



CONVENTION ON MIGRATORY SPECIES

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SIXTH MEETING OF THE SIGNATORIES TO
THE MEMORANDUM OF UNDERSTANDING
CONCERNING CONSERVATION MEASURES
FOR THE SIBERIAN CRANE (*Grus leucogeranus*)
Almaty, Kazakhstan, 15-19 May 2007
Agenda Item 7.0

OVERVIEW REPORT

(Advanced unedited draft as at 17 May 2007)

(Prepared by the International Crane Foundation (ICF) on behalf of the CMS Secretariat)

1.0 Introduction

1. Pursuant to paragraph 5 of the MoU, the Secretariat shall prepare an overview report compiled on the basis of information at its disposal pertaining to the Siberian Crane (*Grus leucogeranus*).
2. National reports by the Signatories are a primary source of information for the overview report. The Siberian Crane Flyway Coordinator provided reporting templates to all MoU signatories and co-operating organizations having signed the MoU. As of 16 May 2007, the Signatories from the following Range States had submitted their national reports to the Secretariat: **XXX**. Other information available to ICF was also used in the form of data and project reports, conference proceedings and published materials.
3. The structure of this report follows the format used by other MoUs under CMS auspice. Section 2 addresses the conservation status of the Siberian Crane. Section 3 addresses the implementation of the Conservation Plan. In this section corresponding action points from the Conservation Plan are indicated where appropriate. This report does not repeat the information provided in the national reports. It only summarizes the main issues.

2.0 Conservation Status of the Siberian Crane

Overview

4. The Siberian Crane (*Grus leucogeranus*) is listed as Endangered in the IUCN, Red Data Book. The remnant western and central populations are considered Critically Endangered. Because of its dependence on wide expanses of shallow wetlands, habitat loss or deterioration in China due to high human population pressure is the greatest threat to the eastern flock. In western and central Asia, widespread hunting is believed to have caused dramatic decline of the two flocks in recent decades although other causes of mortality should be monitored and investigated. Of the world's 15 species of cranes, the International Crane Foundation considers the Siberian Crane at the highest risk of extinction, although their numbers slightly exceed that of the Red-crowned Crane (*Grus japonensis*, now at about 2,800

birds) and far exceed those of the Whooping Crane (*Grus americana*, at about 235 birds in the only self-sustaining wild flock). *G. japonensis*, although threatened on the mainland of Asia, is increasing in Japan, and *G. americana* has slowly and steadily increased from a critical low of about 15 birds in the 1940s.

Eastern Population

Numbers and Population Trends

5. The eastern population of Siberian Cranes that breed on the tundra of Yakutia, Russia, between the Lena and Kolyma rivers (Kytalyk Resource Reserve), has a narrow migration route to staging areas in northeast China, and from there along the coast of China to the Yellow River Delta, before migrating overland to Poyang Lake along the middle reaches of the Yangtze River. Winter counts at Poyang Lake Nature Reserve, conducted by the Jiangxi Wildlife Management Bureau, reveal about 3,000 birds and the numbers of brown-colored juveniles in autumn have indicated good productivity. If wetlands and continued protection are provided, the population has potential for increase.

6. Researchers at the Institute of Biological Problems of Cryolithozone in Yakutia, who conduct annual surveys of the Siberian Cranes on their breeding grounds, have evidence that the crane population has increased in recent decades to 7.34 - 7.79 bird/km² in 2007). Their work has also revealed that the Indigirka River Valley in the east of the breeding range is an important breeding area as well as a migration corridor, especially near the village of Khonuu in Mamsky Region. South of the breeding grounds, new evidence shows that the valleys of the Middle Aldan River and the Maya River Valley are important migration corridors. And in China, an important new staging area (800 cranes in 2007) was recently discovered at the Huanzidong Reservoir in Liaoning Province close to where the migration corridor meets the seacoast.

7. In China, work has concentrated at four staging areas in the northeast (Zhalong, Momoge, Keerqin and Zianghai nature reserves) and at Poyang Lake. The wetlands of the staging areas are threatened by drought, upstream diversions of water for human use, and development of former wetlands. Comprehensive research at Poyang Lake on the relationships among water depth, turbidity and the production of plants on which Siberian Cranes feed in winter is helping to elucidate potential effects of the damming of the Yangtze and the five tributary rivers that sustain the ecosystem. Wetlands in eastern Mongolia and northern China serve as summering areas for low numbers of non-breeding Siberian Cranes.

Potential and Actual Threats

8. The breeding grounds of the eastern population are relatively undisturbed. Oil, however, has been discovered in and near the breeding grounds, and oil exploration and development pose a significant threat. Oil exploration in Mongolia also poses a threat to unprotected Siberian Crane habitats, as the cranes are sensitive to the human disturbance associated with this industry, which is nearly impossible to control.

9. The loss and degradation of wetland habitats is of greatest concern at critical staging areas, migration stopover sites, and wintering grounds. In particular, the diversion of water resources for human use from rivers supplying key wetlands within nature reserves is a cause of major concern in the semi-arid climate of northeastern China. The wetlands of the staging areas are threatened by drought and development of former wetlands. Although several of the Eastern Population's major staging areas in northeastern China are protected by nature

reserves (principally the Zhalong, Momoge, Xianghai and Keerqin reserves), many others in the flyway remain unprotected. At the same time, there is limited available information about the migration route on which to base future protection efforts. Moreover, Siberian Cranes may use different migration routes in the spring and fall.

10. The threat to migration habitats is greatest in China's eastern provinces. In north-eastern Mongolia, prolonged droughts in the Amur Basin, which may be exacerbated by global warming, can have significant impacts on Siberian Crane wetland habitats. Recent climatic conditions in Yakutia have left rivers and lakes shrinking, causing wetlands to become more accessible to hunters.

