

Assessment of gaps and needs in migratory mammals conservation in Central Asia

Executive Summary

Report prepared for the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Financed by the Ecosystem Restoration in Central Asia (ERCA) component of the European Union Forest and Biodiversity Governance Including Environmental Monitoring Project (FLERMONECA).

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Executive summary

This assessment of gaps and needs of migratory mammal conservation in Central Asia aims to support the development of the Central Asian Mammals Initiative (CAMI) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). In order to develop and enhance synergies for a strengthened CMS implementation in the region it is recommended that the purpose of and justification for an additional instrument, such as the Programme of Work under the CAMI, should be to serve as a:

- i) Guiding framework to support the integration of missing aspects in already existing work programmes and action plans of the various stakeholders and initiatives
- ii) Coordination mechanism, highlighting and prioritising gaps on a regional scale
- iii) Platform for enhanced knowledge exchange and the promotion of synergies
- iv) Tool for fundraising

The findings of this assessment will be discussed at the 18th Scientific Council Meeting (1-3 July 2014, Bonn, Germany) and will inform the preparation of a Programme of Work which will be presented for adoption at the 11th Conference of the Parties to CMS (4-9 November 2014, Ecuador).

This process is financed and supported by the Government of Switzerland and the European Union within the framework of the Ecosystem Restoration in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) component of the European Union Forest and Biodiversity Governance including Environmental Monitoring Project (FLERMONECA), which is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

The context

The vast semi-deserts and grasslands of the Central Asian region, encompassing Afghanistan, Bhutan, western China, northern India, the Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, parts of the Russian Federation, Tajikistan, Turkmenistan and Uzbekistan, support one of the world's last remaining areas for large mammal migrations. Aggregated migrations in the region occur in species such as saiga *Saiga* spp., Mongolian gazelle *Procapra gutturosa*, chiru *Pantholops hodgsonii* and kulan *Equus hemionus* (Harris *et al.* 2009) while a range of other species conducts long-distance migrations regularly or on occasion, such as wild camel *Camelus bactrianus*, cheetah *Acinonyx jubatus* and snow leopard *Uncia uncia*. Facing varying environmental conditions across space and time defining habitable areas, and fluctuating ecological requirements, these species depend on moving freely over long distances and across international borders. They follow seasonal and shifting patterns of green vegetation over large expanses of deserts, steppes and grasslands and escape snow, predators and parasitic insects. Their cyclical grazing has positive effects on grassland forage and ecosystem processes.

CMS is concerned with species of wild animals that move across national boundaries, defining migratory species as “the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries” (CMS 1979).

Parties to CMS recognise that the populations of many Eurasian migratory mammals and the ecosystems in which they live have an unfavourable conservation status, and the maintenance/restoration of their habitats are a crucial area of action for CMS (UNEP/CMS/Recommendation 9.1). Several of these species are already included in the Appendices of the Convention (see below). The Secretariat already works together with many countries and organisations to support their conservation, *inter alia*, through the Memoranda of Understanding (MoU) Concerning Conservation and Restoration of the Bukhara Deer (Bukhara deer MoU) and the MoU Concerning Conservation, Restoration and Sustainable Use of the Saiga Antelope (Saiga MoU). For the successful management of these species throughout their ranges international collaboration is required leading to the proposal for the CAMI. The CAMI aims to provide a coherent strategy for improving the long-term

conservation status of migratory mammals and their habitat in Central Asia by strengthening regional cooperation and the implementation of the Convention in the region.

Further, the CAMI is in line with current strategic developments at CMS, namely the Future Shape Process. The elaboration of new instruments under the aegis of CMS should take into account the outcomes of this process.

