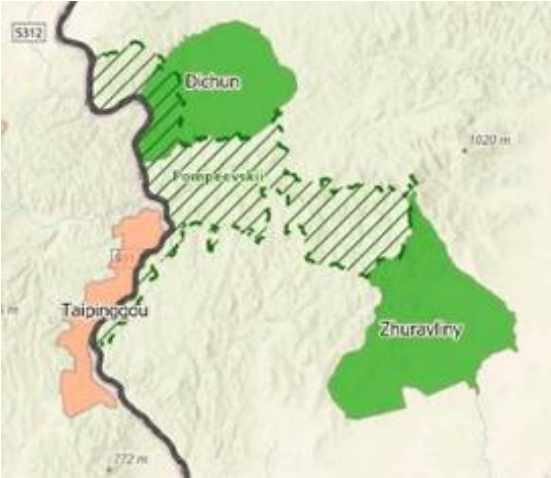
## **Component 2: Transboundary cooperation between neighbouring protected areas in Lesser Khingan Mountains to conserve Amur tigers**

After 40 years of disappearance, Lesser Khingan Mountain Areas has returned as one of the key habitats for Amur tigers since 2010s with the successful reintroduction project in the Jewish Autonomous Region in the Russian Federation. Since 2014, at least 8 wild Amur tigers have been continuously spotted through camera trapping and footprint identification; and the female tiger “Lazovka” and her cubs were frequently detected in 2021. The study area is also well known for its distinctive and unique natural features,

- **Implementing partner:** Feline Research Center (China) and WWF Russia (Amur Branch)
- **Implementing period:** July 2020 – September 2021
- **Budget:** USD 50,000
- **Target areas:** Lesser Khingan Mountains
- **Target species:** Amur tigers

and China and the Russian Federation have been creating protected areas, respectively, at a different level (e.g., national- or provincial-level) to preserve its unique forest and wetlands ecological complexes.





**Figure 3. Existing and planned protected areas in Lesser Khingan Mountains along the Sino-Russian Border** (project progress report)

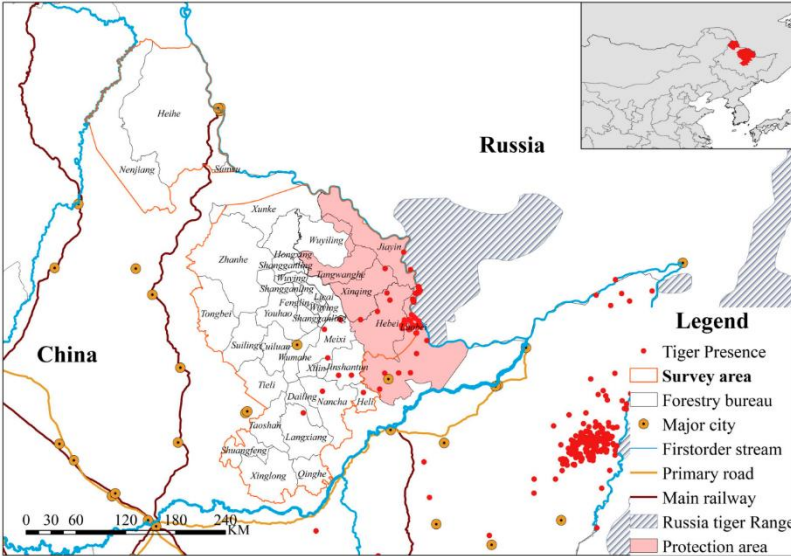
Narrowing down the scope to the transborder areas, China created the Taipinggou National Nature Reserve in 2009 which is located adjacent to the Sino-Russian border and the Xinqing Baitohe Reserve which is located inland a bit far from the border; while the two Provincial Wildlife Refuges (Dichun and Zhuravliny) are located nearby the border, with possibility to be better connected by a planned Pompeevskii National Park.

Implementing partners for Component 2 conducted feasibility studies, respectively, to assess existing and proposed protected areas through field surveys on Amur tigers and their preys and habitats, literature review including national legislations and protection regime on protected areas, and socio-economic-environmental analysis.

Based on the exhaustive study, WWF Russia confirmed the proposed “Pompeevskii National Park” meets the overwhelming majority of requirements that national parks must meet, including (1) good preservation of natural complexes and the presence of intact natural sites, (2) significant landscape diversity, (3) high level of biological diversity, (4) the uniqueness of genetic resources with the presence of rare and endangered plant and animal species, (5) high recreational suitability, (6) high aesthetic value, and (7) comfortable natural and climatic conditions. Noting the establishment of the Pompeevskii National Park has been already included in the Action Plan for the implementation of the strategy for the conservation of rare and endangered animal, plant, and mushroom species in the Russian Federation for the period up to 2030 (Ministry of Natural Resources, No. 33-r dated December 1, 2014), WWF Russia pointed out that the proposed area was also included in the plan for international cooperation with China.

Feline Research Center of China provided main challenges to conserve Amur tigers in Lesser Khingan Mountain areas, which include (1) degraded or obstructed ecological corridors, (2) anthropogenic impact such as poaching, (3) a lack of prey species, and (4) a lack of an effective cooperation mechanism between China and the Russian Federation.

