



# CONVENTION ON MIGRATORY SPECIES

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SEVENTH MEETING OF THE SIGNATORIES TO  
THE MEMORANDUM OF UNDERSTANDING  
CONCERNING CONSERVATION MEASURES  
FOR THE SIBERIAN CRANE (*Grus leucogeranus*)  
Bonn, Germany, 10-12 June 2010  
Agenda Item 6.0

## OVERVIEW REPORT

(Advanced unedited draft as of 7 June 2010)

(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 24 May 2010, the Signatories from the following Range States had submitted their national reports to the Secretariat: Afghanistan, Azerbaijan (draft), China, India, Iran, Kazakhstan, Mongolia, Pakistan, Turkmenistan, and Uzbekistan. 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 auspices. 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 Critically Endangered in the IUCN Red List, regional and national Red Data Books and international agreements. Of the world's 15 species of cranes, the International Crane Foundation considers the Siberian Crane at the highest risk of extinction, although its numbers slightly exceed those 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 263 birds in the only self-sustaining wild population). *G. japonensis*, although seriously declining 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.

5. In 2010 the total number of the Siberian Crane is estimated at 3,000–3,500 birds. Approximately 99% belongs to the East Asian population which is stable or slightly increasing. The Western/Central Asian population is estimated at about 10-20 individuals.

6. The Siberian Crane is a monotypical species with two isolated populations). The Eastern Asian population spends the winter in China on Poyang Lake in the Lower Yangtze River Basin and breeds in the northeast Siberian tundra between the Yana and Kolyma Rivers. The Western/Central Asian population is divided into Western Asian flock and Central Asian flock. The former winters near the Caspian Sea shores of the Islamic Republic of Iran and nests in the central part of western Siberia. The Central Asian flock winters in northern India and breeds in Western Siberia near the low reaches of the Ob River.

7. Because of the Siberian Crane's dependence on wide expanses of shallow wetlands, habitat loss or deterioration in China due to water engineering projects and high human population pressure is the greatest threat to the East Asian population. 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 also be monitored and investigated.

### **Central Asian Flock**

#### ***Numbers and Flock Trends***

8. In the early 1970s about 160 Siberian Cranes wintered at Keoladeo National Park, India. Although the productivity of the Central Asian flock was relatively strong over the next three decades as evidenced by numbers of juveniles, it continued to decline to just a single pair in 1996. Siberian Cranes have not been sighted in India since the winter of 2001/02.

9. However, during the period 2003-2008, 22 sightings of Siberian Cranes were collected from local people and reported by researchers, mostly in spring and autumn near the breeding grounds of the Central Asian flock in the Yamalo-Nenetsky Autonomous Region of Russia. During the reporting period two sightings were recorded along the Central Asian Flyway in Uzbekistan – one young crane in Samarkand Region and 10 in a flock of Eurasian Cranes which were flying over Karnachbul steppe. Siberian Cranes were regularly observed in Kazakhstan in Naurzum Nature Reserve – a migration stopover which is used by both Western and Central Asian flocks. Up to 12,000 Eurasian Cranes from the population that normally winters in India have been stopping further north and wintering since 2001 along the Amu-Daria River lowlands in Afghanistan, Turkmenistan, Uzbekistan and Tajikistan. There is a possibility that Siberian Cranes have also wintered in that region.

#### ***Potential and Actual Threats***

10. 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 flock.

11. Widespread legal hunting in Afghanistan and Pakistan and illegal hunting in Kazakhstan, Russia, Uzbekistan, and Turkmenistan are attributed to poor awareness among local people and poor living conditions.

12. The loss and degradation of wetland habitats is a growing concern resulting from recent declines in water levels 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 water management at Keoladeo Ghana National Park.

13. In West Siberia of Russia, the status of protected areas has been significantly impaired by the loss of status and funding for federal wildlife refuges under the Ministry of Agriculture. Creation of the regional Synsko-Voikarskiy Nature Park as a buffer zone adjacent to Kunovat WR will improve its protection.

## **Western Asian Flock**

### ***Numbers and Flock Trends***

14. In Iran, the number of Siberian Cranes wintering at their traditional site (waterfowl trapping complexes near Fereydoon Kenar) has declined from about 11-14 birds in 1978 to just one lone bird during winters 2007/2008 and 2008/2009. In winter 2009/2010 no cranes wintered in Iran, but one bird was sighted on 29 January near Gyzyl-Aghach Nature Reserve in Azerbaijan. The wetlands of the Lower Kura River in Azerbaijan were important wintering grounds for Siberian Cranes in the beginning of the 19<sup>th</sup> century. However, a ground survey of this area in the winter of 2008/2009 showed that no suitable habitats for cranes remain there.

15. An aerial survey of the breeding grounds in Uvat District in 2005 showed the possibility of breeding of the Western Asian flock: two birds was sighted and one of them was in breeding plumage. In addition, for the period 2005-2008 there were six sightings by local people near the breeding grounds of the Western Asian flock in Uvat District, mostly in spring and autumn.

16. Although it appears that there were no wintering cranes in Iran in 2009-2010, 1-2 cranes have been observed since 2007 at the Naurzum wetlands and adjacent lake systems of northwest Kazakhstan. These wetlands have been important historic resting areas for Siberian Cranes that migrate both to India and Iran.

17. Regular sightings of Siberian Cranes have continued to occur at the traditional migration stopover in Astrakhan Nature Reserve in the Volga Delta in Russia. The most interesting sighting was in 2007 when four Siberian Cranes were observed in November, one month after the arrival of a lone Siberian Crane at the wintering ground in Iran. There have been annual reports of 4-7 cranes during migration in Azerbaijan.

18. Perhaps there are undiscovered wintering areas for Siberian Cranes in the Middle East. During the winter of 2001-02, three Siberian Cranes were reported in Jordan. Azerbaijan ornithologists have determined a flyway that crosses Azerbaijan through the west of the country. The Siberian Cranes observed in Astrakhan Nature Reserve in 2007 could possibly have used this flyway, which would lead to Iraq and Jordan. Satellite transmitter (PTT) studies of Lesser White-fronted Geese have indicated they use the valley of the Tigris River in Iraq as a wintering site. These geese use the Naurzum wetlands of Kazakhstan as a staging area during migration along with Siberian Cranes. These geese use also a reservoir and adjacent wetlands in Djulfa on the border between Azerbaijan and Iran, where two Siberian Cranes were sighted in 2008. These data also indicate the existence of another flyway.

### ***Potential and Actual Threats***

19. The threats in the Western Asian flock closely parallel those in the Central Asian flock. Hunting along the migration route is considered to be a significant factor responsible for the demise of this flock. 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 Sea.

20. In wintering grounds in Fereydoon Kenar, toward the end of each season, when duck-netting becomes unprofitable, the trapping area is opened up to hunting with guns in a massive “shoot-out”. There is a potential threat that Siberian Cranes could be shot accidentally. In 2001, the Department of Environment designated a Non-Shooting Area for all of Fereydoon Kenar, with a total area of 5,427 ha. At this time, the end-of-season shoot-out became strongly forbidden. However, outside such areas, there is a possibility that cranes might be shot as waterfowl shooting is prevalent across the entire South Caspian lowlands.

21. Similar to the Central Asian flock, the loss and degradation of wetland habitats is a growing concern resulting from human population pressures, 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 the Western Asian flock breeding grounds at Konda-Alymka, fires in the Astrakhan Nature Reserve and in North Kazakhstan, and urban development encroaching on rice fields and wetlands in the South Caspian Lowlands. The Western Asian flock is also affected by the growing conflict between farmers and waterbirds due to crop damage in southern part of west Siberia.

### **Eastern Asian Population**

#### ***Numbers and Population Trends***

22. The Eastern Asian population of Siberian Cranes that breeds across a huge area of tundra in the Yakutian Region of northeastern Siberia, between the Yana and Kolyma Rivers, has a migration route that includes staging areas in the Aldan-Amga basin in southern Yakutia, through to major wetlands in SongNen Plain in northeast China, and from there south along the coast of Bohai and then overland to Poyang Lake along the middle reaches of the Yangtze River. During the UNEP/GEF Siberian Crane Wetland Project, annual censuses of the cranes and other waterbirds were conducted in all five provinces (Jiangxi, Anhui, Hunan, Hubei, and Jiangsu) in the middle and lower reaches of the Yangtze River and covered the whole Poyang Lake basin from 2004-2008. According to the results of these censuses, the population of the Siberian Crane has fluctuated, but remained basically stable or slightly increased with about 3,000-3,500 individuals.

23. Researchers at the Institute of Biological Problems of the Cryolithozone (IBPC) in Yakutia have conducted monitoring at the Siberian Crane breeding grounds since the early 1990s. With support from the UNEP/GEF Siberian Crane Wetland Project (SCWP) the monitoring of breeding grounds was organized annually during recent years. Currently the monitoring system includes a Model Area (36 x 36 km<sup>2</sup>) with the highest Siberian Crane densities within Kytalyk Republic Resource Reserve. By 2006, within the main study area in Kytalyk RRR, the individual sites of 102 crane pairs were found within an area totaling 7,884 km<sup>2</sup>. In 2008, more than 16 new pairs of the Siberian Crane were discovered in the Model

Area. In 2009, a joint expedition of IBPC and USGS Northern Prairie Wildlife Research Center, North Dakota, USA, investigated breeding areas to the west in the northern Khroma River basin. It reported 140 Siberian Cranes along a 520 km transect across the Ust-Yana region near the Laptev Sea (Krapu & Bysykatova, 2009). This area is currently unprotected.

