ANNEX II. NATURE CONSERVATION STRATEGY IN NORTH-EAST ASIA

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1. INTRODUCTION

1.1. Background of the project

North-East Asia Subregional Programme for Environment Cooperation (NEASPEC) was launched in 1993 as a comprehensive intergovernmental cooperation mechanism. China, Japan, Democratic People's Republic of Korea (DPRK), Mongolia, Republic of Korea (ROK), Russian Federation, with shared vision, strive to make concerted efforts to address environmental challenges in this subregion. Institutionally, Meeting of Senior Officials on Environmental Cooperation in North-East Asia (SOM) functions as the governing body and principal vehicle for the evolution of NEASPEC with UNESCAP providing Secretariat services.

The project "A Framework for a Nature Conservation Programme in North-East Asia", which was approved by the 10th SOM in 2004, aims to assist NEASPEC member countries in undertaking joint action on nature conservation in the field of "the conservation and recovery of large mammals" and "the conservation, monitoring and cooperative research on important migratory species". In order to achieve the goal, the project was designed to develop a subregional conservation strategy and action plan as well as a web-based database and awareness raising materials on the selected target species.

During the Inception Meeting in July 2005, six target species, namely Amur tiger, Amur leopard, snow leopard, black-faced spoonbill, white-naped crane and hooded crane were selected. The Expert Group Meeting held in December 2005 identified major components of conservation strategy for target species. The strategy is built upon existing strategies and recommendations made by NGOs and international networks. With the active participation and input from national collaboration centers, the following strategy was elaborated during the Review Meeting in October 2006.

1.2. Overall Goals

The overall goals of NEASPEC subregional conservation strategy for target species are:

- > To contribute biodiversity conservation in North-East Asian subregion by ensuring the survival of target species,
- > To promote transboundary and intergovernmental cooperation for nature conservation among NEASPEC member countries, and
- > To enhance coordinated mechanism for the conservation of target species and their habitats.

1.3. Overall approach

The overall approaches of NEASPEC subregional conservation strategy for the target species are:

- > To be built on existing schemes to create synergies, promote partnership with existing activities and networks, and
- ➤ To support the subregional implementation of international agreements such as CBD, CMS, CITES and so on.

1.4 Summary of the current status of target species

Species	Amur tiger	Amur leopard	Snow leopard	Black- faced spoonbill	White- naped crane	Hooded crane
Scientific name	Panthera tigris altaica	Panthera pardus orientalis	Uncia uncia	Platalea minor	Grus vipio	Grus monacha
IUCN Red List	CR	CR	EN	EN	VU	VU
CITES listing	Appendix I	Appendix I	Appendix I	Not included	Appendix I	Appendix I
Distribution	Russia (Primorsky province, South of Khabarovsky province), China (Eastern Jilin province, Eastern Heilongjiang province)	Russia (Southwestern Primorsky province), China (South-eastern Jilin province, South-eastern Heilongjiang province)	Mongolia, Russia, China, Other countries	Breeding: China, DPRK, ROK Wintering: China, ROK, Japan, Other countries	Breeding: Mongolia, Russia, China Wintering: China, DPRK, ROK, Japan	Breeding: Russia, China, Mongolia Wintering: China, DPRK, ROK, Japan
In-situ population	ca. 500 (2006)	30-40 (2003)	4,500-7,350 (subregion: 2,650-3,700) (2003)	ca.1,600~ (2006)	ca. 6,500 (2001)	ca. 9,150 (1999) 10,800 (2003) plus on Yantze River
Ex-situ population	517 (2005)	219 (2001)	557 (2003) + about 1,400 in China	20 (2002)	238 (1997)	105 (2004)

2. AMUR TIGER

Amur tiger faces many threats. Their habitats are lost and fragmented by logging, development and forest fire. It is also degraded by reduction of prey species because of habitat loss and hunting by humans. Poaching for illegal wildlife trade of bone or fur has been reduced but still occurs, and tigers are also killed accidentally by snares and so on. As a fate of large carnivores, human-wildlife conflicts pose threats of killing or harassment by local people, and public support for conservation is lacking. The capacity of management authorities for conservation and monitoring of habitats is not enough, and the international cooperation among range countries is also insufficient.

