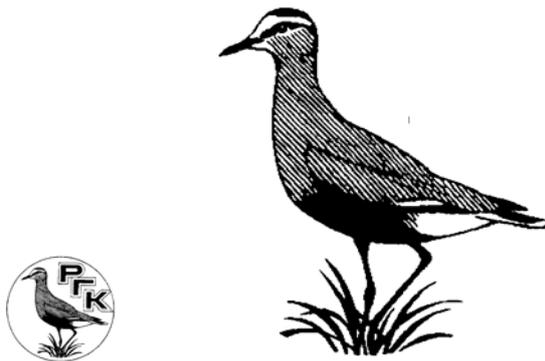


INTERNATIONAL ACTION PLAN FOR THE SOCIABLE LAPWING *Chettusia gregaria*



This draft International Action Plan for the Sociable Lapwing (*Chettusia gregaria*) was commissioned by the Secretariat of African-Eurasian Waterbird Agreement and European Division of BirdLife International, and was prepared by the Russian Bird Conservation Union (BirdLife International Partner Designate in Russia). The first draft was sent out to experts on the species and its' conservation, and then discussed on 2nd April 2002 at the Workshop on Sociable Plover in Moscow. All comments and suggestions, as well as outputs from the Workshop, were incorporated in the second draft of the Action Plan, also distributed to all contributors. This version is the final output of all the above consultations.

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Summary

What is the profile of the Sociable Lapwing?

Sociable Lapwing breeds currently in Kazakhstan and central part of southern (further "south-central") Russia. Breeding range includes northern and central Kazakhstan, and in Russia extends currently from Orenburg region, across Chelyabinsk, Kurgan, Omsk and Novosibirsk regions towards surroundings of Barnaul in the Altai. Within this area the species is very much scattered, numbers are low and declining. On migration Sociable Lapwings are found in large range of countries of Middle, Central and Southern Asia (Afghanistan, Armenia, Azerbaijan, Bahrain, Iran, Kuwait, Kyrgyzstan, Qatar, Saudi Arabia, Syria, Tadjikistan, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan). Countries of primary importance for wintering are Eritrea, India, Iraq, Israel, Oman, Pakistan, Sri Lanka and still possibly Egypt, Ethiopia and Sudan. Records of vagrant birds are also known from wide range of Asiatic and European countries. The population has undergone significant and rapid decline in the second half of 20th century, and is considered ongoing. Population size was recently estimated in not more than 10,000 adult individuals (which is rather optimistic estimate in Collar et al., 1994, Tucker and Heath, 1994), or bigger. Few years later it was considered that population is not more than 1,000 breeding pairs in the total range of the species (Khrokov 2000; BirdLife International, 2001). Estimates made during Sociable Plover Workshop in Moscow (Appendix I) suggest that the situation is far worse: **world population is estimated at the Workshop as 200-600 breeding pairs (= 600-1,800 birds)**. The Sociable Lapwing is listed in Appendix I and II of the Bonn Convention, in Column A category 1a 1b 1c of table 1 of the AEWA, in the List of Globally Threatened Bird Species (BirdLife International, 2000), and in the IUCN Red List as "Vulnerable". It is included as Vulnerable in Red Data Book of Asia due to lack of data on the reasons of population decline. Although included in the Red Data Book of ex-USSR countries, no practical conservation measures are undertaken at the moment.

Why an international Action Plan for the Sociable Lapwing

The Action Plan of AEWA paragraph 2.2.1. states that Parties shall cooperate in developing and implementing species action plans for species listed in Column A category 1.

There are four primary reasons for the Sociable Lapwing compilation of the Action Plan: (1) the population of Sociable Lapwing continues to decline; (2) its global population is 1,500-3,000 breeding pairs, or most probably under 1,000 breeding pairs; (3) the reasons for the ongoing decline unknown, and it is even unclear whether the main threats are now at breeding or at stopover and wintering sites; (4) no practical conservation measures have been taken so far.

The present Action Plan addresses these issues and identifies actions with the final aim to implement them in order to secure to the Sociable Lapwing a favourable condition throughout the species' range.

What is the basis of the Action Plan?

The Action Plan is based on the analysis of all available published information on Sociable Lapwing, and on the results of extensive consultation processes. Besides, the Workshop on the Sociable Lapwing which took place in Moscow in March 2002 provided an opportunity to incorporate the variety of knowledge, opinions and suggestions by the experts on the species into the final draft of this Action Plan.

What is the objective of the Action Plan?

The general objective of the plan is to ensure that population of the Sociable Lapwing becomes stable as a result of conservation initiatives such as habitat conservation measures, protection of colonies and wintering and stopover sites etc. based on the adequate understanding of threats and limiting factors.

What does the Action Plan consist of?

The Action Plan presents a framework for conservation of the Sociable Lapwing and its habitats. Measurable objectives are set at national and international level, and management options given for each country.

Which countries are involved?

Implementation of the Action Plan requires effective international co-ordination of organisation and action. Countries especially involved with the implementation are Russia and Kazakhstan (breeding), Eritrea, India, Iraq, Israel, Eritrea, Oman, Pakistan, Sri Lanka (wintering), and Afghanistan, Armenia, Azerbaijan, Bahrain, Iran, Kuwait, Kyrgyzstan, Qatar, Saudi Arabia, Syria, Tajikistan, Turkey, Turkmenistan, United Arab Emirates, and Uzbekistan (migration).

What should these countries do?

There should be commitment of all individual Range States. These should develop their own National Action Plans. In these Action Plans, management activities should be described, on the basis of the management options that have been presented in this International Action Plan.

How should the Action Plan be implemented?

A working group under the Technical Committee of the AEWA should be established for implementation of Single Species Action Plans.

Activities mandated to the working group are listed. The plan should be formally adopted at the Second Session of the Meeting of the Parties to AEWA , which will take place from 26-29 September 2002, Bonn, and be reviewed every three years thereafter.

As a number of range States for this species are not the Party to the AEWA, it is recommended that National Action Plans are to be developed by _____, and endorsed by the Government of each state.

1. Introduction

Sociable Lapwing *Chettusia gregaria* is protected according to national legislation all over its breeding range in Russia and Kazakhstan. However the decline of species population which was observed throughout the entire 20th century, and most notably in the beginning of the century, in 1950s (from 1930 to 1960) and then further in 1970 to 1990s, requires urgent measures to be undertaken by the AEWA Range States, as well as by the states which did not yet join this international agreement but which hold responsibility for survival of Sociable Lapwing on breeding, migration and wintering.

This Action Plan describes and evaluates current knowledge on ecology, habitat requirements, and seasonal distribution of the Sociable Lapwing, as well as conservation measures which have to be undertaken both by governmental and non-governmental bodies to ensure that the decline of species population does not continue further. The plan also outlines the most urgent requirements to cover existing gaps in current knowledge about this species and its population decline. Although habitat transformation on breeding grounds has so far been indicated as the main reason for the decline in the middle of 20th century, the factors which influence this decline further in the end of 1990s are not so clear and are probably related to the state of habitats in areas of migration stopovers and wintering. These issues have to be clarified, and are thus considered among the most urgent activities which will determine the success of the implementation of this Action Plan.

The overall objectives of the Action Plan are:

- In the short-term (3 years)
 1. To define main factors affecting population of Sociable Lapwing in the areas of breeding, migration and wintering, and to undertake actions to reduce negative impact of the key negative factors.
 2. To organise co-ordinated targeted research to clarify general population characteristics such as current distribution, seasonal changes in habitat requirements, breeding success, mortality rates and causes of mortality, migratory links / distribution of birds from certain breeding areas to particular migration corridors and wintering grounds.
 3. To ensure that all appropriate actions defined in this Action Plan are undertaken in order to stop further decline of Sociable Lapwing throughout its range.
- In the long-term (20 years)
 1. To reverse the population trend of the Sociable Lapwing, with the species occurring with stable or increasing numbers within the “traditional” breeding and wintering ranges of the mid 20th century.

To reach successfully these short-term and long-term objectives the following measures have to be undertaken:

- International co-operation between individual experts, governmental and non-governmental bodies of all species range states must be ensured to guarantee the development and implementation of adequate monitoring and research, conservation, habitat management and other relevant activities provided by the Action Plan for the benefit of Sociable Lapwing;
- Working group on Threatened Steppe Waders must be established and operate under the AEWA Secretariat (or leading role delegated to one of the bodies of Sociable Lapwing range states);
- To control human activities negatively affecting the Sociable Lapwing in breeding, migration or wintering areas;

- To ensure that adequate legislation for the conservation of the Sociable Lapwing exists and is enforced by all range states;
- To develop new mechanisms of international co-operation, including potentially required subsidies for habitat management in areas occupied by Sociable Lapwing to ensure that no detrimental human activities take place in the breeding, migration or wintering areas of this species.