11. In eastern Yakutia (taiga area in Kolyma River Basin), there is a threat of lead poisoning due to intensive hunting, especially in spring. Two immature Siberian Cranes in the Amga River area died due to ingestion of lead shot. Further research is needed to better define the most critical areas. Major water engineering projects could have significant impacts on the main wintering grounds of the species in the Yangtze valley.

Central Population

Numbers and Population Trends

12. In the early 1970s about 75 Siberian Cranes wintered at Keoladeo National Park, India. Although the productivity of the population was relatively strong over the next three decades as evidenced by numbers of juveniles, the population continued to decline to just a single pair in 1996. Siberian Cranes have not been sighted in India since the winter of 2002-03. However, birds have been sighted by researchers on the breeding grounds in Russia (Kunovat Nature Reserve) since 2002, and local people in and near the breeding grounds have reported Siberian Cranes in the Yamalo-Nenetsky Autonomous Region. Up to 12,000 Eurasian Cranes in the population that winters in India have been wintering in recent years along the Amu-Daria River lowlands in Afghanistan, Turkmenistan and Uzbekistan. There is a possibility that Siberian Cranes are also wintering in that region.

Potential and Actual Threats

13. Siberian Cranes are strictly protected on their breeding grounds in Russia and on their wintering grounds in India. However, hunting along the migration route is considered to be the primary factor responsible for the demise of this population. The recovery of the population can only be achieved by carefully introducing captive-reared cranes into the flyway. Protection of the cranes as individuals and the conservation of key wetlands throughout their range are fundamental before efforts can be initiated to restore the population by introducing captive-reared birds into the flyway.

14. Illegal hunting is attributed to poor awareness and poor living conditions in Kazakhstan, Uzbekistan, and Turkmenistan. In addition, there is concern that exceptions to hunting laws are made for special visitors to protected areas. It is also a concern that the growing restriction on hunting due to Highly Pathogenic Avian Influenza (HPAI) is leading to increased illegal hunting.

15. The loss and degradation of wetland habitats is a growing concern resulting from recent declines in water level due to climate change and prolonged drought. Habitat changes have also been attributed to specific factors such as water diversion from illegal dams at

Naurzum Nature Reserve, fires in northwest Kazakhstan, and oil and gas development in Kunovat Nature Reserve.

16. In West Siberia of Russia, the status of protected areas has been significantly impaired by the loss of status and funding for Federal Zakazniks under the Ministry of Agriculture. Conflicts are growing between farmers and waterbirds due to crop damage by the birds in the southern part of west Siberia.

Western Population

Numbers and Population Trends

17. Likewise in Iran, the number of Siberian Cranes wintering at their traditional site (waterfowl trapping complexes near Fereydoon Kenar) has declined from about 12 birds in the mid-1990s to just two lone males in the autumn of 2006. Shooting is not allowed inside the trapping areas; however, outside such areas, there is a possibility that cranes might be shot. The wetlands of Azerbaijan are an important resting area for these Siberian Cranes during their migration. It is suspected that, after the collapse of the former-USSR, uncontrolled hunting might have resulted in losses of Siberian Cranes in Azerbaijan and in other areas along the west side of the Caspian.

18. Although it appears that the central population has been extirpated and that the western population wintering in Iran has been reduced to just 1-2 birds, as many as seven cranes have been observed in recent years at the Naurzum wetlands of northwest Kazakhstan. These wetlands have been important historic resting areas for Siberian Cranes that migrate both to India and Iran. During the winter of 2001-02, three Siberian Cranes were reported in Jordan. There have been reports of 4-7 cranes during migration in Azerbaijan. Perhaps there is also an undiscovered wintering area for Siberian Cranes in the Middle East.

19. Satellite transmitter (PTT) studies of Lesser White-fronted Geese have indicated they use the valley of the Tigris River in Iraq, just northwest of Baghdad, as a wintering site. These geese also use the Naurzum wetlands of Kazakhstan as a staging area during migration. Perhaps, as conditions allow, a search in Iraq for the missing Siberian Cranes is warranted.

Potential and Actual Threats

20. The threats in the western population closely parallel those in the central population. Hunting along the migration route is considered to be a significant factor responsible for the demise of this population. Again, the recovery of the population can only be achieved by carefully introducing captive-reared cranes into the flyway as the causes for the decline of the wild population are addressed.

21. Illegal hunting in this region is also attributed primarily to poor awareness and poor living conditions, especially in Dagestan and Azerbaijan. However, there are again concerns that exceptions to hunting laws are being made for special visitors to protected areas. Here it is also a concern that restrictions on hunting due to HPAI are leading to increased illegal hunting. HPAI risk in Iran may lead to a government ban on construction of fencing and duck trapping in damgahs. If the tradition of live duck trapping is lost, there is a risk of poaching in damgahs by hunters in response to the establishment of the Non-Shooting Area near Fereydoon Kenar. If this happens, the Siberian Cranes will lose the security they currently enjoy on these private lands.

22. Similarly to the central population, the loss and degradation of wetland habitats is a growing concern resulting from declining water levels due to climate change and prolonged drought. Habitat changes have also been attributed to specific factors such as oil and gas development in West Siberian staging areas and to fires in the Astrakhan Nature Reserve. In West Siberia, the status of protected areas has been significantly reduced by the loss of status and funding for Federal Zakazniks in Russia under the Ministry of Agriculture. The western population is also affected by the growing conflict between farmers and waterbirds due to crop damage in southern part of west Siberia.

3.0 Implementation of the Conservation Plan

23. The following sections summarize information received as of 14 May 2007 on implementation progress since the Fifth Meeting of the Range States in 26-29 April 2004.