To overcome these threats, the following actions were identified as NEASPEC priority for the conservation of Amur tiger.

2.1. Objectives

For the conservation of Amur tiger, the most urgent and key issues are:

- To increase prey species and enhance management of protected areas,
- To reduce poaching and illegal trade level,
- To strengthen state management, understandings and collaboration by local public, and
- To enhance transboundary cooperation in protected areas management and trade control.

- 1) Encourage and support two range countries to take appropriate actions to ensure healthy population of prey species; including:
 - (i) Implement ban on hunting in key areas (still important for China Government and aptly for Russia as well)
 - (ii) Development and implementation of sustainable harvesting system in tiger habitats;
 - (iii) Development and implementation of the projects for restoring ungulate populations in tiger habitat, for example, removal of snares, assessment of effectiveness of several measures to increase ungulate numbers in model hunting estates, and dissemination of the experience.
- 2) Ensure the law enforcement in each member country on both international and domestic trade of all tiger specimen, parts and derivatives, and encourage and support range countries to strengthen law enforcement; including:

- (i) Establishment of anti-poaching team and enforcement unit to counter the illegal killing and trade including monitoring of poaching,
- (ii) Implement measures to ban transfer and trade of products with tiger ingredients and to prevent illegal possession and transportation of tiger specimen, parts and derivatives,
- (iii) Reinforcement of operation of customs and border control on transboundary transfer of specimen, parts and derivatives in cooperation with customs offices of other countries,
- (iv) Work closely with CITES secretariat and implement the Resolution Conf. 12.5 in CITES on Conservation of and trade in tigers and other Appendix I Asian big cat species.
- 3) Encourage and support range countries to involve local public in planning and implementation of conservation work as well as local development to reflect their interest and needs; including:
 - (i) Create sufficient compensation scheme (state insurance) for tiger kills of domestic animals
 - (ii) Evaluate potential for supporting local community through sustainable use of natural resources in order to develop economic incentives for encouraging local people participation in conservation.
- 4) Encourage and support range countries to work together for conservation of the species; including:
 - (i) Establish and operate national working group including government agencies, managers, researchers, NGOs and local public, where appropriate, in each range country, in order to evaluate and propose conservation measures,
 - (ii) Facilitate regular dialog with their international counterpart working groups to coordinate actions,
 - (iii) Launch Russia-China transboundary reserves in Wandashan/Strelnikov and Dalongling-Laoyeling/Southwestern Primorye,
 - (iv) Establish international and national corridors to secure safe movement of the species.
- 5) Encourage and support ROK and DPRK to establish joint working group to work on current status and conservation of the species.
- 6) Promote awareness raising on conservation needs of the species in each Government as well as general public and international community; including:
 - (i) Provide regularly updated information of conservation status including ex-situ population or collaboration activities and publicize on NEASPEC website,
 - (ii) Hold events in each country at the same time every year and promote awareness

of general public (e.g. Amur Tiger Day in Russia, NEASPEC Nature Conservation Day).

- 7) Support range countries to work together in capacity building on habitat management, population management, monitoring and research, law enforcement, environmental education and community development.
- 8) Support conservation movements or NGOs in each country and/or international NGOs.

3. AMUR LEOPARD

Amur leopard or Far Eastern leopard faces many threats including habitat degradation, loss and fragmentation caused by logging, development and forest fire, reduction of prey species by habitat loss and hunting. Poaching for illegal trade of fur is also a problem and law enforcement is not strict enough. Human-wildlife conflict cause killing or harassment of the leopard, and the level of local and public support is low. Also, the current population of Amur leopard is so small that low genetic diversity, high risk of extinction by epidemics and low reproduction rate are great concern. Competition for prey or habitat with Amur tiger also can be a threat. The international cooperation among range countries is insufficient.