The Plan presents operational and measurable objectives, and management options to achieve these objectives. It is a framework to ensure the coherence of and communication about, the national plans. The framework leaves room for manoeuvre for the Range States to tune their management policy to the national situation, as long as the objectives are achieved.

The success of the Action Plan depends to a large extent on:

1. the support for the implementation of the international Action Plan;
2. the efforts of the Range States to draw up and IMPLEMENT National Action Plans;
3. implementation aspects such as: a time frame for monitoring and evaluation and for the communication of progress and activities in the different Range States, insight into budgetary consequences;
4. organisational matters such as: a clear vision on the role of the African-Eurasian Waterbird Agreement (AEWA) Technical Committee and a decision on the potential establishment of a new working group in this committee (or delegation of this role to a body, such as potential Threatened Steppe Waders Working Group).

The Plan applies for a period of 3 years, after which it will be evaluated and reviewed.

. 2. Biological assessment

General information	The Sociable Lapwing <i>Chettusia gregaria</i> is a small migratory wader which breeds in Kazakhstan and south-central Russia between 47° and 53°N, and winters in south-western Asia and north-eastern Africa in the zone from 10° to 30°N. During breeding season it can be found in dry steppes and semi-deserts, mainly in areas with feather grass <i>Stipa pennata</i> and/or wormwood <i>Artemisia spp.</i> steppe habitats, and often in association with saltmarsh areas.
Population development	<ul style="list-style-type: none"> • First poorly documented decline probably happened in the end of 19th – the beginning of 20th century when last cases of breeding were supposed in eastern Ukraine. • Major decline in 1950s, supposed to be the result of habitat deterioration on breeding grounds, i.e. ploughing of virgin steppes (confirmed reduction of numbers on migration in the Lower Don area to complete absence after 1968; in central parts of Northern Kazakhstan numbers declined 2 to 4 times by 1960s compared to 1930s); decline observed at wintering grounds in Pakistan and India. Last records in Sudan. • Further strong decline in 1970s-1980s which coincides with reduction of breeding range (15.6% decline from 1986 to 1991 in Pavlodar region, Kazakhstan; disappeared in Saratov and Volgograd regions, European Russia; in Kourgaldzhyn area, Kazakhstan, numbers halved from 1970 to 1972); no continuous distribution was recorded anymore. Numbers also declined further at the wintering grounds in India. No birds found anymore in Egypt. In late 1980s the world population was estimated 2,500-10,000 birds. • On-going population decline by the end of 1990s, confirmed by data from several surveys in areas where Sociable Lapwing was formerly rather commonly breeding. In early 1990s breeding densities in northern Kazakhstan were one order of magnitude lower than in 1930s, while flock sizes were two orders of magnitude lower. By the end of the century it became an extremely rare species in south-east of the breeding range and no breeding records came from the European part of the former breeding range. Possibly it does not breed anymore in Europe. The only recent records from wintering areas in India are from Haryana and Rajasthan (50 birds or usually less and not every year). World population is estimated at the Workshop as 200-600 breeding pairs (= 600-1,800 birds).
Distribution throughout the annual cycle	<p>In January is at wintering grounds in Israel, Eritrea, Oman, Pakistan and India (data on wintering extremely scarce).</p> <p>In February large flocks in Iraq, first migrants are present in Uzbekistan, latest individuals usually leave Pakistan and India.</p> <p>In March Sociable Lapwing migrates through Turkey and the Caucasus States, Turkmenistan and Tajikistan, appears in southern Kazakhstan.</p> <p>In April latest Sociable Plover leave the Red Sea, Turkey and Pakistan wintering grounds, while earliest already occupy southern breeding grounds; start egg-laying in Central Kazakhstan; latest migrants still observed in Uzbekistan.</p> <p>In May birds arrive to northern Kazakhstan; start of the main breeding season.</p> <p>In June are on breeding grounds in Russia and Kazakhstan; hatching of chicks from mid June.</p> <p>In July first fledglings observed on breeding grounds (early July); in the middle of the month form flocks and start movements; first birds appear on migration in Uzbekistan.</p> <p>In August main departure from Kazakhstan and Russia, in the middle of this month birds reach Uzbekistan, southern Kazakhstan, Turkmenistan.</p> <p>In September latest birds leave Central Kazakhstan and Russia; first records in Sri Lanka, Syria, Egypt.</p> <p>In October in small numbers appear in Iraq, in arid areas of Sudan and Eritrea. Last records in Uzbekistan.</p> <p>In November last migrants still in Turkmenistan, but most reach wintering grounds in the countries surrounding the Red Sea and in India and Pakistan.</p> <p>In December is at wintering grounds in Israel, Eritrea, Oman, Pakistan, India.</p>