24. Wetlands in southeastern Russia, eastern Mongolia and northern China serve as summering areas for low numbers of non-breeding Siberian Cranes. For the period 2001-2008, 24 sightings were registered in the Amur River Basin, Torey Lakes, along the Onon, Uldza, and Khalkhin Gol Rivers, and along the upper reaches of the Tuul River.

25. Regular monitoring conducted by IBPC along flyways during the UNEP/GEF Siberian Crane Wetland Project implementation was set up in three regions along the migration routes: Indigirka Basin in northeastern Yakutia with short stopover in Momsky Region; Okhotsky Perevoz Village in Lower Aldan River in southeast Yakutia; and Kyupski, Chabda and Kuoluma-Chappanda RRRs in Middle Aldan basin in southern Yakutia which cranes use for short-term resting on the banks of the Aldan, Maya, Khandyga Rivers as well as small lakes in these river valleys. During recent years, Siberian Cranes have been stopping more often in the Amur Region near the border between Russia and China, especially during spring migration.

26. During SCWP implementation in China, ground and aerial surveys have been conducted along the flyway mainly at four staging areas in the northeast (Zhalong, Momoge, Keerqin and Xianghai NNRs). These observations indicate that since 2004, the number of Siberian Cranes at Momoge NNR has increased to a maximum of 2,300 Siberian Cranes registered in spring 2009. Momoge is an important stopover site for migratory Siberian Cranes during migrations both in autumn and spring. One more important migratory stopover was discovered by Liaoning Environmental Protection Volunteers' Association in this province at Huanzidong Reservoir, Faku County. In 2007, up to 800 Siberian Cranes were recorded at the reservoir. Many Siberian Cranes also stop at Wolong Reservoir, also in Liaoning Province.

### ***Potential and Actual Threats***

27. The breeding grounds of the eastern population are relatively undisturbed. Long-term monitoring and analysis of satellite imagery for Kytalyk RRR have revealed an increase in the area of large lakes, inundating surrounding land used as breeding habitat by the Siberian Crane, which may be attributable to climate change. As a result, some breeding habitats located near the lakes have disappeared and this process is continuing. However, taking into account that the huge tundra area includes extensive suitable breeding grounds, this factor is not considered to be an immediate threat. Oil exploration and development pose a significant threat in Yakutia as well as in Mongolia in unprotected Siberian Crane habitats, as the cranes are sensitive to the human disturbance associated with this industry, which is nearly impossible to control.

28. Despite the habit for Siberian Cranes to migrate across eastern Siberia through remote and relatively pristine environments, a huge hydro-electric scheme involving a cascade system of power generating dams is under construction for the headwaters of the Aldan River basin. Overhead power transmission lines will transport the electricity northwards to Yakutsk up the Aldan valley. The Yakutsk Energy company has been very open and cooperative in working with IBPC to mitigate the potential impacts of these power lines on migratory birds.

They are seeking advice on adjustments of the routes of the power lines and methods of marking the lines to reduce bird collisions.

29. Loss of wetlands due to drought during recent years and the effects of water regulation and diversion is the main threat along the Siberian Crane flyway in China. On the other hand, Wolong and Huanzidong Reservoirs offer extensive shallow habitats due to lower water levels in the impoundments. Additional threat comes from human disturbance, including net fishing, harvesting of reeds, and other activities by local people and also outside investors.

30. The most important threat at Poyang Lake has been the construction of the Three Gorges Dam on the Yangtze River as well as large numbers of dams on the Gan and other rivers that feed Poyang Lake from the south. These structures almost certainly are affecting the water levels in Poyang Lake basin during the wintering period for the Siberian Crane and hundred of thousands of other waterbirds. On-going development in Jiangxi is likely further to affect water availability and thus water levels and timing of water fluctuations that determine the extent and distribution of shallows and mudflats in the Poyang Basin. In addition, a proposal by the Jiangxi provincial government to create a water control structure at the outlet of Poyang Lake is currently under review. This project could have highly significant impacts on the Siberian Crane if the crane's ecological requirements are not fully taken into account. Comprehensive research at Poyang Lake on the relationships among crane distribution, water depth, turbidity and the production of plants on which Siberian Cranes feed in winter is helping to elucidate potential effects of these developments, and its results have been used to inform decision-makers considering development proposals at Poyang.

### ***Captive population and reintroduction***

31. A captive population of Siberian Cranes has been created in order to maintain a genetic bank for the species and to restore wild populations, especially in West Asia. According to the last issue of the Siberian Crane Studbook (2010) 393 captive Siberian Cranes (166 males, 177 females, and 52 unknown) are kept in 55 centres of 14 countries as of 31 December 2009. For the period 2007-2009, 81 Siberian Cranes were reared in 8 captive facilities in 7 countries. There are four main breeding centers for the Siberian Crane: International Crane Foundation, Oka Crane Breeding Center (Russia), Cracid & Crane Breeding and Conservation Center (Belgium) and Beijing Zoo (China).

32. The recovery of the Western/Central Asian population can only be achieved by carefully introducing captive-reared cranes into the flyway. Effective protection of the cranes as individuals and the conservation of key wetlands throughout their migration routes are fundamental before efforts can be initiated to restore the population through releases of captive-reared birds. In total for the period from 1992 to 2009, 112 Siberian Cranes from OCBC and 14 from ICF were released into the wild on the breeding and wintering grounds and at migration stopovers. In addition, 39 eggs produced in OCBC were placed into the Eurasian Crane nests in Kunovat Wildlife Refuge, north of West Siberia, for cross-fostering. There were few reliable reports about sightings of released Siberian Cranes. Two injured chicks were found in the year of release in south Ural Region (one in Bashkiria and the other – in Chelyabinsk Region) and were returned to OCBC. One banded bird was sighted in Omutinskiy District of Tyumen Region. One Siberian Crane released in winter 2007/2008 at Fereydoon Kenar in Iran and marked with green and red plastic color was sighted in the following spring 2008 in Khanty-Mansiyskiy Autonomous Region. It is possible that some of the birds sighted recently in Kazakhstan, Russia, and Azerbaijan are surviving released birds.

### 3.0 Implementation of the Conservation Plan

33. The following sections summarize information received as of 3 June 2010 on implementation progress since the Sixth Meeting of the Range States in 15-19 May 2007.

#### Objective 1: Reduce Mortality

##### 1.1 Determine and monitor prevailing threats of all types to the Siberian Crane and its habitats

34. Among direct threats in **Afghanistan, Azerbaijan, Pakistan and Uzbekistan** poaching is a main threat for cranes during migration seasons; in **Kazakhstan, Turkmenistan, and Russia** accidental shooting during hunting season can be registered and can be considered as potential threat; in **India, Mongolia and China** the poaching is not direct threat. Poisoning is a big threat in **Afghanistan** from hunters as well as from agricultural chemical, and in India in non protected wetlands. Power lines can be potential threats in **Afghanistan** and **Azerbaijan** when rural areas electrification activities will be implemented. In **Mongolia** and **India** presently number of power line is increasing and there is some registration of the Demoiselle Crane mortality in both countries and Sarus Crane in **India**. Water diversion and water drainage are the major threats to Siberian Crane habitats in **China**.

35. Agricultural development projects, construction of irrigation dams, and conversion of wetlands and water basins to agricultural land is another threats to Siberian and other cranes can be considered as additional threat in almost **all Range States**.

##### 1.2 Strengthen and improve enforcement of legislation for crane

36. In **Afghanistan**, based on a presidential decree issued for five years, hunting of all wildlife is banned. Based on EL the National Environmental Protection Agency (NEPA) approved and announced the second Red List of 48 species, including Siberian crane. In **China**, the National Wildlife Law is the highest powerful instrument for any illegal wildlife case. With regard to the bilateral/multilateral agreements, the related provinces have included the agreements' lists into the protection list at the provincial level. The Siberian Crane was listed as the Grade I of national protection wildlife, which indicated the highest legal protection in the country. **India** has placed the Siberian Crane in Schedule 1 of the Wildlife (Protection) Act, 1972 by which capture, hunting or any other disturbance to the species and its protected environment are not permitted. **India** has signed an Indo-Russia bilateral agreement for protecting migratory waterfowl between the two countries. The Wildlife (Protection) Act, 1972 in India has included the provision of setting up of conservation reserves and community reserves wherein a participatory mode of resource use and management is feasible. In **Iran** the Siberian crane is on the top list of the protected species, with the highest fine for illegal shooting (according to the Environmental Law Book). Also CITES regulations are applied for all species which are include in the CITES appendixes. **Kazakhstan** participates in the Convention on Biodiversity, CMS, Ramsar Convention and CITES. The penalty for illegal shooting of Siberian Crane is set at about 6.5 thousand US dollars. New amendments are being prepared into the law on protected areas, in particular it is proposed to include Key ornithological territories – IBAs into the list of protected areas. In **Pakistan**, accordingly to “North West Frontier Province” Rules 1964 (Possession, Hunting, Capturing and Sale of Crane); Siberian Cranes, has been declared protected and its hunting,

killing and capturing has been completely banned. Violation of this law is punishable with imprisonment for a term which can extend to two years or a fine which can extend to one thousand rupees or both. In **Turkmenistan**, annually, before start of hunting season, Ministry of Nature Protection issues Order on “About Hunting Season Opening” with attached List of Species with Ban Hunting where the Siberian Crane is included. In **Uzbekistan** all species of animals which are included in the national Red Book and international Red List of endangered species IUCN are protected by law (Law on Nature Protection, Law on Protection of Fauna, governmental regulation No.508 «Position on procedure of using, import and export objects of fauna outside of republic of Uzbekistan state boundary and management of hunting and fishing farms» and Hunting Rules. Also Republic of Uzbekistan is responsible for protection of Siberian Crane, other cranes and their habitats due to signed international conventions and agreements: CMS, Siberian Crane MoU, Ramsar, CBD, CITES, CCD, and AEW. A.

