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**REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION**

(Item 5(c) of the provisional agenda)

**Development of the Cooperation Mechanisms for Nature Conservation in  
Transboundary Areas in North-East Asia**

*Note by the Secretariat*

**CONTENTS**

I. OVERVIEW OF PROGRESS.....	2
II. CONSERVATION OF AMUR TIGER AND LEOPARD.....	3
III. CONSERVATION OF MIGRATORY BIRD HABITATS.....	6
IV. ISSUES FOR CONSIDERATION.....	8

Annex. Report of the Expert Group Meeting on the NEASPEC Project, "Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia"

## I. OVERVIEW OF PROGRESS

1. In accordance with NEASPEC Nature Conservation Strategy adopted by the 12th Senior Officials Meeting (SOM) in 2007, NEASPEC during 2010-2012 had implemented the project “Establishing Coordination Mechanisms for Nature Conservation in Transboundary Areas in North-East Asia”, with the aim to strengthen bilateral and multilateral cooperation for nature conservation in transboundary areas in North-East Asia. The project held Expert Group Meeting (EGM) on Nature Conservation in Transboundary Areas in North-East Asia on 2-4 November 2010 in Hunchun, China, and Review Meeting and Field Training on Nature Conservation in Transboundary Areas in North-East Asia on 21-23 July 2012 in Vladivostok, Russian Federation, and prepared a report “the Review of Environmental, Socioeconomic and Institutional Conditions and Experiences in Multi-/Bilateral Cooperation on Nature Conservation for the Amur Tiger and Amur Leopard in Transboundary Areas in North-East Asia” and a proposal, “A cooperation framework for the conservation of the Amur tiger and Amur leopard in the Tumen River Area”.
2. Based on the review of the project process and outcome, the SOM-17 held in December 2012 endorsed the proposal of the Government of the Russian Federation to focus on (1) monitoring Sino-Russian transborder movement of Amur tigers and leopards by using state-of-the-art methods available for tracking, (2) conducting research on improvement of existing transboundary ecological corridors in protected areas located along the border of China and the Russian Federation, and (3) conducting economic and ecological feasibility study on the establishment of Komissarovsky nature reserve as a transboundary ecological corridor.
3. The SOM-17 also reviewed a project proposal on the conservation and rehabilitation of habitats for Cranes and Black-faced Spoonbills, which was jointly formulated by the Secretariat and Korean Society of Environment and Ecology (KSEE) to follow up on the NEASPEC Nature Conservation Strategy. The Meeting recommended to revise the proposal to seek synergies with existing international mechanisms such as the Partnership for East Asian-Australasian Flyway (EAAFP), reframe the project title and activities and recirculate it member States for further consultation.
4. Subsequently, the Secretariat revised the proposal in consultation with relevant international mechanisms, collected views and comments from member States on the revised proposal and received the approval of the chair of the SOM-17 who continues the chairmanship until the next SOM.

## II. CONSERVATION OF AMUR TIGER AND LEOPARD: A Preliminary Situation Analysis related to the Russian Proposal

5. Following-up to the decision of SOM-17 to support the new activity proposal of the Russian Federation, the Secretariat has carried out a preliminary situation analysis to support discussions during SOM-18.

6. *Monitoring Sino-Russian transborder movement of Amur tigers and leopards by using up-to-date methods.* For the effective conservation of the Amur tigers and leopards, it is necessary to collect accurate information on the size and trends of the population. Conventionally, snow-tracking counting and camera trapping have been utilized to estimate the number of large cats. However, snow-tracking cannot provide accurate statistical certainty in estimating population size due to the difficulties in identifying specific individual's track, and camera trapping has obstacles ranging from high price to technical issues such as low batteries, theft, or animal disturbance.

7. Specialized agencies in member States have performed DNA analysis on Amur tigers and leopards. In China, the Heilongjiang Siberian Tigers Garden, the world's largest breeding center for the large cat, introduced DNA test program in 2001, and has been conducted on more than 800 Amur tigers<sup>1</sup>; the Russian Federation identified 23 individuals of Amur leopards using 32 fecal samples collected from 2010-2012<sup>2</sup>; a research team in Japan determined genotypes using non-invasive samples of Amur tigers like feces, hairs and saliva which were collected in southwestern part of Primorsky, Russian Far East from 2000 to 2005<sup>3</sup>. The size of the tiger population estimated by the genetic mark-recapture model was 12 (9-19), which was similar to the result by counting tiger snow tracks (16-21); and Conservation Genome Resource Bank for Korean Wildlife in the Republic of Korea also possesses abundant experience in individual identification, sex determination, estimation of genetic diversity, phylogeography and population studies.

