UNITED NATIONS

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Twenty-first Senior Officials Meeting (SOM) of NEASPEC

16-17 March 2017

Seoul, Republic of Korea

REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION

(Item 5(b) of the provisional agenda)

Nature Conservation in Transboundary Areas in North-East Asia

Note by the Secretariat

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Annex II. Report of the Workshop on Nature Conservation and Transboundary Cooperation

Annex III. Project Report on “Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia”
I. BACKGROUND

1. In accordance with the NEASPEC Nature Conservation Strategy adopted by the 12th Senior Officials Meeting (SOM) in 2007, NEASPEC implemented the project “Establishing Coordination Mechanisms for Nature Conservation in Transboundary Areas in North-East Asia” in 2010-2012, with the aim to strengthen bilateral and multilateral cooperation for nature conservation in transboundary areas in North-East Asia.

2. Conservation of Amur tigers and leopards: Based on the outcomes from the Project and a further situation analysis by the Secretariat with regard to the proposal of the Russian Federation at SOM-17 in 2012 to conduct a study on the transborder movement of Amur tigers and leopards, SOM-18 in November 2013 came to a conclusion to support the new project, “Study on Transborder Movement of Amur Tigers and Leopards using Camera Trapping and Molecular Genetic Analysis”.

3. The first Expert Group Meeting (EGM) which was held in April 2014 prepared the work plan including scientific approaches for the project activities, expected outcomes, implementing agencies and budgetary matters. SOM-19 in September 2014 supported outcomes of the EGM and emphasized the importance of having unified methodologies, technical standards, and the efficient use of limited financial resources under the Project.

4. The Secretariat and national focal points have implemented a number of project components including field study and laboratory work of concerned species since December 2014. To facilitate close communication and cooperation among participating countries, the Secretariat arranged a review meeting in Harbin on September 2015 to discuss interim project outcomes, and to seek advice and recommendations from experts who have been involved in the work. The interim outcomes and outline of the final project report were reported to SOM-21 in February 2016, and the Meeting welcomed progress made.

5. Conservation of migratory birds: The project proposal on “Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia” presented to SOM-17 in 2012 received support and the Project kicked off with an Expert Group Meeting (EGM) in October 2013. The EGM discussed project activities which included eight scoping surveys and two joint studies at transboundary habitats. One of the outcomes of the EGM was an implementation plan, which was then endorsed in SOM-18 held in November 2013. Subsequently, the Secretariat, national focal points and project partners began to work on developing the plans and making administrative arrangements with the focal points for grant disbursement, in order for project activities to take place during 2014 to 2016.

6. In 2014, the Secretariat also organized a field survey at the Rason Migratory Bird Reserve, DPRK, in March 2014 and held a side event at the 12th Conference of the Parties (COP-12) to the Convention on Biological Diversity (CBD) in October 2014.
7. SOM-20 took note of the progress and the importance of the activities of the project especially in transborder habitats such as the Korean Demilitarized Zone (DMZ) and the area bordering China, Mongolia and the Russian Federation. The Meeting also recognized the importance of the project in generating knowledge and building capacity. All Project activities have been completed by summer 2016.

8. As both projects were coming to a close, the Secretariat held a concluding meeting “Workshop on Nature Conservation and Transboundary Cooperation”, on 28-29 November 2016 in Beijing. The Workshop brought together all project partners as well as key stakeholders to review outcomes of the two NEASPEC projects and international cooperation in the subregional, and discussed recommendations on follow-up activities by NEASPEC and its partners. The Workshop Report is attached as Annex III.

II. CONSERVATION OF AMUR TIGER AND LEOPARD

9. NEASPEC Project “Study on Transborder Movement of Amur Tigers and Leopards using Camera Trapping and Molecular Genetic Analysis”. The project aimed to strengthen scientific understanding on Amur tigers and leopards and their habitat conditions in order to protect and improve existing transboundary ecological corridors. The project has thus carried out camera trapping and molecular genetic analysis of the concerned species through data sharing and joint analysis between national focal points in China (Feline Research Center of the State Forestry Administration) and the Russian Federation (Land of the leopard” National Park, and WWF-Russia), thereby strengthening scientific cooperation and foundation for the animals. The table below shows a summary of project activities.

