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ICF

Memorandum of Understanding concerning Conservation Measures for the Siberian Crane

Full Report of the Fifth Meeting of Siberian Crane Range States

Moscow, Russian Federation
26-29 April 2004

Dedicated to the memory of Dr. Vladimir Flint (1924-2004)

Background

The present meeting was the fifth in a series, assembling administrators and experts from the Range States participating in the *Memorandum of Understanding concerning Conservation Measures for the Siberian Crane,* an agreement developed in 1993 under the auspices of the Convention of Migratory Species (CMS). It had as its primary objective the review and further refinement of the Conservation Plan, an integral part of the Memorandum of Understanding (MoU). The previous meeting was held in Baraboo, Wisconsin (United States) in May 2001.

The meeting was organised by the International Crane Foundation (ICF) through the Moscow-based CMS/ICF Siberian Crane Flyway Coordinator (SCFC), with the cooperation of the All-Russian Research Institute for Nature Protection (ARRINP) and Crane Working Group of Eurasia (CWGE). The Russian Ministry of Natural Resources (MNR) hosted the meeting. There were 46 participants from 15 countries, including representatives from ten of the eleven Range States, as well as experts and representatives of several non-governmental and intergovernmental organisations.

The following Range States were officially represented: Afghanistan (as an observer, not yet a signatory to MoU), Azerbaijan, India, Islamic Republic of Iran, Kazakhstan, Mongolia, Pakistan, Russian Federation, Turkmenistan, and Uzbekistan. Representatives of China did not attend on account of technical reasons and issues; Mr. Crawford Prentice (ICF) reported unofficially on that country's activities. Non-governmental and intergovernmental organisations that were represented included: the Convention of Migratory Species Secretariat, International Crane Foundation, Crane Working Group of Eurasia, Operation Migration (Canada), Sterkh Foundation (SF) (Russian Federation), Wetlands International, and WWF- Pakistan. The List of Participants is provided in Annex 1.

Agenda Item 1: Opening Remarks

Valeriy Orlov, MNR, welcomed the delegates to the meeting. He congratulated the participants on progress made to date and noted that CMS was celebrating its 25th anniversary in 2004.

Mr. Orlov stated that the MNR would do its best to promote and advance this important work. He emphasized that nature protection was a very important priority for his agency. Under the new Ministry, a 3-level structure of natural resources management in Russia had

been introduced recently, comprising: a) a Ministry for Natural Resources which would develop regulations and legislation; b) federal agencies, which would carry out functions of State control and monitoring; and c) other federal agencies, which would also be in charge of management and logistics. He noted that, as all natural resources in Russia were federal property, the new MNR would need ensure the continuity of approaches and activities. Working together with the international community would facilitate this continuity. Douglas Hykle, representative of the CMS Secretariat, welcomed the delegates. He thanked the MNR for hosting the meeting, and ICF for making the necessary preparations. He noted that the Siberian Crane MoU was one of the longest-lived CMS memoranda, having been concluded almost 11 years previous, in June 1993. At present, there were 85 Parties under the CMS, and another 15-20 States were participating in various MoUs under this Convention.

He remarked that at the time of the Fourth Meeting of the Range States in Baraboo the UNEP/GEF Siberian Crane Wetland Project (UNEP/GEF SCWP) had not been launched. It was now evident that a great deal of work was being undertaken through this initiative. The important issue of the Fifth Meeting would thus be a discussion of the linkages between the MoU and the SCWP, including possible establishment of a site network in Western and Central Asia. The Central Asian Flyway network would also be considered, as a complementary vehicle to promote this network and flyway coordination. While active work under the MoU and UNEP/GEF SCWP continued, Mr. Hykle observed that crane populations were still declining, and more aggressive intervention in the field was required.

Another important event since 2001 was the signing, by the Russian Federation, of the revised version of the MoU in 2002. Mr. Hykle expressed hope that Mongolia would join the MoU at this meeting and that Afghanistan, the only Range State that had not yet made such a commitment, would join soon after the meeting.

Mr. Hykle paid tribute to the late Professor Vladimir Flint, who had served to break down barriers and promote and enhance international cooperation for the Siberian Crane. The meeting agreed to dedicate the report to Prof. Flint, in light of his deep contribution to this issue. George Archibald, founder and co-Chair of ICF, explained that Prof. Flint had been the first Russian colleague with whom he started working in 1974. The flourishing captive population of Siberian Cranes was due Dr. Flint's efforts. The task to restore the Central and Western populations was enormous, but it would be the greatest tribute to this special man. He noted that Vladimir Flint had a great spirit and great understanding, and he understood long before *perestroika* how important it was to achieve active international cooperation in crane conservation. Dr. Archibald asked the delegates to follow in Dr. Flint's footsteps and use all opportunities to continue and enhance the work that he had initiated.

Alexander Sorokin, of the All-Russian Institute for Nature Protection, greeted his colleagues on behalf of the Russian delegation and hosts and expressed his appreciation for the tributes to Prof. Flint, whose death had been a great loss not only to Russia but to the entire international community of crane conservationists. He wished the delegates a productive meeting and appealed for them to engage each other in informal conversations after and between the sessions.

Agenda Item 2: Signature of the Memorandum of Understanding by Mongolia

Yasanjaviin Adiya, the representative of the Mongolian Ministry of Nature and Environment signed the Memorandum of Understanding on behalf of the Government of Mongolia.

Agenda Item 3: Election of Officers

Delegates elected Mr. Alexander Sorokin (Russian Federation) as Chair, Mr. Anoushirvan Najafi (Islamic Republic of Iran) as Vice-Chair, and Ms. Elena Smirenski (ICF) as Rapporteur.

Agenda Item 4: Adoption of the Agenda and Schedule

The Secretariat called for any revisions or additions to the provisional agenda and work schedule. He explained that the main purpose of the Meeting was to review progress in implementing the Conservation Plan since the last meeting held in Wisconsin, in May 2001, and to agree on new activities for the next two years. Participants would break into smaller working groups to examine specific areas of work in greater detail. Other important issues to discuss were the linkage of the MoU's work to the GEF-funded Siberian Crane Wetlands project (UNEP/GEF SCWP) and possible establishment of the Flyway Coordination Group in Western and Central Asia. The Meeting adopted the agenda and schedule, after minor reorganisation of some of the agenda items (Annex 2).

Agenda Item 5: Implementation highlights of the 2001-2003 Conservation Plans

The Conservation Plan adopted in Baraboo, Wisconsin was divided into three sections devoted to the Western, Central, and Eastern Flyways, respectively. The four main objectives common to all flyways were to: a) reduce mortality; b) increase numbers and genetic diversity; c) protect and manage habitats; and d) enhance international cooperation. These four objectives had been further subdivided into programmes and activities, applicable either generally or to specific countries.

The meeting systematically reviewed progress regarding the activities identified and agreed in Baraboo, with each Range State reporting on: a) main highlights of activities implemented under the objectives of the Conservation Plan; b) activities carried out that had not been envisaged in Conservation Plan (i.e. new initiatives or discoveries); and c) important planned activities that had not been conducted and the difficulties encountered.

A summary of progress and results for the period 2001-2004 was given in the second to last column of the Conservation Plans for the three Siberian Crane populations. The Azerbaijan representative reported that there had been no activities under the Siberian Crane MoU during the past three years due to on-going reorganisation in governmental structures and limited communication with Russian colleagues.

OBJECTIVE 1: REDUCE MORTALITY

Programme: Increase public awareness

It was reported that broadcasting of the ICF/CMS video or other similar materials, such as the video *"The Siberian Crane From Legend"* produced by SF, had continued in many countries. It had been broadcast by television networks or shown at crane festivals and other public events, with the narration translated into local languages. ICF had sent copies to all countries that requested them, but some countries had not received the copies or the copy was no longer with the appropriate individuals.

Robert Bateman's "Save the Siberian Crane" poster had been printed in India in 14 languages and distributed in 11 Range States, including Afghanistan and Mongolia. This activity was a joint venture of ICF and the Tourism and Wildlife Society of India, with financial help from the United States Fish and Wildlife Service (USFWS).

Crane celebrations had been held at 28 crane sites in Russia, Kazakhstan, and Uzbekistan. All age groups were involved in these events, including school students, children from an orphanage, and students and professors from local universities. Children's art exhibitions had been organized and prizes presented. Mass-media coverage had been extensive. Plans were made at the present meeting: to translate the ICF/CMS video into local languages, then to distribute and broadcast it widely along the migration route (before autumn and spring migrations); obtain and distribute other suitable videos; continue educational activities to promote awareness among local people where cranes are located; place signs at historic sites; and conduct crane art exchanges between schools and countries.

Afghanistan: Reported that it had opened a new chapter in its life. With the new political and economic structure there was hope that national environmental programmes would be expanded and facilitated. Despite the war and unrest, efforts had been continuing and even increased to promote crane research, conservation, and environmental education since the last MoU meeting. These activities had been led by Ghulam Malikyar, Director of the Afghan NGO "Save Environment Afghanistan" (SEA), with the assistance of Ahmad Khan. The latter had defended his Master's degree on cranes and other waterbirds in Pakistan and Afghanistan and had promoted environmental cooperation between the two countries. A powerful poster about cranes, with quotations from the Koran, had been developed and distributed. The Kabul Zoo was constructing an exhibit for cranes and ICF was working with Russian colleagues to deliver two Siberian Cranes to this zoo.

China: There had been over 50 media reports on SCWP in 2003. Also, winter camps had been held at Poyang Lake and Zhalong National Nature Reserves (NNR) for local schoolchildren, and awareness efforts were undertaken at Shenjin Lake and Yanjiang Nature Reserves. Plans for ecotourism projects at Poyang, Zhalong and Xianghai NNRs would be prepared in 2004. In addition to planned activities, a Wetland Bird Photograph Collection had been developed and a publicity book for Momoge NNR was published in July 2003; also, ICF-supported activities on education had been conducted.

India: Reported on preparation of two proposals (one to GEF for USD$400,000, another to UNESCO for USD$22 million under the World Heritage Fund), that included education and awareness programmes.

Iran: Two local stakeholders' meetings had been conducted and a trapper association had been established under UNEP/GEF SCWP. Also, 450 Bateman posters with a slogan in Farsi had been distributed, with copies sent to the Head of the Department of the Environment and Cabinet members. Plans were announced to conduct at least one local stakeholder meeting each year in the Gilan and Mazandaran provinces, to introduce an annual "Crane Celebration" starting in 2004, to establish an Education Centre in 2005, and to produce educational/awareness materials from 2004 forward (UNEP/GEF SCWP activity).

Kazakhstan: Reported on its activities which included: conducting visits of mobile teams to schools and key stakeholders; preparing and distributing booklets and brochures about cranes in key wetland regions (Kostanay, northern Kazakhstan, and Atyrau Regions), in particular to hunters at time of licence issuance; updating the Siberian Crane questionnaire; conducting wetland training seminars; and publishing information on Siberian Cranes and wetlands in national newspapers. A crane celebration had been conducted by the NGO Naurzum in the Kostanay Region, with help from the CWGE and SCFC.

