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Twenty-fifth Senior Officials Meeting (SOM-25) of NEASPEC

20-21 September 2022

Virtual meeting

REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION

(Item 5(b) of the provisional agenda)

Biodiversity and Nature Conservation

Note by the Secretariat

CONTENTS

I. BACKGROUND

1. Following the adoption of the NEASPEC Nature Conservation Strategy at the 12th Senior Officials Meeting (SOM-12) in 2007,[1] NEASPEC has implemented projects on the conservation of its six flagship species including three feline species (Amur tiger, Amur leopard and Snow leopard) and three migratory bird species (Black-faced spoonbill, White-naped crane and Hooded crane) in connection with the overall goals of the Strategy. Those projects aim to contribute to biodiversity conservation strategy of, promote transboundary and intergovernmental cooperation on, and enhance coordinated mechanisms for the target species and their habitats. The nature conservation programme has taken a two-track approach: one for the targeted feline species and the other for migratory birds and their habitats.

Conservation of targeted feline species

2. Implemented during 2014-2016, the project "Study on Transborder Movement of Amur Tigers and Leopards using Camera Trapping and Molecular Genetic Analysis" was a significant milestone in transboundary cooperation for big feline species in the subregion. Biological samples and captured images of the Amur tigers and leopards were exchanged across the Sino-Russian border for the first time for joint analysis and comparative study. New information on the patterns of cross-border movements of the concerned species and specific areas that required transboundary cooperation were presented to the SOM-21 and SOM-22.[2]

3. Following the recommendations of the study, the Secretariat had a series of consultations with experts and member Governments on the follow-up projects during the SOM-22 in 2018 and the Harbin Workshop jointly organized with the National Forestry and Grassland Administration (NFGA) of China in 2019. Noting the progress towards institutionalizing transboundary cooperation, including a Memorandum of Understanding (MOU) between the Administration of the Northeast Tiger and Leopard National Park (TLNP) of China and the Land of the Leopard National Park (LLNP) of the Russian Federation in 2019, the Harbin Workshop further elaborated proposals for joint assessments in transboundary areas.

4. Subsequently, three project proposals, developed by experts from China, Mongolia and the Russian Federation, were presented to the SOM-23 in 2019, focusing on (1) Sino-Russian transboundary protected area in the East Manchurian area for Amur tigers and leopards, (2) Feasibility study of transboundary cooperation between neighboring protected areas in Lesser Khingan Mountains for Amur tigers, and (3) Study of migration of snow leopard along the

[1] http://www.neaspec.org/sites/default/files/Publication_SavingNatureConservation_2.pdf

[2] The project report is available at http://www.neaspec.org/sites/default/files//2018_12_17_UNESCAP_%ED%98%B8%EB%9E%91%EC%9D%B4.pdf

Mongolian-Russian border. The proposals were endorsed by the SOM-23, except the first one which was subject to a further internal approval process.

5. Based on the approval by the SOM-23, the Secretariat prepared a project document titled "Transboundary cooperation on the conservation of Amur tigers, Amur leopards and Snow leopards in North-East Asia". The project contains all three proposals to be funded by the Russian Federation. Following the approval of the project document at the end of 2019, the Secretariat closely communicated with potential implementing partners and issued four Letters of Agreement (LOAs) in 2020.

Conservation of migratory birds and habitats

6. Migratory birds and their habitats are key biological indicators for the ecological connectivity of member States in North-East Asia as the flagship species connect multiple countries into one ecologically borderless community. Key findings of eight scoping surveys and two joint studies conducted in the Korean Demilitarized Zone (DMZ) and the Dauria International Protected Areas (DIPA) in 2014-2016 have shown that while there is significant potential in bringing multilateral actions to conserve wider habitats and biodiversity, current protected areas are no longer adequate to conserve the concerned species, and the key habitats in the subregion were not properly protected by the domestic policies in the surveyed areas.[3]

7. Furthermore, the joint study on "Connectivity Conservation and Transboundary Cooperation in North-East Asia" carried out by the Korea Environment Institute in 2017 suggested establishing a "North-East Asia Transboundary Protected Areas Network" to ensure the long-term conservation of most threatened species and valuable landscapes in the subregion. In this connection, the transboundary area in the Tumen River Estuary was considered as a concrete example for a follow-up research project and potential actions to establish coordination mechanisms for transboundary cooperation among member States.