### **Main challenges:**

37. Most Range States (**Afghanistan, Kazakhstan, Pakistan, and Russia**) still have gaps in implementation of existed laws. In **China** no legal measures to punish illegal accidents for some species, which shared the same habitats with endangered species, such as Siberian cranes, therefore there is a need to revise China National Wildlife Law. In **India** wetlands being in the Common Property Resource regime often a strict no take approach of protection of wetlands.

## **Objective II: Monitoring and Research**

### **2.1. Monitor and study the Siberian Crane and its habitat**

38. Regular monitoring is conducted by most Range States on breeding, migratory, or wintering sites mostly through ground surveys. Aerial surveys were conducted in breeding grounds in West Siberia and Yakutia and in wintering grounds in China.

39. Along Western Flyway in **Azerbaijan** ground surveys were conducted in 2007 and 2009 and all sites where Siberian Crane was registered were checked. Every year 1-5 Siberian Cranes are sighted in Gyzyk-Aghach NR, in Shirven NP there were no sightings since 2003. The last sighting of Siberian Crane was in agricultural area near Gyzyk-Aghach NR in January 2010 according to information from Sofia Rosenfeld (number is decreasing). In **Iran** monitoring mostly is based on ground survey, using binocular and telescope. Two sites (FDK & Bujagh) are also covered by the annual Mid-winter Censuses. During implementation period only one crane spent winters 2007/2008 and 2008/2009. There were no Siberian Crane records for 2009-2010 wintering season. In **Kazakhstan** regular monitoring of the known stopover sites of Siberian Crane on the territory of Kostanay Region was conducted in the period of spring and autumn migration annually. In addition, the regular periodic inspections (two or three time per week) of stopover places of Siberian Crane were conducted on Naurzum lakes, and questionnaire and questioning of hunters and fishermen had been using also. On Naurzum lakes for 2007-2009 years E. Bragin observed one Siberian Crane in September, 2007. From respondents and on questioning the following sightings are known: on 4-6 May 2007 – one bird in the flock of Eurasian cranes on Mohovoe lake in Uzunkol district; on 15-19 April 2008, one pair of Siberian Crane with the group of Eurasian cranes observed on the fields to the north from Chily Lake; doubtful information about sighting of two pairs of Siberian Crane in a district Baytuma Lake in April, 2007. Additionally there is information

about meeting of 6 Siberian Cranes in the flock of Eurasian Cranes on 7 April 2010 by bus drives and hunter who was in the bus. The questionnaire was conducted in 2006 and 2007, as a result important new stopover sites for Siberian Cranes were identified (registrations in 2000, 2002 and 2008) near Chily Lake in Aulyekol District. Important inquiry was conducted for hunters, fishermen, shepherds and local people. A correspondent network was created from people, like gamekeepers, hunters, fishermen and others for collecting information as wide as possible. It is not possible to check up all reports about meetings of Siberian Cranes for the following reasons: reports come usually only in a few days after each sighting and it is no longer possible to visit site to confirm species identification; not always feasible to drive to sighting location, especially taking into account the large distances and absence of roads.

40. Along Central Flyway there are no sightings of the SC in **Afghanistan, India, Pakistan, and Turkmenistan** during reporting period. In **Uzbekistan**, long-term monitoring is conducted in the frame of the state program of “Cadastre of Fauna of Republic Uzbekistan” by Institute of Zoology and Uzbek Crane Working Group (UzCWG). They organized information company among ornithologists; rangers and students of biological faculty of Samarkand, Tashkent, Termez and Bukhara universities; and schoolchildren in Tashkent and Samarkand cities since 2000. Respondents reported new information immediately. Since 2007, two sightings of the Siberian Crane were registered in the country: on 7 April 2007, one young Siberian Crane was observed on shallow place in Kattakyrgan water reservoir (Samarkand province, ornithologists observation, Belyalova, Fundukchiev, 2007); and on 10-12 October 2007, ten Siberian Cranes were observed in the flying flock of 150 Eurasian Crane near Tudakul Lake (Bukhara Region). In 2007 questionnaires were distributed among rangers in the southern part of Uzbekistan and Fergana valley. The aim was to find new migration stopovers and wintering grounds of Siberian and Eurasian Crane in Uzbekistan. This activity was conducted by the UzCWG and Gosbiocontrol. As result new wintering place of Eurasian Crane near Talimarjan water reservoirs in Kashkadarya region was found. In **India** the Bombay Nature History Society along with the Keoladeo Ghana National Park (KGNP) has registered the Siberian Crane population until 2001. Currently the KGNP management is conducting the long term monitoring of wetland birds. Even though the Siberian Cranes does not winter at the KGNP, the staff still continues the ground survey of the KGNP and the surrounding satellite wetlands to monitor the population trend of other migratory waterfowl. A Research Associate of the ICF in association with the Wildlife Protection Society of India is continuing to conduct ground surveys of cranes and other wetland birds in the Etawah-Mainpuri region which has also been identified as the possible Siberian Crane site. Questionnaire of local people were taken up by NGOs and University research organizations. University researchers, bird watcher societies, NGOs and wetland protected area management continued to conduct study for recording bird migration details. In **Pakistan** long-term monitoring is conducted at the provincial level. In **Turkmenistan** inquiry of local people is conducted annually during monitoring of wintering Eurasian Cranes, with focus on possible Siberian Crane sighting during monitoring of migrating Eurasian Cranes.

41. Along Eastern Flyway in **China** long-term monitoring is conducted through participation in the North East Asia Crane Site Network (NEASN) and in UNEP/GEF SCWP. The count was conducted through ground and aerial surveys. Wintering ground surveys were conducted in 2007, 2008 and 2009 in the middle and lower reaches of Yangtze River with involvement 6 agencies with over 100 peoples. In spring and autumn migration periods of 2007, 2008 and 2009, 18 agencies with over 70 peoples involved in the monitoring of Siberian Cranes along its flyway in China, which covered about 244-302 monitoring sites of 51-60 wetlands. In Feb. of 2009, the aerial survey on wintering waterbirds including Siberian Cranes in Poyang Lake

Basin was conducted. In wintering ground in Poyang Lake the count of Siberian cranes ranges from 3100 to 4006 individuals during the past seven years. During implementation period Momoge NNR became a key staging area for the Siberian Crane with maximum of 3,000 birds in spring 2009. During the flyway monitoring, a questionnaire was distributed to the local people. Some staging sites such as Huanzidong in Liaoning Province, Xingkai Lake of Heilongjiang Province, the wetlands in Baicheng City of Jilin Province were reported by the local people at the first time. In **Mongolia** and in Dauria in **Russia** in summer 1-10 cranes can be observed almost annually. During reporting period two sightings of the Siberian Crane were in **Mongolia** in 2008 and two sighting in Dauria in **Russia** in 2007. Since 2007 though survey of avian influenza, monitoring on Siberian crane is also implemented. Protected area administration staff collecting data and send it to Biological institute. In **Russia**, at the breeding grounds in Yakutia, annual ground surveys are conducted by staff of the Institute of Biological Cryolithozone with support by UNEP/GEF project. In August air survey was conducted in the frame of the Siberian Crane banding.

42. In China the **ecological study** on relationship between aquatic plants, water level and waterbirds especially for Siberian Cranes was conducted in Poyang Lake from 1999 to the present. The report is available through consultation with the International Crane Foundation. In **Kazakhstan** analysis is made on all reports and observations of Siberian Cranes on migration in the country: phenology, variety of biotopes in spring and in autumn, ecological terms of stopover lakes in the different phases of hydrological cycle, behavior of cranes. In **Iran** through the SCWP, research results incorporate to the FDK Management Plan. Research results could be including of scientific data and also local knowledge. It was amazing to have such a combination of data to develop Management Plans.

43. Two Siberian Cranes were marked with PTTs in Yakutia in 2008. One of them was tracked during a full year – during autumn and spring migrations and at wintering grounds. Another chick was tracked until arrival in wintering grounds in Poyang Lake. In China some attempts to capture SC for marking with PTT were made in winter 2007/2008 and 2008/2009 in Poyang Lake Basin, but were unsuccessful.