Productivity	<p>Knowledge is very poor, from the available data low breeding success is obvious. Mortality on breeding (eggs, chicks and young) varies from 7% to 87%-100% Main reasons for this are</p> <ul style="list-style-type: none"> • Trampling of nests by grazing cattle • High predation rate, namely by Rooks <i>Corvus frugilegus</i>, Corsak Foxes <i>Vulpes corsak</i> and Red Foxes <i>Vulpes vulpes</i> • Human disturbance • Treatment of arable fields with colonies in areas of intensive agriculture.
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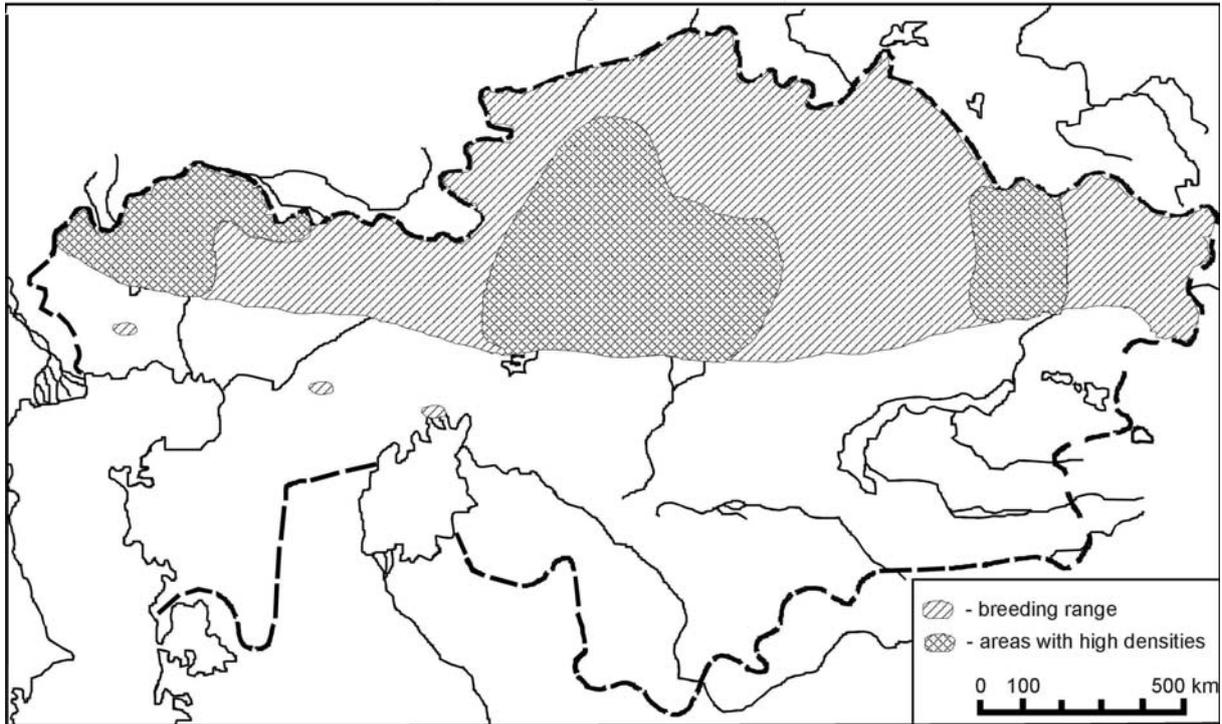
Life history	<p>Breeding:</p> <p>Formation of pairs starts already during spring migration.</p> <p>Breeds in loose colonies of 2–30 pairs, with nests 20–200 m apart. Distance between adjacent colonies may exceed 35-75 km. Recently more often single nests or broods are found.</p> <p>Colonial breeding and aggressive behaviour in colonies determines successful reproduction (protection against predators). Recent phenomenon: single birds are found with single nests or broods.</p> <p>Clutch size 2-4, rarely 5 eggs.</p> <p>Incubation mainly by female during 21-25 days.</p> <p>Fledging period ca. 33-37 days.</p> <p>Mortality on breeding (eggs, chicks and young) varies from 7% to 87%-100%.</p>	<p>Feeding:</p> <p>On breeding grounds almost entirely insectivorous, mainly beetles and their larvae, grasshoppers, and moth larvae.</p> <p>Similar diet (insects) is known from Indian wintering grounds.</p> <p>In Punjab, Pakistan, known to eat freshly sown grains and green caterpillars in winter.</p>	<p>Migration:</p> <p>In spring migrates in small flocks 5 to 15 individuals, while on autumn migration might form large flocks up to 100 individuals (formerly, in the middle of 20th century, up to 1000 birds).</p> <p>Spring migration lasts late February till May (depending on the region).</p> <p>Autumn migration is prolonged even within one area: e.g. in Turkmenistan from August till late November.</p> <p>Former migration in broad front now goes probably in two main corridors: one from north-east Africa and the Middle East across Caspian Sea area, another from India and Pakistan across Afghanistan and Central Asia.</p> <p>Direction of spring migration presumably has changed from northern to north-eastern in the area north of the Caspian Sea. This might be a reflection of breeding range contraction.</p>
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Habitat requirements	<p>Breeding habitat:</p> <p>Dry virgin steppes and semi-deserts, mainly in areas with feather grass <i>Stipa pennata</i> and/or wormwood <i>Artemisia spp</i> steppe habitats, and usually in saltmarsh areas close to wet patches.</p> <p>Grazed or heavily grazed areas with low vegetation cover are preferred.</p> <p>Seldom breeds in spring crops on arable land.</p> <p>After sharp decline in 1970s breeding was observed in grassland areas among sand dunes between Volga and Ural rivers.</p> <p>Avoid areas with taller and dense vegetation.</p>	<p>Migration and winter:</p> <p>Dry plains, sandy wastes and short-grass areas, often at shallow water or in areas adjacent to water.</p> <p>Prefers dry cultivated or semi-cultivated tracts rather than stony or sandy wastes and deserts.</p> <p>Often fed in wheat fields in Pakistan.</p>
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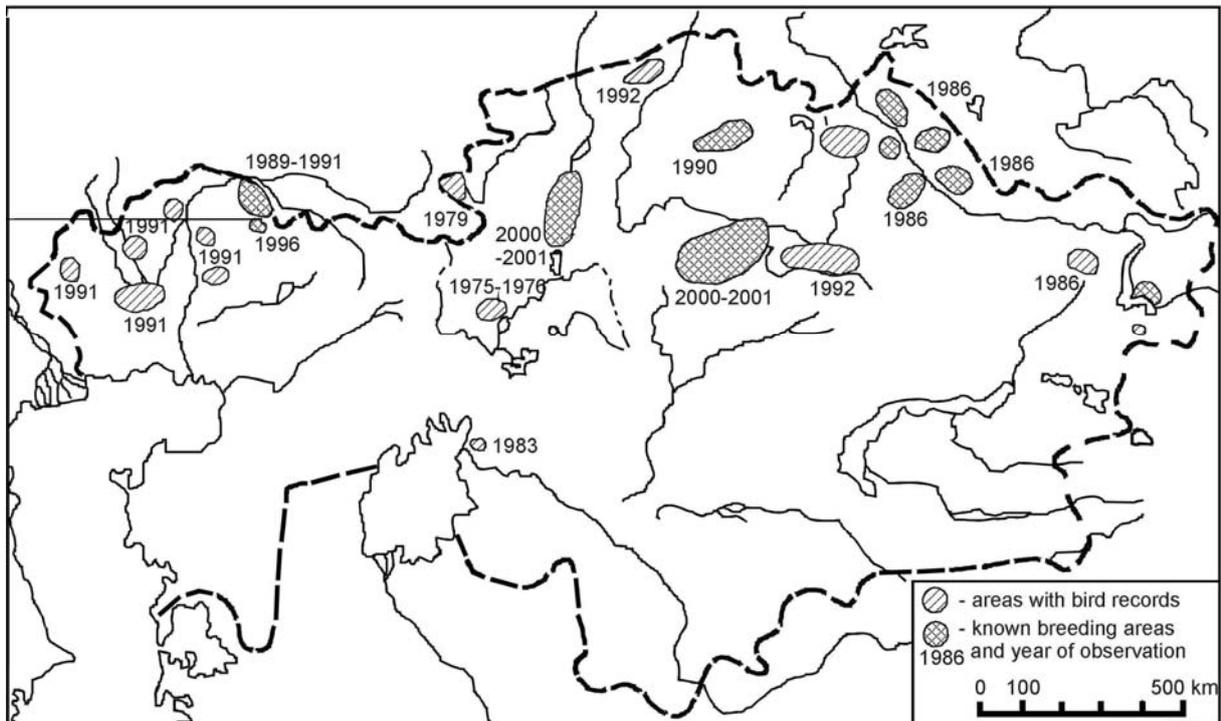
The geographical scope of Sociable Lapwing

Countries of Breeding	Countries of Migration	Countries of Wintering	Countries of Vagrancy
Kazakhstan Russian Federation	Afghanistan Armenia Azerbaijan Bahrain Iran, Islamic Republic of Iraq Kuwait Kyrgyzstan Qatar Saudi Arabia Syria Tajikistan Turkey Turkmenistan United Arab Emirates Uzbekistan	Eritrea India Israel Oman Pakistan Sri Lanka ? Azerbaijan ? Ethiopia ? Egypt ? Iraq ? Sudan ?United Arab Emirates	Belgium Britain China Cyprus France Germany Greece Hungary Ireland Italy Jordan Lebanon Maldives Malta Morocco Mongolia Netherlands Poland Romania Somalia Spain Switzerland Ukraine former Czechoslovakia

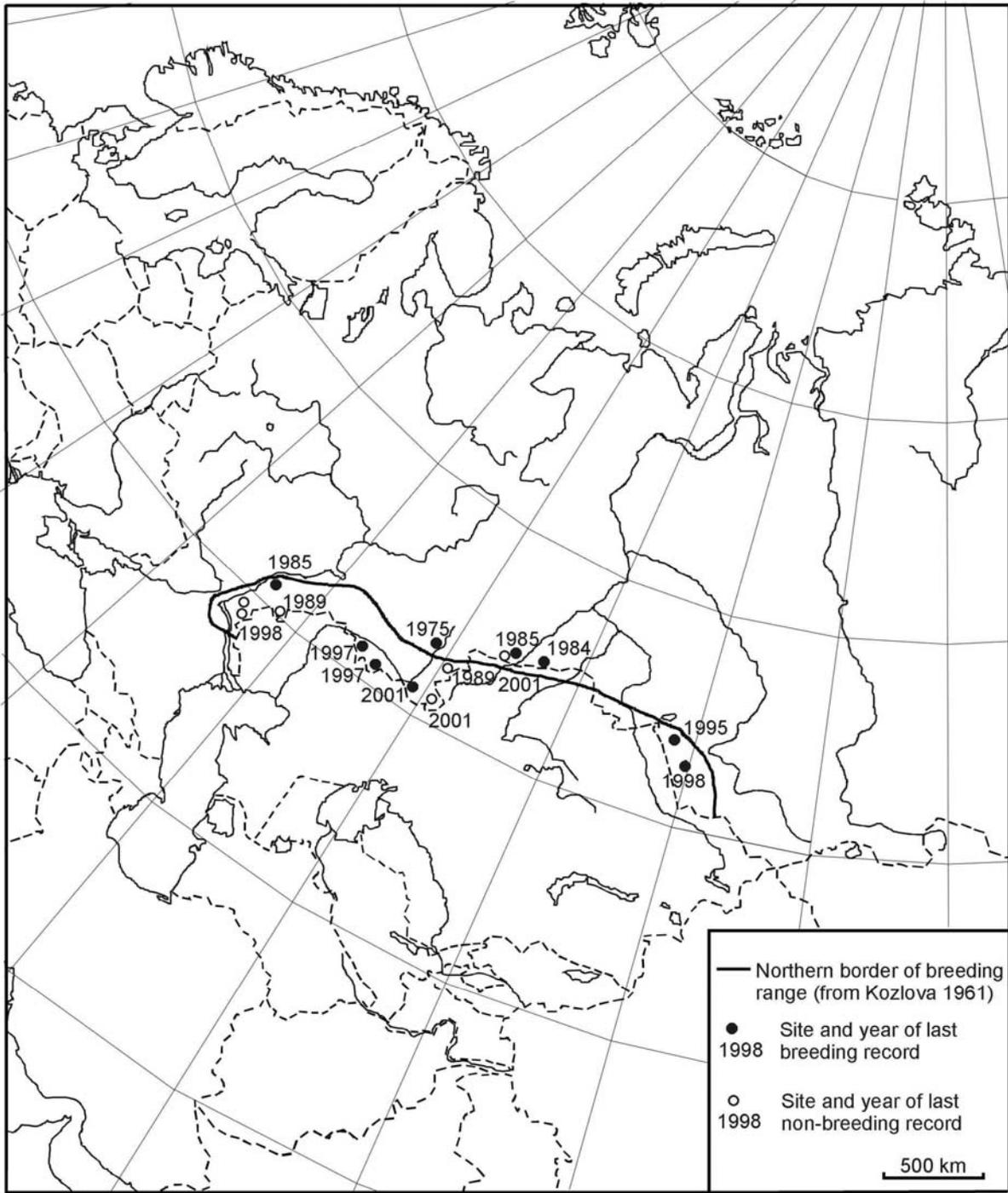
Former breeding distribution of Sociable Lapwing in Kazakhstan
(from Dolgushin 1962)