8. Member States at the SOM-22 and the SOM-23 further considered strengthening the coordination among protected areas located along or near the national boundaries, including through creating a transboundary protected area, such as a transboundary Ramsar site. Member States generally welcomed the proposal and supported the plan to conduct surveys and study visits in the Tumen River Estuary, with targets of the Rason Migratory Bird Reserve in the Democratic People's Republic of Korea, the Khasansky Nature Park in the Russian Federation, and the wetlands in Jingxin and Fangchuan National Park in China.

[3] Project report: http://www.neaspec.org/sites/default/files//UNESCAP_Migratory%20Birds.pdf

II. CONSERVATION OF BIG FELINE SPECIES

9. The project "Transboundary cooperation on the conservation of Amur tigers, Amur leopards and Snow leopards in North-East Asia" consists of three components:

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

(b) Project component 2: Transboundary cooperation between neighboring protected areas in Lesser Khingan Mountains to conserve Amur tigers; and

(c) Project component 3: Assessment of the current status of two snow leopard subpopulations in the Transboundary area between Mongolia and the Russian Federation

Figure 1. Target study areas of the project

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

Table 1. Overview of project components

Project component	Component 1	Component 2	Component 3
Implementing period	• January – December 2022	• July 2020 – September 2021	• May 2020 – June 2021
Implementing partners	• LLNP	• Feline Research Center (FRC) • WWF Russia	• Irbis Mongolia Center • WWF Russia
Budget	• USD 96,000	USD 50,000	USD 50,000
Target areas	TLNP and LLNP	Lesser Khingan Mountains	Chikhachev ridge and Eastern Sayan ridge

Target species		Amur tiger & Amur leopard	Amur tiger	Snow leopard
Objective		Enhance the collaboration between two national parks; and create the condition for the establishment of a Sino-Russian Transboundary National Park ("Land of Big Cats")	Enhance collaboration between the existing bordering PAs; and create conditions for the establishment of a new national park in Russia and the expansion of the bordering PAs in China	Assess the current status and identify individual snow leopards in the transboundary areas between Mongolia and the Russian Federation, by utilizing modern methodologies
Key Activities	**Desk research**	• Assessment of national legislation of China and Russia for PAs and TBPAs; • Analysis of existing TBPAs; • Preparation of a basic unified geographical map of projected TBPA and its adjacent territories; • Development of unified classification of habitats and preparation of habitats map of the projected TBPA	• Assessment of national legislation and protection regime across the target area; • Environmental and socio-economic analysis; and • Production of a joint geographical map of the target area	Comparative study of camera trap data collected in the Mongolian-Russian border to identify snow leopard individuals and their transboundary movement
	Field study	-	Winter census on Amur tigers and their prey in the target area	Camera trapping using modern survey methodologies (mobile app developed in 2018)
	Capacity building/ awareness-raising	• Coordination to establish a unified information and analytical system for information sharing • Data exchange of up-to-date status on target species • Training and workshop for local field staff • Joint brochure in English/Chinese/Russian	Brochure in English/Chinese/Russian	• Training of national park admin staff on camera traps and modern survey methodologies
Expected outcomes		An analytic report including policy recommendations to establish the "Land of Big Cats"	A project report including policy recommendations and follow-up phases to develop a joint monitoring system and management plan	A project report including analysis of camera trap data and priority action plans for follow-up phases

Project component 1 in Northeast Tiger and Leopard National Park (TLNP) and the Land of the Leopard National Park (LLNP)

10. The implementation has been delayed due to prolonged consultations with TLNP, LLNP and relevant ministries regarding the coordination of planned activities in China and the Russian Federation, particularly, through signing a Letter of Agreement (LOA) with ESCAP. After the consultations, LLNP signed the LOA on 30 December 2021 to conduct all planned activities on both sides, by ensuring close collaboration with TLNP upon the Memorandum of Understanding between LLNP and TLNP (2019).