10. Camera trapping. From 2013-2015, China and the Russian Federation installed 314 camera traps at 157 points and 634 camera traps at 317 points, respectively. From the camera traps, the Feline Research Center (FRC) of China and “Land of the leopard” National Park (LL) of the Russian Federation collected the images of tigers and leopards as follows.

- Feline Research Center: 24 leopard individuals of leopards including 23 adults and 1 cub; and 26 tiger individuals: 22 adults and 4 cubs.
- Land of the Leopard: 95 leopard individuals including 82 adults and 13 cubs, and 49 tiger individuals: 42 adults and 7 cubs.
The images were jointly analyzed by experts of FRC and LL in Vladivostok in 2016, using two methods: manual method and ExtractCompare software for the comparison of spot and line patterns. This analysis identified 89 adult leopard individuals—41 female, 37 male and 11 leopards of unknown sex—inhabiting during 2013-2015 in both China and the Russian Federation. Amongst them, 15 leopards (17% of the total number) have crossed the border of the two countries, ranging 1–10 times, as shown in the figure 1. The number of tigers during the same period was 45 adults consisting of 20 female, 15 male and 10 tigers of unknown sex. The number of cross-border tigers was 19 (42% of the total number), also ranging from 1–10 times. Furthermore, the camera trapping also resulted in the information on several parameters of cross-border movements including the number of encounters in each country, number of border crossings, maximum distance moved from the border, as shown by the table 2 and 3.

<table>
<thead>
<tr>
<th>Identified territories</th>
<th>No. of Adults (Cubs) Tigers</th>
<th>No. of Adults (Cubs) Leopards</th>
</tr>
</thead>
<tbody>
<tr>
<td>China/ only in China</td>
<td>22 (4) / 3</td>
<td>23 (1) / 8</td>
</tr>
<tr>
<td>Russia/ only in Russia</td>
<td>42 (7) / 23</td>
<td>81 (13) / 66</td>
</tr>
<tr>
<td>Observed in both countries</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>89</td>
</tr>
</tbody>
</table>
Figure 2 Cross-border Movements of Tigers and Leopards

![Cross-border Movements of Tigers and Leopards](image)

Table 2: Cross-border movements of leopard individuals captured by camera traps

<table>
<thead>
<tr>
<th>LL-ID</th>
<th>FRC-ID</th>
<th>Number of encounters</th>
<th>Times Cross border</th>
<th>Max distance moved from the state border</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In China</td>
<td>In Russia</td>
<td>Total</td>
</tr>
<tr>
<td>Leo 22M</td>
<td>Leo 25</td>
<td>2</td>
<td>71</td>
<td>73</td>
</tr>
<tr>
<td>Leo 52M</td>
<td>Leo 1</td>
<td>44</td>
<td>19</td>
<td>63</td>
</tr>
<tr>
<td>Leo 25M</td>
<td>Leo 24</td>
<td>1</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Leo 29M</td>
<td>Leo 3</td>
<td>10</td>
<td>31</td>
<td>41</td>
</tr>
<tr>
<td>Leo 7F</td>
<td>Leo 26</td>
<td>1</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>Leo 24M</td>
<td>Leo 21</td>
<td>1</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>Leo 91M</td>
<td>Leo 12</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Leo 26F</td>
<td>Leo 17</td>
<td>2</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Leo 9F</td>
<td>Leo 10</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Leo 63F</td>
<td>Leo 11</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Leo 89F</td>
<td>Leo 14</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Leo 54F</td>
<td>Leo 22</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Leo 49F</td>
<td>Leo 7</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Leo 13F</td>
<td>Leo 27</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Leo 81M</td>
<td>Leo 29</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>LL-ID</td>
<td>FRC-ID</td>
<td>Number of encounters</td>
<td>Times cross border</td>
<td>Max distance moved from the state border</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>----------------------</td>
<td>--------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in China</td>
<td>in Russia</td>
<td>total</td>
</tr>
<tr>
<td>T_7F</td>
<td>CT1</td>
<td>21</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>T_3M</td>
<td>CT2</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>T_12F</td>
<td>CT3</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>T_11M</td>
<td>CT4</td>
<td>4</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>T_10F</td>
<td>CT5</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>T_4M</td>
<td>CT7</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>T_8F</td>
<td>CT8</td>
<td>2</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>T_26M</td>
<td>CT10</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>T_29M</td>
<td>CT11</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>T_31F</td>
<td>CT12</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>T_33M</td>
<td>CT13</td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>T_32Un</td>
<td>CT15</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T_30F</td>
<td>CT16</td>
<td>18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>T_9F</td>
<td>CT17</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>T_13F</td>
<td>CT18</td>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