Breeding distribution of Sociable Lapwing in Kazakhstan in 1975-2001



Distribution of Sociable Plover within the breeding range in Russia in 1970-2000s



Knowledge on Sociable Lapwing

This quality of knowledge on Sociable Lapwing has to be assessed during the Workshop to define the priority areas for targeted research and monitoring which is needed to reach the objectives of this Action Plan. Preliminary information for each country is suggested on the basis of available literature. 0 – no data; 1 – very little data; 2 – qualified guesses; 3 – good quantitative knowledge

Country	PopSize	Distribution	Timing/ presence	Habitat use	Key negative factors
Afghanistan	0	0	0	0	0
Armenia	1	1	1	0	0
Azerbaijan	1	1	1	0	0
Bahrain	0	0	0	0	0
Eritrea	1	1	1	0	0
India	2	2	2	2	0
Iran	1	1	1	0	0
Iraq	1	1	1	0	0
Israel	1	1	2	1	0
Kazakhstan	2	2	3	3	2
Kuwait	1	1	1	0	0
Kyrgyzstan	0	0	1	1	0
Oman	1	1	0	0	0
Pakistan	2	2	2	2	0
Qatar	1	1	1	0	0
Russia	2	1	3	3	2
Saudi Arabia	0	0	1	0	0
Sri Lanka	1	1	1	0	0
Syria	0	0	1	0	0
Tajikistan	0	1	1	1	0
Turkey	0	1	1	1	0
Turkmenistan	1	1	1	1	0
United Arab Emirates	0	1	2	2	0
Uzbekistan	1	1	2	2	1

3. Human Activities

This chapter gives an overview of current human activities potentially affecting the Sociable Lapwing population and their relevance by country

Overview of human activities / threats related to the Sociable Lapwing

Human activities potentially affecting the Sociable Lapwing population can be subdivided into three categories:

1. Human activities / threats potentially affecting the Sociable Lapwing population;
2. Human activities / threats affecting the quality of the habitat, such as deterioration and contamination
3. Human activities / threats affecting the quantity of the habitat, such as land claims for urban and industrial developments

Explanation of threats for Sociable Lapwing

Reduced grazing – Based on current breeding distribution Sociable Lapwings apart of solonchaks and salinas prefer habitats with moderate grazing in steppe areas. Possibly the species was formed in an earth period(s) when open semiarid grasslands of Eurasia were naturally grazed by large wild mammals; the latter were substituted later by herds of domesticated sheep and cattle led by people with nomadic style of life. It seems like grazing and animal hoofs create sparse vegetation structure favourable for breeding of Sociable Lapwings, and animal manure support increased insect abundance which serves as food stock for birds. Such grazed grasslands should be considered primary natural habitats of Sociable Lapwings. First in Europe (18-19th centuries) and then in Asia (20th century) nomadic style of life of people was alternated by their concentration in permanent settlements, broad scale grazing was strongly reduced and concentrated in areas close to settlements. Areas without grazing (including strict Nature Reserves in steppe areas) have overgrown with dense vegetation unsuitable for Sociable Lapwing. Breeding of Sociable Lapwings became more patchy and also concentrated at pastures close to human settlements. Economy depression in Russia and Kazakhstan in 1990s led to further reduction of grazing due to decline in numbers of domestic animals (e.g. cattle was reduced 50% and sheep 75% in Orenburg Region, Russia).

Overgrazing – After nomadic grazing was alternated by grazing at constant pastures close to human settlements (see “Reduced grazing” above) these local areas suffer from overgrazing because of increased density of animals. Importance of this habitat change for Sociable Lapwing is not known.

Agricultural development – Alteration of virgin steppes by extensive arable fields took place first in European part of the Sociable Lapwing breeding range (19th century) and then in Asian part (20th century, especially 1950s when it became a high priority policy in the USSR), being formerly an important threat. However this threat is not of importance anymore apart of cases of ploughing of fallow lands.

Agriculture intensification – Being similar in appearance with the species natural habitats arable fields with sparse vegetation often attract Sociable Lapwings for breeding. Intensive agriculture implies regular treatment of fields during a season with help of special vehicles which destroy many nests of birds breeding there. This threat is supposedly especially important in the periphery of the species breeding range. For example, last known breeding colony of Sociable Lapwings in Saratov Region, the lower Volga River, known in 1980s on arable fields was regularly destroyed during field treatments. It looks like arable fields with intensive agriculture function as “ecological traps” for breeding Sociable Lapwings.

Land abandonment – Absence of grazing at grasslands favours development of tall dense vegetation (climax vegetation associations) unsuitable for breeding of Sociable Lapwings (see “Reduced grazing” above). Similarly, fallow arable lands are suitable for breeding Sociable Lapwings only before overgrowing with tall dense vegetation. Ploughing of fallow lands on poor soils with subsequent sowing of meadow grasses prevents growing of tall weeds and thus favours to Sociable Lapwings. Abandonment of arable lands was widely spread across species breeding range in 1990s.

Afforestation – Planting of trees in human settlements (old Slavonic tradition) and also forest stripes for protection of arable fields in steppes (government policy in the USSR in late 1940s – 1960s) had mostly indirect negative influence on breeding populations of Sociable Lapwings. Grown up trees have become the necessary basis for nest construction of corvids which are important predators of ground nesting birds including Sociable Lapwing. Afforestation of southern Russia and parts of Kazakhstan resulted in expanding of the breeding ranges and dramatic increase of numbers of corvids, especially of Rooks.

Irrigation – This indirect threat is related to development of virgin steppes into arable fields as well as to afforestation. In arid areas it has some positive effect by helping to expand solonchaks and salinas, as well as increasing the number of wetlands suitable for migrants.

Hunting – Can be an important threat. However hunting for Sociable Lapwing is prohibited at least in majority of the range states. Information is missing from some countries of Africa and the Middle East.

Illegal hunting – Some occasional (not purposely) illegal shooting of Sociable Lapwings takes place during winter/ spring hunting season(s) for waterfowl, also for taxidermy purpose.

Taking of eggs – Rare cases of egg collecting by private collectors are known/ suspected in Kazakhstan.

Human disturbance – Human disturbance supposedly effects breeding success of Sociable Lapwings not through changes in natural time/ energy budget of breeding birds, but by decrease in productivity as a result of reduced protection by Sociable Lapwings of their nests/ chicks against avian predators (corvids, gulls, birds of prey). Human disturbance is expected to be the largest at grazing meadows in vicinity of settlements.

Use of agricultural chemicals / pesticides – Fertilizers and insecticides were in wide use for agriculture in the USSR in 1960-1980s. Also in the same period cereal with poison (ZnO_2P_3) was spread from airplanes against rodents in areas with natural nidus of plague. This chemicals could be accumulated in Sociable Lapwing tissues through food chains (insects) influencing survival of birds and their offspring. No chemicals were used in 1990s, however, in 2000-2001 insecticides were widely spread from airplanes against locusts within breeding range of Sociable Lapwing. No information about use of chemicals in the non-breeding range of the species.

Climate change – Controversial information is published about recent climate change (desertification vs. increased rainfall) within breeding range of Sociable Lapwing. It is clear that in wet seasons dense and tall vegetation develops which results in reduced densities of breeding Sociable Lapwings. Opposite situation was recorded in dry seasons.

Development – Neither urbanization, nor industry developments, roads or railway construction, tourism are important threats for Sociable Lapwings. Potentially broad scale oil development may take place in northern Kazakhstan with associated construction of road network.

Predation by corvids – Former natural predation was dramatically increased by predation of eggs and chicks by corvids (especially Rooks) since 1960s as a result of the afforestation policy (see “Afforestation” above). Foraging of corvids takes place at a distance up to 10 km from rookeries / trees.

Predation by foxes, birds of prey, gulls and other natural predators – Some level of natural predation on eggs, chicks, birds always exists, and healthy populations are adapted for its compensation (these are reflected in equilibrium of productivity and mortality of a population). Demography parameters in Sociable Lapwing are not documented.

Predation by dogs – Possibly an important threat for nests and chicks in vicinity of human settlements where breeding Sociable Lapwings are currently concentrated as a result of wide scale reduced grazing.

Trampling by cattle and sheep – Intensity of grazing in pastures close to settlements has increased dramatically as a result of alternation of cattle-breeding practice (see “Reduced grazing” and “Overgrazing” above). Taking into account that pastures are the preferable habitat of Sociable Lapwings, trampling of eggs and chicks became a real threat for the species population.

Threats / human activities potentially affecting currently the Sociable Lapwing population and their relevance by country (see Appendix 1 for explanation of threats). Level of relevance is scored: 0 – no relevance, 1 – low, 2 – medium, 3 – high relevance, ? – unknown.