11. LLNP has completed desk research on Russian and Chinese national legislation and protection regime on transboundary protected areas and produced a basic unified geographical map of projected Land of Big Cat transboundary protected areas and adjacent territories. An analytical report including a unified monitoring system and information-sharing mechanisms as well as the latest status of Amur tigers and leopards in LLNP and TLNP, is planned to be finalized by the end of 2022.

Project component 2 in Lesser Khingan Mountains

12. In partnership with the Feline Research Center (China) and WWF Russia (Amur branch), feasibility studies on the Lesser Khingan Mountains were conducted during July 2020-September 2021 with the aim to establish a transboundary protected area. The study was conducted based on field surveys, literature sources and archive materials.

13. Since 2014, GPS-collared Amur tigers have been frequently monitored in the Lesser Khingan Mountain region due to the successful reintroduction project in the Russian Jewish Autonomous Prefecture adjacent to the study area. From the Chinese side, at least eight cross-border Amur tiger individuals have been continuously monitored in the Taipinggou Nature Reserve of the Heilongjiang Province in the Northwest of Lesser Khingan Mountains through camera trapping and footprint identification. In 2021, the female tiger "Lazovka" and her cubs were detected several times in both countries. From the Chinese side, all Amur tigers active in this area have migrated from the Russian Federation, and the region thus has become a new hope for the population recovery of Amur tigers.

14. While 14 protected areas have been designated nearby the Sino-Russian border in the target region, the feasibility study by the Russian side suggested the establishment of a new specially protected natural areas of federal significance, Pompeyevsky National Park. The study provides data on the degree of the target area's economic development and its population and further gives an assessment of socioeconomic effects to be generated by the establishment of the

proposed nature reserve, which is located in one of the hardest-to-access locations in the Jewish Autonomous Region. The study proves that the proposed area meets the overwhelming majority of requirements for national parks, for instance, good preservation of natural complexes, a high level of biological diversity, and the presence of rare and endangered plant and animal species. The establishment of the Pompeyevsky National Park has been already included in the Action Plan for the conservation strategy of the rare and endangered animal, plant and mushroom species in the Russian Federation by 2030, and the proposed area is also included in the plan of international cooperation with China. As the Taipinggou Nature Reserve was set up on the right bank of the Amur River, the proposed special protected nature area is expected to form a cross-border nature conservation system.

15. As implementing partners for the 2014-2016 NEASEC Project, Feline Research Center (FRC, China) and WWF Russia (Amur branch) emphasize the importance of population dispersal, transboundary migration and genetic diversity to secure the longer-term conservation of Amur tigers. A co-authored article titled "Dispersal of Amur tiger from spatial distribution and genetics within the eastern Changbai mountain of China" (2019, Ecology and Evolution) concludes that the successful population dispersal across the border is not only crucial to Amur tiger population recovery but avoid inbreeding which may cause immunodeficiency. Against this backdrop, FRC proposes to establish a cross-border protected area for Amur tigers with a total area of 20,215 km^2 shown in the Figures 2 and 3.