8. With the advance of biotechnology, DNA analysis now can be applied to population monitoring study of Amur tigers and leopards as a supplementary population monitoring technique. This non-invasive way can provide not only individual identification and population size estimation by microsatellite loci analysis using tiger/leopard scat or hair DNA, but sex ratio determination, genetic diversity of populations, relationships between individuals, population structure and gene flow between populations. The other advantages of DNA analysis are low cost of field work and harmlessness to living organisms.

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<sup>1</sup> <http://english.people.com.cn/90001/90776/90882/7359255.html>

<sup>2</sup> Rozhnov et al. (2013)

<sup>3</sup> Sugimoto et al. (2012)

9. The process of DNA analysis is: (1) collection of biological samples such as hair, saliva or feces; (2) DNA extraction from each samples using commercial kit; (3) DNA amplification; and (4) DNA data analysis to reveal species identification, sex determination and genotyping. Considering the previous research and existing expertise in China and the Russian Federation as well as Japan and the Republic of Korea, it would be possible to implement the proposal of the Russian Federation that suggests the involvement of the latter countries.

10. *Conducting research on improvement of existing transboundary ecological corridors between Kedrovaya Pad Nature Reserve/Leopard National Park (Russian Federation) and Hunchun Nature Reserve (China), and between Sredneussurisky natural reserve (Russian Federation) and Dongfanghong reserves (China).* Establishing ecological corridors is considered as a critical method for conservation of wildlife animals. It is believed that ecological corridors would facilitate the protection of animals with large habitat needs by ensuring the ability of these animals to migrate and reproduce. Particularly, the habitat fragmentation of the Amur tigers and leopards population reinforces the necessity for the establishment of ecological corridors. In this regard, the outcome document of the project, "Establishing Coordination Mechanisms for Nature Conservation in Transboundary Areas in North-East Asia", proposed "expanding protected areas beyond national borders" as the priority action area for the Tumen River area that covers Kedrovaya Pad Nature Reserve/Leopard National Park (Russian Federation) and Hunchun Nature Reserve (China).

11. Sredneussurisky natural reserve in the Russian Federation was established in 2012 at the provincial level with the size of 74,700 hectares, or 747 km<sup>2</sup>. It constitutes about 70 km of border with China and in particular 28 km of border with Dongfanghong nature reserve, making a natural ecological corridor across the border. There is a plan to conduct a joint survey in the border area in December 2013.

12. *Preparing economic and ecological feasibility study on the establishment of Komissarovsky nature reserve as a trans-boundary ecological corridor to China.* In order to create a provincial level refuge in Kimissarovsky with 94,000 hectares, or 940 km<sup>2</sup>, in 2015, the Government of the Russian Federation and World Wildlife Fund (WWF) have carried out mapping, and have planned to conduct the feasibility study. As the Chinese side has two provincial nature reserves (Donging Niaoqingshan and Fenhuangshan nature reserves), this protected area will help secure corridors across the national border.

13. China and Russian Federation have continuously strengthened arrangements of bilateral cooperation which have direct implications for research on transboundary ecological corridors. The agreement between China's Jilin Province and neighboring Russia's Primorsky Krai in 2010 planned to share more information and adopt identical monitoring systems for Amur tigers and

their prey. During the 6th International Ecological Forum “Nature without Borders” held in Vladivostok on 19-20 July 2012, both Chinese and Russian experts agreed to initiate the Sino-Russian Transboundary Area Network to enhance information sharing, monitoring, ecological protection in the border, and public awareness.

14. China and the Russian Federation had discussion on transboundary protected area (TPA) for tigers and leopards during the Asia-Pacific Economic Cooperation (APEC) Summit in 2012. The President of the Russian Federation proposed the Chinese President to set up the transboundary protected area. Following up to the proposal, the Russian side prepared a TPA proposal together with a draft agreement in July 2013.