The CMS Central Asian Mammals Initiative

In 2005, at the Eighth Meeting of the Conference of the Parties to the CMS (COP8) the Scientific Council was requested, in cooperation with the UNEP/CMS Secretariat, Mongolia and other concerned Parties to initiate the Central Eurasian Aridland Concerted Action and Associated Cooperative Action (UNEP/CMS/Recommendation 8.23); the Action was adopted at COP9 (UNEP/CMS/Recommendation 9.1) in 2008. Recommendation 9.1 foresees the development of an Action Plan and status reports for all species concerned while taking into account, and linking to, other existing Convention instruments as well as actions already taken by Range States and Convention partners. It encourages the Secretariat to pursue efforts to bring Range States of the central Eurasian fauna that are not yet Parties into the Convention, and to liaise with other concerned Conventions to enhance synergies. Further, it appeals to Range States and other interested countries to support the development of an MoU or other binding or non-binding instruments to complement the Action.

In 2011, the Secretariat prepared a draft Central Eurasian Aridland Mammals Action Plan (UNEP/CMS 2011a), intended to stimulate discussion and identify further action needed to finalise the document in consultation with Range States and other stakeholders, and to agree on next steps towards its implementation. The document was discussed at the 17th Scientific Council Meeting in 2011 (UNEP/CMS 2011I), and has become the basis for developing a coherent strategic framework for the conservation of migratory mammals in the Central Asian region: the Central Asian Mammals Initiative (CAMI).

Methodology

This assessment is based on a review of relevant literature, and the results of a stakeholder survey conducted in 10 target countries (see below). The survey targeted key government representatives including CMS National Focal Points, CMS Scientific Councillors, CMS MoU Focal Points, Action Plan Contact Points and/or other authorities relevant for the conservation and management of migratory mammals. Further national and international non-governmental organisations, scientific institutions and experts were invited to contribute.

The survey consisted of three parts: i) an assessment of current threats to selected species, ii) current conservation measures taken by governmental and non-governmental stakeholders, and iii) gaps and needs for the conservation of migratory mammals in Central Asia, and options for enhanced synergies.

The survey was conducted in the form of online questionnaires and face-to-face interviews held by the GIZ coordinators of the ERCA component of the EU FLERMONECA project in the countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Further interviews were held with single stakeholders upon request.

Priority species and geographical scope

For this assessment a set of priority species was selected, which is open for discussion among the stakeholders, as is the selection of the initial ten countries considered by this survey (see below). The CAMI is open to all large mammal species that would benefit from a transboundary approach to conservation and management.

The criteria for selecting the species were chosen as follows, resulting in 14 priority species (Latin species names follow the taxonomy of Wilson & Reeder (2005), which is used by the CMS as reference and differs for some species from the taxonomy used by the International Union for Conservation of Nature IUCN Red List):

- i) Listing on the Appendices of CMS
 - Appendix 1:** Bukhara/Yarkand deer *Cervus elaphus yarkandensis* (also listed on Appendix II), wild camel *Camelus bactrianus*, wild yak *Bos grunniens*, snow leopard *Uncia uncia*, cheetah *Acinonyx jubatus*
 - Appendix 2:** saiga *Saiga tatarica* and *S. borealis mongolica*, argali *Ovis ammon*, Mongolian gazelle *Procapra gutturosa*, goitered gazelle *Gazella subgutturosa*, kulan *Equus hemionus*, kiang *Equus kiang*
- ii) Other long distance migrants of Central Asia not yet listed under CMS: chiru *Pantholops hodgsonii*
- iii) Species which have transboundary populations (today or possibly in the future due to range expansion) and have more or less the same range as species listed above: Przewalski's horse *Equus caballus przewalskii*, Tibetan gazelle *Procapra picticaudata*

The distribution of the selected priority species defined the geographical scope of this assessment. Of prime importance were countries already involved in CMS instruments (MoUs, Action Plans) such as the five countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, the common political history of which has resulted in wildlife management approaches that are still similar to a large extent. Other countries included Afghanistan, China (particularly Qinghai, Tibet, Xinjiang, Gansu, and Inner Mongolia), the Islamic Republic of Iran, Mongolia and the Russian Federation. Several of the selected species also occur in Bhutan, India, Nepal, and Pakistan however, with only few exceptions, these populations are small. Nonetheless, the CAMI explicitly invites other Central Asian countries to contribute to the process and join the Initiative if interested.