To overcome these threats, the following actions were identified as NEASPEC priority for the conservation of Amur leopard.

3.1 Objectives

For the conservation of Far East leopard, the most urgent and key issues are:

- ➤ To raise awareness of urgent conservation needs of the species.
- To enhance protection of protected areas and increase prey species.
- To promote understandings and collaboration by local public.
- > To improve transboundary cooperation in protected areas management and trade management.
- ➤ To enhance ex-situ conservation scheme with a goal of reintroduction into the wild.

- 1) Encourage and support three range countries to take appropriate actions to ensure healthy population of prey species; including:
 - (i) Forest rehabilitation and firefighting,
 - (ii) Establishment of new hunting norms including a system of preferential licensing

for hunters involved in conservation and local people.

- 2) Ensure the law enforcement in each member country on both international and domestic trade of all leopard specimens, parts and derivatives, and encourage and support range countries to strengthen law enforcement; including:
 - (i) Establishment of anti-poaching team and enforcement unit to counter the illegal killing and trade including monitoring of poaching and snare removal program,
 - (ii) Reinforcement of operation of customs and border control on transboundary transfer of specimen, parts and derivatives in cooperation with customs offices of other countries,
 - (iii) Work closely with CITES secretariat and implement the Resolution Conf. 12.5 in CITES on Conservation of and trade in tigers and other Appendix I Asian big cat species.
- 3) Encourage and support range countries to involve local public in planning and implementation of conservation work as well as local development to reflect their interest and needs; including:
 - (i) Promotion of sustainable compensation program,
 - (ii) Incorporation of deer farming activity into leopard conservation,
 - (iii) Development of strategy for sustainable resource use in the region (non-timber forest products),
 - (iv) Integration of conservation into local development plan, including the needs of local community,
 - (v) Promotion of eco-tourism using leopard as symbol and ensure tangible benefits.
- 4) Encourage and support range countries to work together for conservation of the species; including:
 - (i) Promotion of DPRK involvement in tri-lateral joint monitoring and patrol programs,
 - (ii) Establish and operate national working group including government agencies, managers, researchers, NGOs and local public, where appropriate, in each range country, in order to evaluate and propose conservation measures,
 - (iii) Facilitate regular dialog with their international counterpart working groups as well as international ex-situ conservation community to coordinate actions,
 - (iv) Launch Russia-China transboundary reserve at Dalongling Laoyeling / Southwestern Primorye.
- 5) Promote awareness raising on conservation needs of the species in each Government as well as general public and international community; including:
 - (i) Provide regularly updated information of conservation status including ex-situ

- population or collaboration activities and publicize on NEASPEC website,
- (ii) Hold special events on this species in collaboration with NGO which is currently leading campaign for the conservation of the species (like Russian program "Save each of the last"),
- (iii) Hold events in each country at the same time every year and promote awareness of general public (e.g. Land of Leopard Annual Festival, NEASPEC Nature Conservation Day).
- 6) Support range countries to work together in capacity building on habitat management, population management, monitoring and research, law enforcement, environmental education and community development; including:
 - (i) Holding workshop on captive management and breeding targeting re-introduction,
 - (ii) Conducting study on rehabilitation,
 - (iii) Establishment of genome resource bank,
 - (iv) Initiation of re-introduction program in former range in Sikhote-Alin Mountains.
- 7) Support conservation movements or NGOs in each country and/or international NGOs.

4. SNOW LEOPARD

The most serious threats for snow leopard in the subregion are poaching and illegal trade of fur, and insufficient capacity of management authorities to enforce law. The awareness of policy makers is not enough and policy for conservation is establishing slowly. Poverty and lack of awareness of local people together with human-wildlife conflict pose threat of killing or harassment of snow leopard. Local development and growing access to the snow leopard habitat is reducing their place to stay or hunt and is increasing risk of poaching of snow leopard as well as their prey. Current designation of protected areas is not sufficient and international coordination of conservation activities is lacking.

To overcome these threats, the following actions were identified as NEASPEC priority for the conservation of snow leopard.