15. On 22 June 2013, the Heilongjiang Forestry Bureau of China and the Primorsky Krai Wildlife and Hunting Bureau of Russia signed a Memorandum of Understanding (MoU) on the cooperation to protect Amur tigers and leopards<sup>4</sup>. The two agencies agreed to (1) enhance protection of large cats as well as their prey; (2) control hunting activities; (3) carry out joint trap clearance operations and joint survey in the transboundary areas; (4) improve and unify monitoring methodology; and (5) strength awareness and education including cultural activities related to the protection of Amur tigers and leopards. The MoU comprises as below:

- actions by both parties on promoting the establishment of transboundary eco-corridors and to ensure protection of Amur tigers in their key habitats;
- regular cooperation mechanisms through a joint working group, and the provision of finance as well as human resources for Amur tiger protection;
- easy procedures for transboundary visits and activities;
- encourage participation of international organizations and research institutes; and
- establishment of shared platform for information and data exchange

16. Such arrangement directly supports the implementation of “Heilongjiang Action Plan for Amur Tigers in Forestry Protected Districts”, which was adopted in November 2011 with the aim to increase the number of Amur tigers to 128 in the next 40 years. Based on the Plan, Heilongjiang Province approved the establishment of Amur tiger protected areas in Laoyeling and Wandashan forestry protected districts. In Laoyeling, the protected area covers 70,000 hectares, or 700 km<sup>2</sup>, which borders Russia in the east and Hunchun Nature Reserve in the south. Within the districts, 3-4 ecological corridors linked to the Russian Far-East will be built to facilitate tiger migration from Russia to China. The Province also identified Zhangguangcailing as another priority area for Amur tiger protection.

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<sup>4</sup> [www.chinanews.com/gn/2013/06-22/4958063.shtml](http://www.chinanews.com/gn/2013/06-22/4958063.shtml)

17. Furthermore, new plan and project in Jilin Province, China, have a direct implication for its transboundary cooperation with DPRK as well as the Russian Federation. The Province completed a project plan on “Amur Tiger and Leopard Protection and Habitats Development in Changbai Mountain” in April 2012. This Plan emphasizes on restoring habitats, sustaining instant wild population, and increasing ungulate resources in Changbai Mountain area. It is expected to double the population of Amur tigers and leopards by 2022. In addition, Jilin Forestry Bureau launched a tiger recovery trial project during the third Global Tiger Day on July 29, 2012. The trial project is expected to successfully provide adequate prey to settle Amur tigers and leopards and to migrate from Russian Far East to China.

18. This preliminary situation analysis presents that (1) there is a great potential in scientific collaboration among NEASPEC member states on DNA analysis; and (2) China and the Russian Federation have made significant progress in strengthening national policy measures and building various platforms for bilateral cooperation.

### **III. CONSERVATION OF MIGRATORY BIRD HABITATS**

19. Further to the approval of the Chair of SOM-17 on the project, “Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia”, the first Expert Group Meeting (EGM) of the project was held on 10-11 October 2013 in Incheon.

20. The EGM brought together national experts and other stakeholders to review subregional and national challenges related to the conservation of the migratory bird species and their habitats, and develop the implementation plan for the project components including scoping survey, joint study, capacity building on habitat management, strategy for habitat conservation, and awareness raising on habitat conservation.

21. The EGM gathered national focal points/experts from China, Japan, Mongolia, the Republic of Korea, and the Russian Federation (via video link), as well as experts from national and international programmes including BirdLife International, East Asian-Australasian Flyway Partnership (EAAFP), Korea Waterbird Network, Korea Society of Environment and Ecology (KSEE) and Environmental Ecology Research Foundation (ERF).

22. Information on the details of the three NEASPEC flagship species of migratory birds, i.e. Black-faced Spoonbills, Hooded Cranes, White-naped Cranes, including protection status, population size, migratory routes, major threats, monitoring actions and methodology in each member State. It is evident that the subregion has critical habitats for breeding, stopping-over and wintering of these migratory bird species. For example, over 40% of the world’s White-naped Crane population, approximately 1,200 individuals, breeds in Mongolia.

23. Presentations at the EGM showcased the extensive effort by member States in researching these endangered migratory bird species and community's involvement has shown to be an important part of conservation. For example, satellite tracking of birds' movements has been carried out throughout the subregion. Japan has also carried out mtDNA analysis and individuals tracking on Black-faced Spoonbills. Voluntary bird watchers have shown to be key in supporting the Black-faced Spoonbills monitoring work in Japan and conservation work involving local farmers and communities in the Russian Federation had produced encouraging results in the protection of cranes.