Species assessment

Of the species selected, three are listed as Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List: wild camel, the Asian subspecies of cheetah, and saiga antelope; four are listed as Endangered: snow leopard, kulan, chiru and Przewalski's horse; two as Vulnerable: wild yak and goitered gazelle; two as Near Threatened: argali and Tibetan gazelle; and two as Least Concern: Mongolian gazelle and kiang. The Bukhara/ Yarkand deer is not listed on the subspecies level (Least Concern on species level).

Highly mobile long distance migrants include saiga, Mongolian gazelle, kulan, chiru, and wild camel, while cheetah and snow leopard undertake long-distance movements on occasion. Those making shorter migrations/ movements (to our current knowledge), which however would critically benefit from transboundary cooperation, include argali, Bukhara/ Yarkand deer, goitered gazelle, and Przewalski's horse. While Tibetan gazelle, kiang and wild yak are relatively sedentary, cross-border movements do exist within some populations of these three species; however, populations outside China are small, making transboundary cooperation less relevant for their conservation.

State of species knowledge and commonalities of threats

The knowledge available on the assessed species varies considerably. Reliable knowledge seems to be available for the reintroduced and intensely studied Przewalski's horse throughout its range. Fairly good knowledge on most or all populations was reported to exist for Bukhara/ Yarkand deer, saiga antelope, Mongolian gazelle, and to a lesser extent for kulan/ onager and argali. Knowledge on goitered gazelle, snow leopard and cheetah is patchy and even bigger gaps exist for wild camel, wild yak, chiru, kiang and Tibetan gazelle. Of all categories assessed, for most species factors driving movements seems to be least understood.

Threats receiving the highest scores by respondents combined for all species were habitat loss, degradation and fragmentation caused by livestock grazing/ grazing competition, overgrazing and barriers to migration. Other important factors causing habitat loss were human presence and disturbance and industry and infrastructure development. Particularly for highly mobile, long-distance migrants, barriers to movements were assessed to represent high or critical threats. Habitat loss caused by industry and infrastructure development was assessed as critical for Mongolian

gazelle and wild camel; loss of habitat caused by livestock grazing/ grazing competition was critical for the Przewalski's horse.

Illegal hunting ranked high for all species; although ranking lower overall, illegal international trade was assessed as high threat for several species (cheetah, snow leopard, saiga, Mongolian gazelle). Also high ranking was drought, alongside with severe cold/ snow and disease/ mass mortality. Other critical threats for single species included interbreeding between wild and domestic species (wild camel and wild yak), low offspring recruitment (wild camel), retribution killings (cheetah) and depletion of wild prey (cheetah and snow leopard).

Habitat

The most important habitat types (following the World Wide Fund for Nature's definition of ecoregions) for migratory mammals in Central Asia are deserts and xeric shrublands, temperate grasslands and shrublands, montane grasslands and shrublands and temperate coniferous forests. Several of these ecoregions have been identified as Global 200 sites whose biodiversity features are distinct and irreplaceable or which were considered the best example of a biome within a realm. These include the western Himalayan temperate forests in Afghanistan, India, Nepal and Pakistan; the Altai-Sayan montane forests in China, Kazakhstan, Mongolia and the Russian Federation; the Daurian steppe in China, Mongolia and the Russian Federation; the Qinghai-Tibet Plateau steppe in Afghanistan, China, India, Pakistan and Tajikistan; the middle Asian montane steppe and woodlands in Afghanistan, China, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan; the eastern Himalayan alpine meadows in Bhutan, China, India, Myanmar and Nepal; and the Central Asian deserts in Kazakhstan, Kyrgyzstan, Uzbekistan and Turkmenistan.

Stakeholder review

A multitude of stakeholders work on or deal with issues relevant to the conservation of migratory mammals in the Central Asian region and a large number of frameworks, instruments and initiatives exist, with a lot of thematic overlap. Besides responsible governmental departments, non-governmental stakeholders, such as international donors, United Nations organisations, international conventions, national and international organizations, national and international scientific institutions provide support to the implementation of a range of national and international programmes and initiatives of relevance to the conservation of migratory mammals.