Mongolia: Information about cranes had been distributed to the public along the migration route and on summering grounds, by national and provincial television programmes; an education programme for sheep/cattle herdsmen in eastern and central Mongolia had been developed (between the Onon and Uldza Rivers basins, funded by the WWF Eastern Steppe Biodiversity Project); and an international education programme was being conducted in the Mongol Daguur SPA with the financial support from CMS, North East Asia Crane Site Network (NEACSN) and ICF. Mongolian colleagues had not received the English and Russian versions of the Siberian Crane video that was sent to them from ICF, and were given copies at the meeting.

Pakistan: The Siberian Crane video had been translated into Urdu language but had not been broadcast yet; School Wildlife Clubs had been organized in the North West Frontier Province (NWFP); Robert Bateman posters, crane stickers, and other posters had been distributed to a wide range of audiences, including students and hunters (through WWF-Pakistan). It was noted that the first Crane Festival in Pakistan would be held in late May 2004 and this was to become an annual event. The Government of Pakistan was also planning to create a Crane Conservation and Education Centre in Bannu, modeling ICF facilities (with help from the ICF and other international colleagues). Other activities

planned were: annual contests in captive breeding of cranes; an art exchange programme for schools; and a community education programme targeting hunters in NWFP (Lakki, Bannu, and D. I. Khan districts) and in Balochistan (Zhob and Loralai districts).

Russian Federation: Reported that the ICF/CMS and SF videos had been distributed in schools and broadcast on regional television. In West Siberia and Yakutia, the Sterkh Foundation (SF) had prepared supplementary materials for education programmes in schools (booklets, CD with crane images, pocket calendars); conducted meetings with hunters, fishermen and Indigenous peoples in West Siberia and Yakutia; organized Crane Celebrations in September 2001-2003 with the help from CWGE and SCFC; distributed the Bateman poster among hunters and schools; organized 17 publications in regional/local and 8 publications in national magazines and newspapers; and organized the broadcast of 7 programmes on major Russian television channels and regular programmes shown on regional television channels in West Siberia and Yakutia.

Two activities remained uncompleted, namely questionnaire distribution and the preparation of a new version of the Siberian Crane booklet. Three additional activities had been conducted by SF including: the production of a video on the "Flight of Hope Hang Glider Project"; the preparation of an art and photo album on "Cranes and Wetlands", which was ongoing; and the installation of a monument to Siberian Cranes in Salekhard.

Turkmenistan: Reported that it had not yet ratified the Ramsar Convention, but the Ministry for Natural Resources of Turkmenistan had set up a Waterbird and Wetland Conservation Group. This was closely cooperating with the Hunting and Fisherman Group, thus covering issues of education among hunters. No Siberian Crane sightings had been reported from Turkmenistan since September 1989, but it was possible that cranes were still present and not reported. Turkmenistan requested captive-raised Siberian Cranes from Oka Nature Reserve to display at the Ashgabat Zoo once this facility had been established.

Uzbekistan: Located on the Siberian Crane flyway, Uzbekistan's activities had focused on raising public awareness among hunters and trappers. These stakeholders had received questionnaires and small crane posters specially prepared by the Uzbekistan Crane Working Group (UzCWG). In 2002 and 2003, a Crane Celebration had been organized at sites of mass stopover of cranes and in Samarkand, one of the country's major cities. In 2003, Crane Celebrations were also held in Tashkent and in Kyzylkum village. These efforts had resulted in two confirmed sightings of Siberian Cranes in Uzbekistan – in 2002 and 2003.

SCFC: Elena Ilyashenko reported that she had coordinated the organization of Crane Celebrations at 28 crane sites in 5 countries, including Russian Federation, Kazakhstan and Uzbekistan in 2002 and 2003, as one of activities of the CWGE. It was planned to expand this event to 35 sites in 5 countries in 2004. She had produced, printed, and distributed crane education materials and supplies for these popular local community events. She suggested translating Dr. Flint's book "101 Questions About Cranes" and crane stickers into local languages for distribution among the local population, including hunters. The Meeting noted that hundreds of Bateman posters had also been circulated in Azerbaijan, Russia, Kazakhstan, Turkmenistan and Uzbekistan. Still, a more systematic approach to public relations and media coverage at local level was needed.

The *Cracid & Crane Breeding and Conservation Centre (CBCC)* had made contacts to arrange a visit to Pakistan to discuss the financial possibilities for including the Siberian Crane and other species of cranes in the crane education centre and visitor programmes near Lakki. However, due to the political crisis in the region, action had stalled, and the situation did not look promising for attempts in near future.

The *International Crane Foundation (ICF)* had established a video archive, and had prepared and coordinated printing of the Bateman poster in 14 languages and its distribution in the 11 Range States. Russian representatives were asked to provide a version of the Russian translation to Yakutia.

All delegates were reminded to provide copies of all printed materials and videos about Siberian Cranes to the ICF, which had previously agreed to maintain and share an archive on behalf of the MoU.

Programme: Study cranes along the migration route

In *Afghanistan*, research had identified the historical sites where the Siberian Cranes most recently wintered as well as a huge migration corridor for Demoiselle and Eurasian Cranes. For more details, attendees were advised to refer to the summary of Ahmad Khan's presentation "Wetlands of Afghanistan" and Ghulam Malikyar's progress report "Crane Research and Conservation in Afghanistan" in *Reference Materials*.

In *China*, annual midwinter censuses had been conducted at Poyang Lake. The collaborative survey (through the efforts of National Bird Banding Centre, or NBBC, and Jiangxi Wildlife Management Bureau) in January 2004 reported 3,956 Siberian Cranes. At the same time, a WWF-supported Lower Yangtze waterbird survey conducted in winter 2003/04 counted 2,784 Siberian Cranes (among 595,896 waterbirds of 83 species).

The accuracy of the count of nearly 4,000 was questioned and discussed. Alexander Sorokin explained that at the UNEP/GEF SCWP Steering Committee Meeting in Beijing three concerns had been discussed concerning this count: a) the numbers were too exact – down to a single bird; b) no mathematical/statistical methods had been used; and c) many among the survey team members did not have binoculars and did not have previous experience in crane counts – though they received some training from the experienced counters. He recommended that his Chinese and Russian colleagues work together further to determine the actual numbers. Taej Mundkur, Wetlands International, added that his Chinese colleagues had been actively involved in work under the North-East Asian Crane Site (NEACSN), including regular meetings and a training course on education and ecotourism in Mongolia in August 2004.

In *Kazakhstan*, most of activities had been conducted in the Kostanay Region, along the section of the migration corridor where the Western and Central Flyways overlap. The work had been carried out mostly through a WWF project and funding. Three major problems with implementation of the Conservation Plan in Kazakhstan were described: a) basic participation and implementation mechanisms through local organisations or colleagues in different regions needed to be defined; b) lack of funding; and c) absence of a coordinator for Kazakhstan activities. For the most part, activities had been executed outside the framework of the Conservation Plan and were added to, in order to coincide with the Plan's objectives. For example, a related book called the "*Most Important Wetlands of North Kazakhstan Inside of Kostanay and West Part of North-Kazakhstan Regions*", including a full description of key wetlands and proposals for additional protection had been published in 2002.

In *Pakistan* it was noted that three species of cranes were present – Demoiselle, Eurasian and Sarus Cranes. There had been no documented sightings of Siberian Cranes, but as Pakistan was situated on their flyway, regular surveys were being conducted annually by the Wildlife Department of Pakistan and WWF. All hunters were required to report on sightings, but during the last 3 years there had been no reports. In 2001-2004, activities were conducted in the North West Frontier Province, Balochistan, Sindh and Pujab. To promote the research and conservation of cranes, a Crane Working Group of Pakistan had been established. Ahmad Khan had been conducting research for his Master's degree in both Afghanistan and western Balochistan (new wetlands).

In *Russian Federation*, migration routes of the Central and Western populations had been studied (2001-2002) as part of the "Flight of Hope – Hang Glider Project", and sightings of Siberian Cranes had been collected along migration routes (2001-2003). In November 2003, sites in the Volga Delta, Dagestan, and Azerbaijan were visited. Stopovers revealed

by PTT data had been investigated in Dagestan; however unknown summer areas had not been determined.

In *Turkmenistan*, surveys of waterbirds and cranes had been conducted with the assistance of the Wetlands International – Russian Programme. In south-eastern Turkmenistan, a wintering area of Eurasian Cranes had been revealed.

Claire Mirande presented a progress report on behalf of the *Cracid & Crane Breeding and Conservation Center (CBCC)*. Contacts had been made to obtain a light airplane for survey work in Russia, but the Russian team had determined that maintaining their own aircraft would be impractical.

Programme: Establish safer wintering areas

It was noted that *China* and *Iran's* programme activities were included under the UNEP/GEF SCWP.

India had a special agreement with Russia on migratory birds. They had prepared a project proposal for USD$400,000 to study and protect cranes and their wintering grounds in India, and requested for the CMS Secretariat's assistance in securing these funds from GEF. They also asked for technical support from CMS and the ICF to prepare a USD$22 million proposal to UNESCO's World Heritage Fund. This would be used to fund activities related to protection, monitoring, water management, and raising education and awareness.

Programme: Determine migration routes of the remaining flocks and alternate wintering areas; locate and protect summering areas of juvenile Siberian Cranes

In *Mongolia*, no surveys had been conducted specifically to identify summering areas of Siberian Cranes. Surveys for other species and from other research projects provided some information about summering Siberian Cranes, but covered only some of the potential sites. Therefore, it would be important in the future to conduct surveys to locate summering areas of Siberian Cranes.

Kazakhstan colleagues had begun to organise the systematic investigation of previously unknown stopover areas, had surveyed areas where PTT signals indicated stopover sites, and had sent reports to the SCFC.

Russian and Iranian colleagues had placed PTTs in 2002/03 and 2003/04 on costume-reared Siberian Cranes released on wintering grounds in Iran, but a PTT was not placed on wild Siberian Cranes due to difficulties with capture. They had conducted a joint ground survey in January 2004 along the Iran/Turkmenistan border, and had received (unconfirmed) reports during migration from local hunters along the border area of Iran and Turkmenistan. Surveys in the main border areas with Afghanistan were currently not possible due to security reasons.

ICF had supported field investigations in Iran, Afghanistan and Pakistan and Russia, and PTT investigations of migrating birds. Some ground-truthing work for the hang glider project had been carried out with ICF assistance in Russia, Azerbaijan, and Iran.

Programme: Assess hunting pressure and other mortality factors along migration route

In *Afghanistan*, crane trapping and hunting was still widespread, and there were no protected territories or protection activities. Cranes migrated through the north-western part of the country, but did not winter there. Ab-i-Estada was a very important stopover area that was also very unsafe, and there was no water in the lake in 2004 due to the prolonged drought. Use of water for irrigation represented a serious threat. A new Ministry for Water Resources had been established and many SEA (NGO) workers were now also Ministry workers.