Figure 2. Schematic map of the scope of cross-border tiger protected areas

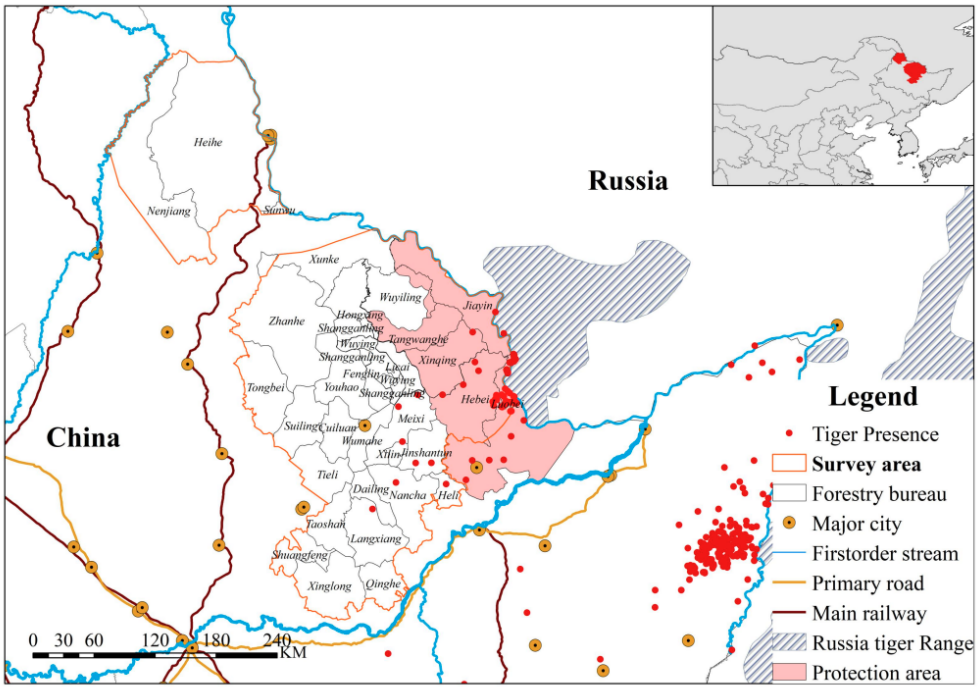
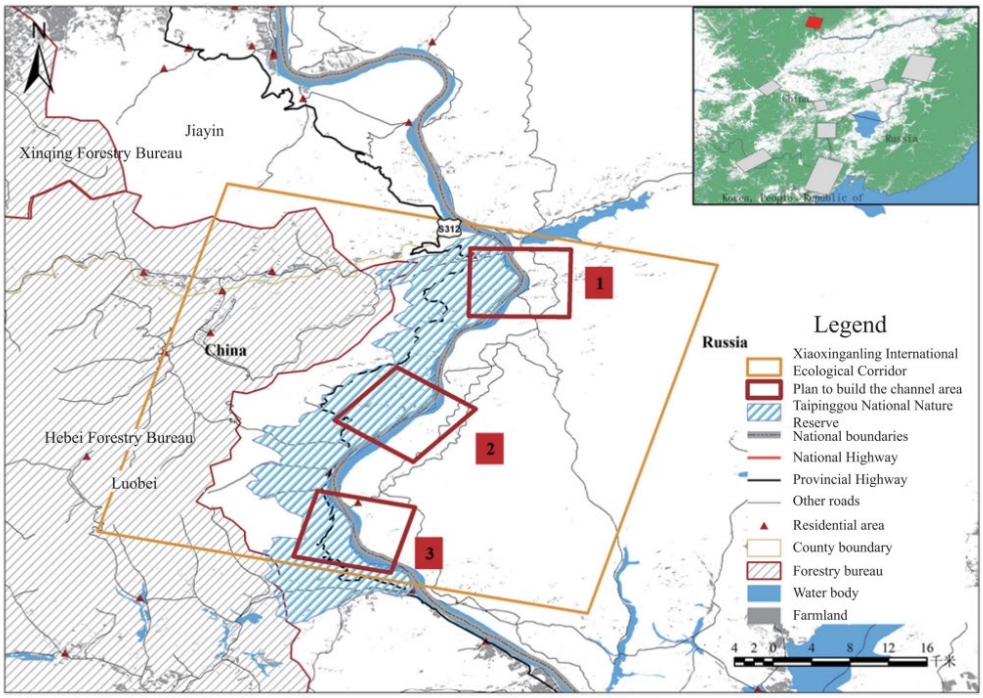