24. Major threats in the subregion shared at the EGM include changing habitat conditions and population status from the change of land use, human disturbance, natural climatic variance and water management practices. Land reclamation and development plans have been particularly threatening in destroying and reducing habitats for breeding, such as the disappearance of White-naped Cranes at the Han River estuary, ROK. Other issues related to migratory birds such as the over concentration of Hooded Cranes in Izumi, Japan and the increased risk of an avian flu (H5N1) outbreak, have also been presented at the EGM.

25. The EGM reviewed the project proposal presented by the Secretariat and came to a conclusion that the project should aim to clearly define the project targets and to develop concise and widely applicable models. It also highlighted the intergovernmental nature of NEASPEC for setting up a subregional platform of cooperation, and the potential contribution of this project to addressing the thematic inter-linkages between environment, economic and social dimensions.

26. Further to reviewing the proposed criteria made by the Secretariat, the EGM agreed to pay particular attention to scientific significance, strong relevance to international cooperation and implications of local community participation. On the basis of these recommended criteria, the Meeting identified the target sites for each species amongst the member States (refer to EGM meeting report in Annex for details). After the EGM, the Secretariat communicated with the national expert of the Russian Federation who was not able to attend the meeting in order to seek the view of the meeting outcome. The national expert proposed to include Muraviovka wildlife refuge and/or Amurskiy wildlife refuge as the target site as they are the breeding sites of White-naped Cranes and the stopover sites for Hooded Cranes. In this regard, the Secretariat proposes the project target sites as follow:

- Black-faced Spoonbills: Xingrentuo/Yuanbaotuo at Liaoning (China); Hakata Bay (Japan); and Incheon (ROK)
- Hooded Cranes: Lindian (China); Izumi (Japan); and Cheonsu Bay (ROK)

- White-naped Cranes: Dauria International Protected Area and adjacent territories (including Onon for Mongolia and Dalai Lake for China) of Dauria ecoregion (China, Mongolia and Russian Federation); and Muraviovka wildlife refuge and/or Amurskiy wildlife refuge (Russian Federation)
- Joint study (Hooded Cranes and White-naped Cranes): Dauria International Protected Area and adjacent territories of Dauria ecoregion; and Korean Demilitarized Zone (DPRK and the ROK);

27. The EGM agreed that the implementation of the scoping survey will be led by a coordinating body (the institution to which the nominated national focal point/expert belongs) for each species group. It has also been agreed that joint studies will focus on transboundary areas including Dauria International Protected Area (DIPA-China, Mongolia and the Russian Federation) and the Korean Demilitarized Zone (DPRK and the ROK), subject to the consultation with the national focal points.

28. In view of the conclusions of the EGM to highlight international cooperation and local community participation in the project activities, the Secretariat proposes reallocation of the budget as below to reflect these conclusions. The total project budget remains unchanged.

**[Proposed budget reallocation for the project on migratory birds]**

Project components	Original allocated budget (USD)	Proposed budget (USD)
Scoping survey of key habitats	40,000	60,000
Joint study	35,000	40,000
Expert Group Meeting/ International Workshop	45,000	30,000
Capacity Building Training/ Awareness Raising	30,000	20,000
Miscellaneous	5,000	5,000
<b>Total Amount</b>	<b>155,000</b>	<b>155,000</b>

**IV. ISSUES FOR CONSIDERATION**

29. [Conservation of tigers and leopards] The Meeting may wish to request member States to provide their view on specific topic of cooperation and to make the final decision on the NEASPEC activity.



30. [Conservation of migratory bird habitats] The Meeting may wish to request member States to provide their views on the outcome of the EGM and endorse the proposed implementation plan and budget reallocation.

31. The Meeting may wish to invite member States to indicate their intended contributions to the implementation of activities in the field of nature conservation.