In *Kazakhstan*, monitoring of threats to Siberian Cranes was continuing.

In *Pakistan*, the traditional capture of cranes for pets was still widespread, but hunters were aware of the endangered "White Cranes" and caught only Demoiselle and Eurasian Cranes (about 1,000-2,000 annually).

Programme: Develop and enforce rules and regulations for crane protection

In *Pakistan*, an executive order of the Federal Government for a total ban on crane shooting was being enforced. There were also plans to strengthen the Bannu Wildlife Division to effectively take up crane conservation issues. A new Wildlife Division had been established in NWFP to protect and monitor wildlife, especially cranes. It was noted that the Environmental Minister of NWFP used to be a crane trapper, but was now helping to protect these birds. Ministry staff and Ahmad Khan were working with the locals to stop spring hunting on cranes. As well, a mobile crane clinic was being set up and a crane rescue group was already operational. Finally, it was reported that there were plans to establish a network of Community Crane Reserves.

The Meeting noted that *ICF*'s efforts to establish a "Crane Conservation Act" through the US Government had been delayed, but would be continued.

Programme: Monitor Siberian Crane populations

Iran reported on its activities in 2001-2004, which included: the establishment of regular communication between the Department of Environment (DoE) and the SCFC; an unsuccessful attempt to capture wild birds for PTT placement in 2002-2004; wetland visits around Ardebil Airport in October 2003 and March 2004; a ground survey for a waterbird census (mostly in mid-winter); a joint survey in January 2004 along the Iran/Turkmenistan border; and the receipt of (unconfirmed) reports during migration from local hunters in along border area of Iran and Turkmenistan. Further surveys in main border areas with Afghanistan were currently not possible due to security reasons. In 2004-2006, *Iran* planned to carry out the following activities: information exchange with the SCFC and directly to Azerbaijan, Russia and Kazakhstan; undertaking of aerial surveys in December 2004; improvement of low-risk capture techniques and continued attempts for PTT marking; education of local people regarding the reasons the DoE captures birds; and conduct of annual surveys by local DoE offices in Khorasan Province.

In *Mongolia*, Siberian Cranes were recorded at two new sites including the Tuul river basin near Ulaan Baatar in 2003 and Gun Galuutai Nuur Lake in Kherlen river basin in 2002. It was not known how long these birds stayed at these sites. In 2004, four Siberian Cranes were observed again at the small Ayagiin Lake near Gun Galuutai Lake from May to early September. A trip was conducted to two sites in the Onon-Uldza basin where Siberian Cranes were observed several years ago, but no Siberian Cranes were seen.

In 2004, two Siberian Cranes were observed in Doroo Lake in the Uldza river basin by researchers from the National University of Mongolia. In the same year, another two birds were recorded about 50 km northeast of Ondorkhaan City, Khentii Aimag on August 22. Hunting and other pressures on these sites were largely unknown.

Kazakhstan colleagues had investigated some reported sightings of Siberian Cranes.

In *Pakistan*, surveys had been conducted by the NWFP Wildlife Department and WWF-Pakistan. Ahmad Khan had explored the Wasta Lake area.

ICF sent three PTTs to Russian and Iranian colleagues and had set up discounted and timely data retrieval and distribution. A study had been conducted on Whooping Cranes in the United States, to see if they could safely carry both a PTT and standard radio with a mortality sensor. Unfortunately, data on PTT studies on migration of Siberian Cranes in East Asia had not been obtained until after publication, and could not be included in the site selection process for UNEP/GEF SCWP.

OBJECTIVE 2: INCREASE NUMBERS AND GENETIC DIVERSITY

Programme: Release costume-reared and parent-reared young Siberian Cranes with wild Siberian Cranes on breeding grounds

In winter 2002/03, Iranian colleagues received three juvenile Siberian Cranes from Russia that had been raised for the hang glider experiment at the Oka Crane Breeding Centre (OCBC). One of these birds, marked with a PTT, joined the wild cranes and began migration, but its signal was lost in Dagestan, Russia. Two juveniles, rejected by the wild flock, were kept in open-air summer pens at Bujagh National Park and died in 2003, due to extremely hot and humid conditions and staff's limited captive management experience. In winter 2003/04, two parent-reared chicks, a male and a female, were imported from OCBC; both young birds joined wild cranes in the area and began migration. The female with the PTT stopped migration in Gilan. The status of the male was unknown. It was agreed that future releases should begin earlier, in October. In both 2002/03 and 2003/04, the birds had been brought from Russia late in the season and released only in February, so they did not have adequate time to adapt to the wild and build flight strength before the long migration north.

Russian colleagues reported on the numbers of Siberian Cranes reared at OCBC by isolation and parent rearing techniques and released into the wild (see Table 1, below).

ICF reported that it had phased out its support of releases of costume or parent-reared birds at Belozersky and cross-fostering at Kunovat, since Russian colleagues were taking the lead on these projects. At the same time, the ICF had supported and participated in feasibility study for the hang glider-led migration experiment in Russia in 2002 and in California in 2003; had supported "ground-truthing" for hang glider in Russia, Azerbaijan, and Iran; and had been building links between Whooping and Siberian Cranes' reintroduction efforts.

Programme: Use Eurasian Cranes to rear Siberian Cranes in order to produce future "guide birds"

Russian colleagues reported on the number of Siberian Crane eggs produced at OCBC that had been cross-fostered into the nests of wild Eurasian Cranes at Kunovat. These included 4 eggs in 2001, 2 eggs in 2002, and 2 eggs in 2003. Due to the remote location of the nests, data on hatching success was available for only one nest in 2003. In this case the Siberian Crane chick was observed with its Eurasian Crane parents in August. A PTT was not placed on this chick and no data were available on the fate of these birds following departure from the area. Therefore no follow up studies targeted in the last Conservation Plan were conducted.

CBCC had successfully produced eggs to support these release studies, but had been unable to export these eggs to Russia due to delays in the CITES approval process in 2002 and an outbreak of avian influenza in Western Europe in 2003.

Programme: Manage the genetic diversity of the wild populations

The meeting noted that the *ICF and CBCC* sent two geneticists to Russia in 2001 for training in small population biology, to draft a master plan for the global population of captive Siberian Cranes, and to train their Russian colleagues in genetic sexing techniques.

Table 1: Releases conducted in 2001-2003

Year	Place of releases	Number of released birds	Number of birds started migration	Notes
2001	Kunovat River Basin, Russia	2	2	
	Belozersky Zakaznik, Tyumen Region, Russia	7	6	One crane was returned to OCBC.
	Astrakhan Nature Reserve, Russia	2	2	
	Subtotal	**11**	**10**	
2002	Kunovat River Basin, Russia	6	3	Birds were released in Kunovat River Basin and led to Belozersky Zakaznik during Hang-glider Project "Flight of Hope". Three birds were returned to OCBC before migration, for later release in Iran.
	Belozersky Zakaznik, Tyumen Region, Russia	4	4	
	Fereydoon Kenar, Iran	3	1	Two of three cranes released in Iran were the Hang-glider Project birds that were returned to OCBC to be shipped to Iran for winter release. In Iran, they also did not migrate and were placed in a pen in Bujagh National Park.
	Subtotal	**11**	**8**	
2003	Kunovat River Basin, Russia	3 in June and 6 in August	9	
	Fereydoon Kenar, Iran	2	1	One bird did not migrate and was placed in a pen in Bujagh National Park.
	Subtotal	**11**	**10**	
	Total	**33**	**28**	

OBJECTIVE 3: PROTECT AND MANAGE HABITATS CRITICAL FOR SIBERIAN CRANES

Programme: Implement planned UNEP/GEF SCWP activities

Crawford Prentice described the history of this project and outlined the main UNEP/GEF SCWP implementing activities at the site, national, and international levels. He noted that the project covered only the Western and Eastern Siberian Crane populations. It would run for six years, with 2004 marking the second year of the project's implementation. Its major goal was to create a network of protected wetlands along the Siberian Crane flyways, thereby protecting many other important waterbirds. It was observed that while it might have been useful to include Azerbaijan in the project, at the time the proposal was submitted Azerbaijan was not a Contracting Party to the Convention on Biological Diversity.

Sixteen sites had so far been selected as areas of global importance according to GEF priorities. This project had been developed according to the baseline provided by CMS MoU activities, and it provided also for coordination with other activities at project sites. A Regional Coordination Unit (RCU) had been established in Beijing and a SCFC office in Moscow. Since 1 April 2003, the project had been implemented in only three countries because of reorganisation in the governmental structures of Kazakhstan. (See *Reference Materials* for an article on the UNEP/GEF SCWP).

In *China*, implementation started in August 2003. Work to date was related mainly to mobilization; however an ambitious programme of activities had been developed for Poyang Lake Basin, Xianghai National Nature Reserve (NNR), and Zhalong NNR (main Phase 1 sites). An impressive list of SCWP activities on the ground was detailed, as follows: 15 county wildlife management offices around Poyang Lake had been set up; stakeholder committees had been established for all five GEF sites; community Co-Management Workshops were conducted for Zhalong and Keerqin NNR; a Provincial Advisory Group meeting was held for Poyang in December 2003; a study on water-plant / waterbird relationships was in progress since 1999 with the ICF's support; monitoring of cranes was in progress at all project sites, with a monitoring programme in preparation; training courses were held on ecotourism and public education, wetland monitoring and evaluation, and wetland management; an office building and visitor centre had been completed at Momoge NNR in 2003; and an office building at Keerqin NNR was in the planning stage.

Uncompleted Conservation Plan activities in China were mostly in the planning stages under the SCWP: Management Plan revisions for Poyang and Zhalong would start in 2004; Management Plans for Xianghai, Momoge & Keerqin–Xianghai would start in 2004 (Momoge and Keerqin were Phase 2 sites). Plans for community development projects were in preparation for Phase 1 sites; a reporting format for sightings had been discussed at the NEACSN meetings but no conclusion had been reached; and protection of new sites between Bohai and Poyang was at a stage of collecting information and preparing monitoring plans.

Kazakhstan had begun implementation of its major national UNDP/GEF Wetland Project. It had not yet signed the UNEP/GEF SCWP MoU nor officially begun implementation of planned activities. However, a number of initiatives were already underway, as follows: flyway sites were being managed through WWF projects at Ural River delta, Naurzum, and Northwest Kazakhstan wetlands; work was underway to establish a special protected area with no hunting allowed during the cranes migration season; several non-shooting zones at hunting sites had been established and expanded; and the most important sites had been included in specially protected areas.

Outside of the planned activities, in January 2004, 103,700 hectares were added to the Naurzum State Nature Reserve (including the Kulagol Lake) and funding for additional staff (22 gamekeepers) and new border demarcation had been provided and included in the Naurzum Nature Reserve budget.