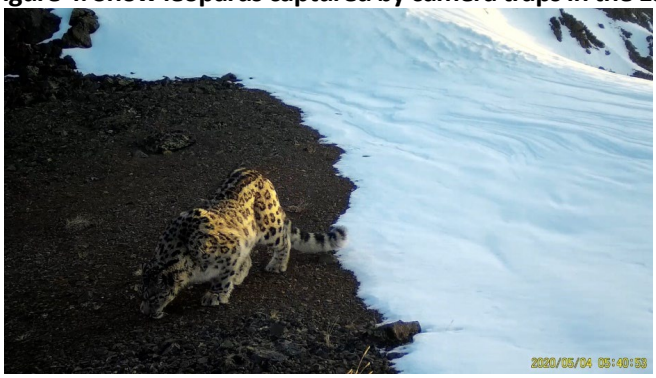
Figure 3. Suggested construction design of an international ecological corridor for Amur tigers in Lesser Khingan Mountains



Project component 3 in Chikhachev ridge and Eastern Sayan ridge

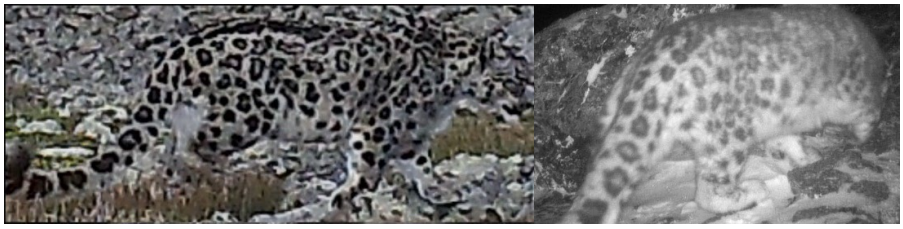
16. Starting from May 2020, Irbis Mongolia Center (IMC) and WWF Russia (Altay-Sayan branch) mainly conducted field studies using the standardized snow leopard monitoring application (NextGIS mobile application). Key activities include data collection of camera traps in (1) Siilkhem B National Park in Bayan-Olgii Province (Mongolia)/ Chikhachev ridge (Russian Federation) and (2) Khuvsugul mountain range in Khuvsugul Province (Mongolia)/ Eastern Sayan ridge (Russian Federation); and comparative data analysis.

Figure 4. Snow leopards captured by camera traps in the Eastern Sayan ridge and Chikhachev ridge



17. Data was exchanged in October 2020 and April 2021 for joint comparative analysis, and Table 2 shows a summary of the preliminary analysis. Key findings are planned to be published in a peer-review journal at the end of 2022.

Table 2. Preliminary analysis from camera trap surveys on Snow leopards (2020-2021)

<table>
<tr><th></th><th>Mongolia</th><th>Russian Federation</th></tr>
<tr><td>Siilkhem B National Park/ Chikhachev ridge</td><td>• 35 camera traps from July to November 2020; and 12 camera traps from January to March 2021
• Obtained 295 snow leopard images from 11 camera traps
• Identified 11 individual adult snow leopards (five captured both in 2020 and 2021)
 
One female with two cups in 2021</td><td>• 37 newly installed camera traps and 12 existing camera traps in 2020
• Identified 8 snow leopard individuals including one family with 3 kittens</td></tr>
<tr><td rowspan="2">Khuvsugul mountain range/ Eastern Sayan ridge</td><td>• 15 camera traps installed but no photo/video retrieved
• Discovered two snow leopards by WWF Russia and Ulaan taiga SPA during the survey in 2020 funded by WWF Mongolia</td><td>• 10 newly installed and 26 existing camera traps
• Registered 32 snow leopard signs and identified 5 individuals</td></tr>
<tr><td colspan="2">The presence of two snow leopards (Munko and Champion) previously only registered on the Russian side, was identified in Mongolia from the comparative study.
  </td></tr>
</table>

18. ***Workshop on conservation of big cats in transboundary areas of North-East Asia***, which was virtually organized on 12 October 2021, reviewed interim outcomes and remaining/planned activities. Project partners reiterated the importance of a joint cross-border protected area or ecological corridors and the need of an effective cooperation mechanism to construct and manage habitats between neighboring countries.