*Table 3: Cross-border movements of tiger individuals captured by camera traps*

*Molecular Genetic Analysis*: Researchers of Feline Research Center (FRC) and Land of the leopard National Park (LL) the Russian Federation during collected non-invasive samples from the field to identify individuals and their biological features including family tree and genetic conditions as well as their transborder movement. The number of samples collected by FRC and LL was 207 (during 2013-2015) and 193 (during 2015), respectively. DNA extraction for laboratory test of samples collected in the Russian Federation was held by Institute of Biology and Soil Science (IBSS) of Russian Academy of Science. However, with difficulties in collecting high quality samples and requiring advanced technology such as sample conservation and DNA extraction for laboratory test, the amplification rates of leopard samples were only 28.8% and 42.9%, respectively, for Chinese and Russian leopard samples. For tigers, the rates were 25.8% and 36.9% for Chinese and Russian samples, respectively.
12. Nevertheless, it was very meaningful activity in the way that it was the very first occasion for DNA samples of the Russian Federation to be delivered to China for joint molecular genetic analysis. The molecular genetic analysis conducted at the Feline Research Center with the participation of IBSSS experts identified 9 leopard individuals from the Chinese samples and 16 leopard individuals from the Russian samples, of which only 2 individuals were detected both in China and Russia. The analysis identified 17 tiger individuals from the Chinese samples and 12 tiger individuals from the Russian samples without single individual detected both in China and the Russian Federation.

Table 4 Results of Genetic Molecular Analysis

<table>
<thead>
<tr>
<th></th>
<th>Tigers</th>
<th>Leopards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of samples collected</td>
<td>103</td>
<td>104</td>
</tr>
<tr>
<td>No. of samples for analysis</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>No. of Identified individuals</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of samples collected</td>
<td>49</td>
<td>57</td>
</tr>
<tr>
<td>No. of samples for analysis</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>No. of Identified individuals</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td><strong>Identified in both countries</strong></td>
<td>No. of individuals</td>
<td>0</td>
</tr>
</tbody>
</table>

13. **Key findings and recommendations:** The project has successfully facilitated a tangible scientific cooperation between China and the Russian Federation, and resulted in some meaningful outcomes. The project has also identified a number findings and recommendations as follows, which require strengthened cooperation between China and Russian Federation as well as DPRK:

(1) Transboundary movements of Amur tigers and leopards are frequent on the Sino-Russian border, and population distribution and reintroduction to the area with smaller population are needed.

- **Recommendations:** Widen international and national ecological corridors

(2) Habitats for Amur tigers and leopards need to be expanded further to the inner land, but there are obstacles for species movement.

- **Recommendations:** Joint habitat assessment on population dynamics of two species and human disturbance; and establishment of national tiger/leopard park in China
(3) Amur leopards need more attention as its population is very small.

- **Recommendations:** Ecological corridors connecting China, DPRK and the Russian Federation; and joint habitat assessment

(4) Camera trapping is more objective and independent of weather conditions method and cheaper on the long period of study, but in the edge habitat of big cats, multiple methods should be used for effective monitoring in larger areas.