A vast number of national and international corporations work in the extractive industry and associated infrastructure sector, which are major stakeholders in forming the future of migratory mammals in the region. Besides large industrial mining often led by international corporations, the impact of small scale artisanal mining, e.g. for gold, should not be overlooked.

Several multilateral and multi-donor regional transport infrastructure development initiatives are underway aimed at modernising and expanding the transport network of the Central Asian region with potential negative impacts for migratory mammals. Heavy used roads and railroads (particularly when fenced) threaten the connectivity of critical habitat and cause barriers to movements. New roads and railroads make previously remote and often inaccessible land reachable, encourage the establishment of new settlements and facilitate illegal hunting and trade of endangered wildlife.

Another important stakeholder of the private sector is the tourism industry, including national and international trophy hunting companies. Community based ecotourism can generate sustainable income from consumptive (i.e. sustainable hunting) and/or non-consumptive use (e.g. photo-tourism) of wildlife or pristine landscapes and thus provide an incentive for their conservation.

Review of current management and conservation instruments

Stakeholders have developed a range of instruments, which support the conservation of migratory mammals, which partly overlap in scope and provide opportunities for synergies. Besides the CAMI, three instruments exist under CMS addressing Central Asian mammals listed on CMS Appendices, namely the Bukhara Deer and Saiga MOUs and the Argali Action Plan. Several other instruments have been developed under other Multilateral Environment Agreements (MEAs), such as the Convention

on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, and United Nations Convention to Combat Desertification.

In addition, there are various national species-specific conservation strategies, bi- and multilateral agreements on the transboundary management of certain species, and protected areas which are of relevance to the conservation of migratory mammals in Central Asia. Three multilateral initiatives covering several of the assessed countries are the Regional Environmental Action Plan for Central Asia, the Aral Sea Basin Programme, and the Global Snow Leopard and Ecosystem Protection Program.

Further, international financial institutions, the private sector, government agencies and civil society organisations have developed a series of performance standards and principles for avoiding, mitigating, restoring and offsetting negative impacts from development.

Commonalities of conservation measures

According to the stakeholder survey results, saiga, snow leopard and argali seem to receive the greatest attention by non-governmental stakeholders, whereas the countries of Kazakhstan, Mongolia, Tajikistan and Kyrgyzstan seem to attract the majority of organisations.

The majority of stakeholders reported conducting research on species population monitoring; second ranking was research on species biology for governmental representatives and on the socio-economic background for non-governmental respondents, the latter representing a sharp difference between the two groups. Less attention by both groups was paid to research on climate change impacts on species and on local people.

A large number of stakeholders reported conducting awareness raising and education targeting the general public; only targeting governmental authorities ranked higher in the group of non-governmental respondents. Targeting adults in local communities ranked higher than targeting children while it seems in relation, governments pay greater attention to the private sector compared with non-governmental stakeholders.

In the group of governmental respondents, measurements taken to support law enforcement focused rather evenly on rangers, police, border security, customs and local communities, while in the responses received from non-governmental stakeholders, there were distinct differences. The majority reported supporting and collaborating with rangers and local communities versus the remaining groups.

Both governments and non-governmental respondents seem to focus much of their capacity development efforts on science, legislation and protected areas; science was clearly favoured by non-governmental stakeholders. Great attention was further given to supporting sustainable livestock grazing, mitigation of human-wildlife conflicts and of impacts from industry and infrastructure development. Also high ranking among non-governmental respondents was capacity support for sustainable hunting. Similar to the results obtained for research, comparably little emphasis seems to be placed on supporting climate change adaptation for local communities and species.

While the majority of non-governmental stakeholders reported supporting sustainable livelihoods for communities, this was the area receiving least attention from governmental respondents in the category of community support. Other conservation measures, such as captive breeding, and translocation and reintroduction, were reported to be taken by comparably few stakeholders.