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## **Annex: Report of the Expert Group Meeting on the NEASPEC Project, “Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia”**

**10-11 October 2013, Incheon, Republic of Korea**

1. NEASPEC organized the Expert Group Meeting (EGM) Conservation and Rehabilitation of Habitats for Key Migratory Birds in North-East Asia on 10-11 October 2013 in Incheon, Republic of Korea, to bring together national experts and other stakeholders to review subregional and national challenges related to the conservation of the migratory bird species and their habitats; and to develop the implementation plan for the project components including joint survey and study, capacity building on habitat management, strategy for habitat conservation and rehabilitation, and awareness raising on habitat conservation.
2. The EGM gathered national focal points for this project and national experts from China, Japan, Mongolia, Republic of Korea, and the Russian Federation (via video link), as well as experts from national and international programmes including BirdLife International, East Asian-Australasian Flyway Partnership (EAAFP), Korea Waterbird Network, Korea Society of Environment and Ecology (KSEE) and Environmental Ecology Research Foundation (ERF).
3. The Meeting shared information on the details of the three NEASPEC flagship species of migratory birds, i.e. Black-faced Spoonbill, Hooded Crane, White-naped Crane, including protection status, population size, migratory routes, major threats, monitoring actions and methodology in each member State. Major threats shared at the Meeting include changing habitat conditions and population status from the change of land use, human disturbance, natural climatic variance and water management practices.
4. **[Scoping Survey]** The Meeting reviewed the proposed survey’s objectives presented by the Secretariat, which include selecting key sites for conservation of target species; undertaking a comprehensive survey for the development of a conservation plan; and establishing a subregional monitoring scheme and information sharing network. In this regard, the Meeting came to a conclusion that the project should aim to clearly define the project targets and to develop concise and widely applicable models.
5. The Meeting also highlighted the intergovernmental nature of NEASPEC for setting up a subregional platform of cooperation, and the potential contribution of this project to addressing the thematic inter-linkages between environment, economic and social dimensions. Thus, the Meeting noted that this value-added of NEASPEC should be taken into account in the formulation of the approach and content of the survey.

6. **[Criteria for selection of target sites]** The Meeting reviewed the proposed criteria from the Secretariat, which include sites enlisted under international programmes (including EAAFP, IBA and Ramsar Sites, etc.); sites requiring urgent rehabilitation and management through international support; and sites requiring improved local community involvement as a key condition. After reviewing the criteria, the Meeting agreed to pay particular attention to scientific significance, strong relevance to international cooperation and implications of local community participation. On the basis of these recommended criteria, the Meeting identified the target sites as follows.
  - Black-faced Spoonbills: Xingrentuo/Yuanbaotuo at Liaoning (China); Hakata Bay (Japan); and Incheon (ROK)
  - Hooded Cranes: Lindian (China); Izumi (Japan); and Cheonsu Bay (ROK)
  - White-naped Cranes: Dauria International Protected Area and adjacent territories (including Onon for Mongolia and Dalai Lake for China) of Dauria ecoregion (China, Mongolia and Russian Federation)
7. The Meeting agreed that the implementation of the scoping survey will be led by a coordinating body (the institution to which the nominated national focal point/ expert belongs) for each species group: China for the Black-faced Spoonbills, and ROK for the Hooded Cranes. For the White-naped Cranes, the coordinating body will be decided between Mongolia and the Russian Federation after further consultation.
8. The Secretariat informed the Meeting on the plan to work with the coordinating bodies to prepare a detailed guideline for the scoping survey and seek input from all meeting participants for finalization.
9. **[Joint Study]** The Meeting agreed that the joint study will focus on transboundary areas including Dauria International Protected Area (DIPA-China, Mongolia and the Russian Federation) and the Korean Demilitarized Zone (DPRK and the ROK), and the implementation will be coordinated by KSEE. The final confirmation of selecting DIPA is subject to the consultation with the national focal point of the Russian Federation. With regard to the study at the DMZ, the Meeting recommended efforts to actively explore the possibility of the involvement of DPRK in the joint study. The Meeting agreed that the Terms of Reference of the joint study will be developed by KSEE and to be consulted with national experts and relevant mechanisms for its finalization.
10. **[Capacity Building]** The Meeting accepted the plan of developing training manuals and education materials, which will be coordinated by KSEE.
11. **[Budget]** The Meeting noted that the Secretariat may revise the budget for each project component in accordance to the agreed implementation plan, which is subject to the

approval of the SOM-18. The Meeting was informed that the Secretariat will prepare a Letter of Agreement with each coordinating body for activity implementation and budget execution.

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