Objective 1. Reduce Mortality in the Remaining Populations

1) Increase public awareness

24. The Siberian Crane video produced in English and Russian by ICF and shared during the previous meeting was translated into the Farsi, Uzbek, Pakistan and Mongolian languages. This film was broadcasted on national TV in almost all Range States. Additional films were produced by countries in national languages and shown on national TV: “Flight of Hope” and “White Crane from Legend” in **Russia**, “Ak Durna” in **Turkmenistan**, a film about the Siberian Crane migration along the western flyway by Mani Mirsadeghi of **Iran**, and a documentary film about the Siberian Crane and other threatened species of birds in **Mongolia**. Information programmes were aired on television addressing crane conservation including footage relating to the 2005 Siberian Crane release programme in **Iran**, Siberian Crane monitoring in Yakutia, and migration and wintering Eurasian Cranes in the Durnaly site in **Turkmenistan**. Interviews about cranes were given on national TV and radio channels for information programmes in **Uzbekistan**, **Turkmenistan**, and **Russia**. In **China**, Jiangxi TV reported on the 14th “Love Bird Week” activity held in Nanchang City in April 2005; the Channel I and News Channel of CCTV reported on the UNEP/GEF SCWP project in **China** national level in August 2006.

25. Articles about Siberian Cranes and related activities were published in a variety of publications including conference proceeding (“Waterbirds around the World”, two issues “Crane of Eurasia”), magazines, newsletters (ICF Bugle, China Crane News, CMS Bulletin, electronic Siberian Crane Flyway News, Information Newsletter of the Crane Working Group of Eurasia (CWGE), Kazakhstan Ornithological Bulletin), national and local newspapers (information on crane migration in Mongolia; “Flight of Hope” project in **Russia**, and Crane Celebration). The book “Most Important Wetlands of Northern **Kazakhstan** (inside of Kostanay and western part of Northern Kazakhstan Regions)” was translated into English and prepared for publication. A “Siberian Crane Conservation Strategy” prepared by staff of the Institute of Biological Problems of the Cryolithozone (IBPC) was also translated and prepared for publication. A monograph on the Siberian Crane is in final stages of preparation by IBPC with articles by authors from different Range States.

26. A variety of education and information materials was produced and distributed at the flyway level, as well as on national and site levels. The Siberian Crane poster by Robert Bateman in 12 national languages was produced in **India** through funding from the U.S. Fish and Wildlife Service. It is still shared during education events, with schools, local agencies, and nature conservation organizations and used as a prize during event, such as Asian

Children Art Exhibition in **Uzbekistan, Turkmenistan and Kazakhstan**. A new Siberian Crane poster was prepared in Russian and English for the current MoU6 meeting for distribution among participants. Siberian Crane posters were also produced and distributed at national levels in **Pakistan, Afghanistan and Iran**. Stickers on the Siberian Crane in Farsi, Chinese, Yakutian, English and Russian were distributed among different target groups including hunters. A colorful and highly informative booklet on Siberian Cranes and wetland conservation under the framework of the Memorandum of Understanding and the UNEP/GEF SCWP was produced in Russian and English for distribution at the CMS MoU6 meeting. Booklets about the Siberian Crane and related activities were prepared on the national level by **Iran, Mongolia and Kazakhstan**. A booklet "101 Questions About Cranes" by Vladimir Flint in Russian was distributed widely in countries where Crane Celebrations were organized. Countries produced materials on the national level as posters, stickers, and buttons, which were shared among different target groups including hunters.

27. Different education events were hosted at international and national levels. The Crane Celebrations initiated by the CWGE in 2002 became a traditional event in 8 countries, including **Russia, Kazakhstan, Turkmenistan, Uzbekistan, Azerbaijan and Iran**. The number of people involved in this celebration is increasing from year to year. Information on the Crane Celebration was published in national and local newspapers and broadcasted on national TV. The CWGE provided countries with information and education materials (booklets, posters, buttons, stickers, book "Materials for Crane Day", bookmarkers, calendars, etc.). Some of materials were translated into the Farsi, Pashto, Dari, Turkmen, Azerbaijan and Uzbek languages. Countries also produced materials for this event. In the frame of Crane Celebration 2006 the Asian Children Art Exchange Exhibition was held with participation of children from Russia, Turkmenistan, Kazakhstan, Ukraine and Uzbekistan. The winners' art was exhibited by the International Crane Foundation, Moscow Zoo, Zoological Museum of the Moscow State University, as well as in the countries themselves.

28. **Mongolia** also organized Crane Celebration independently. Entertaining and effective Crane Festivals were organized in Salekhard (Yamalo-Nenetsky A.R.) in 2005 and in Naurzum in 2006. Countries also organized crane conservation shows as well as art, essay and quiz competitions; and training workshops for teachers, hunters, students, border guards and others.

29. Local people, especially guards, are involved in waterbird monitoring in **Iran**, where the release programme at Fereydoon Kenar (FDK) is conducted in close cooperation with local trappers. In Pakistan the NWFP Wildlife Department and WWF-P has established school wildlife clubs in crane hunting areas. Winter children's camps were conducted at Poyang with funds from the WWF-Yangtze Programme; and two summer camps were conducted at Xianghai with co-financing from the Luce Foundation, which includes representatives from 4 NE China Project sites. Paintings from the local students of Keerqin were exchanged with the students of USA with support from ICF and Beijing Brook Education Center in late half of 2006.

30. Under the framework of the UNEP/GEF SCWP strategy on awareness raising and education plans for eco-tourism activities are developing in **Iran, China, Kazakhstan and Russia**. The community participatory plan related to wetland restoration in Poyang Lake Basin in **China** was accepted at the experts' workshop in 2006.