44. In **Iran** four of 10 released captive bred Siberian Cranes were marked with PTTs, and during reporting period only one captive-bred Siberian Crane was successfully tracked by PTT, the others stopped sending signals just after spring migration started. All released birds were banded with color bands. One of them, marked in winter was sighted in the Khanty-Mansisk Region in follow spring.

#### ***Main challenges:***

45. There are problems with accuracy and frequency of PTT signals in China. Need to develop alternative methods to track Siberian Cranes wintering at Poyang Lake. One tracking method being discussed includes the deployment of UHF listening stations around the Poyang Lake basin and deploying transmitters that combine a GPS unit to record the location of the birds.

## **2.2. Maintain and extend a regional database on the Siberian Crane and its habitats**

46. In the frame of SCWP implementation in **Kazakhstan** an international seminar on creation of crane database took place in 2004 in Kostanay City. During subsequent years information was provided on main stopover sites of Siberian Crane including complete

description of lakes, their ecological state, features of the hydrological regime, threats, existing protection, lists of species of birds, date of sightings of Siberian Cranes. A series of GIS maps were prepared for 4 projects sites, results of spring and autumn counts of migratory birds and monitoring of current status of stopover sites. All information was provided to the database. Data about sightings of Siberian Crane is immediately sent to the database. Under the SCWP the **China** National Coordination Unit in late 2009 compiled and submitted complete waterbirds' data including Siberian Cranes from 2003 to the present to the Regional Coordination Unit (ICF). Now the China National Bird Banding Center (NBBC) keeps these data and the GIS management systems for Poyang Lake Basin and Songnen Plain. **In India** the Important Bird Area Programme of the BNHS as well as the status report of birds in India by SACON are the two programmes in which attempts have been made to create a database. **In Iran** under SCWP data were contributed to the database by sending basic information to the database operator, and also by sending regular information to the SCFC (mainly on population, date of arrival and departure, and etc)

### **2.3. Promote or take into account avian influenza surveillance at important crane sites**

47. **In Azerbaijan** regular waterbirds monitoring along western coast of Caspian Sea was conducted by Veterinary Service of Azerbaijan. **In China** in 2007, 350 National Wildlife-derived Infectious Disease Surveillance Stations were established under the SFA, which covered over 90% crane sites in China. The major responsibility is to monitor the avian influenza for the birds and poultry. At present, 250 stations have got investments from the central finance in 2008 and 2009, which include equipment and instruments, and operation fees. Additional 100 stations will be funded this year. Over 1000 monitoring stations for wildlife diseases had been established. And more than 1700 stations have been planned and reported for approval from the state council. **In India** The MoEF in collaboration with the Ministry of Health have set up an avian influenza surveillance programme. By setting up a Central Laboratory in Bhopal, training veterinarians to collect impacted waterbirds for examining avian influenza and by setting up of a process in which wetland protected area managers can inform any suspected avian influenza to the provincial wildlife and health departments as well as the federal Ministry of Environment & Forests and Ministry of Health. **In Iran** two project sites were highlighted as AI's hotspots and a good sampling carried out in FDK in 2005. Also we made an AI brochure and distributed to the sites. **In Pakistan**, the Pakistan Wetlands Programme in collaboration with National Agriculture Research Council Islamabad has launched sample collection for surveillance of avian influenza in migratory birds and their habitat. **In Mongolia** since 2007 research team of Biological Institute is making survey of avian flu in 70 lakes of western, eastern and central part of Mongolia between May-September. Between 2007-2009 we have conducted 8 times training on monitoring of avian flu for local people who work in environmental, veterinarian and government sector of 12 provinces. **In Kazakhstan** Within the framework of the national program of monitoring of bird flu (Forest and Hunting Committee) Naurzum Nature Reserve, inspectors service of Kostanay Region, including located on the lakes of the systems of Kulykol-Taldykol, Tyuntyugur-Koybagar, Zharsor-Urkash and other had provided the permanent monitoring of mortality of waterfowls. In cases of finding of the dead individuals they passed them on examination. The group of virologists of Institute of Virology took non-invasive tests (swabs) from chicks on some lakes of Kostanay Region, including in the buffer zone of Naurzun Nature Reserve in 2008 in framework of implementation of international grant. **In Turkmenistan** Hunting and Fishing Regional Society of Turkmenistan conducted control shooting of waterfowls on migration routes occasionally. Samples were sent to the Veterinarian Service for analyses. **In Uzbekistan**, ornithologists from

the Institute of Zoology of Uzbek Academy of Sciences assisted Republic Veterinary Laboratory in process of sample collection for surveillance of avian influenza H5N1 in migratory waterbirds at network sites and other important crane sites (place of concentration). On a **regional level** guidelines for highly pathogenic avian influenza risk reduction at wetland protected areas were produced under SCWP and included in Ramsar Resolution X.21 in 2008.

#### **2.4. Evaluate efficacy and application of research/monitoring**

48. In **China** the results and related data of ecological relationship monitoring between waterbirds, water level and aquatic plants, and the wintering waterbirds monitoring in Poyang Lake Basin were being reviewed by the Chinese scientists. The final evaluation report will be submitted to the Jiangxi People's Government, which would focus on the impacts of dam construction on the wetland ecosystem of Poyang Lake. In **Mongolia** as a positive result of public awareness activities the local community recognizes that the Siberian crane is an important resident of their country. Local people's mentality was changed and continues to impressively increase. So, through this impression their support of nature and biodiversity conservation has changed. This situation is expanding in several sites which observed Siberian cranes.

### **Objective III: Increase number and genetic diversity**

#### **3.1 Promote recovery of the Siberian Crane populations**

##### *Captive breeding*

49. To date there are several centers where Siberian Cranes breed in captivity. Information is available in the fifth 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 December 2009. as of 31 December, 393 captive Siberian Cranes (166 males, 177 females, and 52 unknown) are kept in 55 centres of 14 countries. For the period 2007-2009, 81 Siberian Cranes were reared in 8 captive facilities in 7 countries. The main captive centers are the OCBC, International Crane Foundation, CBCC and Beijing Zoo in China. These four 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.

50. In **Russia** 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.

51. In **Pakistan** a Crane Education Center with captive facilities was constructed in Kurram Valley. Two Pakistani biologists were sent to Cracid & Crane Breeding Center in Belgium for training in crane captive breeding & husbandry techniques.

52. In **Afghanistan** Kabul Zoo prepared facilities to keep Siberian Cranes. But before keeping of the Siberian Crane it was decided to check captive conditions using Eurasian and Demoiselle Cranes. It was shown that Kabul Zoo staff need additional training to keep SCs to keep Siberian Cranes.

53. In **Uzbekistan** in 2009 two Siberian Cranes were brought from Oka Crane Breeding Center in the Tashkent Zoo. Presence Siberian Crane in exposition helps to attract attention of visitors to the problem of protection critically endangered species.

54. In **China** SFA had contracted with China Zoo Association to establish the genealogy diagram of Siberian Crane at zoos in China, and all individuals had been implanted with biochip as identification mark.

### ***Reintroduction***

55. Two isolated reared Siberian Cranes were released in Kunovat WR in 2009. They were marked with color bands and microchips. In 2010 these birds arrived in Khanty-Mansiysk. They had no band, probably they spent winter with people and their bands were removed. Unfortunately in week both birds were killed.

56. Six captive-bred Siberian Crane (three chicks and three one-year old) were released in Astrakhan Nature Reserve. Two transmitters were fitted on a chick and a one-year old Siberian Cranes released in autumn 2009 in Astrakhan Nature Reserve. Signals were low quality and stopped to come in the end of November.

57. In **Iran** one captive-bred Siberian Crane was released in winter 2007/2008. It was banded with color bands. This bird was sighted next spring (2008) in Khanty-Mansiysk Region. One more captive-bred Siberian Crane was released in winter 2008/2009. This bird was marked with PTT, but signal stopped to come just after start of spring migration.

58. Acceptable place for reintroduction program for the Siberian Crane was determined in the territory of Centre for reproduction rare animals near Bukhara located on the migration route of Eurasian and Siberian Cranes in **Uzbekistan**. In the October 2008 Russian scientists Dr. A.Sorokin and Dr.Yu.Markin investigate migration route along Syrdarya River and visited Bukhara Center with the aim to observe conditions for Siberian Crane reintroduction there. In October 2009 Russian ornithologist Dr. A.Sorokin with assistance of specialist from Uzbekistan observed another flyway of Siberian Crane along the Amudarya River. In November 2009 two Siberian Cranes from Oka Crane Breeding Center were brought in Uzbekistan in Bukhara Center, where monitoring of their adaptation for winter conditions was started.

### ***Main challenges***

59. Poor monitoring of released birds is due to lack of finance for PTT and radio tracking.

### **3.2 Develop safe migration routes for Siberian Cranes based on those used by Eurasian Cranes**

60. In **Azerbaijan** during implementation period was determined three migration routes of the Eurasian Cranes and other waterbirds, which go along Caspian Sea to Iran, through the center of the republic to Georgia, and through the west part of Azerbaijan to Iraq and Jordan. There is possibility that Siberian Cranes also can use migration route led to Iraq. It can be confirmed by sighting of Siberian Cranes in Samukh District in the west of the country.