In *Iran*, UNEP/GEF SCWP activities were being implemented at Phase 1 sites (Fereydoon Kenar, Bujagh, and Amirkelayeh). The Fereydoon Kenar site was upgraded to non-shooting area status in 2002 and became a Ramsar Site in 2003, with the status of the Bujagh site upgraded to a national park in 2002. Five new local guards had been working at Fereydoon Kenar since 2003, and 8 ha of old forest had been transferred to the DoE to establish a training/monitoring/guard station.

The hunting season had been shortened for the entire country and preliminary discussions held to assist with the establishment of local hunters' NGOs, especially in the Fereydoon Kenar area. Information sheets on Siberian Cranes had been delivered to hunters with hunting licenses in Mazandaran Province. Also, plans had been made to increase the number of local guards to seven in 2004 and to develop a proposal to designate the Ardebil Airport wetlands as a Non-Hunting Area (for more planned activities see under UNEP/GEF SCWP implementation). For 2004-2006, there were plans to establish a guard station in

summer 2004 and a monitoring station in 2005, and to build an observation tower for visitors in 2006.

Russia reported that it had been implementing UNEP/GEF SCWP activities since June 2003 at three Phase 1 project sites: Kunovat River Basin, Konda and Alymka River Basins (KARB), and Kytalyk Wetland. Activities will be added for trans-boundary wetland territories between Tyumen and Kurgan Oblasts (TBT&K) in Phase 2.

General goals included the establishment and convening of regular meetings of site management committees and preparation, and publication and implementation of a participatory management plan for project sites. It was noted that the KARB MP would cover three wildlife refuges (zakazniks) under three separate administrations, and oil and gas companies would be involved in discussions. In the TBT&K, farming and hunting communities would be involved in management planning. A draft plan for harmonization with federal legislation, expanding protected territories and developing management plan, was being prepared.

The breeding site for the Western population in KARB was being protected as a regional wildlife refuge (zakaznik). For the Central population work had been started to enlarge the Kunovat Wildlife Refuge and it was planned to establish a biosphere nature reserve. Also, feasibility studies would be conducted for ecological tourism. Work had begun to set up a new sanctuary near Belozersky Zakaznik (in TBT&K).

For the Eastern population, the territory of both the Kuoloma/Chappanda protected area and the Chukochya and Alazeya sites was to be expanded. No progress had been made in adding a small site on East bank of Alazeya River, but the area was currently not threatened. Plans to protect two small territories in taiga areas, namely Srednekolymski (near "Bassein Ozhogino" NR) and Belaya Gora (near "Sailyk" NR in Abyisky Ulus) were in progress. These territories were considered very important for restoration of the nesting population of Siberian Crane in the taiga.

In 2003, a draft law on nature protection in Yakutia was prepared, which was harmonized with federal legislation. A draft law on specially protected territories in Yakutia had been revised. WWF had assisted in preparation of an application to nominate Kytalyk as a World Heritage Site.

Programme: Protect and manage breeding, migration and wintering areas (sites not included in UNEP/GEF SCWP)

Afghanistan reported that an assessment of crane use of the central corridor from the border of Uzbekistan to Pakistan, including four provinces, was under way. A survey on the Iran border associated with Hari Rod River had been conducted. No cranes were reported, whereas 10 years ago, there were reports of cranes there in winter. A future goal was to repeat the survey on the Iran/Afghanistan border area along the Hari Rod River.

Azerbaijan reported that it would be involved in activities under the proposed site network including joint winter surveys, enforcement of hunting regulations for cranes, participation in the communication network, and training.

India advised that it had conducted habitat protection campaigns in Etawah and Mainpuri in Uttar Pradesh - wetlands that historically supported Siberian Cranes. Discussions had been held with local government agencies and NGOs to investigate the development of reserves. Wetlands in both districts had already been nominated as Important Birds Areas (IBAs) in recognition of their importance for high concentrations of Sarus Cranes.

Also, papers had been published in peer-reviewed journals to illustrate the importance of wetlands for large waterbirds including Sarus Cranes. India would continue habitat protection measures and campaigns in the Etawah-Maimpuri area, where Siberian Cranes

used to overwinter. It was noted that all these wetlands were unprotected, maintained as community wetlands, and used as a resource to support agriculture during the dry season and for other needs by villagers. A recommendation would be made to the Ministry of Environment and Forests (MoEF) from the SCFC, with reference to the CMS MoU, to consider this site as a potential location for the reintroduction of Siberian Cranes.

Mongolia reported that it had conducted a ground survey and was currently developing a management plan for the newly established Onon-Baljinsky National Park (OBNP). Bayan-Nuur and Ugtam National Refuge have been added to the NEACSN and Bayan-Nuur was also included in the Ramsar list. They had not yet established a buffer zone around OBNP, or added a small site southwest of the park at Bayan-Nuur as an integral part of OBNP. Efforts to add Onon-Baljinsky National Park to NEACSN had been unsuccessful, with the major problem being a lack of funding.

Pakistan noted that it had finalized a UNDP/GEF Wetland Project that supported the conservation of the wetlands of Qamar Din and Zangi Nawar, of Sindh Province, and of Kurram River. It was expected that the project would start in July 2004 with WWF as the lead agency. It would also address issues from alpine conservation to the coast along the Indus River. WWF-Pakistan would be encouraged to increase conservation activities along Zhob Valley. Several community refuges for cranes had been established, and dialogue had been initiated to establish a community crane reserve. A project between WWF-PK, ICF and the International Flamingo Foundation (IFF) would address conservation in the Zhob Valley.

Uzbekistan informed the meeting that it had promoted the Amu-Darya River basin and areas near Bukhara city as habitats for Siberian and Eurasian Cranes. In Bukhara, both local rangers and border guards were strictly controlling territory near Dengizkul Lake and Termez. Goals were to increase the area of the sanctuary near Dengizkul in Bukhara, and to designate important sites in the Amu-Darya river valley as a sanctuary. Uzbekistan would be monitoring and conducting surveys of newly discovered wintering sites for Eurasian Cranes along the Amu Darya. It would continue with questionnaire surveys to obtain information on Siberian Cranes and respond to reports from new sites by undertaking surveys. These surveys would be included in the IBA programme, which was supported by BirdLife International.

OBJECTIVE 4: ENHANCE INTERNATIONAL COOPERATION

Programme: Improve exchange of information and technical expertise

All Range States were reported to be communication with the ICF and the SCFC, but to different degrees of efficiency and regularity.

In *China*, information on Siberian Cranes had been sent to the SCFC irregularly during 2001-2004. Representation at CMS MoU5 had been planned and funded, however visa problems prevented the Chinese delegates from participating; China had been well represented at all NEACSN meetings. Zhalong, Xianghai, Shuangtaihekou & Shengjinhu National Nature Reserves had been added to NEACSN in 2002 (total of 10 sites in China in network, and more were planned for inclusion). An exchange of Chinese reserve staff with Kytalyk was currently being discussed with the ICF under a GEF project (relations with East Siberian counterparts were still to be developed). Also, the exchange of information and data needed to be improved, and formats and procedures developed.

Mongolia had shared information with the SCFC and colleagues, and continued to participate in NEASCN meetings on regular basis. This communication, however, had been irregular due to problems with email access. New, reliable, email accounts had recently been established for two key people and details of these were given to the meeting participants. It was noted that national funds were scarce and would not cover travel expenses for a second representative to the MoU Range State Meetings.

Kazakhstan had promptly communicated information on Siberian Crane migration to colleagues in other Range States via the SCFC. An International Wetland Seminar had been held in October 2002 in Kostanay, with participation of key stakeholders including the Head of Kostanay Region, representatives of the Environmental Protection Ministry, State Forest and Hunting Committee, Institute of Zoology of Kazakhstan, WWF-Sweden and Finland, and the UNEP/GEF SCWP / ICF.

Pakistan had communicated regularly with the ICF and SCFC. Graduate research of Ahmad Khan in NWFP and Balochistan was being supported by the NWFP Wildlife Department and WWF-Pakistan. Also, a MoU for cooperation had been signed between WWF-Pakistan, the International Flamingo Foundation, and the ICF. However, there remained a need to further develop international cooperation in the area of conservation and the study of cranes.

The *Russian* team continued to share information with colleagues through the SCFC. In 2003 they worked with Azerbaijan (in November) and Dagestan colleagues (in May and November) on monitoring work. They had also participated in the international Eurasian Crane winter surveys, and had cooperated with Iranian colleagues on field research.

Douglas Hykle presented the *CMS Secretariat* Progress Report. With help from ICF, the Secretariat had prepared and published the report of the Fourth Meeting of MoU Range States, including the Conservation Plan for the three Siberian Crane populations (CMS Technical Series Publication No. 7). This publication was available on the web and hard copies could be obtained through the CMS Secretariat. CMS was supporting Elena Ilyashenko in her position as the SCFC, resulting in better communication and data distribution. A focal point in Range State governments and a contact person for communication in every country was needed to further improve coordination and communication. Mr. Hykle also suggested that the format of country reports required revision, in order to simplify reporting and to facilitate preparation of a synthesis before the Range State meeting.

Elena Ilyashenko, *SCFC,* reported on her work to establish efficient regional flyway networks and coordination centres. She thanked the Moscow Zoo for having provided office space, which had been fully equipped through UNEP/GEF SCWP funding.

Since the last MoU meeting, flyway coordination had been strengthened in East Asia, where, a Siberian Crane Task Force of the Crane Working Group under NEACSN had been established; Yakutia Regional Coordination Centre staff were appointed; and a Siberian Crane Flyway Coordination meeting had been held in China and Mongolia. Similar strengthening had occurred in West Asia, where a proposal to establish a Western/Central Asia Flyway Coordination Group and plans for Crane Site Network development in Western/Central Asia had been discussed at the First Steering Committee Meeting of UNEP/GEF SCWP.

A roundtable discussion on the SCFC had been held at the CWGE Meeting in Ukraine in October 2003, and links between and within flyways had been strengthened. For instance, UNEP/GEF SCWP regional staff and reserve staff from China and Russia attended the NEACSN meeting and the education and ecotourism training workshop in Mongolia. Also, sites and goals for exchange visits under the “twinning” programme on the Eastern Flyway were discussed at SCFC meeting in Mongolia in August 2003.

To coordinate with related initiatives, UNEP/GEF SCWP project staff had discussed plans for the Western/Central Asian Site Network with other specialists. To increase capacity building, a website on Flyway Coordination had been established. Also, goals for the 2004 training workshop on database management were outlined, in order to establish a centralized database. Finally, consultations were in progress with related organisations regarding database design (i.e. the Asia-Pacific Migratory Waterbird Conservation Committee, meeting of Asian Wetland Inventory, Wetlands International - Russia Programme office, Kuala Lumpur office, and Wageningen office).

Other activities of the SCFC office had included the promotion of applied field research, such as surveys and monitoring work. As well, a satellite telemetry and colour-banding plan had been drafted at the SCFC Meeting in August 2003, and a voice-printing researcher had been identified to undertake captive studies at Oka Nature Reserve.