In conclusion, together with the Taipinggou Nature Reserve located on the right bank of the Amur River in China, the proposed Pompeevskii National Park could create a cross-border nature conservation system



**Figure 4. Schematic map of the scope of cross-border Amur tiger protected areas** (project progress report)

as well as safe ecological corridors for Amur tigers. Such efforts also could promote international cooperation in nature conservation.

Below are **recommendations** to jointly conserve Amur tigers in Lesser Khingan Mountain areas:

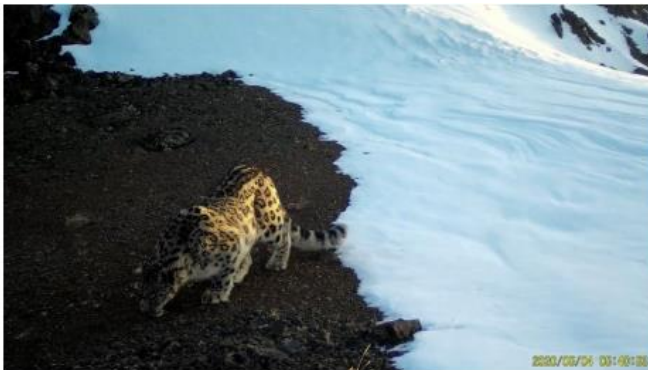
- Establish an information sharing platform on cross-border areas, including departments for management and scientific research in China and the Russian Federation;
- Promote the construction and development of a transboundary protected areas;
- Promote the ecological restoration project of habitats with a concept of friendly coexistence of human and Amur tigers;
- Unify technical standards in various technical schemes including monitoring and implement them at the same time; and
- Jointly conduct scientific research and improve capacity of long-term monitoring to improve cross-border management of Amur tigers and their habitats.

### **Component 3: Assessment of the current status of two snow leopard subpopulations in transboundary areas between Mongolia and the Russian Federation**

The Snow leopard is one of the rarest and most poorly studied species among all big cat species, inhabiting in high mountain ecosystems in Central Asian countries including China, Mongolia and the Russian Federation. The estimated number of the global population ranges from 4,000 to 8,000 individuals, but there is no exact demographic information on the distribution and abundance of the species. Habitats for the Snow leopard stretch along the Mongolian-Russian border for about 2,000 km from West to East and consist of a few distinct small subpopulations in the transborder areas.

- **Implementing partner:** Irbis Mongolia Center and WWF Russia (Altai-Sayan Branch)
- **Implementing period:** May 2020 – June 2021
- **Budget:** USD 50,000
- **Target areas:** Chikhachev ridge and Eastern Sayan ridge
- **Target species:** Snow leopards

Among several scattered transboundary habitats, this project component focused on (1) Chikhachev ridge which is very important mountain corridor for the species migration and (2) Eastern Sayan ridge which is the northernmost subpopulations and highly isolated from the main parts of the Snow leopard habitats. Implementing partners aimed to assess the latest status and identify all Snow leopard individuals in the study areas by applying the modern, standardized monitoring methodologies to obtain reliable data and develop priority conservation action plans based on scientific data.



**Figure 5. Snow leopards captured by camera traps in the Eastern Sayan ridge and Chikhachev ridge (project progress report)**

Starting with inception meetings by implementing partners, respectively, to train experts and field staff on how to set up camera traps and use the standardized monitoring application, the project successfully installed camera traps in target areas and jointly analyzed the collected data to identify individuals and transborder movement. The joint analysis provided statistically valid information on Snow leopard populations for the first time, identifying transboundary migration of 6 individuals in the Eastern Sayan ridge and 16 individuals in the Chikhachev ridge. The density of the Snow leopard populations in the Eastern Sayan ridge was lower than the Chikhachev ridge (0.04 and 0.18 individuals per 100 km<sup>2</sup>, respectively) due to its harsh living conditions and longer migration routes. In addition, spatial analysis showed the worsened conditions in the Chikhachev ridge by the decreased number of Snow leopard populations, mainly due to poaching or overharvesting of the Siberian ibex (the main prey species for the Snow leopard).

These findings contribute to the understanding of population dynamics and serve as a basis for management planning and conservation actions for Snow leopards in both countries. Implementing partners also highlighted the importance of joint monitoring and data sharing between Mongolia and the Russian Federation, as the living condition and well-being of the Snow leopard population in one country largely depends on the condition of those in neighboring country. **Key recommendations**, thus, include the continued joint scientific analysis in expanded study areas, preferably for all transboundary subpopulations along the Mongolian-Russian border, to obtain statistical and spatial analysis of the species distribution as well as a mapping of the whole Snow leopard habitats in the transboundary areas.

## Conclusion

The subregional collaboration and research coordinated by NEASPEC, in partnership with other stakeholders, emphasize the critical importance of cross-border initiatives for the conservation of key species such as Amur tigers, Amur leopards, and Snow leopards. The detailed documentation and planning of each project component reveal both the challenges and successes throughout the implementation. A synthesis of these conservation efforts demonstrates that collaboration is essential, underscoring the significance of collective dedication from various stakeholders, including governments and private institutions, and civil societies. The conservation and future stability of these species hinge on integrated, innovative strategies and continued research endeavors.