31. The NWFP Wildlife Department in **Pakistan** has established the Crane Conservation Centre in Kurram Valley and needs pairs of birds for display in captivity. In Iran, a guard

station and education center has been partially constructed located in the Oja Kaleh, a forest patch near FDK Non-shooting Area for education goals.

2) Assess hunting pressure and other mortality factors along the migration route

32. In **Pakistan** the Federal Government has issued a directive to ban hunting of cranes. Through WWF and other NGO efforts, section 144 of Pakistan was imposed in Zhob this year to ban hunting during the migration season. In **Iran** hunting is regulated under the Department of the Environment (DoE) management system and since 2005 no hunting permit has been issued due to the risks of avian influenza. In **Kazakhstan**, in connection with the threat of the spread of avian influenza in 2005, spring hunting was prohibited and the terms of autumn hunting were shortened and postponed. In 2006 the terms of spring hunting were shortened.

3) Study Cranes along the migration route (Siberian Crane Monitoring)

33. Regular monitoring is conducted by most Range States on breeding, migratory, or wintering sites. Aerial surveys were conducted in West Siberia and ground surveys - in Yakutia. All important sites in northern **Iran** (including Siberian and Eurasian Crane wintering sites) are under the full coverage of the mid-winter waterfowl census in cooperation with international organizations such as WIWO. In **China** three wintering surveys were conducted in the winters of 2004, 2005 and 2006, and an aerial survey was conducted in the winter of 2005 in the Poyang Lake Basin under UNEP/GEF SCWP. On migration stopovers, regular monitoring was conducted in the Astrakhan Nature Reserve (Russia), in the Naurzum Nature Reserve (Kazakhstan), and in Punjab and NWFP by the NWFP Wildlife Department and WWF (Pakistan).

Determine autumn migration routes, wintering areas and spring migration routes of the remaining flocks, as well as summering areas of juvenile Siberian Cranes.

34. In **Iran** in 2004 ground surveys were conducted in Khorasan Province in northeast Iran to search for alternative Siberian Crane wintering grounds in Iran. Special attention was paid to a site near Turkmenistan's border. The surveys showed that near Turkmenistan's border and along the Hari Rud River there is no habitat suitable for cranes to winter or stop over. A number of wetlands in the central and southern **Kazakhstan**, including Irgiz and Turgay downstream, have been studied within the framework of Birdlife International's Important Bird Area (IBA) programme; investigation of Shily Lake was included into autumn monitoring programme 2006, where sightings of Siberian Cranes were recorded; a short-term investigation of Sarykopa Lake was made before in 2004-2005; complex studies in the Ural Delta and Kurgaldzhin Nature Reserve have been conducted by the national Kazakhstan UNDP/GEF wetland project, but special observations regarding Siberian Crane have not been made; and a survey of the northeast coast of the Caspian Sea was conducted with financial support of oil companies by the employees of the Institute of Zoology in the framework of the IBA programme. In **Mongolia** on the Siberian Crane summering sites there is no financial support so limited monitoring was conducted during other research. Questionnaires were provided by **Uzbekistan, Kazakhstan, Turkmenistan** and **Russia**. As a result some information about Siberian Crane sighting in Russia (In West Siberia and in Yakutia) and Kazakhstan was received, but no information was received from Uzbekistan and Turkmenistan.

35. With ICF support, and during the Asian Census of Waterbirds, ground surveys were conducted in **Uzbekistan, Turkmenistan, Azerbaijan, Afghanistan, Pakistan** and **Iran**. In

Uzbekistan in the south of the Surkhandarya Region ecological conditions of wintering Eurasian Cranes, including threats, were investigated, with the purpose of possible introduction of captive bred cranes to this territory. Spring migration routes of the Eurasian and Demoiselle Cranes in southern Uzbekistan have been tracked. Daily monitoring on wintering cranes established movement between the Uzbekistan and Afghanistan border. It was concluded that existing conditions in Termez do not guarantee safety of the potential Siberian Cranes wintering sites.

36. PTT activities were conducted by DoE in the winters of 2003/04 and 2006/07 in cooperation with ICF and Oka. Two released birds were marked with PTTs, but tracking ceased shortly after the cranes started migration. In **China** Poyang Lake NNR staff tried to capture Siberian Cranes in December of 2006. Unfortunately, no birds were caught due to various reasons. The major problem is lack of financial resources to hire experienced local people and procure all necessary equipment for catching. In Yakutia during the last two years PTT marking was planned, but not conducted because of lack of an appropriate license for using a foreign technique. Under the framework of the UNEP/GEF SCWP, the monitoring plan for Siberian Crane in China was completed in August of 2004, which was also accepted at the experts' workshop in Hefei of Anhui Province in late July 2004. Meanwhile, the monitoring plan was updated annually according to the actual monitoring situation and some potential sites were also identified.

37. All sightings of the Siberian Crane have been studied in **Kazakhstan** and **Mongolia**; the information has been submitted to the SCFC immediately. In **Russia**, where Siberian Crane sites are difficult to access, investigations of reported sighting requires additional funding.

Main challenges:

a) The location of Siberian Crane migration routes is still a big gap. Problems with PTT permits prevented determination of spring migration stopovers along flyways, juvenile summering areas, and winter movements at Poyang Lake. In West Siberia the inability to locate and capture wild birds prevented searching for alternative wintering sites, probably out of known Siberian crane area – perhaps in Jordan and Iraq, or for gathering important information on alternate migratory resting areas.

b) The vastness and inaccessibility of Siberian Crane habitat makes air and ground survey very expensive.

Develop and enforce effective rules and regulations for crane protection

38. Most Range States have gaps in this activity. One of the goals of the UNEP/GEF SCWP is to improve legislation on the Siberian Crane sites. But even in project countries this activity is at an early stage.