Ms. Ilyashenko commented that the results of the project had been disseminated for the benefit of the global conservation community as follows: five issues of the SC Flyway Newsletter were produced and distributed; news had been shared through e-mail and the website among managers, researchers, flyway sites, and related projects; information about UNEP/GEF SCWP had been published in articles and presented at meetings; and press releases had been issued with news on the project start-up.

Ms. Ilyashenko identified areas that required attention in 2004, such as Western/Central Asia Flyway Coordination; a strategy for a Crane Site Network in Central Asia; the provision of assistance to national teams in developing wetland monitoring programmes linked to site management plans; applied field research needs; training on database management; and upgrading and maintenance of the project website. George Archibald commended Ms. Ilyashenko for her very important work and asked all participants to communicate with her actively and regularly.

The meeting noted that the *ICF* had been actively supporting connections between breeding sites. Some data had not been shared because the authors had not yet published their work. The authors' rights had to be discussed and a system developed, which would allow sharing and dissemination of data on a timely basis to support management decisions - while at the same time preserving the ownership of the data.

Programme: Raise funds for a comprehensive conservation programme

Most of the country representatives expressed concern that their national governments were not able to allocate sufficient funds for the Siberian Crane MoU activities.

CMS Secretariat had already allocated funds for the Range State meeting in 2006, but fundraising activities, especially on national level, needed to be expanded. CMS and ICF would continue to act as supporting organisations in this regard, and were willing to provide letters of support to those who were trying to raise funds. Mr. Hykle added that while CMS had provided co-funding for the Flyway Coordinator position, CMS was not in a position to service or fund all MoU-related activities. He recommended that countries activate connections with possible donors through the SCFC.

The *CBCC* had provided funding for the captive breeding programme at Oka Crane Breeding Centre and work at Poyang Lake (UNEP/GEF SCWP co-financing through ICF).

The *ICF* had carried out extensive fundraising efforts and had received considerable support from various foundations and private donors. In 2002, USD$10 million had been secured from UNEP/GEF for the UNEP/GEF SCWP project for 6 years, with USD$12 million available in co-financing. The ICF was now administering this large and complex grant. Additional funding had been received from the Charlotte and Walter Kohler Charitable Trust, Trust for Mutual Understanding (TMU), CBCC, USFWS, and Henry Luce Foundation.

ICF co-funding for flyway coordination had been provided, the SCFC hired; and this programme was operating successfully. The ICF had also supported activities for crane conservation work in India, Pakistan, Afghanistan, and Iran; had arranged genetic and avicultural exchange visits for Tatiana Kashentseva, OCBC Director; had supported participation and presentations on captive breeding (Ms. Kashentseva) and release studies (Anastassia Shilina) by two Russian colleagues at the International Crane Workshop in China; had provided support to a partner in India (Mr. Kolla Shyama Gopisundar) for international travel; and had secured support for a Pakistani crane researcher, Mr. Ahmad Khan, to obtain a Masters degree from the University of Wisconsin.

Agenda Item 6: UNEP/GEF Siberian Crane Wetland Project

Presentation of progress made under the SCWP was covered with under Agenda item 5 (Objective 3). A full progress report for the activities of China, Iran and Russia under this project have been posted on the UNEP/GEF SCWP website: http://www.scwp.info (see *Summary Report of the Second Steering Committee in Beijing, February 2004*).

Agenda Item 7: Development of the Work Programme for 2004-2006

The discussion of this agenda item was divided into four thematic areas, each with a facilitator, as follows: a) Research (Claire Mirande); b) Further development of implementation tools (George Archibald); c) Education and public awareness (Elena Ilyashenko); and d) Considerations pertaining to the Memorandum of Understanding (Douglas Hykle).

The essential points raised in the presentations were printed and circulated to the Flyway/Population Working Groups to ensure that appropriate consideration was given to these thematic areas in the preparation of the Conservation Plans for each population.

Thematic Areas

(a) RESEARCH

This area included presentations and discussions on four programmes: a) PTT research (Y. Markin and C. Mirande) and releases (A. Sorokin); b) Voice printing (Y. Bragina and C. Mirande); c) Surveys and monitoring (C. Prentice); and d) Flyway data management (E. Ilyashenko and M. Stishov).

Programme: PTT Research

Yuri Markin, Director, Oka State Biosphere Nature Reserve (Russia), and Claire Mirande reported on the advantages of satellite telemetry compared with marking by plastic and metal rings. For example, although 150 Eurasian Cranes had been color banded over the last 20 years, data was available from only 12 birds (most of which had died). Color banding did not work well due to lack of attention from the human population. In the past, Siberian Cranes were also marked with metal and plastic rings only, before the PTT technology became available.

It was proposed that satellite transmitters be placed on juvenile Siberian Cranes, since there was insufficient data available about the movements of young birds after their first year of life, and on migration routes. However the costs and quality of PTTs needed to be reviewed and compared, since one PTT cost about USD 3,000 and another USD 1,500 per year for data transmission. It was also very expensive and difficult to capture birds. (For instance, helicopters were required for surveys in remote breeding grounds and the birds could only be captured when they left the damgah in Iran.)

It was noted that the design of transmitters was changing rapidly. Currently, there were light backpacks (95 grams) that could be attached with Teflon ribbon designed to fall off the bird; however, this design required special skill to be attached safely to growing chicks. There were also leg bands PTTs (30 grams) that stayed on permanently and were easier to attach. Duty cycles could be set to send signals on optimal schedules to save battery life.

Future priorities had been identified for research along the Eastern Flyway, namely the need to learn about spring migration and juvenile summering areas and to place PTTs on 4 juveniles at Kytalyk in August 2005 under UNEP/GEF SCWP funding. For the Western flyways, it was considered important to learn the summering area of wild juveniles, with UNEP/GEF SCWP funding and to monitor released birds with CMS funding. The latest PTT data for the Central population had been received in 1998. There was a possibility that the same pair of birds could use different migration routes each year. The ultimate goal was to

place satellite and radio transmitters on all birds in Western and Central populations. In support of this goal, the Iran representative offered to try to find funding in his country for these activities.

George Archibald emphasized that much more needed to be done for the Central population, in terms of controlling hunting. Also, more effort should be put into educational programmes, so that the nations along the flyway were aware of the international work to preserve the Siberian Crane.

Programme: Releases

Alexander Sorokin, Yuri Markin, and Anastassia Shilina reported on 10 years of releases of captive-reared Siberian Cranes (Table 1). Two methods of re-introduction into the wild had been used to date: a) release of captive-produced chicks (isolation or parent-reared at breeding centre); and b) cross-fostering of eggs into the nests of wild Eurasian Cranes.

Advantages and disadvantages of parent-rearing and cross-fostering were described. Both techniques allowed for only a small number of cranes to be released annually. The advantages of cross-fostering were that all the chicks began migration together with their foster parents and enjoyed their protection (though it was proved that chicks can survive without parents); they were better adapted to living in natural habitat; and there was a chance that they would look to other Siberian Cranes for guidance along their migration route. The disadvantage was the probability of imprinting on another species.

Advantages for parent-rearing in captivity prior to release were that the chicks learned species-specific behavior, adapted better to wild conditions, and more readily joined wild cranes than costume-reared isolation chicks (depending on the individual bird's character and the duration of time spent with captive parents). The disadvantages were that these releases worked better when carried out on nesting or wintering grounds, as opposed to staging areas, where this kind of work was much more difficult to carry out.

Programme: Voice printing

Evgenia Bragina and Claire Mirande briefly described a new technique for recognizing individual birds without physical contact and disturbance. Individual characteristics had been documented for unison calls of Eurasian Cranes (Wessling 2000), vocalizations of young Red-crowned Cranes (Klenova 2003), and young Siberian Cranes (Kasirova 2003).

Table 2: Releases Conducted in 1991-2003

Rearing Technique	Number of birds	Mortality of young birds after release	Siberian Crane egg mortality in Eurasian Crane nests	Number of birds started migration from release site	Number of birds, which were not observed to start migration
Isolation ("costume") and parent methods	141 young birds	19 (13.48%) young birds	Not applicable	89 (63.12%) young birds	33 (23.40%)
Cross-fostering method	31 eggs	Unknown	4 (12.90 %) eggs	Unknown	27 (87.10%) Fate of these eggs or chicks is unknown.

Both 2003 studies showed almost 100% accurate identification of individual birds, but the sample size had been small (10 or less individuals). Although there was not enough research data yet to indicate if the voice printing would work on all species of cranes, and these studies had begun very recently, there was good potential to recognize individual birds at all project sites during the entire life of a crane. Some equipment had been already secured to conduct this research, but more sensitive equipment for individual bird voice recognition was yet to be developed.

The next stage of this research would aim to find clear individual differences in voices that would allow identification of significant numbers of birds and would not be age-sensitive.
Ms. Bragina proposed to locate funding to support students and young scientists in Range States who were interested in conducting such research.

Programme: Surveys and Monitoring

Crawford Prentice explained that more data was needed to clarify the real situation in the field and that different research techniques must be used for different situations. Monitoring of land use, habitat monitoring, population monitoring, and targeted research was necessary. Other important directions of research included the monitoring of waterbirds and interactions between cranes and other waterbirds. Planning of research needed to be well-coordinated and uniform data management was very important. At present, there were gaps in knowledge about: sites along flyways and at key sites; monitoring of Siberian Crane populations as well as of waterbirds using the same flyways; as well as information exchange.

It was proposed that to fill in these gaps for the sites along flyways (and address the need to determine key sites during migration cycle, juvenile summering areas, dangerous areas and threats), the following methods should be used: satellite tracking (PTT), ground survey support, ground / aerial surveys, questionnaire surveys, and local networks.

Gaps in knowledge at key sites included: the numbers of birds, their length of stay, what habitats/areas they used, the timing of migration, changes in ecological conditions due to natural and human causes, and changes in status of threats. Methods to obtain this information included: regular site monitoring, targeted research projects, habitat monitoring through ground surveys and research, monitoring of land uses and development plans on and off-site, and development and implementation of management plans.

To monitor populations, consistent, reliable estimates were needed for the Eastern population size, to answer such questions as: Can we detect trends in the size of this population? What are the trends in annual recruitment in the population? Can we correlate data from breeding, staging and wintering areas? To answer these questions, there was a need to conduct systematic coordinated ground and aerial surveys at wintering sites, as well as detailed observations to determine adult to juvenile ratio and average brood sizes, banding studies, and detailed study of breeding conditions.

Mr. Prentice explained that the monitoring of waterbirds using the same flyways had to deal with the following issues: How important are Siberian Crane sites for other waterbirds? What are the trends in regional waterbird populations? What threatened species use the same flyways? How can we contribute to implementing Species Action Plans for threatened species? To address these issues, he suggested that countries participate in Asian and International Waterbird Censuses and network activities for the Asia Pacific Migratory Waterbird Conservation Strategy, and conduct monitoring of threatened species.

To provide efficient information exchange, monitoring data should be used to support conservation; therefore these data must be available on a timely basis through reliable communication systems and must be also properly managed. This would require developed international and national coordination systems, protocols to govern ownership and use of data, managed through databases at site, national, and regional levels.