4.1 Objectives

For the conservation of snow leopard, the most urgent and key issues are:

- > To promote transboundary cooperation in control of poaching and illegal trade, monitoring and research and protected areas management,
- To promote international cooperation in capacity building on population and habitat

- management, monitoring and research, law enforcement, environmental education and community development,
- > To enhance conservation of the species in collaboration with the existing Snow Leopard Network and other organization.

- 1) Encourage and support range countries to take appropriate actions for law enforcement to prevent poaching and any other illegal actions; including:
 - (i) Establishment of subregional cooperation network toward reducing poaching and trade level of snow leopard,
 - (ii) Development of regular trilateral meeting,
 - (iii) Production of annual/biannual reports to review national infrastructure, roles, and their responsibilities of relevant governmental agencies,
 - (iv) Encouragement of the government and other related agencies to improve funding mechanism for prevention of poaching,
 - (v) Working closely with CITES secretariat and implement the Resolution Conf. 12.5 in CITES on Conservation of and trade in tigers and other Appendix I Asian big cat species.
- 2) Ensure the law enforcement in each member country on both international and internal trade of snow leopard specimen, parts and derivatives.
- 3) Encourage and support three range countries to establish information exchange mechanism to improve international cooperative actions; including:
 - (i) Promotion of exchange of locally best practices or for best available knowledge into national and international level,
 - (ii) Holding workshop to coordinate "subregional strategy and action plan" and enhance collaborating actions among range countries,
 - (iii) Establishment and operation of national working group including government agencies, managers, researchers, NGOs and local public, where appropriate, in each range country, in order to evaluate and propose conservation measures,
 - (iv) Facilitation of regular dialog to share information and exchange experiences and to coordinate actions among all range countries.
- 4) Encourage and support three range countries to involve local public in planning and implementation of conservation work as well as local development to reflect their interest and needs and to address human-wildlife conflict; including:
 - (i) Dissemination of information on improved animal husbandry to reduce livestock loss,

- (ii) Maintenance of the sustainable level of wild ungulates population,
- (iii) Development of compensation mechanisms,
- (iv) Promotion of participation of local community in conservation and planning.
- 5) Support range countries to monitor population, distribution and habitat status of snow leopard; including:
 - (i) Encouragement of range countries to adopt common methodologies of monitoring, and DB framework by training programs to strengthen professional skills involving local officers,
 - (ii) Promotion of the field survey training for monitoring of Snow leopard.
- 6) Promote awareness raising on conservation needs of the species in each Government as well as general public and international community; including:
 - (i) Provision of regularly updated information of conservation status including ex-situ population or collaboration activities and publicize on NEASPEC website,
 - (ii) Holding events in each country at the same time every year and promote awareness of general public (e.g. NEASPEC Nature Conservation Day).
- 7) Support conservation movements or NGOs in each country and/or international NGOs.

5. BLACK-FACED SPOONBILL

The major threats black-faced spoonbill faces are habitat loss and degradation caused by conversion of natural habitat into rice fields, vegetable gardens, fish shrimp or crab ponds, garbage dumps, industrial or residential areas. The habitat degradation is also caused by erosion or silting. Further, with the human activities such as over-fishing, illegal fishing, changes in fish farming practices, exotic competitors or predators and pollution reduce food quality and availability. The interference of their habitat and feeding areas by photographers, bird-watchers and light plane are increasing. The predation of their eggs by animals is increasing and they are also hunted or their eggs are collected by human for food in some areas. Infectious disease, loss of genetic diversity, climate change and natural catastrophe are also threats to this species. The knowledge on their biology especially relating to breeding is not enough and the capacity of management authorities is insufficient including the rescuing system. The coordination of conservation work is insufficient.

To overcome these threats, the following actions were identified as NEASPEC priority for the conservation of black-faced spoonbill.

5.1. Objectives

For the conservation of black-faced spoonbill, the most urgent and key issues to achieve are:

- ➤ To enhance coordination of conservation activities in collaboration with the existing Conservation Network for the Black-faced Spoonbill,
- To raise awareness of governments and general public regarding the conservation needs of the species,
- To protect and rehabilitate breeding and wintering sites,
- To establish subregional cooperation program in research, habitat management and monitoring.