Objective 2. Increase numbers and genetic diversity

39. To date there are several centers where Siberian Cranes breed in captivity. Information is available in the fourth edition of the International Siberian Crane Studbook prepared T. Kashentseva (Oka Crane Breeding Center or OCBC) and R. Belterman Cracid Breeding and Conservation Center (CBCC) in April of 2006. The main captive centers are the International Crane Foundation, OCBC and CBCC. These three centers have strong Siberian Crane captive populations and can produce chicks for a release programme. For the reporting period only

OCBC produced eggs and chicks for release programmes. During 2004-2006 20 chicks were reared using isolation rearing techniques. Young birds from 5 months to 1.5 years of age were released in 2004 in Astrakhan Nature Reserve (4), in Belozersky Wildlife Refuge (south of Tyumen Region) (7), and in the winter of 2006/07 in Iran (2). In 2005 four eggs were also placed into the nests of wild Eurasian Cranes in West Siberia.

40. Concurrently, the OCBC, the All-Russian Research Institute for Nature Protection, and the Sterkh Foundation, are researching techniques for restoring the migration route by training captive-reared Siberian Cranes to follow ultra-light aircraft using a model that shows promise for restoring a migratory flock of Whooping Cranes in eastern North America. In 2006 four Siberian Cranes and two Eurasian Cranes were lead from Kunovat to Belozersky Zakaznik. ICF brought two aviculturists and one veterinarian to the US to assist with and train under the Whooping Crane Eastern Partnership.

41. A programme “Cranes of Eurasia” was organized under the Eurasian Association of Zoos and Aquaria (ERAZA) with the goal to increase the number of captive centers for Siberian Cranes mostly for education purposes. Under this programme OCBC trains the staff of other zoos and later cranes can be transferred to these zoos. A Crane Education Center with captive facilities was constructed in Kurram Valley in **Pakistan**. Kabul Zoo in **Afghanistan** also prepared facilities to keep Siberian Cranes.

Main challenges

- a) CBCC has a very good breeding population. There are challenges to transfer eggs for release programmes due to strong veterinary regulations related to avian influenza.
- b) Facilities in Kabul and Kurram Valley will be available to keep Siberian Cranes. Training for Pakistan and Afghanistan staff to keep and breed cranes is needed.
- c) Poor monitoring of released birds is due to lack of finance for PTT and radio tracking.
- d) Weak interest and support from countries where suitable wintering sites and migration stopovers can be established.

Objective 3. Protect and Manage Habitats

Protect and manage breeding, migration and wintering areas

Improve Protection of Protected Areas

42. Improving protection of protected areas has primarily been conducted through the implementation of the UNEP/GEF Siberian Crane Wetlands Project (SCWP). In **China**, Nanjishan Nature Reserve was submitted as a candidate national nature reserve in late 2005. A decision by the China State Council is still awaited. Duchang Provincial Nature Reserve was established in 2005.

43. In **Russia** it is planned to expand the borders of Kuolyima-Chappanda and Chukichiya-Alaseya Resource Reserves. However, it is not enough to prepare only Yakutian-level documentation. It is also necessary to prepare corresponding federal legislation on protected areas. In **Mongolia** a separate protection administration was appointed in the Onon Baljinsky National Park in 2006 with a staff of seven people.

44. In **Iran** a Non-Shooting Area was established around the four damgahs of Fereydoon Kenar, Esbaran, and two Sorkh Ruds. Expansion of the Kiashar Ramsar site to the entire Bujagh National Park is included in the UNEP/GEF SCWP 2007 activities and is currently

under survey and review by the DoE provincial department. Some of the rice fields inside the national park have been purchased by DoE and the other areas are under negotiation with the locals.

45. In **Kazakhstan** documents on Zharsor-Urkash Zakaznik have been prepared, agreed, and a solicitation letter to the Government of RK on the establishment of a zakaznik has been signed by regional authorities. Establishment of Zharsor-Urkash Zakaznik has been included into the state programme to develop Especially Protected Natural Territories (EPNT) for 2007-2009. Work on documentation for Kulykol Lake Zakaznik has been included into the UNEP/GEF SCWP workplan for 2007-2008. All borders for expanding the Naurzum Nature Reserve have been agreed, a responsible agency developed a land map project, and demarcation of borders on land was made.

46. In **Uzbekistan** the area of the sanctuary near Dengizkul was increased as a result of creating a militarized zone. The territory in the Amudarya River Valley (Termez site) has now been declared an Important Bird Area (IBA). In Pakistan the National UNDP/GEF Wetland Project has initiated activities in the Central Indus Wetland Complex.

47. Nomination documents for Naurzum and Zharsor-Urkash in **Kazakhstan** and for Keerqin in **China** were prepared to include these territories in the Ramsar Site List. It is planned to prepare Ramsar documentation for Momoge, but more basic information is needed on wildlife, plants and hydrology. In **Russia** nomination documents for Kytalyk as a World Heritage site was prepared and submitted to WWF-Russia. Afterwards it was decided to nominate only the Elon site, but not the entire territory of Kytalyk Resource Reserve.

Site Management Plans

48. Securing protection through collaboration with local communities is a priority activity. In **China** the site management plans were developed with the participation of site management committees and the provincial advisory groups. Since 2005, the UNEP/GEF SCWP budget was rephased in China to establish a provincial advisory group in Heilongjiang Province. In **Iran** through the UNEP/GEF SCWP, site management committees were established at the local level involving local stakeholders in discussions on decision making for the project. The head of the Iran Wildlife Experts Groups was invited to related meetings of the National Project Advisory Group as a member. To date no specific proposal has been received to establish a local hunting NGO. Local Damgah owners are cooperating with DoE under a partnership programme in order to secure the safety of the area. Four trappers associations were established under the SCWP (one for each damgah); through these association the relations with the trappers has improved; eight local guards have been employed through the SCWP and they are currently being supported by DoE. In **Kazakhstan**, also under implementation of the UNEP/GEF SCWP, the Naurzum and Zharsor-Urkash Site Management Committee has been organized. Every year the Naurzum Reserve organizes a volunteer fire brigade in agreement with local authority.