Threats:	Russia	Kazakhstan	Migration Europe	Migration Asia	Winter Africa & MidEast	Winter Asia
Habitat loss						
Reduced grazing	3	3	0	0	?	?
Overgrazing	1?	1?	0	0	1?	1?
Agriculture spreading	0	1	0	0	0	0
Agriculture intensification	2 (3 locally)	2	0	0	?	?
Land abandonment	1	1	0	0	0	0
Afforestation	1	0	0	0	0	0
Irrigation	1	0	0	0	0	0
Persecution / disturbance						
Hunting	0	0	0	0	?	0
Illegal hunting	2	2	2	2	?	?
Taking of eggs	1	1	0	0	0	0
Human disturbance	2?	2?	0	0	0	0
Pollution						
Use of agricultural chemicals / pesticides	1?	1?	1	?	?	?
Climate change						
Desertification	?	?	0	?	?	?
Increased rainfall	?	?	0	0	0	?
Development						
Tourism	0	Potentially 1	0	0	0	0
Roads, oil / gas drilling	0	Potentially 1	0	?	?	0
Other types of threats						
Predation by Rooks	3	3	0	0	0	0
Predation by other species	1	1	0	0	0	0
Trampling by sheep / cattle	3	3	0	0	0	0

4 Policies and Legislation

In this chapter, an overview will be given of relevant national and international policies and legislation. Legislation regarding transport, agriculture, etc. will not be discussed, although they may have a considerable indirect influence on the Sociable Lapwing population.

International policies and legislation

Title	Work title	Year	Objective and relevance
Convention on Wetlands of international importance especially as waterfowl habitats	Ramsar Convention	1971	Stem increasing destruction of wetland habitats, by designating wetlands for inclusion on a list of "Wetlands of international importance". Conservation and wise use of these wetlands. Compensate for loss of wetlands. Consultation about implementation of the Convention.
Convention on the Conservation of Migratory Species of Wild Animals	Bonn Convention	1979	Concerted action for the conservation and effective management of migratory species. Consists of two appendices: Appendix I: animals requiring strict protection. Appendix II: animals for which agreements need to be made for the conservation and management these species. AEWA is an example of such an agreement. The Sociable Lapwing falls within the Appendix I of the CMA.
Agreement on the Conservation of African-Eurasian Migratory Waterbirds	AEWA	1999	The Sociable Plover is one of the 172 species included in Annex 2 to the Agreement. Furthermore In Annex 3 the Action Plan the species is listed in table 1 Column A category 1a 1b 1c. In accordance to Action Plan high priority should be given by the Parties to conservation activities for species listed in Column A category 1 whereas developing and implementing of International Species Action Plans.
Convention on the Conservation of European Wildlife and Natural Habitats	Bern Convention	1979	Conservation of wild flora and fauna and their natural habitats especially those species and habitats whose conservation requires the co-operation of several states. "Special attention be given to the protection of areas that are of importance for the migratory species specified in Appendices II and III (incl. most birds) and which are appropriately situated in relation to migration routes as wintering, staging, feeding, breeding or moulting areas". The sociable lapwing is listed in Annex III.
EU Council Directive on the Conservation of Wild Birds	EU Birds Directive	1979	Conservation of birds and bird habitats by European co-operation. Establish network of protected areas: Special Protection Areas (SPAs). The Sociable Lapwing is listed in Annex I. The Birds Directive laid the foundation for the Habitats Directive.
EU Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora	EU Habitats Directive	1992	Establish strategic network (Natura 2000) of European Habitats and protect the most threatened species in Europe. Implementation behind schedule. Countries have to submit lists of "Special Areas of Conservation (SACs)". Two annexes list habitat types and species. The article 6 obligations of the Habitats Directive also have to be implemented in the Special Protection Areas of the Birds Directive.
Convention on Biological Diversity	Biodiversity Convention	1992	Maintain a sustainable diversity and spread of flora and fauna across the world. Each contracting party shall develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity.

NB: The European Directives and international conventions can have different legal implications: the special legal status of EU Directives makes it possible to enforce implementation through the European Court of Justice, whereas the legal implications of conventions depend on their translation into national legislation.

Threat and Convention status for the Sociable Lapwing *Chettusia gregaria*

IUCN ¹	Europe an Status ²	SPEC category ²	EU Birds Directive Annex ³	Bern Convention Annex ⁴	Bonn Convention Annex ⁵	African-Eurasian Migratory Water Bird Agreement ⁶
V	E	1	I	II	I	A1

¹ IUCN (World) Status as in BirdLife International (2000) *Threatened Birds of the World*. Spain and Cambridge, U.K.: Lynx Editions and BirdLife International. Categories: C = Critically endangered, E = Endangered; V = Vulnerable; D = Declining; L = Localised; R = Rare; LR = Lower Risk, DD = data deficient, cd = conservation dependent, nt = near threatened, lc = least concern, S = Secure.

² Tucker G.M & Heath M.F. (1994). *Birds in Europe: their Conservation Status*. Cambridge UK: BirdLife International (BirdLife Conservation series no. 3). E - endangered, Status provisional, SPEC category 1 – large decline, <2,500 pairs.

³ The species shall be subjected of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

⁴ Give special attention to the protection of areas that are of importance (Article 4) and ensure the special protection of the species (Article 6). For more details see the Convention text

⁵ Animals for which agreements need to be made for the conservation and management of these species. For more details see the Convention text

⁶ A1 – listed as threatened in the 1996 IUCN Red List of Threatened Animals; or population which number less than around 10,000 individuals.

National policies, legislation and activities

National activities on Sociable Lapwing conservation	Russia	Kazakhstan	Migration Europe	Migration Uzbekistan	Migration Azerbaijan	Winter Asia
<i>Species</i>						
Legal protection status in all areas and periods	A	A	A	A	A	A
Research	No	some A	some A	A in plans	No	
Regular population census and monitoring	No	No	No	A in plans	No	
<i>(Semi)-natural habitat</i>						
Site protection	No	No	No	N/A	No	
Site management	No	No	No	N/A	No	
Monitoring (use) of protected sites	No	No	No	N/A	No	
<i>Man-made habitats</i>						
Promotion of appropriate agricultural policies	No	No	No	No	No	
Policies to reduce potential agricultural conflicts	No	No	No	No	No	
<i>International co-operation</i>						
Regular meetings to discuss international monitoring	No	No	No	No	No	

A
Activity

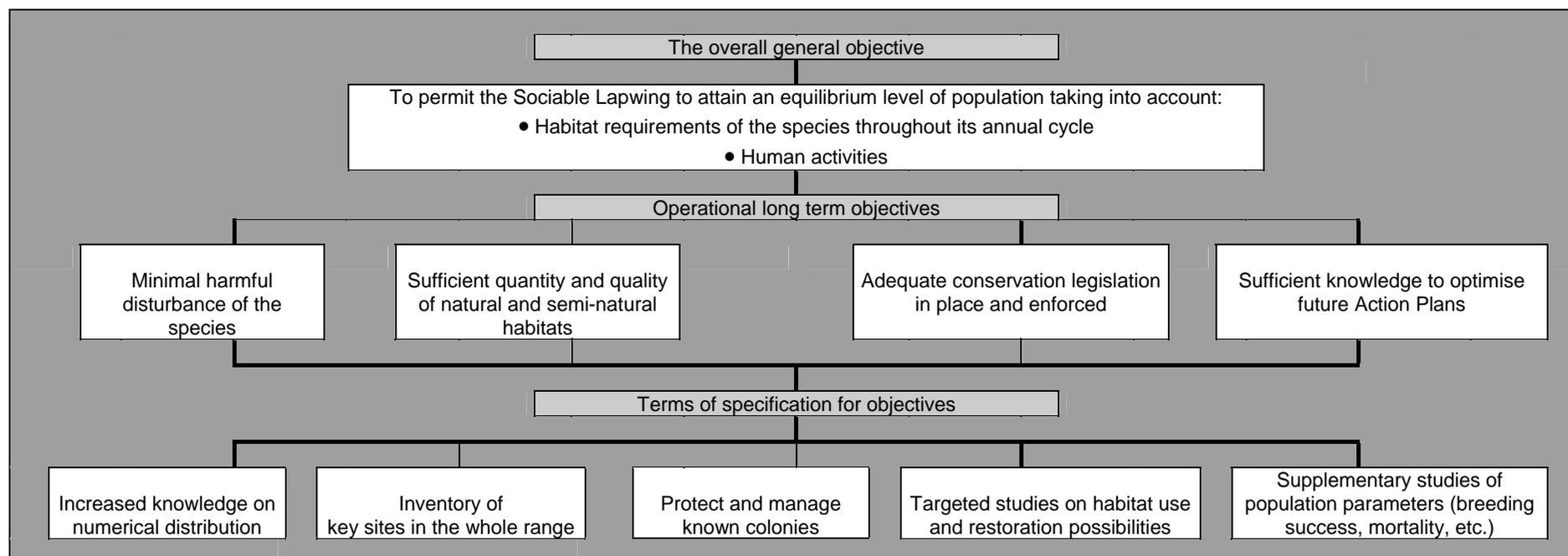
No
No activity

N/A
not applicable

5 Framework for Action

The individual countries on the Sociable Lapwing geographical range are responsible for the success of this Action Plan. Without the commitment of the Range States and all interests groups concerned, the Action Plan will remain ineffective. In this chapter the framework of objectives and a list of subjects that need to be taken up in the National Action Plans are presented.