19. ***Evaluation of the current status of transboundary snow leopard subpopulations in the border area between Mongolia and the Russian Federation.*** As a follow-up, IMC and WWF Russia submitted a new project proposal to continue the field survey and joint analysis in expanded areas to study all transboundary subpopulations of Snow leopards along the Mongolia-Russian border. As no study sites have been jointly and regularly monitored and studied yet, this new project is expected to provide more in-depth information on the Snow leopard distribution as well as mapping of the whole habitats along the Mongolia-Russian border. The project concept was shared with the NEASPEC National Focal Points in June 2022 for ad-hoc approval, and activities are to be implemented from August 2022 to November 2023.

III. CONSERVATION OF MIGRATORY BIRDS AND HABITATS

20. Following the field survey results and recommendations in the Rason Migratory Bird Reserve, the Democratic People's Republic of Korea in 2014,[4] and the discussions at the SOM-22 and SOM-23, the Secretariat worked with national experts from China and the Russian Federation to systemically review existing efforts on the protection of migratory birds and wetlands in targeted wetlands in the lower Tumen area (Table 3). It is found that to date there is lack of communication and cooperation among China, the Democratic People's Republic of Korea and the Russian Federation on wetland conservation and their sustainable use (Figure 5).

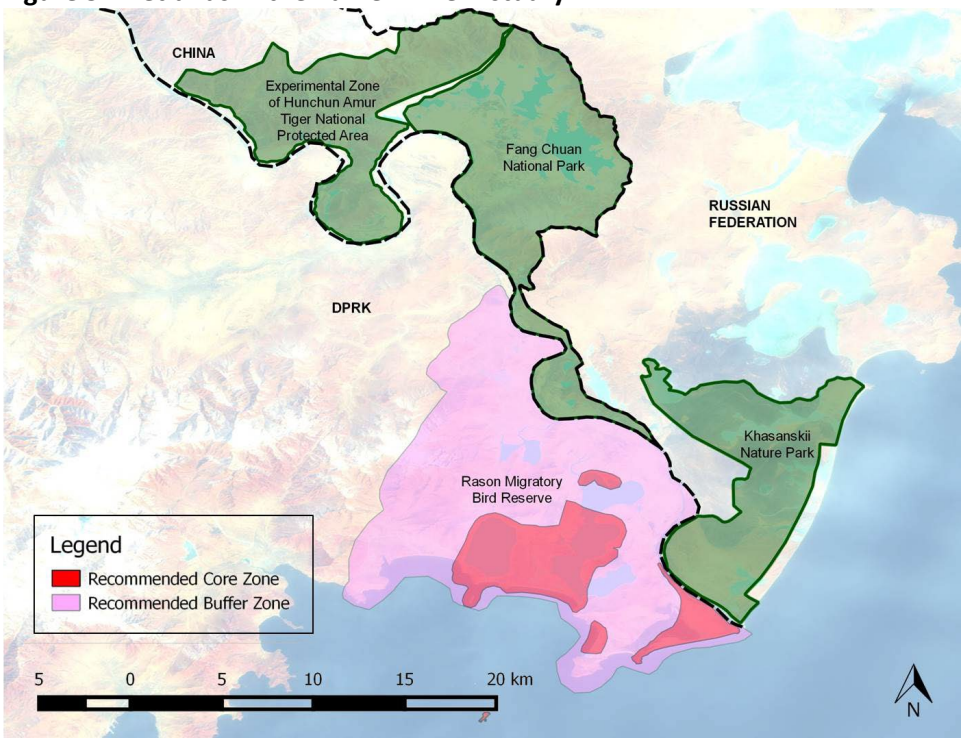
Table 3. Protected wetlands in Tumen River Estuary

Country	Targeted sites	Status	Area (hectare)	Coordinates
DPRK	Rason Migratory Bird Reserve (Rason Special Economic Zone)	Ramsar site (designated in 2018)	3,525.7 ha	42°20'N 130°35'E
China	Fangchuan National Scenic Park (Yanbian Korean autonomous prefecture)	National scenery area (2002)	1,416.13 ha (areas of lakes: Qi&Badaopaozi, Wudaopaozi, Sandaopaozi)	129°52′ 00″ -- 131°18′ 30″ E, 42°25′ 20″ -- 43°30′ 18″ N