- **Recommendations:** International expert group for developing unified monitoring methodology and database sharing platform under an inter-governmental mechanism;

(5) Sino-Russia cooperation should focus on the improving small population genetic resource situations.

- **Recommendations:** Joint samples collection for assessing genetic diversity; Joint big cat reintroduction project and technology.

(6) Jointly conduct research on the human-tiger conflicts based on long term history dataset to provide new understanding on adopting measures.

- **Recommendations:** Collection of long term human-tiger conflict dataset; Establish international expert group for resolving current human-tiger conflicts

(7) Small Amur tiger population in China makes them face a great risk of disease

- **Recommendations:** Technological cooperation for disease monitoring and control

14. Furthermore, the joint study also indicates that the future of the two species depends on the status and condition of their populations and habitats in China and DPRK while the Russian Federation currently carries the main responsibility for the conservation of the species in the wild. The interaction across borders is significant for ensuring genetic diversity. As the northern parts of DPRK also provide habitats for tigers and leopards, it is necessary to unite the efforts of all three countries for the accurate assessment of habitat condition and the potential for restoring natural ranges.
15. Amongst the recommendations, the concluding workshop held in November 2016 in Beijing suggested to prioritize actions on joint assessment of corridors and habitats in China, Russia and DPRK, unified monitoring methodology, technical cooperation on joint disease monitoring. The suggestions are included in the new project proposal on connectivity conservation as elaborated in the section IV.

III. CONSERVATION OF MIGRATORY BIRD HABITATS

16. Implementation of the Project “Conservation and rehabilitation of habitats for key migratory bird in North-East Asia”. The project’s objectives are to contribute the conservation of target species; and to promote transboundary and intergovernmental cooperation and enhance coordinated mechanism for their conservation. Under these objectives, scoping surveys and joint studies were carried out on the three NEASPEC flagship migratory bird species (Black-faced Spoonbill, Hooded Crane, and White-naped Crane) by national focal points.

17. The project has the following eight scoping survey sites:

- Back-faced Spoonbills: (i) Xingrentuo/ Yuanbaotuo, Liaoning Province of China; (ii) Hakata Bay, Japan; and (iii) Incheon, ROK
- Hooded Cranes: (i) Lindian, China; (ii) Izumi, Japan; and (iii) Cheonsu Bay, ROK
- White-naped Cranes: (i) Dauria International Protected Areas (DIPA) at China, Mongolia and the Russian Federation; and (ii) Khurkh-Khuiten River Valley Areas of the Onon River Basin and general distribution range in eastern Mongolia

And two joint study sites:

- Korean Demilitarized Zone (DMZ)
- Dauria International Protected Areas (DIPA)
18. Scoping surveys took place in five countries. **Black-faced Spoonbill (BFS)** nests have significantly increased in Xingrentuo and Yuanbaotuo (China) from 7 in 2012 to 21 in 2014, and 77 BFS individuals found in the area in 2013. It could be contributed by improved natural habitats and more effective protection measures such as abandonment of tourism development projects and hiring of staff to guard the breeding sites. A BFS banded in ROK had been spotted in Zhuanghe Estuary Intertidal Zone in China, which suggests the close relationship of the Zhuanghe and Korean breeding populations. In Hakata Bay, the BFS population has been largely stable in the past decade but construction works, sea level change and heavy rain have reduced the size of roosting area for BFS.

19. The survey in Lindian wetland (China) in May 2015 spotted 450 **Hooded Crane (HC)** alongside three other crane species. It noted the lack of effective management measures for crane protection, and the need for demonstrating best management practices including changes in agriculture plantation and management pattern, and increased efforts of local government for monitoring and public awareness.

20. In the Republic of Korea, Cheonsu Bay has observed rapid growth of HC in the area from about 2500 in 2013 to over 4400 in 2015, became an increasingly important wintering site for over 2000 HCs. Rice fields in Izumi, Japan is noted to be important in providing for cranes,
alongside with artificial feeding. Number of wintering cranes has also increased thus pushing migration earlier from mid-October to early October.