49. Management plans for Siberian Crane sites were developed mostly under implementation of the UNEP/GEF SCWP. In **China** the master plan for Poyang Lake NNR was approved by the State Forestry Administration in April 2006. It was adopted through participatory approaches. Mid and long-term management plans for Zhalong NNR were developed in November 2006 after extra expert input, which was also adopted by participatory approaches. It includes community co-management, public education, monitoring and scientific research, water management, etc. In 2004 and 2005, Zhalong wetlands were approved for and received water release from the Dongsheng Reservoir. As

follow-up, a water resource management plan and wetland restoration plan for Zhalong was developed in late 2005. For Zhalong, Qiqihar Water Bureau conducted water monitoring since the inception of 2005. The main contents include measuring the water income and outcome of Zhalong wetlands, water level change at 5 optimal sites and water flow velocity. In March of 2006, the water supply plan for Zhalong wetlands has been incorporated into the regional water distribution plan of Nenjiang River with support from the Songliao Water Management Commission (SWMC). Sector management plans including community participatory plan, expansion of the existing eco-tourism plan, water resources co-management plan and public education plan were developed for Xianghai National Nature Reserve (NNR) in Phase I of the UNEP/GEF SCWP implementation. The water co-management plan for Xianghai and Keerqin was developed in late 2005. Meanwhile, China's National Coordination Unit (NCU) has been actively promoting the establishment of a long-term water supply mechanism for Xianghai and Keerqin through coordination with the SWMC and related provincial governmental departments. In addition, one flowing dam project was constructed in the entrance of Huolin River to Xianghai Wetland, which can slow the velocity of the water flow through the wetlands and ensure the water can flow into wetlands under 35 m³/second. For Xianghai, the water monitoring was conducted with the relationship study between water level, plants and waterbirds. Meanwhile, some hydrological data was also collected from the related hydrological monitoring stations. For Momoge and Keerqin, the management plans were initiated in 2006 under UNEP/GEF SCWP implementation. In **Russia** (Eastern Siberia) a management plan for Kytalyk Resource Reserve has not been developed because of a lack of unit guidelines. In March of 2007 Yakutia NCU staff attended a training workshop on site management planning. In **Iran** management plans for project sites are currently under development. The completed plan will be reviewed, discussed and approved by the site management committee. A national consultant under the SCWP established the basis to develop a co-management agreement. In **Kazakhstan** the first draft management plan of the Naurzum Reserve has been prepared. Waterbird and lake water level monitoring has been made.

Applied research

50. In support of site management applied research was conducted mostly on UNEP/GEF SCWP sites. In **China** under support from the National Fish and Wildlife Foundation-ConocoPhillips *SPIRIT of Conservation Migratory Bird Program*, ICF worked with Chinese researchers and conservation institutions to conduct a three-year project focusing on endangered cranes and wetland ecosystems along the east China flyway, which is the co-project for the China SCWP that has conducted larger scale monitoring in the large scale. The relationship study between waterbirds, plants and water levels at Poyang Lake is being continued under the UNEP/GEF SCWP since its inception in 2003. In 2005 and 2006, the China NCU allocated additional funds to employ two ICF consultants to provide further technical support for this project. So far, the database is completed and the primary results have been compiled. In addition, the monitoring plan was revised and updated in late 2006. In **Iran** the Department of Environment has currently supported student projects for Protected Areas of Iran; a trapping study was developed under a national consultancy for the UNEP/GEF SCWP during phase I, the second phase of this study, reviewing the socio-economic condition, will be conducted in 2007. Development of a monitoring plan for FDK is included in the 2007 workplan of project implementation. In addition DoE and the project support proposals on ecological studies for the Siberian Crane habitats.

Impact of Human Development

51. Monitoring and assessing the environmental impacts of human development on important habitats for the Siberian Crane, including possible impacts of climate change, were undertaken under UNEP/GEF SCWP implementation. In **China** the study on the relationships between reed harvest and crane roosting and breeding at Zhalong was conducted by the NE China Forestry University, one consultant was employed to conclude the former study results, which indicated that the impact of reed harvest on crane roosting and breeding is not significant. Therefore, this study was replaced by the birds and plants monitoring at Zhalong, together with the suggestion by ICF consultant Dr. Su Liying. In **Iran** a national consultant has been contracted under the SCWP to assess the grazing condition at Bujagh National Park and proposed a grazing plan. It was determined that climate change may be the reason for the movement of some of the wintering sites northward. In **Kazakhstan** the studies on biodiversity, socio-economics, and grazing are partially completed at Zharsor-Urkash site. Information on socio-economic situation in the catchment basin has been collected; full investigation of dams, water reservoirs and the condition of the riverbed has been made; water balance of the Naurzum lakes has been defined; real water consumption needs of the population living in the catchment area have been calculated and, in some cases, alternative sources of water supply have been defined. Monitoring of the lakes water level has been made. Recommendations for water management planning and justifications to remove unnecessary dams and construction of water release facilities at remaining dams have been prepared. Preliminary agreement with water users has been made and preparation of a basin agreement (within the framework of Naurzum lakes basin), which will be made through the basin council established at Tobol-Turgay Basin Water-economic Department, has been started.