61. In **Iran** Siberian and Eurasian Cranes have not the same migration route, but good number of migration stopovers and wintering grounds of the Eurasian were found. Such areas are mainly grassland and cultivated areas, and can't be habitats for the Siberian Crane who is a more aquatic depended bird. In **Kazakhstan** places of migration concentrations of Eurasian cranes on Mamyrkol lake in Kamysty district and on Mohovoe lake in a Uzunkol district were found in result of questionnaire. The large migration stopover of Eurasian cranes was discovered on Zharsor lake in a Kamystynskiy District in 1998-1999. After that the regular monitoring was conducted there.

62. After discovering wintering ground of the Eurasian Crane in Amudaria River Valley in 1999, regular monitoring are conducted there by by Institute of Zoology and UzCWG in **Uzbekistan**, NGO "Save Environment of Afghanistan" in **Afghanistan** and Ministry of Nature Protection in **Turkmenistan**. During reporting period special observations were conducted by three countries in January-February 2008 due to extreme cold winter. All water-bodies were frozen in the end of first decade of January. Ice covers wetlands during January and February. Snow cover disappeared only in the middle of February. Only 200 Eurasian Cranes were counted in wintering ground in comparison with 6-20 thousand in previous years. Thousands of cranes died because lack of food, most of them were weak and killed by predators, dogs and people.

63. In **Turkmenistan** regular monitoring of wintering Eurasian Cranes was conducted also in Durnaly, however special research on possibility of using these sites by Siberian Crane in reintroduction purposes were not conducted.

64. In **Uzbekistan** new migration stopovers during autumn migration were discovered through ground surveys. One of them is located near Tuzkan Lake in Djizak province, which is the part of Aydar-Arnasay Lake System. Siberian Cranes were sighted there in 2002. Ground survey using car and telescope showed that intensive spring migration of the Eurasian Crane go through Surkhandarya Region. At this territory many flying and resting migrating flocks of hundreds and sometimes near thousand cranes were counted. The Siberian Crane was recorded in this territory in 1975.

#### **Objective IV: Protect and manage habitats of importance for the Siberian Crane**

##### **4.1 Protect and manage habitats of importance for the Siberian Crane**

65. Improving protection of protected areas has primarily been conducted through the implementation of the UNEP/GEF SCWP. In **Kazakhstan** four UNEP/GEF SCWP sites were included in the Ramsar List and five - in WCASN.

66. Range States undertook some measures for protection of important habitats of the Siberian Crane *outside* established protected areas. In **Kazakhstan** the main migration stopovers of Siberian Crane were included in the list of IBAs. The users of all these areas in accordance with the legislation of Kazakhstan should be obligated to meet appointment of the state on their maintenance. The control after activity of users in part of implementation of legislation is laid on the territorial regional agencies of FHC. In **Turkmenistan** according to Action Plan on Conservation and Sustainable Using of Biodiversity of Turkmenistan (2002), it is planned to establish a crane sanctuary in Durnaly Site designated in WCASN as well as to expand borders of Tallymerjen & Kelif-Zeyit IBA proposed to WCASN. In **China** in 2008, Huanzidong Reservoir, new identified important migration stopover for the Siberian Crane, was

established as a part of Liaoning Provincial Nature Reserves. Jiangxi Forestry Department authorized the Poyang Lake National Nature Reserve to establish the protection stations around the whole Poyang Lake. To the present, additional 7 stations were established to enhance inadequately protected areas for Siberian Crane. In **India** in unprotected wetlands in the state of Uttar Pradesh, NGOs and surrounding village communities have been brought into an organized sector and capacity building training programmes arranged for enlisting their support for the protection of the unprotected wetland sites that are important for other Crane species. The wetlands identified as IBAs have been placed with signages for assisting protection of these wetlands through community participation for inclusion to the international IBA network. In **Mongolia** around 70 areas were identified as IBAs and most of them are Siberian crane's habitats. Now work to expand and upgrade conservation status of some protected area through establishing of joined international protect area (Onon Balj National Park in Mongolia and Sohondynskii NR in Russia) is being implemented. The current status of local protected area of Gun Galuutai on Kherle River was increased to state level. In **Uzbekistan** proposal for giving the protected area status to Termez site was prepared by UzCWGU. Besides some wetlands, where Siberian Crane was recorded during last years, designated as IBA (Tudakul and Kuymazar Reservoirs, northern shore of Aydarkul Lake, Kattakurgan Reservoir). Also all protected areas of the republic is under control of the State Committee on Nature Protection.

67. Securing protection through *collaboration with local communities* is a priority activity. In countries involved in the UNEP/GEF SCWP implementation (**China, Iran and Kazakhstan**) the management committees were established on all project sites to improve management and protection of wetlands and waterbirds, especially for Siberian Cranes and their habitats. In **Iran** a Non-Shooting Area (in FDK) has been established in collaboration with duck trappers and DoE. This was the first site establishment through participatory approach in country. Also end of season shoot-out has been phased out by cooperation of locals. In **India** the KGNP management authority under the UN Foundation supported project has established special village community groups, students support group for protection and management of the wetland habitats of the Protected Area. In **Mongolia** several areas where Siberian cranes were sighted were included in Protected Area Network of Mongolia. At these sites conservation and monitoring were being undertaken by local and state organizations and communities.

68. *Management plans* for Siberian Crane sites were developed mostly under implementation of the UNEP/GEF SCWP. In **China** they were prepared for five project sites, except Xianghai NNR, in **Iran** - for FDK and in **Kazakhstan** - for Naurzum NR and Zharsor-Urkash WR. In **India** a detailed management plan for the KGNP have been developed that specifies protection, habitat management, avifauna population estimation, hydrology management and intervention, tourism management, research and monitoring and such other activities. In **Pakistan** management plans for all the Ramsar Sites in Pakistan are being prepared by Pakistan Wetlands Programme.

69. For *water management* in **India**, in addition to the meteorological data and monitoring of annual release of water to the KGNP, research studies on hydrological budget have been supported. In **China** the relationship of water level and aquatic food plant by Siberian Crane was being tested in Momoge NNR since 2009. In **Mongolia**, because lack of water resource, local people and livestock are staying nearby water. This is effecting negatively to nesting of birds. Mongol Daguur SPA is loosing own value, due to Ulz river drain. Number of waterbirds, including Siberian, White-naped and Hooded Cranes, Swan Geese, Relict Gulls is

decreasing in Mongol Daguur SPA. In **Kazakhstan**, according to management plan, the instrumental measuring was conducted on the four lakes in Naurzum Nature Reserve. In Pakistan monitoring on water level is conducted by the Irrigation Department. In **Uzbekistan** control of water level is implemented by special departments of hydro meteorological service (lakes, rivers, others natural water bodies and discharge lakes) and by Ministry of Agriculture (water reservoirs, canals and collection network).

70. During the reporting period a number of *seminars and 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** specific training and capacity building programme at five project sites was conducted. In **Iran** many training and other capacity building activities were undertaken at Fereydoon Kenar and Bujagh National Park including training workshops on livelihood of local people project done by the national consultant, wetlands monitoring plan (for experts), eco-agricultural guidelines (for local people), GIS training (for experts), guard training workshops (for local guards), participatory management workshops for the local and governmental staff, awareness raising campaign. In **Kazakhstan** the seminars and trainings were conducted for inspectors, teachers, schoolboys, students, and hunters. Primary purposes of these seminars were to give knowledge why it is necessary to save wetlands, to promote knowledge about importance of projects sites for the maintenance of cranes and other waterfowls, to give information about problems, threats to habitats of cranes and waterfowl; to teach to recognize of rare and threatened species of birds. Some trainings were devoted to development of ecotourism and alternative types of activity for local people and to methods of monitoring and account for NR protected staff. In **India** training workshops on research methodology for research biologists, wildlife care and management for veterinarians, on day to day monitoring activities and satellite wetland monitoring for KGNP staff, and on identifying wetland birds and report any sightings of Siberian Crane in and around KGNP for the surrounding village communities were conducted. In **Uzbekistan** in Termez site in Surkhandarya Province seminars for frontiers, local people, hunters, students in Termez State University, schoolchildren and teachers, representatives of local community and administration, and mass media were held with the aim to inform about the Siberian Crane and its protection. Trainings for Bukhara Center staff were held in October 2008, January 2009, November and Desember 2009. Round Table "Presentation of Termez as wintering site of the WCASN" was organized in November 2009 for hunters, workers of local department of State Committee for Nature Protection, representatives of local administration, frontiers, department of popular schooling, mass media, staff of Surkhan State Nature Reserve, students of Termez State University.

71. *Capacity building* was improved for UNEP/GEF SCWP sites. In **Kazakhstan** in Karamendy village the resource centre was provided with needed equipment and technique. In **China** all nature reserves involved in the project have improved their infrastructures and instruments, and enhanced the staff capacity building in the past 10 years. The major investments sourced also from the central and provincial finance.