- 1) Encourage range countries to recognize Black-faced Spoonbill as a conservation priority species and strengthen the management of its habitats; including:
 - (i) Upgrading the conservation status including establishment of more protected areas within the current breeding and wintering sites in range countries,
 - (ii) Encouragement of local government and bureaus (agriculture, land, water) to take into account the impacts of economic policies and activities on the species and their habitats in and outside protected areas,
 - (iii)Prevention of habitat loss and fragmentation caused by land use such as land reclamation at breeding and wintering sites especially in protected areas,
 - (iv)Encouragement of the use of organic farming practices.
- 2) Encourage and support range countries to develop an formal conservation network for Black-faced Spoonbill with the help of existing network and coordinate activities; including:
 - (i) Development of subregional and national information network to facilitate communication and dissemination of information on Black-faced Spoonbill conservation,
 - (ii) Promotion of a partnership between governments, academics and NGOs on the conservation of Black-faced Spoonbill,
 - (iii) Initiation of joint program of conservation within the DMZ between DPRK and ROK,
 - (iv) Selection of the model sites of management and/or monitoring in each country and promote the exchange of information within the network.
- 3) Develop the action plan for collaborative monitoring and research in breeding or wintering sites, and implement the plan; including:

- (i) Planning for subregional joint monitoring and research to collect data and maintain a database on population, trends, casualties etc.,
- (ii) Continuing and coordinating the monitoring of population and the banding and marking program,
- (iii) Conducting habitat assessment and gap analysis to identify sites of high conservation priority,
- (iv) Conducting research and monitoring on the breeding and wintering ecology, especially at the breeding sites of DPRK, potential breeding sites at international borders, and the potential wintering sites in southeast coast of China,
- (v) Study of the migration pathway between the breeding and wintering countries using satellite tracking,
- (vi) Promotion of precautionary measures and monitoring system on risk such as disease outbreak and poisoning.
- 4) Promote awareness raising on conservation needs of the species in each Government as well as general public and international community; including:
 - (i) Provision of regularly updated data mentioned above and information of conservation status including ex-situ population or collaboration activities by each country and publicize on NEASPEC website,
 - (ii) Holding events in each country at the same time every year and promote awareness of general public (e.g. BFS day, NEASPEC Nature Conservation Day),
 - (iii) Publication of awareness raising material such as report, newsletter and/or documentary films,
 - (iv) Encouragement of management authorities of the breeding and wintering sites to jointly produce education material.
- 5) Support range countries to work together in capacity building on habitat management, population management, monitoring and research, law enforcement, environmental education and community development; including:
 - (i) Training researchers on field survey techniques and analysis of data on black-faced spoonbill in North-East Asia,
 - (ii) Holding international workshops on conservation of BFS.

6. WHITE-NAPED CRANE AND HOODED CRANE

Major threats that white-naped crane and hooded crane are facing is loss and degradation of habitat caused by development and changes of farming method. Their breeding as well as wintering habitat are receiving human impact and not protected enough, and introduced species and harvesting occur in some areas. It also affected by climate change. As a result of

loss of habitat, the number of wintering sites is so few that over-concentration occurs, and it cause lack of food and pose threats of epidemics. Monitoring and research is not enough and public awareness for conservation is insufficient. In some areas, re-introduction program has started but not efficient enough.

To overcome these threats, the following actions were identified as NEASPEC priority for the conservation of white-naped crane and hooded crane.

6.1. Objectives

For the conservation of white-naped crane and hooded crane, the most urgent and key issues to achieve are:

- > To enhance conservation of the species in collaboration with the existing North-East Asian Crane Site Network.
- ➤ To raise awareness of government and general public regarding the conservation needs of the species.
- ➤ To protect and rehabilitate breeding and wintering sites.
- ➤ To establish subregional cooperation program in research, habitat management and monitoring, and diversification of wintering site.