Capacity Building

52. During the reporting period a number of training workshops were provided for different target groups by countries involved in the UNEP/GEF SCWP sites as well as other Range States. In **China** six training courses were organized in 2004, five in 2005 and three in 2006. 80% of targeted participants completed training courses planned under the UNEP/GEF SCWP. Since 2005, the China NCU strictly complies with the guideline of the post-evaluation of training courses in the Operations Manual and conducted the level 1 evaluation after each training course. After 6-12 months of the training course level 2 evaluations were implemented. In **Russia** (Eastern population) annual training workshops are provided for Yakutian UNEP/GEF SCWP staff with help of the Ministry of Nature Protection. The Head of the Allaikovsky Region is responsible for training of rangers. In **Mongolia** the educational training is being conducted on Special Programmes in OBNP. The training is beginning with rangers and local people. In **Iran** different types of training, including community liaison, management planning and conservation legislation, were provided to the local guards through UNEP/GEF SCWP. In **Uzbekistan** in Termez, located near the Uzbekistan and Afghanistan border meetings and conversations were held with commanders of divisions and special training was also conducted for frontier guards, conversations held with farmers, workers of a pump station and the machine operators working in the territory of wintering cranes. Training was also provided for hunters and inspectors. Also a seminar on cranes was held for frontier guards.

53. Capacity building was improved for UNEP/GEF SCWP sites. In **China** Hongqi protection station was newly established in Xianghai NNR in late 2004. Meanwhile, two old stations were refurbished in 2004. So far, the current five protection stations operate very well. The integrated building for Keerqin was established in mid-2006 and put into operation in late

2006. The Guest House for Momoge was completed and put into operation in 2004, and the Natural Museum for Momoge was accomplished and put into operation in May of 2006.

54. In **Iran** the funding provided through the project is an incentive for the associations to expand their trust fund and invest in small scale businesses. The number of local guards at FDK has increased to eight, being supported by the SCWP and co-financed through DoE. A new DoE office has been established (in Babolsar) for direct management of the FDK non-shooting area. In **Kazakhstan** a field station for biological studies at Naurzum is being constructed with the purpose of facilitating research work, attracting foreign specialists and cooperation. Financing of the Naurzum Nature Reserve from the national budget has increased more than three times since 2003. Twenty-four staff inspectors were additionally employed in 2006 and new vehicles and equipment were acquired. The law of RK does not allow the region's authorities to support organizations, which are financed from national budget. In Zharsor/Urkash the Regional Society of Hunters and Fishermen hired two inspectors in Druzhba village, near Zharsor-Urkash site. Preparation of the plan on ecotourism development is included into the workplan for project Phase II (2007-2008). Organization of studies is restrained by lack of ornithologist-specialists.

Buffer zone management

55. Few Range States manage buffer zones and external threats for protected areas critical for the Siberian Crane. In **Mongolia** the local ranger controls the Onon-Baliginsky protected area and its buffer zone together. In Khurkh Khuiten Valley one ranger is financed by Khentii Province. This area is included in Ramsar sites and NEASCN. In **Kazakhstan** defining buffer zone of Naurzum Nature Reserve and demarcating its borders has been fully completed. A map with a list of users and indication of sites located in the protection zone has been prepared.

Objective 4. Enhance International Cooperation

Enhance International Cooperation

Improve exchange if information and technical expertise

56. The Memorandum of Understanding for the Conservation of Siberian Cranes administered by CMS, is a vital vehicle for Central Asian countries within the wide range of the Siberian Cranes to work together for the conservation and restoration of these iconic birds. Researchers, educators, officials and enthusiasts now have the opportunity to join forces not only to help the Siberian Crane, but to demonstrate that people from a diversity of cultures can work together for the common good.

57. All Range States send information about Siberian Crane sightings immediately for exchange of information on a flyway and global level. The Siberian Crane Flyway Coordinator (SCFC) collected and shared this information to all interested people and agencies. All information received was published in the electronic Siberian Crane Flyway News which is shared generally twice each year. Some countries nominated contact persons to collect the sightings and observations and share it with the SCFC. Nominations for contacts in other countries are pending.

58. A Regional Database was created in 2004 and updated continuously. Four training workshops on this database were held – one in Kazakhstan for all project sites, two in China and one in Iran. Information about Siberian Crane sightings for the 6 last years was entered

into the database. Basic information on wetlands was inserted to database, but it should be expanded and translated in English for some sites from Russia.

59. A Siberian Crane Flyway Coordination website was created, but it has been challenging to maintain it since it is difficult to find a person who can agree to update it for the low salary currently budgeted. The SCFC does not have enough time to update it personally and additional staff and financial resources need to be secured. Now, after hiring of two part-time communication persons for SCWP project, this problem can be addressed.

60. Most countries submitted reports on the Conservation Plans implementation by the required deadlines. The CMS Secretariat and ICF are collaborating to develop new on-line report format for presentation in the MoU6 in Almaty.

61. Since 2005, the China NCU developed monthly and the quarterly progress reports and distributed them to all interested individuals and organizations. The China NCU actively provided technical support for any representative to participation in MoU meetings, especially to prepare the national report.

Capacity building

62. A Regional training workshop on data management was held in September 2004 in Kostanay city, and the regional training workshop on site management planning and other issues in China in March 200X, both in the frame of the UNEP/GEF SCWP project's implementation.

63. The first training workshop was organized by NGO "Naurzum" in Kazakhstan. **IR, AZ, KZ, RU** representatives took part in this training workshop. The management plan workshop was organized by Jiangxi Wildlife management Bureau. **AZ, IR, KZ, RU** and **CH** representatives attend this training workshop.