72. In support of site management *applied researchs* were conducted mostly on UNEP/GEF SCWP sites. In **China** ecological relationship between water level, aquatic food plant and Siberian Crane was applied into the management and control of water level for some important sites, such as Poyang Lake NNR and Momoge NNR. In **Iran** several projects to support management plan were implemented: Livelihood of Local People, Wetlands Monitoring Plan, Eco-agricultural Guidelines, GIS project, Guard training workshops, Analysis of Awareness Program. The results of these projects have been incorporated to the management plan text and used for proposed action plans. In **Kazakhstan** in according to

management plan of Naurzum NR research on dynamics of number and monitoring of migratory waterfowl was conducted, however there were not enough resources to finish this study. Also in **India** status of the satellite wetlands around KGNP, ecological studies on associated crane species, assessment of hydrological budget, socio-economic dependency status, status of invasive species, understanding migration patterns of select wetland birds are some of the major research studies carried out in the Protected Area.

73. *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** environment impact assessment of oil operation on the Momoge wetlands was conducted from 2005 to 2008. The results present the negative impact of oil operation on the wetlands and waterbirds, and put forward some mitigation measures. In **Iran** the results of eco-agricultural projects show how to develop the biological methods in current unsafe farming activities. In **Kazakhstan** in the frame of UNEP/GEF SCWP and IBA Program, estimation of ecological terms of areas and existent threats related to human development activities was conducted. The basic threats, including the ineffective use of water resources, violations by agriculture (pasture of cattle along the shore of lakes, ploughing open of slopes of lakes hollows and watershed), poaching and fires were determine. In **India**, using the UNESCO WCPA framework, the management effectiveness of the KGNP has been evaluated under a new project supported by the UN Foundation and implemented by UNESCO and has been made operational. In **Uzbekistan** some years ago new way of grain independence in agriculture was developed and therefore area of sown agricultural fields was increased. It created the preferable situation for migrating and wintering Eurasian Crane. Along migration routes and at wintering grounds cranes concentrated mostly at agricultural fields.

## **Objective V: Increase public awareness, community involvement, and ecological education**

### **5.1 Share information on Siberian Crane conservation efforts through mass media**

74. Range States use mass media for increasing public awareness. In **Afghanistan** programme in mass media on general environment has been conducted few times. In **Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan** information about Crane Celebration was given in regional and city newspapers and local and national TV and radio channels. Besides, in **Turkmenistan** information on Crane Celebration in Durnaly Site was published in official website of the Ministry of Nature Protection on 6 December 2009. In **China** a lot of TVs and websites at central, provincial and local levels reported the information about Siberian Cranes and their habitats every year, especially when the cranes come. China Crane Newsletter and related publications of bird watching societies also published many information in related to Siberian cranes. In **Mongolia** the Biological Institute conduct by TV 40 minutes broadcast in every year quarter according to agreement with Mongolian National TV. Protected Area Administration gave the information about migratory bird to the local people through the local broadcasting office. In **Iran** there are many articles posted on IRNA (Iranian National News Agency), which other broadcasting agencies use as a source for new. Sadegh Sadeghi Zadegan had an interview with TV-Channel one in January 2010 with subject of Siberian Crane. In **Pakistan** the year 2009 was celebrated as National Year of Environment with active participation of Ministry of Environment, all provinces, and Pakistan Wetlands Programme. Information about National Year of Environment was translated in all national channels. Wetlands Day, Biodiversity Day were celebrated at national level and attracted vast media coverage.

75. Additionally **Kazakhstan** in the frame of UNEP/GEF SCWP the film about this problem and efforts undertaken at international and national levels for conservation of Siberian Crane, which demonstrated by national TV. In **Turkmenistan** film “In Search of Eurasian Crane” was made by national company “Ogyzkhan’s Turkmenfilm” in 2008. Another film about Eurasian Cranes were made and shown in national TV in 2008. Film “Durnaly – Crane Paradise” about Durnaly site, designated in WCASN was made in 2009 with support of UNEP/GEF SCWP.

76. Articles about Siberian Cranes and related activities were published in a variety of Publications, including the third issues of “Crane of Eurasia”, magazines, newsletters (ICF Bugle, China Crane News, CMS Bulletin, Information Newsletter of the Crane Working Group of Eurasia (CWGE), Kazakhstan Ornithological Bulletin), newsletter of Uzbekistan Society for the Protection of Birds, electronic Siberian Crane Flyway News and Sandgrouse, national and local newspapers (information on crane migration in **Mongolia**; “Flight of Hope” project in **Russia** and **Kazakhstan**, and Crane Celebration in **Russia, Kazakhstan, Turkmenistan, Azerbaijan, Uzbekistan, and Iran**). In **Mongolia** some materials about waterbirds were published jointly with scientific organization and environmental projects.

77. 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 produced in **India** through funding from the U.S. Fish and Wildlife Service was continued to share during education events, with schools, local agencies, and nature conservation organizations in **Kazakhstan, Russia, Turkmenistan and Uzbekistan** as well as another Siberian Crane poster prepared in Russian and English for the MoU6 meeting participants.

78. A colorful and highly informative booklet “Lily of Birds 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. Another colorful booklet “Saving Wetlands across asia inspired by the Siberian Crane” devoted to UNEP/GEF SCWP was distributed among project participants at annual project Steering Committee meetings and other related events.

79. Various information and education materials, including posters, T-shirts, booklets, stickers and buttons were prepared by CWGE with finance support of SCWP and CMS Secretariat to support Crane Celebration in Azerbaijan, Kazakhstan, Russia, Turkmenistan, and Uzbekistan. A booklet "101 Questions About Cranes" by Vladimir Flint in Russian was reprinted as colorful issue and distributed widely in countries where Crane Celebrations were organized. Some of materials were translated in national languages. Countries produced also materials on the national level in national languages as posters, stickers, buttons, calendars, T-shirts, pens, notebooks, which were shared among different target groups including hunters during different events including Crane Celebration, Bird Day, World Migration Bird Day and etc.

80. **China, Iran, Kazakhstan, and Russia** issued a lot of education and information materials in national languages in the frame of the UNEP/GEF SCWP and distributed among the Siberian crane sites along the whole migration route.. In **China** books “I love Poyang Lake”, “My home at Keerqin”, “My home at Xianghai”, “Book related to the local perspectives at Zhalong” were issued especially for project sites and were included officially

in school curriculum. In **Iran** a Siberian Crane stamp was issued and many pieces purchased and widely disseminated between the interested persons and organizations. In **Kazakhstan** teaching materials, including teaching the modules, brochures, booklets and etc for different age and target groups were prepared and distributed among schools located around projects sites on territory of Naurzum, Kamystinsky and Karasusky Districts.

81. **Afghanistan** issued pamphlet and brochures on cranes conservation. Specific charts of Siberian cranes have been disseminated among local communities and religious scholars. Booklet on Islam and conservation is in process of publication. Materials were widely distributed, especially in clinics and markets, where usually more people visited.

82. In **Pakistan**, Pakistan Wetlands Programme has developed information materials on Wetland which is being distributed widely. Pakistan Wetlands Programme's poster "Cranes of Pakistan" was reprinted and widely distributed. Newsletter of Pakistan Forest Institute published awareness material on cranes. Various articles on wetlands and crane conservation were published in various newspapers.

83. In **Uzbekistan** in 2007 Gosbiokontrol (department under State Committee for Nature Protection) prepared three leaflets: "Save the Cranes" with pictures of Siberian Crane and other crane species, identification of Siberian Crane (pictures shown difference between Siberian crane, White Stock and Great White Heron), "Fly of Hope" described idea of this project. These leaflets were distributed in Bukhara region in connection with forthcoming arrival Siberian Crane in Bukhara Center for reproduction of rare animals. In 2009 CWGUz prepared and published brochure "Termez, WCASN", which will be used in the round table with aim of presentation this territory and handing CMS certificate.

## 5.2 Site-based education

84. Different education events were hosted at international and national levels. The Crane Celebrations initiated by the CWGE in 2002 became a traditional event in 9 countries, including Siberian Crane Range States – **Azerbaijan, Iran, Kazakhstan, Russia, Turkmenistan and Uzbekistan**. The number of people involved in this celebration is increasing from year to year. Crane Celebration was conducted in local communities, protected areas, city and rural schools, zoos, libraries, children ecological clubs and etc. In the frame of Crane Celebration 2008 Crane Count was organized in the Eurasian Crane staging areas involving students from rural schools. In **Turkmenistan** Crane Celebrations in 2009 was conducted along with meeting with local administration for handing of WCASN Certificate on Durnaly Site. The effectiveness of education and information programme and public events can be estimated as average. It is necessary to have conversation with hunters, shepherds and other groups of local people. Crane Celebration was supported by IBA/CA/RSPB Programme, Ministry for Nature Protection of Turkmenistan, CMS, Crane Working Group of Eurasia, International Crane Foundation and UNEP/GEF SCWP.

85. The Siberian Crane **Range States** participated in other various international (World Migratory Bird Day, Biodiversity Day, Wetlands Day) and national events related to conservation of cranes and their habitats. In Iran assessment "World Migratory Bird Day" shows this event can involve more people to the bird events, counting and reporting.