Framework for Action



Measurable objectives

<p>Protection and monitoring of known breeding colonies</p>	<p>Inventory of key sites in the whole range</p>	<p>Increased knowledge on numerical distribution</p>	<p>Targeted studies on habitat use and restoration possibilities</p>	<p>Supplementary studies of population parameters (breeding success, mortality, etc.)</p>
<p>Within three years, country should have:</p> <ul style="list-style-type: none"> • all colonies with protected status; • all sites with management plan in place and implemented; • protection of colonies involves local people 	<p>Within three years, country should have:</p> <ul style="list-style-type: none"> • completed an updated inventory of key sites (see Appendix II); • located and determined habitat threats to sites of international importance; • given indications of how to improve the status of these areas 	<p>Within three years, country should:</p> <ul style="list-style-type: none"> • complete inventory of current distribution and population size • initiate monitoring programme including population size and trends 	<p>Within three years, country should:</p> <ul style="list-style-type: none"> • make detailed studies of habitat use and potential threats to Sociable Lapwing; • make a plan with actions to be undertaken to restore habitat quality and quantity where appropriate 	<p>Within three years, country should have / provide:</p> <ul style="list-style-type: none"> • information for analysis of overall population parameters including breeding success, mortality rate, impact of threats etc.; • population monitoring data available

All National Action Plans should include (All actions need to have a time frame):

- Regular survey of geographical distribution and numbers, especially surveys of poorly know areas in search of unknown key sites
- A comprehensive survey of key sites and their protection status
- Survey of / actions to improve existing policies and legislation (See chapter 4)
- Survey of threats / human activities (See chapter 3)
- Overview of present or expected threats to sites of international importance (1% of the total population, 6 birds, or 2 breeding pairs)
- Survey of present or expected threats to sites of national importance
Proposed management options to deal with these threats (See chapter 5 and 6)
- Identification and localisation of “stakeholders” for each of key sites
- Provisions for maintenance of habitat quality / quantity
- Provisions for habitat restoration, where appropriate
- Elaboration and implementation of monitoring and control systems (See chapter 7)
- Identification of financial consequences / responsibilities
- Communication plan (with AEWA, governmental and non-governmental organisations, and Threatened Steppe Waders Working Group when set up)
- Public awareness and training plan
- Identification of financial resources for implementation of the National Action Plan
- Overall expected effects of measures taken

During the Workshop on Sociable Lapwing Action Plan the following activities were suggested to diminish or overcome threats for securing the species wellbeing on breeding grounds

Priority: 1 – high; 2 – medium; 3 – low

Threats	Activity	Priority
Hunting	<ul style="list-style-type: none"> • Public awareness / education • Training • Increase game wardening 	2 1 (locally) 2
Use of pesticides	<ul style="list-style-type: none"> • Study, monitoring • Contact and discuss with authorities 	3 3
Egg collecting	<ul style="list-style-type: none"> • Public awareness / education • To alarm custom authorities 	1 1
Predation by rooks	<ul style="list-style-type: none"> • To scare rooks from colonies (local relevance) • Development of control methods combined interests of agriculture 	3 3
Other predators	<ul style="list-style-type: none"> • Wardening of colonies 	3
Renewing of ploughing of old fields	<ul style="list-style-type: none"> • Agreement with farmers • Nest protection signs / constructions 	3 2
Trampling by cattle, sheep	<ul style="list-style-type: none"> • Nest protection constructions 	3
External AID funds for agriculture development	<ul style="list-style-type: none"> • To identify donors of AID finances and to link AID to environmental target 	3
Reduced grazing	<ul style="list-style-type: none"> • Management in protected areas (need in moderate grazing) • Management in other areas where species occurs 	3 3

Land privatisation (potential)	• Closely follow low development and lobby work	3
	• To link privatisation with habitat management	3

6 Action by country

To assist the Range States in developing their own National Action Plans, in this chapter per Range State objectives, management options and the relation between the national objectives and the international objectives are presented.

Priority: H – high, M – medium, L – low.

Breeding areas (Russia and Kazakhstan)

International objective	Priority	National management options / actions	Measurable objective
Increase knowledge on numerical distribution	H	<ul style="list-style-type: none"> Each country undertakes extensive surveys to assess numbers, distribution, population trends to have best possible knowledge on these issues System to monitor and assess changes in numbers and distribution developed and its operation started 	<ul style="list-style-type: none"> ✓ current distribution map available per country and overall breeding range ✓ system to monitor and assess changes in numbers and distribution in place
Inventory of key sites in the whole range	H	<ul style="list-style-type: none"> All available published and unpublished information collated and transformed in easy-to-use formats available for decision-making Countries produce national (or joint) reports on the distribution, conservation status, stakeholders etc. of all key sites of the species 	<ul style="list-style-type: none"> ✓ results of inventory available for decision-makers ✓ all key sites known and monitored
Threat evaluation	H	<ul style="list-style-type: none"> Study of nest / chick loss from various reasons in known colonies Evaluation of human / dog / cattle disturbance on breeding success and time budget of breeding birds Study of monitoring effect of pesticides (used for locust control) on birds and on food availability 	<ul style="list-style-type: none"> ✓ importance of various threats known ✓ quantitative data available on nest loss reasons ✓ habitat threats determined
Targeted studies on habitat use and restoration possibilities	M	<ul style="list-style-type: none"> Overview of overall population habitat preferences undertaken Learn about detailed characteristics (soil / vegetation structure, food availability) of high quality habitats of Sociable Lapwing Analysis of distribution of suitable versus occupied habitats 	<ul style="list-style-type: none"> ✓ habitat requirements of the species reassessed in relation to recent decline
Adequate enforcement of conservation legislation	L	<ul style="list-style-type: none"> National and regional authorities ensure / involved in enforcement of legislation Significant penalties introduced for illegal taking on birds/eggs/chicks 	<ul style="list-style-type: none"> ✓ high penalties in place in both countries
Supplementary studies of population parameters	M	<ul style="list-style-type: none"> A body in one of the two breeding countries to take responsibility for the Threatened Steppe Waders Working Group for concerted actions on population modelling Key experts to join efforts to provide species population model (and to assess gaps in knowledge) To start ringing and colour-marking project 	<ul style="list-style-type: none"> ✓ population modelling tried and results available ✓ knowledge about site fidelity, mate faithfulness and other population parameters is obtained

Facilitate increase in breeding performance of Sociable Lapwings	H	<ul style="list-style-type: none"> • Ensure adequate seasonal protection of all breeding colonies • Develop and implement system to monitor annual breeding success • Develop method(s) on control of numbers of Rooks and other predators around breeding colonies • Reduce disturbance by control of access to key areas • Applied studies on practical effect of specific actions to protect colonies 	<ul style="list-style-type: none"> ✓ data of annual breeding success obtained and made available widely ✓ all known breeding colonies receive adequate protection
Good quality of habitats	H	<ul style="list-style-type: none"> • Maintain or enhance the current status of habitats • Encourage protection for all sites of importance for the Sociable Lapwing • Support establishment of National Parks with grazing of wild animals • Develop a proper management system (moderate grazing) for protected sites, involving management plans • Support of international programme on habitat management with help of traditional extensive grazing 	<ul style="list-style-type: none"> ✓ actions for improvement of habitats ✓ inventory of sites where natural habitats should be restored. Listing of threatened sites ✓ all known colonies have management plans ✓ management practice developed and tested to come up with recommendation for management for farmers
Development, endorsement and implementation of National Action Plans	H	<ul style="list-style-type: none"> ▪ National Action Plans in place in both countries, published, and endorsed and implemented at all levels ▪ National legislation amended and enforced as provided in the International and National Action Plans 	<ul style="list-style-type: none"> ✓ national Action Plans available ✓ all national bodies committed to implementation
Public awareness and involvement of local stakeholders	H	<ul style="list-style-type: none"> ▪ Public awareness materials to be produced and widely distributed ▪ Local stakeholders involved in practical on-ground conservation of breeding colonies ▪ Facilitate information exchange between interested bodies ▪ Could this species be a flagship for Russia-Kazakhstan environmental co-operation? 	<ul style="list-style-type: none"> ✓ effective public awareness materials produced and distributed for local population and decision makers ✓ protection of colonies involves local people ✓ WEB-site launched ✓ articles published in magazines, newspapers, journals for general public and scientific community
Training	L	<ul style="list-style-type: none"> ▪ Training for wardens of Sociable Lapwing reserves to provide knowledge in proper protection and habitat management ▪ Training for hunters of some local communities 	<ul style="list-style-type: none"> ✓ wardens of reserves where Sociable Lapwings breed have knowledge to secure colony protection and area management