21. The scoping survey in the Khurkh and Khuiten River Valleys of Mongolia has covered over 80% of potential crane habitat in eastern Mongolia, which is the first time this type of survey has taken place and generated significant data in filling key data gaps. A total of 1790 **White-naped Crane (WNC)** was recorded at 41 sites, and 6964 Eurasian Cranes and 104 **Hooded Crane (HC)** were also counted. WNCs counted in this survey were more than the current estimate for the western flyway population of 1500 individuals. This survey thus provides key evidence on the current population size and revealed that some WNCs do not move to staging sites to join other flocks and stay at breeding grounds for extended period until migration starts.

22. The survey identified critical sites for four species of cranes and indicated that three important congregation sites in Mongolia which support 46-60% of regional WNC population. It has also found a new breeding site for Red-crowned Crane in Mongolia which only has one previous record in the country prior to this discovery. Furthermore, the survey has also shown that the site does not only support large number of nesting pairs (80 pairs in 2014), but also provides critical staging and molting groups for WNC.

23. These key habitats for WNCs identified in Mongolia are however facing a number of concerns including the extensive use of agriculture areas by WNCs and other crane species. It may cause conflict between cranes and famers, as well as the use of pesticides may negatively impact WNCs and their chicks. Meanwhile, livestock data shows almost three-fold increase of goat and sheep population in the last decade, thus the potential impact of grazing and on crane nesting habitats is of concern.

24. The scoping survey and joint study in the Russian part of the Daurian Steppe Area studied and monitored an area of over 35,000km$^2$ through ground and aerial monitoring. It covered the entire breeding area for the western population of WNC in the Russian Federation. This survey is crucial to understand WNC population change as it is the only avia-census carried out in the last 20 years since 1995. The survey found significant decline in the number of breeding pairs (which halved from 100 territorial pair in 1995 to 45 pairs in 2016) and very low breeding success of 36% in 2016. It has also identified major change in the distribution of WNCs since 1995 due to the change of water-levels and sizes of wetlands, which led to over 90% of breeding pairs was found breeding outside of the protected areas facing much higher risks.
25. As the lakes and wetlands have undergone a dry period from 2000 to 2016, unfavorable conditions for breeding and nesting have been created. Most of the WNCs had to nest outside of the protected area instead and their nests thus became unprotected. The dry spell has increased the density of livestock and migratory birds using the same habitats around wetlands, adversely affecting the nests and breeding success of cranes. Despite WNC not being a game species, up to 60% of the breeding pairs has been estimated to have lost their clutches from spring hunting disturbance outside of the protected areas. Grassfires usually occurring in May, the breeding season, are an agricultural practice which can burn half of the breeding grounds outside of the protected areas. The study outcomes suggest that these unprotected breeding grounds require acute attention and actions to restore the breeding success of WNCs.

26. During the joint study at the Dauria International Protected Area (DIPA) and survey in the Khurkh and Khuiten River Valley, the study teams also took the opportunity to capture and fit transmitters on cranes. Three juvenile WNCs were captured and fitted with transmitters in DIPA and four WNCs were marked with transmitters using satellite and cellular network to provide vital information on their movement and use of transboundary habitats.
27. The other studied transboundary habitat is the **Korean Demilitarized Zone (DMZ)**, where rice paddies and riverine wetlands have been the main habitats supporting wintering cranes. The DMZ area has become an increasingly important wintering site for cranes, with the most WNCs observed in the Cheorwon Basin. The number of winter cranes has continued to increase from over 2032 cranes (of which 1295 were WNCs) in 2011 to 3877 cranes (of which 3166 were WNCs) in 2014. However, the area is pressured by development and intensifying habitat fragmentation. Rapid urbanization, construction of greenhouses for agriculture, changes in water regime by construction projects and overuse of groundwater are the major threats. Meanwhile, disturbance from birdwatchers and wildlife photographers has been emerging and requires attention.