Alexander Sorokin stressed that although the most important sites for the Western and Central populations could be investigated only by aerial surveys, a combination of all available techniques should be used (i.e. ground surveys, aerial surveys, telemetry research, traditional banding, and pioneer approaches such as ultralight aircraft experiments).

To reach the former intensity of aerial surveys, costs needed to be reduced significantly, which could be done by using ultra light aircraft and hang gliders. The data should be based on solid ground research and questionnaires. Since the Eastern population was faring better, 50 hours would be sufficient for the aerial survey of its nesting grounds. It would also be very important to survey the potential nesting grounds west of the Urals and in the Archangelsk Region. Polls and questionnaires were preferable, but in some areas limited aerial surveys should be conducted. PTT data should be received and confirmed by ground and aerial surveys. As for the releases, the main task was to increase the output and efficiency of this programme. In this respect ultra light and hang glider experiments were very important. Monitoring of the releases was also crucial.

Programme: Flyway Data Management

Elena Ilyashenko, SCFC, presented plans and listed the components required to establish an information network: a) a distribution list that would merge lists for the UNEP/GEF SCWP, CMS MoU, related projects and programmes, and all other interested people; and b) a combination of various methods of information exchange (e.g. constant information exchange through e-mail, especially during spring and fall migration; biannual electronic newsletter; SCFC Flyway Coordination Website; articles and other publications; and meetings).

Participants discussed different categories of information: a) confidential (i.e., for UNEP/GEF SCWP project management purposes only: budgets, progress reports, financial reports, project evaluations, etc); b) available to the public (brief and urgent information; published materials, meeting reports, etc.); c) PTT data; d) education and awareness materials; e) training materials); and f) information for restricted circulation (materials intended for publication, such as draft research papers, and unpublished technical reports and plans).

Challenges included maintaining confidentiality, providing proper acknowledgements, ensuring high quality of data, using harmonized methodologies and standardized formats, translation into appropriate languages, communicating the availability of the data to interested parties, and protecting ownership. In terms of ownership, important issues were identified (for instance, an organization funding a project and an organization implementing the project should retain the ownership rights to data collected and published as a result of that project); and problems with information requested by third parties and information required by UNEP/GEF SCWP).

Claire Mirande clarified that although GEF provided the funding for the SCWP, UNEP and ICF were the executing organizations. Ultimately all information collected in the course of this project belonged to UNEP/GEF and should be openly shared with all interested parties. Data management issues would be addressed by the Regional Coordination Unit in consultation with the project's Steering Committee.

Ms. Ilyashenko and Mr. Mikhail Stishov, Database Advisor under the UNEP/GEF SCWP, presented information on the establishment of a regional database for Siberian Cranes under that project. The flyway level database was designed to manage data on flyway sites including wetlands, site management, and other species. Location, responsibilities, and management issues were discussed, as well as development of standardized formats (data sheets) for information requests and reports. Database activities list included consultation and plans to exchange data with existing international databases, creation of the regional database, and inclusion of site information in regional database.

The following schedule to complete the database structure in 2004 was presented: a) develop draft of regional database structure and send to specialists for comment; b) discuss and approve database structure at the Second UNEP/GEF SCWP Steering Committee Meeting and review at the Fifth Meeting of the MoU Range States; c) develop data interface (April-May); d) insert general information (June-August); e) develop GIS maps (May-August); f) secure database approval by UNEP/GEF SCWP RCU (August-September); and g) conduct training on database at regional level (September-October).

Mr. Stishov demonstrated the database structure, which was almost complete. Content at species level would include species base information, species list, species bibliography; introduction; as well as data on ringing, transmitters, color marking, field sightings, ringing returns, and census results. On the site level, it would contain information for key sites on habitats, land uses, threats, land ownership, World Bank/WWF Protected Area Tracking Tool (PATT) results, and key sites bibliography. All delegates were invited to offer input on the structure of the database.

(b) FURTHER DEVELOPMENT OF IMPLEMENTATION TOOLS

The session was convened by George Archibald and included presentations on the human-led migration experiments, including the Whooping Crane Eastern Partnership (WCEP) Ultra Light Experiment and the Siberian Crane "Flight of Hope" Hang Glider Experiment.

Tool: Ultra Light Aircraft

Joe Duff, Operation Migration Manager, was invited to the meeting to share this organization's experience and efforts to recover the vanishing Whooping Crane population in North America. It was suggested that that successful experiment leading isolation-reared Whooping Cranes from Wisconsin to their wintering grounds in Florida behind ultra light aircraft could be used to develop similar experimental techniques with hang gliders to re-introduce Siberian Cranes. Though the Whooping Crane Eastern Partnership team had never used a hang glider, important lessons for the Siberian Crane hang glider experiment could be learned from their successful work.

Mr. Duff described in detail the WCEP management requirements and procedures for the Ultra Light Experiment (facilities, people, time, funding, post-release monitoring, and problems that they had encountered and overcome). It took the WCEP team 10 years to succeed, but in 2001 the first cohort of Whooping Cranes, reared in isolation first at Patuxent Wildlife Centre in Maryland and then at the Necedah Wildlife Refuge in Wisconsin, had traveled behind the aircraft to the wintering grounds in Florida. In spring 2002, these birds had successfully and independently returned to the release site in Wisconsin. Since then, these successful fall and spring migrations had become annual events. Some pair bonding behavior had been already observed on the potential nesting grounds in Wisconsin, although the birds of the first cohort were still too young to start breeding.

Mr. Duff explained the crucial need to maintain wildness of the raised birds -- they should not see or hear people or man-made objects. As a result of this approach, 36 birds had survived independently in the wild. He explained that when the time came to begin the first migration with the young cranes from the training site in Necedah, the team would fly early in the morning when the wind was still weak. A daily flight never exceeded 3 hours. The aircraft wing created an air wake that could help birds fly behind its wings. In the fall, it took the birds about 60 days to reach Florida following the aircraft, but only 5 days to get back on their own next spring. A network of good landing sites had been developed, but if safe landing sites were scarce or if the weather is good, longer flights were possible.

The returning cranes mostly used the same stopover sites on the way back to Wisconsin. They never followed a strange ultra light aircraft, suggesting that they recognized individual aircraft. In the spring the birds returned to the release and training site in Necedah. Later in the season they dispersed to other sites in a 300 km radius, but eventually settled down

close to the release site. Ideally, the birds would eventually disperse more widely and restore part of the historical breeding grounds of the species.

Mr. Duff advised that he had pledged his organization's assistance to help the sister project in Russia and expressed hope that their experience would help establish a similar programme for Siberian Cranes. (More information about WCEP activities and results that could be applied to the Siberian Crane Hang Glider Experiment can be found on the Operation Migration website http://www.operationmigration.org).

Tool: Hang Glider

Alexander Sorokin presented information on the Siberian Crane Hang Glider Project, "The Flight of Hope." Over the years, a programme had been developed in Russia to save Siberian Cranes. This had involved the reintroduction into the wild of young cranes raised in captivity by isolation rearing techniques, which were then trained to survive independently after the release. The major problem these chicks encountered after release was a lack of adequate flying and navigation skills, which would have been learnt in the wild from their parents. However, research in America had proven that when young birds were led by an ultra light aircraft to their wintering grounds, 90% of them returned to the release site by themselves. As such, this method was four times more successful than traditional release techniques, and it was being used to release Whooping Cranes into the wild.

In 2002, Mr. Sorokin's team and ICF met Angelo D'Arrigo - a world renowned hang glider pilot who had experience flying with eagles. Soon after, the first phase of the "*The Flight of Hope*" project was initiated. Together with Oka Reserve staff, a new technique was tested, which taught young Siberian Cranes to fly behind the hang glider, in order to learn their migration route. From the Russian side, the project participants were the All-Russian Research Institute for Nature Protection (ARRINP of the Ministry of Natural Resources of the Russian Federation), Oka State Biosphere Nature Reserve, and Sterkh Foundation of the Yamalo-Nenetsky Autonomous Region. ICF and the Mr. D'Arrigo's organization, *No Limits Etna Centre,* were the international partners.

In July – August, the young birds were first trained to fly behind the hang glider at Oka and then at a field site at Kushevat near the Kunovat Zakaznik. It was very important to teach them to treat the hang glider as their leader. Original plans had been to lead the birds south from Kunovat to Belozersky Zakaznik. However, due to poor weather and flooding of targeted land sites, these plans were modified. The birds were instead put on a motor boat and shipped 1,500 km upstream (south) along the Ob and Irtysh Rivers.

At each stop along the way a simple camp had been set up where cranes could be kept in isolation from people. The birds were taught to fly behind the hang glider and to feel safe and confident in different types of habitats along the way. At Belozersky Zakaznik in the south of the Tyumen Region, the Russian team had been releasing Siberian Cranes annually for the last 10 years. These birds were trained to be shy of people and to consider them as potentially dangerous. Conditions for the release at the final stop were ideal, and the "hang glider" cranes were released into a flock of wild Eurasian Cranes at Belozersky Zakaznik.

Tatiana Kashentseva, OCBC Manager (Oka State Biosphere Nature Reserve, Russia), emphasized the importance of OCBC as a sole source of birds for the Hang Glider Project. She gave a brief summary of the history of Oka Reserve and OCBC and explained the main tasks assigned to OCBC in relation to the Siberian Crane, which were: to maintain genetic diversity of its own captive flock and of the world population through an International Studbook and Global Animal Survival Plan; to produce healthy chicks; and to re-introduce progeny from captive cranes into the wild.

To conduct their husbandry programme, OCBC had three circular facilities for adult cranes (36 pens) and three rectangular facilities for chicks (26 pens) with indoor and outdoor enclosures. Breeding pens provided visual isolation from other pairs, young cranes or other

species in neighboring pens. The cranes' diet included dry food pellets from Russia or Europe and supplements (milk curds, fresh fish, eggs, wheat, greens, and mollusk shells). OCBC used natural, artificial, and mixed breeding techniques. Artificial breeding included such methods as increasing the light per day to stimulate early breeding, artificial insemination, artificial incubation, and hand rearing of chicks.

The Siberian Crane Breeding Programme was initiated in 1988, when the first pair bred successfully. In 2003, the OCBC had 10 breeding pairs of Siberian Cranes, including 13 breeding birds from the wild (8 males and 5 females) and 6 breeding Siberian Cranes from captivity (1 male and 5 females). Chicks were reared by hand, parents, and costumed aviculturists in visual isolation from humans. The birds' survival rate was 71.4 % (i.e. 85 of 144 chicks that hatched survived until their first winter).

George Archibald facilitated the remainder of the discussion of this issue, noting that the goal was to draft a plan for the Siberian Crane Hang Glider Project.

It was suggested that two good sites (eastern and western) for crane release existed in Iran, close to the border with Azerbaijan. In the 1920's, wintering Siberian Cranes were reported from those sites. While the cranes had since disappeared, they were eventually reported again in 1978, at the eastern site.