[4] Rason Migratory Bird Reserve Survey Report (2014), http://www.neaspec.org/sites/default/files/Rason%20migratory%20bird%20reserve_birds%20and%20habitats.pdf

	Jingxin wetland (Yanbian Korean autonomous prefecture)	*Not* included in any type of protected area	8,000 ha	
Russian Federation	Khasansky Nature Park (Primorsky Krai)	Prefectural level protected area established by the Primorsky Krai Administration (1997)	Main (southern) cluster: 9,885.8 ha	130°38′ 25″ -- 130°47′ 25″ E, 42°18′ 70″ -- 42°28′ 25″ N
			Maloye Mramornoye Lake (northern): 83.3 ha	130°46′ 47″ E, 42°33′ 15″ N

Figure 5. Wetlands in the Tumen River Estuary



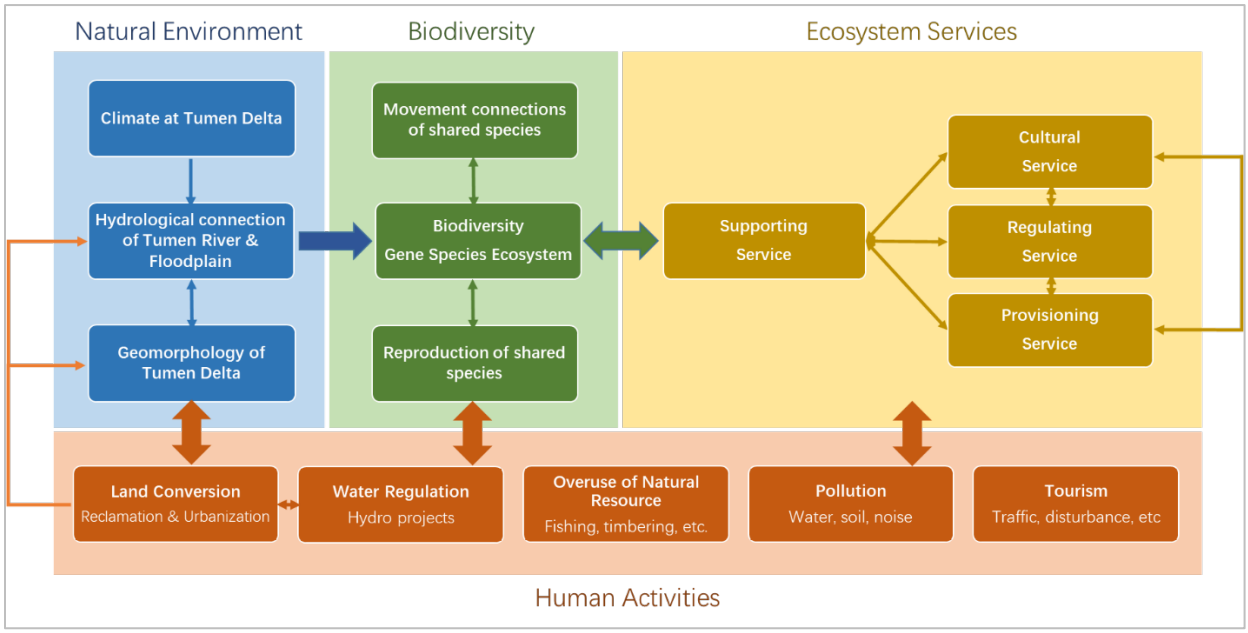
(Source: Rason Migratory Bird Reserve: Birds and Habitats, NEASPEC, 2014)

21. The study (Annex I) reviewed the ecosystem integrity in the Tumen River Estuary and concluded that: (a) the ecosystem in Tumen Estuary presents the same biota via multiple connections in three countries, and (b) the wetlands complex is distributed as separate waterbody with channelized linkages (Table 4). All these connections are under interventions of human activities and will influence human through ecological feedback (Figure 6).