2) Raise funds to support a comprehensive conservation programme supporting MoU implementation

64. Based on contacts developed by CMS, ICF secured a US\$10 million, six-year grant with the goal to "Secure the ecological integrity of the network of critical wetlands needed for the survival of the Siberian Crane, migratory waterbirds and other globally significant wetland biodiversity in Asia". Activities focus on the eastern and western populations. An additional US\$12 million in co-financing was secured. Over US\$1 million additional co-financing was secured from sources including the NEACSN, CBCC, National Fish and Wildlife Foundation/Conoco-Phillips, the Doris Duke Foundation, the Luce Foundation, the Trust for Mutual Understanding, the Sharp Foundation, and the Indianapolis Prize.

65. ICF has supported work in Afghanistan, Azerbaijan, Iran, India, Pakistan, Turkmenistan and Uzbekistan. ICF also supported small projects to publish information and training materials. CMS and NEACSN supported participation in international seminar, workshops, meetings.

66. The Sterkh Foundation, located in Salekhard, Russia, has supported studies on the breeding grounds of the western and central populations, and is spearheading a restoration programme for these populations. The gas/oil company ITERA supported the "Flight and Hope" project to lead migration.

67. WWF-Pakistan is working on various proposals to different donors to seek funds for crane conservation programmes in Pakistan. Some proposals were submitted to other donors as well (Disney Wildlife Conservation Fund, IUCN, Sir Peter Scott Fund, etc). The NWFP Wildlife Department secured funds to establish the crane center in Lakki.

68. Uzbekistan has searched through different embassies and firms with negative results.

69. In Mongolia every year the government provides US\$20,000 as financial support for Onon-Baljinsky National Park. A staff of three rangers was also financed by MNE. Rangers and researchers working in protected areas are financed by the Government.

70. In Yakutia, the IBPC has secured co-financing from the Ministry of Nature Protection of the Sakha Republic for needed equipment and research. Funds have been secured from a power company, insurance company and arranged discounts for project staff at the “Sterkh” Hotel.

1) Development of the Western/Central Asia Site Network for the Siberian Crane and other waterbirds (WCASN-SC)

71. Plans to develop the WCASN-SC were developed at a series of meetings including Waterbirds Around the World, CMS MoU5, the Fifth Steering Committee Meeting of the UNEP/GEF SCWP.

72. The “Meeting to Endorse the Proposed Western/Central Asian Site Network for Siberian Cranes and Other Migratory Waterbirds” was held in New Delhi on 13 June 2005. Site nomination criteria, and procedures to nominate and approve sites were developed and endorsed. It is proposed that the WCASN-SC be launched at the MoU6 Meeting.

73. The Ranges States have nominated the following sites to be reviewed and possibly endorsed at the MoU6 meeting.

Afghanistan – no sites nominated

Azerbaijan – Shirvan National Park, Kyzyl-Agach Nature Reserve

Iran – Fereydoon Kenar Non-Shooting Area, Bujagh National Park

India – Keoladeo National Park, Etawah

Kazakhstan – Naurzum Nature Reserve, Ural Delta, Zharsor-Urkash, Tantyugyur-Zhanshura and Kulykol

Pakistan - Taunsa Barrage (Punjab), Thanadar Wala (NWFP) proposed, but nomination sheets were not submitted

Russia – Kunovat River Basin, Kondo-Alymskoye Mezhdurechie, Belozersky Zakaznik

Turkmenistan – Durnaly

Uzbekistan – Termez

74. Only Iran, Kazakhstan, and Uzbekistan submitted official nomination letters from the government to officially nominate the sites.

4) Strengthen national and international coordination

75. **CH, MN, and RU (Eastern population)** participate in Northeast Asia Crane Site Network (NECSN) activity which to date is working under the East Asian – Australasian Flyway Partnership (EAAFP). Before 2004, four additional Chinese sites were accessed for inclusion in the NEACSN, later Mongolia prepared documentation to include Onon Baljinsky

National Park to the NEASCN. Some important places in Onon Baljinsky were already listed as IBAs. In Russian no new sites were nominated including for the NEACSN.

76. **UZ, AZ, RU, TU, KZ** participate in CWGE activities by submitting information for the Newsletter and collecting papers, participating in conferences and in Crane Celebrations.

77. Uzbekistan participated in the Central Asian IBA project coordinated by the Royal Society for the Protection of Birds (RSPB) and NABU (Birdlife Germany). Within the framework of the project “IBAs of Central Asia” activities have been carried out to propagate Siberian Crane and other species of cranes. The Termez site in the Amudarya River Valley, Uzbekistan was official nominated for the IBA list regarding cranes.

78. Uzbekistan also participated in preparing maps for the UNEP/GEF ECONET project supervised by WWF-Russia. It gave recommendations about wetlands’ international value to maintain water and waterbirds birds, including in the territory along the Amudarya (Termez) and Lake Achinskoe in the Kashkadarya region.

79. Russia cooperated closely with China under the UNEP/GEF SCWP project. In August 2006 two persons from its project staff visited Yakutia to jointly conduct a breeding survey. IBPC in Yakutia cooperated with the RSPB, Wild Bird Society of Japan (WBSJ), ICF and US Fish and Wildlife Service. IBPC hopes to contact Lei Fu-Min, Institute of Zoology of Chinese Academy of Science.

80. Mongolia is working very closely with administration and specialists of the Russian-Chinese-Mongolian International Nature Reserve “Daguur”. Specialists of the Mongolian part of this international nature reserve and Onon Baljinsky National Park work together with Russian Daurian and Sohodiinskii Nature Reserves, and Chinese “Dalai Lake” Specially Protected Area colleagues. To develop the working relationship Mongolian specialists visited each other to exchange experience and information. In the future it is planned to establish a Mongolian–Russian joint protected area.