Migration areas (all range states of the species, including countries of breeding and wintering)

Internat. Objective	Priority	National management options / actions	Measurable objective
Increase knowledge on numerical distribution	H	<ul style="list-style-type: none"> Co-ordinated international actions undertaken (surveys and other sources) to assess numbers and distribution of Sociable Lapwing throughout entire migration area The value of different migration corridors / flyways assessed on the basis of numerical distribution data 	<ul style="list-style-type: none"> ✓ information (database or maps or reports) on numerical distribution of Sociable Lapwings on spring and autumn migration available for decision-making
Inventory of key sites in the whole species range	H	<ul style="list-style-type: none"> All countries involved in co-ordinated international surveys of key areas used by Sociable Lapwings as stopovers Value and protection status of these areas assessed Adequate protection of key revealed sites guaranteed 	<ul style="list-style-type: none"> ✓ all key sites of stopovers during migration known and measures undertaken for their adequate protection
Threat evaluation	H	<ul style="list-style-type: none"> Study of bird mortality reasons Evaluation of human / dog / cattle disturbance on distribution and time budget of birds Study of pesticides accumulation in food chain 	<ul style="list-style-type: none"> ✓ importance of various threats known
Targeted studies on habitat use	H	<ul style="list-style-type: none"> All surveys of the species to include assessments of habitat requirements as integral component Learn about detailed characteristics (soil / vegetation structure, food availability) of high quality habitats of Sociable Lapwing Assessments of the status and extent of occupied versus apparently suitable habitats undertaken 	<ul style="list-style-type: none"> ✓ information on habitat requirements / habitat-related limiting factors available for decision-makers
Adequate enforcement of conservation legislation	M	<ul style="list-style-type: none"> All countries to ensure that species is strictly protected, and That this legal protection is adequately enforced 	<ul style="list-style-type: none"> ✓ sociable Lapwing legally and effectively protected by all Range States
Supplementary studies of population parameters	M	<ul style="list-style-type: none"> Reasons for mortality / number decline on migration assessed and made available to wider audience 	<ul style="list-style-type: none"> ✓ new data obtained and made available
Good quality of habitats	H	<ul style="list-style-type: none"> All range states undertake actions to ensure that the state of habitats occupied by migratory Sociable Lapwings does not deteriorate Habitat management measures undertaken where appropriate Develop a proper management system (moderate grazing on breeding grounds) for protected sites, involving management plans 	<ul style="list-style-type: none"> ✓ extent and quality of habitat ensure stable or increasing numbers of Sociable Lapwings on migration stopovers ✓ management practice developed
Development, endorsement and implementation of National Action Plans	H	<ul style="list-style-type: none"> All Range States to produce National Action Plans for conservation of migratory Sociable Lapwings and its' habitats 	<ul style="list-style-type: none"> ✓ national Action Plans in place and implementation on-going
Public awareness and involvement of local stakeholders	H	<ul style="list-style-type: none"> Public awareness materials produced for different levels of the society (decision-makers, local public in important sites, national governments and NGOs etc.) All range states ensure that no deliberate or accidental harm to birds on stopovers is caused by local public / stakeholders 	<ul style="list-style-type: none"> ✓ effective public awareness materials produced and distributed; species known & taken care for by wider public

Wintering areas (Eritrea, India, Israel, Oman, Pakistan, Sri Lanka).

Currently Israel and India are probably the two most important wintering countries for

the species, although data is extremely scarce, it shows a dramatic decline in numbers. Actions per country have to be amended.

International Objective	Priority	National management options / actions	Measurable objective
Increase of knowledge on numerical distribution	H	<ul style="list-style-type: none"> Co-ordinated international actions undertaken (surveys and other sources) to assess numbers and distribution of Sociable Lapwing throughout entire wintering range The current value of different wintering grounds assessed on the basis of CENSUS data 	<ul style="list-style-type: none"> ✓ information (database or maps or reports) on numerical distribution of Sociable Lapwings/Plovers in winter available for decision-making
Inventory of key sites in the whole winter range of the species	H	<ul style="list-style-type: none"> All countries involved in co-ordinated international surveys of key areas used by Sociable Lapwings/ Plovers as wintering sites Value and protection status of these areas assessed Adequate protection of key sites guaranteed 	<ul style="list-style-type: none"> ✓ all key wintering sites known and ✓ measures undertaken for their adequate protection
Targeted studies on habitat use and restoration possibilities	H	<ul style="list-style-type: none"> All surveys of the species in wintering grounds to include assessments of habitat requirements as integral component Assessments of the status and extent of occupied versus apparently suitable habitats undertaken 	<ul style="list-style-type: none"> ✓ information on habitat requirements / habitat-related limiting factors available for decision-makers
Adequate enforcement of conservation legislation	H	<ul style="list-style-type: none"> All countries to ensure that species is strictly protected, and That this legal protection is adequately enforced 	<ul style="list-style-type: none"> ✓ sociable Lapwing legally AND effectively protected by all Range States
Supplementary studies of population parameters	H	<ul style="list-style-type: none"> Reasons for mortality / number at wintering grounds assessed and made available to wider audience 	<ul style="list-style-type: none"> ✓ knowledge about limiting factors is gained
Good quality of habitats	H	<ul style="list-style-type: none"> All range states undertake actions to ensure that the state of habitats occupied by wintering Sociable Lapwings/Plovers does not deteriorate Habitat management measures undertaken where appropriate 	<ul style="list-style-type: none"> ✓ extent and quality of habitat ensure stable or increasing numbers of Sociable Lapwings/Plovers on wintering
Development, endorsement and implementation of National Action Plans	M	<ul style="list-style-type: none"> All Range States to produce National Action Plans for conservation of wintering Sociable Lapwings/Plovers and its' habitats 	<ul style="list-style-type: none"> ✓ national Action Plans in place and implementation on-going
Public awareness and involvement of local stakeholders	H	<ul style="list-style-type: none"> Public awareness materials produced for different levels of the society (decision-makers, local public in important sites, national governments and NGOs etc.) All range states ensure that no deliberate or accidental harm to birds on wintering grounds is caused by local public / stakeholders 	<ul style="list-style-type: none"> ✓ effective public awareness materials produced and distributed; species known & taken care for by wider public in wintering areas

7 Implementation

General preconditions

For the Action Plan to be successfully implemented, agreement on information exchange, communication and monitoring, clarity on necessary financial resources and a realistic time-schedule are a prerequisite. It is most important that individual countries will only consider measures that might affect the population after a consultation process with the other involved countries has taken place. The UNEP/ AEWA Secretariat and the Technical Committee will play a mediating role.

A special working group under the Technical Committee should be established to co-ordinate the implementation of the Sociable Lapwing Action Plan. In this working group all Sociable Lapwing Range States and interests groups should be represented. The Range States have a responsibility in monitoring national achievements, and communicating these to UNEP/ AEWA Secretariat with the request to disseminate this to the AEWA Threatened Steppe Waders Working Group and other Range States. The population model will be a very important instrument in relation to this monitoring. This chapter will describe these essential preconditions for the implementation of the international Action Plan.

Population model

A population model that shall be based on the current situation of the population and include actual data and parameters: survival estimates for different ages (at least on the basis of similar lapwing species), as well as more general survival estimates derived from population censuses and productivity assessments. This model has to be completed as soon as possible. The population model will be analysed / tested by the Threatened Steppe Waders Working Group under the Technical Committee. The model will be used in preparation of a newer versions of the International Action Plan, and will serve as the basis for further understanding of species population decline and recovery possibilities.

Monitoring

The success of this Action Plan stands or falls with the commitment of countries to monitor the population and habitats, as well as effects of management measures on the species. Only if countries demonstrate this commitment, can proper management decisions be made. All countries are requested to continue and/or initiate a regular population census and monitoring of the population (including productivity/ age ratio censuses) and their habitats, with special attention to monitoring of known regular breeding, stopover and wintering sites. Collected data will be assembled within the BirdLife International World Bird Database and/or Wetlands International IWC (International Waterbird Census framework). The Threatened Steppe Waders Working Group will be vital in organising this monitoring process.

Organisation

In the organisation structure of the AEWA, the Agreement Secretariat plays a key role. The Agreement Secretariat co-ordinates flows of scientific information and technical advice. It also calls for meetings of the AEWA parties. The Technical Committee falls under the Agreement Secretariat. Article VII, paragraph 5 of the AEWA gives the Technical Committee the possibility to install working groups for special purposes. This article can be used for the establishment of a Threatened Steppe Waders Working Group.