Table 4. Ecosystem integration of wetlands in Tumen River Estuary

Hydrological relations	• Jingxin and Fangchuan wetlands in China are floodplain wetlands (oxbow lakes and plain reservoirs)
	• Wetlands in Khasansky in the Russian Federation and Rason in the DPRK consist of both freshwater and brackish water lakes (affected by marine process)
Biological relations	• Aquatic fauna and flora connections among the water systems in all three wetlands
	• Waterbirds can easily fly across the delta region in hourly time
Ecological relations	• Any change in any country in the area may affect the landscape pattern, hydrologic processes
	• Biological attributes of the roost and breed sites in different pieces of wetland across the nation boundaries (as migratory waterbirds forage)

Figure 6. Tumen Delta Ecosystem Feedback



22. The study also examined the key challenges faced by the effective joint protection of the transboundary wetlands in the lower Tumen River. While the Tumen River and the associated wetlands play important roles for local sustainable development, there is an urgent need to establish transboundary conservation mechanism.

(a) As agriculture and tourism are the key economic drivers for the Jingxin and Fangchuan wetlands in China, eco-tourism such as through the form of a "Swan Festival" was considered by the authority of Rason city, the Democratic People's Republic of Korea, which could facilitate the conservation and sustainable use of the wetlands.

(b) As for the Russian site, the main economic emphasis in the local development plan is placed on its role as an international transport and logistics corridor, though the main transport and logistics centres are located outside the wetland area and do not directly affect the area. There is a serious demand for the land allotments adjacent to Tumen wetlands with the prospect of developing infrastructure for tourism.
(c) The study also noted the challenges faced by the site management, such as the lack of capacity and financial support for wetland conservation and management in all three countries, lack of joint monitoring and management of bird species, water, soil and other elements, and insufficient understanding on the ecological process and future trends.

23. The findings were reviewed through an Expert Group Meeting on Promoting Transboundary Cooperation among Protected Wetlands in the Tumen River Estuary held virtually in May 2020, joined by government officials, national experts, and representatives of the Ramsar Convention Secretariat and its training center. The Meeting suggested establishing a coordinated mechanism among range of countries to develop tangible plans and activities, such as to:

(a) Incorporate information on wetland protection and sustainable use with sustainable local development plans and social-economic data.
(b) Drawing a tentative boundary for the transboundary protected areas in the Tumen River estuary and synchronizing information on species in the transboundary area.
(c) Continue consultation among member Governments, such as among the national focal points of the Ramsar Convention of China and the Russian Federation, on possible joint conservation.

Connectivity conservation of key migratory birds in North-East Asia

24. The Secretariat prepared a new project proposal on protecting biodiversity and nature conservation in North-East Asia by promoting connectivity conservation focusing on NEASPEC key migratory birds and their habitats in North-East Asia (Cranes and Black-faced Spoonbills). Based on the recommendations of the NEASPEC project implemented in 2014-2016, the proposal consists of undertaking field research, developing guidelines to support agrobiodiversity management, and organizing capacity-building workshops to enhance understanding of ecosystem management in the subregion. The project proposal was shared with NEASPEC National Focal Points in May 2022 for ad-hoc approval and the Secretariat is now under consultation with ESCAP headquarters to secure its funding source and approval.

IV. ISSUES FOR CONSIDERATION

25. The Meeting may wish to request member States the following:

(a) Provide their views on the ongoing and new activities and share information of relevant bilateral and multilateral processes pertaining to the conservation of tigers and leopards;

(b) Indicate their interest and plan for intergovernmental consultation on institutionalizing the transboundary cooperation in the Tumen River estuary, such as through hosting a workshop/expert group meeting; and

(c) Indicate their intended contributions to a new project and other relevant activities in accordance with the Post-2020 Global Biodiversity Framework and the UN Decade on Ecosystem Restoration (2021-2030).

26. The Meeting may wish to review and approve the proposed activity plan for 2022-2023 (Annex II).

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