86. In **Afghanistan** integration of traditional knowledge and religious knowledge into environmental and conservation education has left positive impacts on the publics in few

target areas. Journalism training was conducted by the government with the technical and financial support of international organizations. In northern Afghanistan national environmental councils consisted from local communities, local government, and religious scholars were created as well as local conservation group. In **China** wintering camping and summer camping activities were conducted many times in some staging sites and wintering sites on protection of the Siberian crane and its critical habitats. In **Mongolia** an art competition between students of Dornod Province in Mongolia, Chita Region in Russia, and Kholonbuir Province of Inner Mongolia in China was conducted since 2004. Winners from three countries invited to international children summer ecological camp in Mongol Daguur SPA. The camp was held as scheduled, July 1-5 2008. besides of winners, 22 students from Choibalsan, Dashbalbar, and Chuluunkhoroot soum participated. Student's camp is organized every year by each country of the International protected area.

87. In **China** five project sites of SCWP have established the community co-management committees during the implementation period. They would hold at least twice meeting every year to discuss protection and management of Siberian cranes and their habitats, and also raise recommendations on alternative mitigation measures between natural protection and community development. Almost all reserves have hired some local farmers as the guards or patrollers for the nature reserve. They would keep reporting on fires, hunting, poisoning, illegal development and other destruction activities in time. The responsible authorities would organize one or two meetings each year to introduce their responsibilities and train some basic knowledge. In **India** the concept of conservation reserves and community reserves are being popularized. Currently the Federal government in association with the state government of Rajasthan where KGNP is located collaborates with national NGOs such as WWF-India, BNHS, WPSI and government institutions such as SACON, WII for Siberian Crane and other waterfowl conservation programmes.

88. In **Mongolia** Bird Information Centers were built in the Mongol Daguur SPA of Dornod province and Ogi Lake of Arkhangai Province. Public awareness activities in car of those info centers about conservation of cranes, their habitat areas and nesting etc. In **India** a world class interpretation centre with focus on the historical migration of Siberian Crane into KGNP and its present situation have been established by the WWF-India in the KGNP with supports from Swarovski. Based on the feedback obtained from the visitor book in the Interpretation Centre and the park, the visitors seem to be bringing others into the park and to the Interpretation Centre to understand the message of conservation. The increased use of the Interpretation Centre by schools and colleges is an indication of its effectiveness. A water school have been initiated by the WWF-India targeting the surrounding school children for imparting the importance of water and its role on wetland habitat management. In **Kazakhstan** in the frame of UNEP/GEF SCWP the Resource Centre was created in Karamendy Village and creation of some new NGO was initiated. In **Pakistan** NWFP Wildlife Department organized Crane Clubs and Wildlife Clubs in the province. Besides, Pakistan Wetlands Programme organized 30 community organizations along the Central Indus River for wetlands conservation. Crane Conservation and Education Center, Kurram Valley, Lakki, NWFP provides the opportunity to address crane conservation.

89. In **Uzbekistan** meetings on crane conversation have been organized for border guards during monitoring in Termez which is wintering ground of the Eurasian Crane in Amurdaria Valley. Some of border guards took part in cranes counts. Active collaboration of Gosbiocontrol, CWGUz, UzSPB, regional rangers, lectures and high school students allowed to organized wide observations network. As the result, during last years information about

Siberian Crane records was presented by rangers from Bukhara region and ornithologists from Samarkand State University.

90. The UNEP/GEF Siberian Crane Wetlands Project supported education activity in WCASN sites in **Kazakhstan, Iran, Turkmenistan and Uzbekistan**. In **Uzbekistan** a round table "Presentation of Termez as wintering site of the Western/Central Asian Site Network" was organized for different target groups: decision makers (regional and local administration, regional branch of State committee for nature protection, stakeholders (frontiers), hunters, scientific worker of the neighbouring protected area (Surhanskiy Nature Reserve), lecturer of Termez state university and local mass media.

### **5.3 Sustainable livelihood opportunities**

91. Different initiatives were undertaken to facilitate sustainable livelihoods in Range States. In **Afghanistan** community based Natural Resource Management is key tool that has been initiated in the last two years in Afghanistan. This process will support conservation of species. In **China** some alternative livelihood activities were demonstrated in four project sites of SCWP in the past few years, such as natural gas construction, water-saving irrigation, fencing-raising of livestock, round-funding and so on. In **Mongolia** eight local communities were involved in public awareness activities in care of in the Eastern Protected areas. In **India** in KGNP, cycle rickshaw pullers and local youths have been trained as park guides to provide additional livelihood supporting income. In **Iran**, in the frame of UNEP/GEF SCWP, Trappers Associations with their own trust funds for implementation of eco-agricultural projects was established. It was provided the core money (e.g. 50% of total) and started with loan system (e.g. 2 years). In **Kazakhstan** under UNEP/GEF SCWP seminars and trainings on teaching of local people to the alternative activity were conducted: to development of ecotourism, to making of souvenirs, thick felt, cheese and etc. Besides a small private hotel was create; Naurzum NR developed and described excursion routes, and the equipment is acquired for baking of bread in one small settlement. The local NGO «Tulip» (Karamendy, Naurzum district) in 2009 received grant from GEF Small Grants Program for development of guest cottages and excursion routes. In Pakistan in Taunsa Province, the Pakistan Wetlands Programme had several initiatives that included training / capacity building of local communities in growing off-season vegetables; establishing income generation through *Typha* looms to main *Typha* mats; installation of 60 bio gas plants in Central Indus Wetland Complex to benefit women folklore in specific and conserve habitat in general.

#### **Main challenges:**

92. In **China**, the conservation fund mainly comes from the government agencies, and a minor part stems from the NGOs. The major problem is lack of operation, maintenance and monitoring costs.

93. In **Iran** an absence of Siberian Crane has a negative effect on this issue. Justification is very difficult for fund raising.

### **Objective VI: Enhance international cooperation and information exchange**

#### **6.1 Improve international cooperation and information exchange**

94. 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.

95. All **Range States** except China 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 according to e-mail list. In **China** information usually shared under the mechanism of NEACSN.

96. **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. Besides, **Uzbekistan** established a national crane working group in 2001. In **China** Crane Network was already formed under the mechanism of Northeast Asian Crane Sites Network. These sites were involved in the implementation of action plan of the network. Nature reserves, especially at wintering grounds had joined the Asian Waterbirds Count sponsored by Wetland International. Indian Crane and Wetlands Working Group is created in **India**. In **Mongolia** there is no crane working group, only few specialists. **Pakistan** Crane Working Group was established. This is dormant at the moment primarily due to financial constrains, but Pakistan Wetlands Programme is considering its revitalization.

97. In **India** the Government of India had participated on a bilateral agreement with the Russian Government and International Crane Foundation for facilitating and re-establishing the population of Siberian Crane migrating from Russia to KGNP. **Afghanistan** has become as signatory country to CMS. Efforts are needed to strengthen the objective and criteria of CMS. **Iran** became a CMS member in 2008. A new bilateral agreement between DoE and Russian Environment Ministry has been signed in early 2010. **Kazakhstan** became a signatories CMS in 2007 and **Iran joined in 2008**. **Kazakhstan** joined Ramsar in 2008.

## **6.2 Development of the Western/Central Asia Site Network for the Siberian Crane and other waterbirds**

98. At MoU6 in Almaty 10 sites of 5 countries (Iran, India, Kazakhstan, Turkmenistan and Iran) were designated as WCASN sites. Certificates were handed to the representatives of India, Iran and Kazakhstan these countries during CMS COP9 in Rome in December 2009. Certificates for sites from Turkmenistan and Uzbekistan were presented during Crane Celebrations and Round Tables to representatives of the sites. Education activities in WCASN designated sites in Kazakhstan, Iran, Turkmenistan and Uzbekistan were conducted in 2009 with support of the UNEP/GEF SCWP.

99. During reporting period **Pakistan** prepared nomination documents and Site information Sheets for two sites for considered by Review Working Group at CMS MoU7 meeting. Also Uzbekistan and Kazakhstan proposed additional sites for inclusion in WCASN.

100. All **Range States** participated in preparation of Atlas for the Siberian Crane and Other Waterbirds in Western/Central Asia. Atlas was prepared on the base of existed information sheets and SCWP database.

101. **India** hosted the Central Asian Flyway meeting in 2006 where a Central Asian Flyway action plan was developed. The Government of India is committed to develop and implement commensurate actions relevant to the Central Asian Flyway action plan.

### **6.3 Support Siberian Crane conservation activities through the East Asian – Australasian Flyway Partnership**

102. Siberian Crane is one of the targeted species under the focus of the Crane and Stork Working Group, any activities of the action plan are related to the conservation of Siberian Crane. **In China** Keerqin and Momoge NNRs had already been designated to the EAAFP for the conservation of Siberian Crane.

103. Representatives of China, Mongolia and Russia participated in NEASN meeting as well as EAAFP meeting devoted to administration issues as well as to status of the Red-Crowned Crane.