Threatened Steppe Waders Working Group

A special Threatened Steppe Waders Working Group under the Technical Committee of the AEWA will be established for implementation of this Action Plan.

The working group shall, under supervision of the Technical Committee and taking into account the role of the Agreement Secretariat, be mandated to undertake the following activities:

- Co-ordinate and facilitate information exchange between Range States (and between the AEWA and the Range States).
- Collect country data and draft annual reports on the implementation of the Action Plan.
- Assist in and co-ordinate the process of National Action Plan preparation.
- Prepare and submit a review of the Action Plan to the triennial Range States' meeting and to the AEWA.
- Monitor implementation of the Action Plan.
- Organise intermediate meetings with groups of Range States (training, emergency measures, etc.)

The working group will call for an emergency meeting with the Range States when;

- Total population size has declined by more than one third in any period of four or less consecutive years; or
- Major changes in relevant habitats, or sudden catastrophes occur within the range of the Sociable Lapwing liable to affect the population further;

The Threatened Steppe Waders Working Group should consist of a team of several technical advisors. To ensure effective communication between the Technical Committee and the working group, at least one member of the Technical Committee should also participate in the working group.

Detailed Terms of Reference based on the above description of activities will be prepared by the Technical Committee, and endorsed by the Range States before the Threatened Steppe Waders Working Group will start its work.

Country actions

In all communication between the Range States (Contracting and Non-contracting Parties) to AEWA, the Agreement Secretariat plays a co-ordinating role. To keep communication lines clear, countries should therefore provide information to the Agreement Secretariat. This is intended to ensure that all parties will get all relevant information. In order to implement the Action Plan, the Range State Countries should commit themselves to at least to the following points:

- Prepare, in co-operation with the working group, and based on chapter 5 and 6 of this International Action Plan a National Action Plan in one year's time.
- Implement this National Action Plan.
- Through the Agreement Secretariat, the working group should be informed about relevant issues in the country.
- Prepare an annual progress report.
- Endorse the Terms of Reference of the working group.
- Endorse this Action Plan.
- Pinpoint focal points, responsible for the communication with the working group and relevant stakeholders in the country.
- Prepare a review of the National Action Plans every three to five years.
- Maintain and further develop adequately funded monitoring programmes to deliver key data.

Time frame for monitoring, evaluation and communication

Time path ⇒1 ^e	1 ^e year ↓	2 ^e year ↓	3 ^e year ↓	4 ^e year ↓
<i>Actions</i>	AEWA Technical Committee: <ul style="list-style-type: none"> • Prepare Terms of Reference for working group • Prepare Action Plan 	Working group: <ul style="list-style-type: none"> • Assist and co-ordinate National Action Plans • Monitor implementation of the (national and international) Action Plans and prepare annual progress report • Facilitate information exchange (WEB-page) • Organise meetings/training • Developing monitoring protocol 	Working group <ul style="list-style-type: none"> • Monitor implementation of the (national and international) Action Plans and prepare annual progress report • Facilitate information exchange • Organise meetings/training • Meeting of the Threatened Steppe Waders Working Group 	Working group: <ul style="list-style-type: none"> • Prepare triennial Range States meeting • Prepare Action Plan review • Monitor implementation of the (national and international) Action Plan and prepare annual progress report • Facilitate information exchange • Organise meetings/training
	Range States: <ul style="list-style-type: none"> • Endorse Action Plan • Endorse Terms of Reference working group 	Range States: <ul style="list-style-type: none"> • Prepare National Action Plan • Implement National Action Plan • Prepare annual progress report • Pinpoint national focal point • Exchange information 	Range States: <ul style="list-style-type: none"> • Implement National Action Plan • Prepare annual progress report • Exchange information 	Range States: <ul style="list-style-type: none"> • Implement National Action Plan • Prepare annual progress report • Exchange information
	↓	↓	↓	↓
<i>Products</i>	<ul style="list-style-type: none"> • Endorsed Action Plan • Endorsed working group 	<ul style="list-style-type: none"> • National Action Plans • Annual progress report Range States • Annual progress report international Action Plan • National Focal Points • Meetings/training • Information exchange 	<ul style="list-style-type: none"> • Annual progress report Range States • Annual progress report international Action Plan • Meetings/training • Information exchange 	<ul style="list-style-type: none"> • Triennial Range States' meeting • Reviewed Action Plan • Three-year report Range States • Three year report internat. Action Plan • Annual progress report Range States • Annual progress report international Action Plan • Information exchange

Terminology

In this Action Plan, the following definitions have been used:

Equilibrium population level = stable level of animal population size, in which birth rate and death rate are equal.

Habitat = environment meeting the conditions required by a particular species.

Natural Habitat = environment of a particular species, which has not been changed by human interference in the recent history; e.g. virgin steppes and semi-deserts.

Semi-natural habitat = environment of a particular species, which has been moderately modified by humans; e.g. steppes used for grazing etc.

Man-made habitat = man-made environment of a particular species; e.g. farmland.

Range States = (independent) countries within the range in which a particular animal species occurs.

Stopover sites (areas) = areas where migratory bird populations stay for a prolonged period of at least several days during the non-breeding part of the year, where the birds can both forage and rest. Usually this term is only applied to so-called staging grounds during autumn and spring migration.

Wintering grounds = staging grounds during the winter.

Key sites = areas which are essential for the survival of a significant part of the population at any stage of its annual cycle; i.e. for this migratory bird species: breeding grounds, staging areas and wintering sites.

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Appendix I: Overview of key sites Per Country.

Site	Habitat-type	Co-ordinates	Area (ha)	(Inter)national designation (since what year)	Peak numbers	Peak month (number of months in use)	Ownership	Management Responsibility
Mouth of Samur River, Russia	Seaside lowland with wetlands	41.52 N, 48.30 E	7,000	natural park (100%)	1985: 100 ind.	P	state	state
Vicinity of Borisoglebovka (Semenovski Zakaznik), Russia	Fields, pasture	51.00 N, 46.45 E	35,000	zakaznik (100%)	1986: 6+ pairs 1996: 0	B	state	state
Kulaksay lowland, Russia	Meadows (pasture)	50.44 N, 55.50 E	5,000		1997: 5 pairs	B	state	state
Kupy area, Russia	meadows, steppes, wetlands	51.14 N, 53.46 E	2,000		1997: 2 pairs	B	state	state
East Manych River valley, Russia	Steppes (pasture)	45.60 N, 44.50 E	7,000		1998: 2 ind. 2000: 10 ind.	VIII VIII	state	state
Blagoveschenskaya, Russia	steppes, wetlands	53.00 N, 80.00 E	71,000	zakaznik (partly)	1998: 10+ pairs 1980-1990: 25+ pairs	B	state	state
Lysyi Liman Lake, Russia	salt-marshes	45.50 N, 44.03 E	3,500	hunting zakaznik	1999: 132+ ind.	P (IX)	state	state
Stepnovski saltmarshes, Russia	Fields, wetlands	50.00 N, 45.45 E	40,000		1998: 10+ ind.	IV	state	state
Bulukhta, Russia	steppes, salt-marshes	49.20 N, 46.10 E	62,500		1998: 32+ ind.	IV	state	state
Naurzum, Kazakhstan	Dry steppes, lakes and patches of forest	51.30 N, 64.30 E	190,700 (87,700 protected)	Strict Nature Reserve (1933) & adjacent areas	30 pairs	IV, V	State	State
Kurgaldzhino, Kazakhstan	Dry Steppes, salinas, lakes, pastures	50.30 N, 70.01 E	237,100 (19826 suitable for breeding)	Strict Nature Reserve (1968)	40 pairs	V	State	State
_____Uzbekistan	Wetlands	39.50 N, 64.52 E	1,500,000	2000	Unknown	4 (III-IV, VIII-IX)	state	state
Makhmudchala Lake, Azerbaijan	Wetland	39.30 N, 48.40 E	8 000		1 bird	?	state	Society of hunters and fishers of Azerbaijan
Kura River estuary, Azerbaijan	Wetland	39.25 N, 49.25 E	15 000		?	?	state	state
Gyzylagach, Azerbaijan	Wetland	39.00 N, 49.00 E	88 000	Strict Nature Reserve (1929)	12 birds	?	state	state

Appendix II
Estimates of the breeding population of Sociable Lapwing, made during Moscow Workshop (2 April 2002)

Region, country	Min, breeding pairs	Max, breeding pairs
<i>Russia:</i>		
Orenburg region	50	70
Altaisky kray	10	50
Kurgan region	0	1
Chelyabinsk region	0	1
Novosibirsk region	1	3
Omsk region	0	1
<i>Kazakhstan</i>		
West-Kazakhstan region	10	50
Aktyubinsk region	10	50
Kustanay region	30	70
North-Kazakhstan region	10	50
Akmolinsk region	30	70
Pavlodar region	10	50
East-Kazakhstan region	5	25
Karaganda region	5	25
<i>Total</i>	171	516