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1. Borzya was captured and marked in Borzya River Valley in 2015 by joint Mongolian and Russian biologists and it wintered at Poyang Lake in China in 2015. In 2016, it was found to be wintering in between the two Koreas. This data confirms the cross flyway movements which helps better understanding of population fluctuations in both (eastern and western) flyways. (Discovery by Dr. Nyambayar Batbayar, WSCC, October 2016)
28. **Public awareness and capacity building**: Alongside the surveys and studies, this project also held a five-days training for fifteen young scientists and partners also took the opportunity of the field work to train young scientists. A number of public education activities were also organized by project partners such as the International Black-faced Spoonbill School in Ganghwa Island (ROK); expert conference attended by locals in Cheorwon county (ROK); international children’s drawing competition receiving 2800 submissions in 2014-2016 and children theatrical performances in Dauria; and the Mongolian crane festival in 2014 and 2015 etc. Numerous publications and promotion materials have been produced to educate the public and encourage their involvement in migratory bird conservation, namely calendars, posters and brochures.

29. Overall key findings and recommendations

1) Critical habitats identified in the project needs to be managed with specific measures that consider local livelihoods and activities. Almost all of the crane habitats studied involve agricultural practices, grain and rice fields in particular, are attractive to cranes.

   **Recommendations**: Support agro-biodiversity management through research and provision of guidelines, training and engagement of locals.

2) Current surveys and information-sharing are intermittent and uncoordinated, making it difficult to understand the overall population dynamics, distribution of birds and connectivity of habitats.

   **Recommendations**: Conduct coordinated counts internationally, and explore mechanisms/ ways to provide and share updated information.

3) More experienced scientists are needed to continue and expand current research
and monitoring works.

Recommendations: Conduct capacity building of young scientists such as through regular international nature school.

IV. THE WAY FORWARD: CONNECTIVITY CONSERVATION

30. The two NEASPEC projects demonstrated the diversity of habitats and ways in which they are connected, such as physically adjacent to each other and those that are ecologically connected by migratory birds as shown in Figure 7. Differences in such connectivity thus require different management and cooperation.

![Figure 7 Types of habitat connections]

31. To continue the implementation of the NEASPEC Nature Conservation Strategy as well as the NEASPEC Strategic Plan 2016-2020, a set of activities under the theme of connectivity conservation has been developed. Connectivity conservation is a relatively new field of conservation. UNEP is developing a Global Connectivity Conservation Strategy whilst the IUCN is developing guidelines to support the recognition and definition of Areas of Connectivity Conservation (ACC). It is regarded as one of the key responses to the destruction and fragmentation of natural habitats, by promoting the flow of ecological processes necessary for the provision of ecosystem services and ensures movement of wildlife from one habitat to another.

32. In this regard, the Secretariat proposes NEASPEC activities during 2017-2018 to focus on the theme of connectivity conservation and transboundary cooperation. These activities will be
conducted under the budget of US$90,000 for nature conservation as approved in the Budget Plan 2016-2018 by SOM-20 in 2016.

33. The aims of the proposed activities are to enhance both ecological and human connectivity by promoting coordinated actions; strengthening science-policy linkages and bi-/multi-lateral cooperation among all stakeholders; and supporting the implementation of global, regional and national goals for sustainable development, especially environment-related Sustainable Development Goals.

34. The expected outcomes are to: (i) implement the Nature Conservation Strategy for species and their habitat conservation in transboundary areas in North-East Asia; (ii) improve existing and/or create new transboundary ecological corridors and transboundary protected areas; and (iii) operate an effective platform or network on biodiversity conservation and management in North-East Asia among major stakeholders.

35. To implement selected recommendations from the two NEASPEC Projects, the Secretariat proposes on a number of activities including field studies to strengthen multi-stakeholder coordination:

   i. Amur Tiger and Leopard.
      a. Joint assessment of corridors and habitats in China, the Russian Federation and DPRK
      b. Unified monitoring methodology
      c. Joint disease monitoring

   ii. Migratory birds
      a. Agro-biodiversity management study and management guidelines for key habitats of cranes
      b. Information sharing
      c. Young scientists and international nature school

36. In addition to furthering the scientific knowledge of ecological connections and supporting technical assessments in the field, it is also vital to understand the human connections including the institutional context of habitat management. Transboundary habitats that involve cross-border cooperation are even more complex and less studied thus require special attention.