Yuri Markin had been working with Iranian colleagues since the 1980's, banding and placing PTTs on wild birds. Experimenting with the hang glider was possible in this country due to the vast areas. At Fereydoon Kenar, the wild birds prepared for their flight to Ardebil and then to Azerbaijan. The flyway passed mostly villages or rice fields. The Ardebil Plain, on the border with Azerbaijan, was within 100 km of the Caspian shore. This was a huge and vastly open plain with wetlands. To the east, there was a break in the hills, with pastures around the wetlands rolling down to the Caspian Sea. On the east was Bujah National Park, which had a guard station and pens for birds that were released but did not migrate – a perfect site for landing hang gliders or ultra lights. In light of these conditions, it was envisaged that the birds' passage at the end of their migration would not be too difficult.

The meeting heard that in Spring 2003, Mr. Tejas Gole, an amateur pilot with advanced skills from California, had volunteered to test hang glider techniques, and had received six Sandhill Cranes from Patuxent.

Mr. Archibald showed a video film shot by Mr. Gole's team. He explained that, due to logistic difficulties, the team did not follow the strict protocol of costume isolation rearing for their initial experiment. Based on the training regime, Mr. Gole learned a very important lesson: the cranes preferred to follow their keeper rather than the pilot, because of their unfamiliarity with the latter. After trial and error it was discovered that the cranes only followed the hang glider if the keeper ran behind the aircraft, then dropped into a hole out of sight once the glider had taken off. Flying with hang gliders was very tiring because the pilot controlled the craft with his muscles. Also, the propeller represented a serious danger to the birds. In order to protect the birds from this equipment, they needed to be trained. It was suggested that perhaps a deflector could be devised. The birds used in the testing had since been placed in captivity with a private breeder in Tennessee.

It was reported that Mr. Gole and Mr. D'Arrigo planned to come to Russia to ground-truth the way from Uvat to Astrakhan or even Iran.

(c) EDUCATION AND PUBLIC AWARENESS

Ms. Ilyashenko emphasized the need to carefully prepare education programmes. The target groups, goals and messages should be clearly defined, and their needs and their attitudes about crane conservation understood. She suggested that it was much easier to work with schools than with governmental structures, hunters, and farmers. Also, the Crane Celebration activities, initiated by the CWGE, had been very successful. Ms. Mirande proposed to compile a list of the main stakeholders for each area and a list of goals and results for different target groups.

Alexander Yermakov, Director of the Sterkh Foundation, explained the history of his organization and described its principles, noting that: a) To realize effective conservation programmes, public awareness should be increased; b) To raise funds, education work among different groups of people should be organized; c) To develop and realize targeted education programmes, information should be provided to local people; d) To determine groups of people and kind of information for each group, directions of work should be clearly defined; e) For public awareness, posters, calendars, publications in newspapers and magazines, and art exhibits were effective tools; and f) It was very important to work in close contact with NGOs and to advertise this work in the mass media.

Representatives from Range States enthusiastically shared their successful experiences of conducting the Crane Celebration and expressed their commitment to making this an annual event.

(d) CONSIDERATIONS PERTAINING TO THE MEMORANDUM OF UNDERSTANDING

Programme: Development of flyway network for West and Central Populations

Central Asia Flyway Project including Site Network for Migratory Birds

Taej Mundkur and Alexander Solokha, Wetlands International, shared information about the Central Asia Flyway (CAF) Project. This would include a site network for migratory birds. Mr. Mundkur made a presentation (prepared by Simba Chan) on the NEACSN and its Site Certification Programme. Funding for the CAF project was available through to April 2004 and additional funding would be sought after that time.

Western/Central Asia Site Network for Siberian Cranes

Claire Mirande presented the context for the WCASN-SC idea and summarized the informal discussions preceding this meeting. The UNEP/GEF SCWP had a stated goal to develop flyway site networks with certification for sites, harmonized with other certification schemes. Several informal meetings with Wetlands International and CMS had thus been held to explore options for establishing a site network for cranes and other migratory waterbirds in Central Asia.

Under the Siberian Crane MoU, the Range States were involved in developing and implementing flyway level conservation plans. Discussions had focused on exploring the best mechanisms to link these initiatives, identifying frameworks for cooperation, and applying lessons learnt.

She explained that a draft action plan for the Central Asia Flyway was being developed by CMS and would be discussed at an upcoming meeting hosted by the Indian Government in early 2005. Three legal and institutional options were being proposed to support the action plan's implementation: (a) Expansion of the African-Eurasian Waterbird Agreement (AEWA) to include CAF countries; (b) Development of a stand alone Agreement under CMS; or (c) retaining the action plan as a separate cooperative conservation initiative. The draft action plan would likely include a reference to the development of a site network within the region.

A site network for Siberian Cranes and other waterbirds linked to the existing Siberian Crane MoU could be a precursor to a larger network, linking to different activities such as the NEACSN, UNEP/GEF SCWP, CAF, and AEWA. It was very important to use the experiences and successes of NEACSN as a model, including criteria developed for site selection as well as procedures that encouraged Governments to ratify nominated sites.

As a result of these informal meetings it was proposed that the WCASN-SC would initially be established for CMS MoU Range States, which should target one or two sites in each country. It was considered that Russia should be entitled to nominate up to 3-4 sites since it hosted both breeding and migration areas. It was agreed that priority should be given to nominating wetlands with: a) special importance for Siberian Cranes; b) existing status as

protected areas; c) established infrastructure; and d) global significance for biodiversity (i.e., Ramsar Sites, World Heritage Sites).

Ms. Mirande proposed two options under the CMS for establishing an effective mechanism to extend the CMS Siberian Crane MoU to other species of cranes and important waterbirds:

Option 1: *Introduce the concept of a site network as an addition to the next version of the CMS MoU Conservation Plans.* This could be accomplished without necessarily having to modify the MoU itself, perhaps by extending the habitat-related provisions of the relevant Conservation Plans in a new annex.

Option 2: *Expand the MoU to include other species, in addition to Siberian Cranes.* The option to revise the MoU to directly cover other species was not considered feasible at this time since it would entail more complex negotiations, leading ultimately to the MoU being re-opened for signature by the Governments concerned. The CMS did not have the capacity to undertake these negotiations at present.

Within the framework of UNEP/GEF SCWP, a Western Flyway Coordination Group (WFCG) was to have been created. To avoid duplication of the WFCG and CMS Siberian Crane MoU activities, the following guidelines were proposed: a) The name of the group should reflect the change in scope (e.g., Central Asia Flyway Coordination Group, or CAFCG); b) The group should be composed of CMS MoU Government representatives and scientific experts from the Western and Central Flyways, to avoid duplication with CMS functions; c) This group should serve as an advisory body to the CMS/ICF Siberian Crane Flyway Coordinator SCFC between MoU meetings; and d) The scope of the group should be expanded to include all Central Asian Range States and Mongolia, not just the Western Flyway as proposed under the UNEP/GEF SCWP.

After discussion and voting by show of hands, the participants agreed in principle to establish a site network for the Siberian Crane MoU, which would have additional benefits for other cranes and waterbirds. The Meeting also agreed to set up an inter-sessional Working Group for the purpose of: a) developing the criteria to be used to designate sites; b) making recommendations on procedures to nominate and approve sites; c) proposing the scope of activities to be conducted under the network (i.e., training, capacity-building, exchange programmes, education and public awareness, site monitoring, information exchange); and d) identifying other projects and processes, with which the network should interact and exchange information, thereby taking advantage of synergies and not duplicating the work.

It was agreed that the Working Group should include the following experts: K.S. Gopisundar (India), Eldar Rustamov (Turkmenistan), Sadegh Sadeghi Zadegan (Iran), Valentin Ilyashenko (Russia), Tatiana Bragina (Kazakhstan) and Taej Mundkur (Wetland International), and convened and co-ordinated by the CMS Secretariat and Elena Ilyashenko, the SCFC. The group would conduct its activities primarily via e-mail. The participants further agreed that the CMS Secretariat should explore opportunities that might arise by the end of 2004 or early 2005 for the MoU Signatory States to formally adopt the above-mentioned site network proposal as an addendum to the Western/Central Conservation Plans, such as through a special MoU session organized in the margins of the inter-governmental CAF flyway meeting (expected to be hosted by the Government of India around February 2005).

Agenda Item 8: Finalisation of the Conservation Plans for 2004-2006

Working Groups

Each of the Conservation Plans was discussed and revised in small groups with facilitators for each group (Crawford Prentice and Elena Smirenski for the Eastern Flyway; George Archibald and Taej Mundkur for the Central Flyway; and Claire Mirande and Anastasia Shilina for the Western Flyway). The aim of this group work was to draft a programme of activities for the following two years. It was noted that only some of the activities adopted in Baraboo in May 2001 would remain valid. The working groups were also tasked with assigning priorities to the programmes and activities, to assist decisions on resource allocation. Facilitators presented their group's workplans for the respective populations, including the results achieved and planned activities for 2004-2006. On the basis of these discussions and reports, three detailed Conservation Plans were compiled by the ICF and revised by Range States' representatives. They are included elsewhere in this publication (see section with Conservation Plan tables for three populations of the Siberian Crane).

Several themes were applicable to all three populations. To help raise needed funds, it was suggested that countries develop small-scale project proposals to submit to the Fund Raising Committee, through the ICF, for consideration. Priority would be given to non-GEF countries or sites. Countries should endeavour to identify and seek potential sources of funds; ICF or CMS would provide letters of support on request. Range States were reminded to acknowledge sponsors as appropriate (i.e., Lufthansa and Crane Celebration, CBCC and OCBC).

Regular exchange of information was considered a high priority. All countries committed to send information rapidly to the SCFC for distribution, including data on sightings, feedback on reports, and articles for the SCFC Newsletter and website. Focal points for the CMS MoU needed to be confirmed, and reports prepared and submitted on a timely basis for CMS MoU meetings. The Meeting noted that UNEP/GEF SCWP countries would participate in a training workshop on data management in Kazakhstan in September 2004. Maps would also be developed, shared through the database, and discussed at the data management workshop.

Eastern Population

The facilitator, Crawford Prentice, had received permission from China to use its country report for his presentation. It appeared the size of the Eastern population of Siberian Cranes had increased since the last meeting, however a critical look at this data was needed because it was felt the Chinese team did not have adequate training and equipment. Threats to Siberian Cranes in Yakutia and Mongolia were not as intense as in China, where population and industrial impacts were growing rapidly and would continue to do so.

The period 2004-2006 was the first phase of the GEF/UNEP SCWP, which included activities in China and Russia. There were no activities for Mongolia under the UNEP/GEF SCWP, so it was very important to plan activities for that country within the CMS framework. Mongolia wished to continue its public awareness programme. In Yakutia, a booklet about cranes had been produced in Russian and they wished to publish it in English. Also China, Mongolia, and Yakutia would be organizing a Crane Celebration, which would involve the mass-media.