- 1) Encourage member countries to develop an official conservation network for white-naped crane and hooded crane in collaboration with the existing site network and coordinating activities; including:
 - (i) Establishment of a subregional monitoring scheme and encourage member countries to exchange information,
 - (ii) Encouragement of member countries to establish a database and information exchange center or focal point in each country to collect data on biology and ecology of the species,
 - (iii)Provision of regularly updated above-mentioned data and information of conservation status including ex-situ population or collaboration activities by each country and publicize on NEASPEC website,
 - (iv)Selection of the target sites in each country as good management models and/or detailed monitoring program and promote the model to all important sites.
- 2) Encourage member countries to involve local public in planning and implementation of conservation work as well as local development to reflect their interest and needs and increase habitat so that over-concentration will be avoided; including:

- (i) Development of economic incentives (program) to local community in major wintering sites,
- (ii) Collaboration with other conservation groups and farmers on the management of rice paddy for other waterfowls,
- (iii) Encouragement of the use of organic farming practices,
- (iv) Promotion of reintroduction and captive breeding project of white-naped crane at the Gumi and Nagdong River, South Korea with international cooperation.
- 3) Encourage member countries to strengthen management and improve habitat; including:
 - (i) Promotion of joint protection of DMZ area by DPRK and ROK through workshop, promotion material, survey etc. and promote the importance of joint protection,
 - (ii) Improvement of water/irrigation management to prevent disturbance caused by human and livestock in breeding grounds (Russia/Mongolia/China),
 - (iii) Development of economic incentives (program) to local community in breeding and staging sites,
 - (iv) Education of local people to prevent Steppe fire in Russia/Mongolia/China
 - (v) Allocation of appropriate activities to relevant organizations (government agency, international/national NGOs),
 - (vi) Encouragement of local government and bureaus (agriculture, land, water) to take into account the impacts of economic policies and activities on the species and their habitats in and outside protected areas,
 - (vii) Establish more transboundary protected areas.
- 4) Encourage member countries to conduct joint survey or monitoring with neighboring countries; including:
 - (i) Conducting joint survey in border areas such as DMZ and adjacent areas of China, Mongolia, Russia and DPRK,
 - (ii) Conducting joint monitoring of winter population,
 - (iii) Conducting migration monitoring by satellite tracking with international cooperation,
 - (iv) Conducting joint analysis of genetic diversity and ecotoxicological data,
 - (v) Promotion of precaution measures and monitoring system on risk such as disease outbreak and poisoning.
- 5) Encourage member countries to conduct joint research on habitat assessment; including:
 - (i) Establishment of monitoring stations for changing patterns of breeding sites particularly in Eastern part of Mongolia,

- (ii) Conducting joint assessment of breeding wetlands: conduct desk study of potential wetland habitat in the subregion using satellite images, then conduct field survey and analyze problems if there is any,
- (iii) Conducting joint assessment of habitat condition at important sites and gap analysis to identify sites of high conservation priority,
- (iv) Conducting assessment of socio-economical issues including human impact.
- 6) Support member countries to work together in capacity-building on habitat management, population management, monitoring and research, law enforcement, environmental education and community development:
 - (i) Training researchers on field survey techniques of cranes *Grus* spp. in North-East Asia,
 - (ii) Supporting activities of Daurian International Protected Area and Khanka/Xinkaihu international nature reserve.
- 7) Promote awareness raising on conservation needs of the species in each Government as well as general public and international community; including:
 - (i) Holding events in each country at the same time every year and promote awareness of general public (e.g. NEASPEC Nature Conservation Day),
 - (ii) Publishing awareness raising material such as report, newsletter and/or documentary films,
 - (iii) Establishment of Crane Conservation Center for the education of the residents, students and officers in the region.
- 8) Improve and strengthen management of habitats and species:
 - (i) Improvement and strengthening management of existing protected areas and encourage the adoption of good land use methods,
 - (ii) Prevention of land reclamation to reduce or prevent fragmentation and isolation of crane habitats.