37. In light of the need for an institutional analysis, the Korea Environment Institute (KEI) has planned to conduct the Analysis of Environmental and Institutional Context of Connectivity Conservation. It is an interdisciplinary analysis of connectivity conservation with case studies at the Dauria International Protected Areas (DIPA), encompassing and the Tumen
River Area², which are key physically connected transboundary habitats with different stages of cooperation, and explore cooperation options.

**Figure 8 Analytical Study Case Study Sites**

38. This analytical study will be instrumental in identifying gaps and options to improve current conservation efforts. By providing in-depth knowledge of current institutional arrangements, this study will improve the comprehensiveness of our knowledge and considerations in recommending more practical and effective actions. In specific, findings of the study will enable better recommendations be made from the NEASPEC multi-stakeholder coordination activities.

39. The Study will take place in parallel with the NEASPEC activities as shown in Table 5, the NEASPEC Secretariat will be supporting the coordination and stakeholder engagement with local and national stakeholders. The KEI will provide resources, lead the methodology development and analysis, and share the outcomes with NEASPEC.

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² DIPA consists of Daursky State Nature Reserve (Russian Federation), Mongol-daguur Specially Protected Nature Area (Mongolia), Dalai Lake National Nature Reserve (China), and the Tumen River Area is home to a large number of national protected areas including the Leopard National Park, Kedrovaya Pad Nature Reserve, Khasanskii Nature Park (Russian Federation), Hunchun Nature Reserve, Wangqing Nature Reserve, Fangchuan National Park, (China), and Rason Migratory Bird Reserve (DPRK)
### Table 5 Tentative timeline for the proposed activity

<table>
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<tr>
<th>Timeline</th>
<th>NEASPEC Multi-stakeholder Coordination Activities</th>
<th>KEI Analytical Study</th>
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</table>
| Spring/ Summer 2017 | • Amur tiger and leopards  
  o Inception meeting on scope, roles, activities, timeline, resources and expected outcomes of the 3 proposed activities  
  • Migratory birds  
  o Identification of partners and preparation of proposed plans for discussion at Inception meeting  
  o Inception meeting to discuss scope, timeline, expected outcomes of the proposed activities | Inception meeting of analytical study at DIPA  
  • Review status of cooperation at DIPA and in North-East Asia  
  • Scope, structure, timeline of the overall study  
  • Focal points |
| Jul - Dec 2017   | Implementation of project activities including field works, depending upon outcomes of inception meeting.             | Field study / research at DIPA including site visits, interviews and literature review |
| Early 2018      | Review meeting of each activity will take place back-to-back with field activities, to review progress and adjust if necessary, identify opportunities to collaborate, and discuss on potential follow-up options. | Review meeting (location TBC)  
  • Review progress of DIPA study  
  Preparations for Tumen River Area study |
| Apr - Oct 2018  |                                                                                                                   | Field study / research at Tumen River Area including site visits, interviews and literature review |
| Dec 2018        | Concluding workshops  
  o Review outcomes and recommendations  
  o Discuss follow-up actions  
  o Disseminate publications and findings | International workshop  
  - Review of overall study outcomes and recommendations  
  Discuss follow-up actions such as establishing mechanisms/ network for transboundary connectivity conservation |
V. ISSUES FOR CONSIDERATION

40. [Conservation of tigers and leopards] The Meeting may wish to request member States to provide their views on the project outcomes and the draft project report, and invite member States to provide their views on the contents and recommendations for the follow-up activities.

41. [Conservation of migratory bird habitats] The Meeting may wish to request member States to provide their views on project outcomes and recommendations.

42. The Meeting may wish to invite member States for their views and decision on the new activity plan focusing on connectivity conservation and transboundary cooperation.

43. The Meeting may wish to invite member States to indicate their intended contributions to the new project and other relevant activities.

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