Mr. Prentice noted that China was facing serious problems with water management, and many activities were planned to address these problems at GEF/UNEP SCWP sites. Under this project, research would be conducted on the impact of Yangtze River dams on cranes. At the national level, training programmes, monitoring, legislation and other activities would be conducted at all project sites. Outside the UNEP/GEF SCWP, activities were planned to prepare documentation for ecotourism development and the World Heritage Site nomination (with WWF support) of two sites in Yakutia. It was advised that these sites were important for Siberian Cranes because a breeding pair had been found at one site and both these areas were well suited for Siberian Cranes.

PTT data from Japan had been received and would be studied. New territories should be surveyed in order to locate some possible breeding sites and conduct monitoring there. For Mongolia, the monitoring of known sites as well as of new breeding sites had been planned.

Mr. Prentice concluded his presentation by proposing that international cooperation take place to arrange exchange trips for reserve workers and to help other countries to set up NGOs similar to the Sterkh Foundation (SF).

Western Population

The facilitator, Claire Mirande, reported that education and awareness activities would continue to be given high priority for the Western population, and that all countries wished to participate in the Crane Celebrations. Iran would produce its own poster, booklet, and brochures and translate and broadcast the ICF/CMS video. Kazakhstan would obtain approval to distribute a film on the proposed World Heritage Site at Naurzum NR, and produce video on cranes in Kostanay Region. Iran, Kazakhstan, and Russia would conduct local stakeholder meetings under the UNEP/GEF SCWP. Russia, through the SF, would complete and distribute the "Flight of Hope" video, update and distribute the magazine on Siberian Cranes, pending receipt of materials from other countries, produce an art photo album "*Sterkh and Wetlands*", and share the video "*The White Crane from Legend*".

Reducing hunting pressure also remained a high priority. Russia, Kazakhstan and Iran planned to give information and photos of Siberian Crane to hunters when they received their hunting licenses. Reports would be compiled on observations about Siberian and Eurasian Cranes at the end of the season. Ms. Mirande suggested that all countries consider introducing Russia's practice, which required hunters to pass a test where they must identify which birds were legal to hunt. It was noted that Iran would be establishing an education, research and guard complex near Fereydoon Kenar damgah. This would involve construction of an observation tower and the hiring of local guards. Azerbaijan would ensure enforcement of the existing law under which the Siberian Crane was added to the penalty list, and would be increasing the fee (tax) to obtain a hunting license.

It was considered important to improve the ability of countries to monitor cranes during migration. All countries planned to increase their capacity to investigate reports of sightings or PTT reports. Ms. Mirande detailed each country's intended activities as follows: Kazakhstan would study poorly known sites between Kostanay and the Kazakhstan/Russia border on the Caspian Sea; Azerbaijan would monitor cranes at key sites and communicate promptly with Iran and through the SCFC; Iran and Azerbaijan would conduct joint surveys in north-western Iran (Fereydoon Kenar to Ardebil) and Azerbaijan; and Russia would strengthen the involvement of reserve staff and local communities in Dagestan and Astrakhan. Joint or synchronized surveys of wetlands near Iran/Turkmenistan/Afghanistan border (maybe including Uzbekistan) would be conducted in order to identify alternate wintering sites. These surveys would be linked to International Waterbird Census in January.

Several activities were proposed to increase numbers and genetic diversity. A breeding plan for the release programme at OCBC and CBCC would be developed and funding sought. It was proposed that one to two parent-reared birds would be released in Iran each winter. Hang glider feasibility studies would be continued, subject to available funding, with each phase dependent on the success of the previous step. Operation Migration strongly recommended that the flight be flown first without birds. The Russian team was considering flying with birds from Uvat to Armizon to refine the technique and train the team. Another option discussed was to fly from Uvat to Astrakhan, and then fly as much of the route as possible from Astrakhan to Bujagh, depending on logistical constraints. Russia proposed to continue the release of parent or costume-reared chicks at Astrakhan NR.

Several priority categories of birds for PTT studies were proposed, including (in order of importance): a) a wild chick in Iran to identify juvenile summering area; b) an adult bird in

Iran to confirm migration and breeding area (benefits needed to be compared to risks, and capture techniques in Iran needed improvement, while considering social impacts); c) released parent-reared birds in Iran (PTTs to be placed on all released birds as funding permitted; and d) parent- or costume-reared birds released at Astrakhan NR in autumn.

Azerbaijan would organize a Special Committee, comprising individuals from the Ministry of Nature, Hunting Department and scientific organizations, to collect information about cranes, protection measures, and future needs.

It was noted that activities to protect and manage critical habitat would be primarily managed through the UNEP/GEF SCWP for Iran, Kazakhstan, and Russia. In terms of country-specific actions: Azerbaijan would identify activities for expanded involvement, seek Government support, and seek some supplementary funding; Russia would seek funds to link Astrakhan NR and Dagestan to UNEP/GEF SCWP activities, including possible protection of the new site discovered in Dagestan; Kazakhstan would consider sites in west Kazakhstan based on survey results; and Iran intended to designate the wetland used by Siberian Cranes near Ardebil as a non-shooting area, and seek funds to link Ardebil to UNEP/GEF SCWP activities.

Central Population

The facilitator, George Archibald, explained that the Central population as such might have ceased to exist since there had been no confirmed sightings of birds in the Central Flyway in 2004 (although Russian colleagues had received credible, but unconfirmed, reports of sighting in West Siberia). He expressed his conviction that, by working together, the Range States could restore this population.

He noted that only four counties had funding for crane work under the UNEP/GEF SCWP, and this money had to be used for Siberian Crane wetlands conservation. However, there were also some private donors who supported crane work in other countries.

It was very important to include in the Conservation Plan activities to stop hunting and to make sure that these activities were implemented. Also, the hang glider project would be continued, with the Russian team working together with their international colleagues. The plan was to lead several young birds to a Eurasian Crane wintering area in Uzbekistan using a hang glider and a boat. It was suggested that if a shortened flyway between the Kunovat River Basin and Uzbekistan could be successfully established and problems along the flyway between Uzbekistan and India addressed, it might be possible one day to extend the flyway to India. Joint and well-coordinated efforts directed from north and south would be necessary to restore this population.

In conclusion, George Archibald congratulated the Oka Crane Breeding Centre for its 25 years of great work and presented staff with a special book, which had been signed by all participants. Tatiana Kashentseva invited all interested parties to visit the centre for education and training in crane keeping. Alexander Sorokin noted that in planning releases of young birds raised at OCBC, it was essential to make sure that conditions were adequate for cranes at release sites.

Agenda item 9: Organisation and provisional schedule of future activities

Representatives of Pakistan and Kazakhstan expressed interest in hosting the Sixth Meeting of the Range States (MoU6) in 2006 (to take place around mid-year). Mr. Hykle invited all countries that were willing to host the meeting to send official letters to the CMS Secretariat, with a detailed description of their available infrastructure for organizing such a meeting.

Agenda item 10: Any other business

Nomination of Focal Points

The participants proposed the following candidates for their country's Administrative Focal and Technical Points (Table 3). It was agreed that the CMS Secretariat would confirm the names in the provisional list, after the meeting, through contacts with the Governments and organisations concerned.

Table 3: Provisional List of Administrative Focal and Technical Points for the Siberian Crane MoU

Signatory	Administrative Focal Point	Technical Focal Point
Afghanistan	Unofficial contact point, pending signature of the MoU: Sayed Bahram Saedi, Director of General Forestry and Ranges Department, Ministry of Agriculture and Animal Husbandry	Unofficial contact point, pending signature of the MoU: Abdulwali Modaqiq
Azerbaijan	Eldar Saryev, Lead Advisor, Ministry of Ecology	Elchin Sultanov, Head of Ornithological Laboratory, Institute of Zoology, Azerbaijan Academy of Sciences
China	Zhang Dehui, Programme Officer, State Forestry Administration	Qian Fawen, Associate Research Professor, National Bird Banding Centre
India	Representative left the Meeting before nominating a focal point	Wildlife Institute of India (from MoU4)
Islamic Republic of Iran	Mohammad Ayatollahi, Director General, Wildlife and Aquatic Affairs Bureau, Department of the Environment	Sadegh Sadeghi Zadegan, Ornithological Expert, Wildlife and Aquatic Affairs Bureau, Department of the Environment
Kazakhstan	N. Khadirkeyev, Deputy Chairman, Forestry and Hunting Committee, Ministry of Agriculture / assisted by Yergeldi Sarsenbayev – Head of Section, Control for the Wildlife Protection, Reproduction and Utilization	Institute for Zoology, Ministry of Education and Science (Sergey Yerokhov) / Naurzum Nature Reserve / NGO Naurzum (Evgeny and Tatiana Bragins)
Mongolia	Ministry for Nature Protection (name to be confirmed)	Natsagdorjin Tseveenmyadag, Senior Researcher Institute if Biology Mongolian Academy of Science
Pakistan	Dr. Bashir Ahmed Wani, Inspector General Forests/Member Secretary (NCCW), Ministry of Environment	Umeed Khalid, National Council for Conservation of Wildlife, Islamabad
Russian Federation	Representative of Ministry of Natural Resources to be nominated after Ministerial re-organisation complete	Dr. Alexander Sorokin, Head of Laboratory for Protection of Rare Species, All-Russian Research Institute for Nature Protection
Turkmenistan	(Makhtumkuli N. Akmuradov – to be confirmed upon return)	Djuma Sapramuradov, Senior Researcher, Institute of Biology
Uzbekistan	Gennady Goncharov, Chief of Department of State Biocontrol, State Committee Nature Protection	Yevgenia Lanovenko, Chief of Laboratory, Institute of Zoology, National Academy of Sciences
International Crane Foundation	Claire Mirande, UNEP/GEF Project Director	Elena Ilyashenko, Siberian Crane Flyway Coordinator
Wild Bird Society of Japan	Not present	Not present

Extending MoU membership

The Range States decided to invite Wetlands International to become an official participant in CMS MoU at its next meeting, in order to formalize its institutional support for this new site network initiative under the MoU framework. Taej Mundkur, Wetlands International, explained his organisation's good working relations with Governments, NGOs, nature reserves, and other organisations and programmes to preserve migratory birds. He pledged technical support to the Range States and thanked them for the invitation to join the MoU.

Mr. Hykle explained that a special procedure to enable Wetlands International to sign the MoU would be carried out at the next meeting of Range States. By that time, an official letter of acceptance from Wetlands International would have been received by the CMS Secretariat.

The Meeting decided to extend a similar invitation to the Cracid and Crane Breeding and Conservation Centre (CBCC) to join the MoU.

Agenda item 11: Conclusions and resolutions of the meeting

The Meeting agreed that the CMS Secretariat should finalise the Report of the Meeting, in consultation with the International Crane Foundation, and circulate it to all meeting participants and other interested organisations.

Agenda item 12: Closure of the meeting

Before formally closing the meeting, the Chairman, Alexander Sorokin, expressed thanks to the participants for their contributions, and to the hosts, organizers, helpers, and translators for their enthusiastic work.