### **6.4 Capacity building**

104. Few experts from Afghanistan had undertaken training of Siberian cranes at the national level. In China some training courses had been implemented for project sites of SCWP in China for the conservation of Siberian Crane. Training workshops of Ecotourism had been carried out by NEACSN since 2001 to 2008 every two years for the conservation of cranes in East Asia. In **India** the Wildlife Institute of India conducts Masters programme, Diploma and Certificate Course in Wildlife Management in which such capacity building components are included. Similar short durations workshops, seminars are also organized by BNHS, SACON and WWF-India.

105. In **India** a network of institutions and organizations capable of providing capacity building training programmes for Siberian Crane and other waterfowl. Amongst them are the Wildlife Institute of India whose mandate is training, research and coordination of such activities not only in India but also for the South-Asia region. The other institutions who contribute significantly in this direction are the Bombay Natural History Society (BNHS), Salim Ali Centre for Ornithology and Natural History (SACON), WWF-India and a host of Universities who are involved in ornithological research. There may be a need for scientific and managerial exchange programmes between Siberian Crane Research & Management range countries for developing appropriate action plan and strategy for re-establishment of a migrating Siberian Crane population in India. Specialist from **Kazakhstan** participated in the training on management planning and avian influenza in March 2007 in Nanchang (China).

106. In **Mongolia** *priorities for international research* included a survey of the migration route pattern of Siberian Cranes related to climate change (in Mongolia several wetlands and small lakes are dried); and habitat area and nest monitoring. **Kazakhstan** participated in realization of project «Flight of Hope». Kazakhstan experts had prepared the route with possible stopover sites on territory of country and provide support in organization the expedition of the Russian working group for ground survey and estimation of route of motion through the country territory in September 2008. The main priority in Kazakhstan is continuing to participate in reintroduction programme of the Siberian Crane and conduct monitoring of migratory Siberian Cranes as well as Eurasian Cranes in the places of their mass concentrations. **Uzbekistan** conducted investigation of Eurasian Crane wintering grounds which is potential wintering grounds for the Siberian Crane together with

Afghanistan, Turkmenistan and Iran. Research priorities in Uzbekistan include research along Siberian Crane Central Flyway and their stopovers using observations of Eurasian Cranes staging areas; ecological conditions for the Siberian Crane in Bukhara centre in the frame of reintroduction program; preparing nomination documents for including Tudakul Reservoir (Siberian Crane recorded not far from Tudakul in 2007) in Ramsar List; continue monitoring of Eurasian Crane wintering grounds in Amurdaria Valley as potential wintering grounds of Siberian Crane together with Afghanistan, Turkmenistan and Iran in territory of these countries.

107. **Kazakhstan, Turkmenistan and Uzbekistan** participated the Programme IBA/CA/Birdlife International: In **Turkmenistan** 50 sites were designated as Important Bird Areas, including two WCASN designated (Durnaly) and proposed (Tallymerjen & Kelif-Zeyit) sites. In **Uzbekistan** the territory "Amudarya floodlands near Termez" was designated as IBA.

108. All **Range States** (excluding China and Mongolia) participated in preparation of the Siberian Crane Atlas for the Siberian Crane and Other Waterbirds in West/Central Asia.

#### **6.5 Raise funds to support a comprehensive conservation programme supporting MoU implementation**

109. ICF in collaboration with CMS secured financial support through UNEP from Global Environmental Facility to implement the UNEP/GEF Siberian Crane Wetland Project from 2003 to 2009. Funds were provided to **China, Iran, Kazakhstan and Russia** for activities including improved legislation, research, monitoring of waterbirds and wetlands along Siberian Crane flyways, capacity building, conservation and management of wetlands with key importance for the Siberian Crane, and education and public awareness at project sites (see copy of Final Report <http://scwp.info> ). GEF provided \$10 Million, with \$16M co-finance and \$20M associated funding - Total \$46M. Details on individual donors and amounts are provided in the Annex 2 to the Final Report. The Cracid Breeding and Conservation Center supported improvements to the captive rearing facility at OCB and training for Pakistan colleagues on captive rearing techniques.

110. Secretariat CMS, UNEP/GEF SCWP and Crane Working Group of Eurasia supported education and public awareness activities for crane conservation in **Azerbaijan, Armenia, Iran, China, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, Ukraine, and Uzbekistan**, mainly through organization of Crane Celebration.

111. **Iran, Kazakhstan, Turkmenistan, and Uzbekistan** applied project proposal to ICF for the implementation of education and public awareness activity in the WCASN sites. This activity was supported under UNEP/GEF SCWP.

112. In **Afghanistan** USAID has provided fund for conservation of biodiversity in the last 3 years. Efforts to submit proposal to GEF are underway. A local conservation NGO has received small scale fund through ICF partners to promote conservation education, identify Siberian cranes fly way in Afghanistan and to construct cranes exhibition in Kabul Zoo.

113. In **China** Poyang Lake NNR had cooperated with ICF to conducted research on relations of water level, waterbirds, including Siberian Crane, and aquatic plants from 2001 to 2009. Some specific funds from the SFA have been mobilized for the implementation of

action plan of NEACSN, which is closely related to the implementation of the Siberian Crane conservation activities under the Siberian Crane MoU. In **India** the funding support provided to the concerned Protected Areas under the Ministry of Environment & Forests, Government of India's schemes for protected area management or support for specific endangered species programmes.

114. In **Mongolia** Ministry of Nature Environment and Tourism submitted the project proposal to the GEF on "Proper Management Protected Area Network in Mongolia". If this project will be approved by GEF, many activities to conserve Siberian cranes will be covered. Now Ministry and UNDP country office are waiting from GEF decision and co-funders. Ministry of Nature Protection has own fund to support nature conservation in the country. The Government takes policy to protect endangered and rare wildlife. There is no special cranes conservation activity in Mongolia, but crane species can be protected under conservation of wetlands in northeast Mongolia, where Siberian Crane spends summer.

115. In **Kazakhstan** NCU of the UNEP/GEF SCWP was supported by Naurzum Akymat for organization of Crane Festivals. In addition, funding from some national foundations was provided for strengthening of capacity of new NGO focused on people livelihood. Local NGO «Naurzum-Byonet» had funded by GEF Small Grant Program on a project on the reconstruction of water reservoir of Karasu River in the basin of Naurzum Lake System.

116. In **Turkmenistan** Ministry of Nature Protection provided financial support in 2007-2009 for crane conservation activity, with total amount \$1,300. It covered expenses for purchase books for Turkmenistan Nature using as prizes during crane conservation action (\$300); transport rent during Crane Celebration (\$400); stationary (\$150); conference room rent (\$200); coffee-break during meeting with Administration concerning WCASN activity (\$250).

117. **Uzbekistan** in 2009 applied project proposal to Ramsar Convention Secretariat on preparation nomination of Tudakul Reservoir (not far from Tudakul Siberian Crane recorded in 2007) in Ramsar List. At present project is approved, but money not given yet. Gosbiokontrol supported preparing and printing of three color leaflets in 2007 (\$120), investigation of ecological conditions along Siberian Crane flyway in Syrdarya River valley in 2008 (\$100) and in Amudarya River valley and in 2009 (\$200). Besides Gosbiokontrol supported investigation of ecological conditions for the Siberian Crane reintroduction program in Bukhara Center, including building of facilities and food providing (\$1,000). Institute Zoology of the Academy of Sciences of Uzbekistan supported expedition for observation of conditions for waterbirds and Eurasian Cranes at wintering grounds in Amudaria River valley during extremely cold winter 2008 in Southern Uzbekistan (\$800) and organization round table discussion on "Presentation of Termez as wintering site of the Western/Central Asian Site Network" (\$600).

#### **Main challenges:**

118. **Azerbaijan, China, Turkmenistan, and Uzbekistan** reported insufficient skill and staff to conduct Siberian Crane monitoring during migration.. In reality, funds are needed in all countries.

119. In **China** migration research for Siberian Crane needs to be carried out cooperating with Russian Colleagues in the near future; monitoring information exchange needs to be

enhanced; research and conservation purposed colleagues exchanges should also be encouraged between Russia and China. Training programme are usually required for local nature reserve staff in order to carry out any conservation activities for Siberian Crane. China has secured important financing towards the conservation of wetlands and water releases for key sites in northeast China.

120. In **Mongolia** there is a need to establish a new agency or organization which responsible biodiversity issue in nationwide. In Mongolia there are many specialists and several ornithologists. They work in own business and directions. Need to unite specialist and use human resources for useful activities for conservation and management of the endangered and rare biodiversities.

121. In **Kazakhstan** there are several important challenges: (i) national foundation/sponsors organizations which would support NGOs are absent; (ii) existent governmental grant programs (social order) realized through Region Akymats supports only socially significant projects (iii) Kazakhstan have very few experts-ornithologists, therefore, for example, for implementation of project IBAs the Russian colleagues were invited for help. For strengthening of measures on the conservation of Siberian Crane and their habitats it is necessary, at first, to provide support to the initiative groups/NGOs on realization of the projects focused on concrete sites, for example, pilot project on lakes survey. Secondly, all measures on reintroduction/increasing number of Siberian Crane of west/central population make sense and can be realized only in close cooperation with the Russian side and other countries of areal. A long-term program should be prepared which includes scientific aspects (such as influence of climatic changes on hydrological regime of lakes and habitats of Siberian Crane and etc) and funding secured.