Financial means

Information on annual governmental funding for 2013 allocated to migratory mammal conservation in Central Asia was received from Afghanistan, the Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. Outstanding was the investment of Kazakhstan in saiga conservation with a reported annual budget of US\$ 4,500,000. Financial means for other species, such as kulan, goitered gazelle, Bukhara deer and argali were in the range of approx. US\$ 440,000 per species. The reported amounts in other countries were as follows: Tajikistan – US\$ 700,000 for argali, US\$

200,000 for the National Park of Tajikistan and Zorkul Nature Reserve, US\$ 150,000 for Bukhara deer; Afghanistan – US\$ 100,000 for argali and US\$ 190,000 for snow leopard; Kyrgyzstan – US\$ 100,000 not allocated to a particular species; Islamic Republic of Iran – US\$ 25,000 for cheetah and US\$ 10,000 for kulan; Uzbekistan – US\$ 20,000 for saiga.

From non-governmental stakeholders, information on their 2013 budget totalled US\$ 4,100,000 for all organisations and countries combined. From this amount Kazakhstan received the largest share of financial support, totalling US\$ 950,000 mainly supporting work on saiga conservation.

Obstacles and successes/ supporting factors

Key obstacles identified by respondents of the stakeholder survey included illegal hunting and trade, competition with livestock and overgrazing, economic development/ industry and infrastructure development, weak law enforcement and low human and institutional capacity, insufficient transboundary cooperation and communication, socio-economic drivers, poor governance and lack of legal security, and poor scientific knowledge on migratory mammals.

As successes and supporting factors respondents mentioned the positive engagement of local communities in conservation efforts, good cooperation, networking and improved communication between stakeholders, increased efforts in research and the integration of findings in decision-making processes, improved/ revised and elaborated legal frameworks, increased efforts and investment in targeted law enforcement, governmental interest and willingness to invest in conservation and collaboration (also transboundary), increased public and international awareness of and advocacy for migratory mammal conservation, and successful attempts to develop economic incentives for species conservation.

The assessment of the legal framework revealed a series of gaps in relevant legislation. Of particular concern were issues with legislation concerning hunting, livestock grazing, industry and infrastructure development and the involvement of communities. Harmonisation of national legislation with relevant international conventions was regarded as insufficient. However, several countries mentioned their legislation on varying issues is currently under revision and the majority of respondents expected positive changes.

The role of CMS

The vast majority of respondents supported and welcomed the role CMS plays in fostering a transboundary dialogue and also saw a role for the Convention in fostering dialogue with the private sector, supporting the development of best practice guidelines/ training manuals in local languages, and the revision of legal frameworks. However, some raised concerns over whether the capacity of CMS in terms of funding, staffing and political influence was enough to make a meaningful contribution and questioned if this would make best use of what the Convention has to offer.

A particular strength of CMS was seen in its neutral role of convening meetings to provide a platform for inter-governmental discussions. However, CMS requirements were often poorly translated into national legislation and representation in the region was considered weak. Some respondents proposed to put in place national CMS representatives to support close and regular communication and collaboration. The lack of an institutional presence in regions where the Convention works was also raised as an issue during the CMS Future Shape Process. Several options were proposed during the Process to enhance CMS' global presence among others by increasing synergies with other relevant MEAs and institutions and by developing its local presence in the regions.

Options for enhanced synergies

Frequently mentioned options for enhanced synergies between the various governmental and non-governmental stakeholders included the implementation of joint actions, regular themed technical workshops, exchange visits between countries, and the establishment of a communication platform/ coordination mechanism for conservation measures.

Several information sharing portals concerning migratory mammals in Central Asia have been recently established or are under development with mixed results. As a database is only as good as

the information that is fed into it, stakeholders would need to be willing to commit to an extra burden of reporting if a further platform were established under the CAMI. If it is not being kept up-to-date it will likely lose attention very quickly. Language barriers cause additional difficulties in maintaining an international database and keeping it relevant for all users. Other, more simple options suggested by respondents, would be electronic mailing lists which have proven to be successful in sharing information elsewhere.

Conclusion

A multitude of stakeholders work on conserving migratory mammals in the Central Asian region and a large number of frameworks, instruments and initiatives exist. Highly motivated and enthusiastic individuals from governments, scientific, national and international organisations invest in a myriad of projects often collaborating closely on the ground and beyond national borders. A lot has been learned from past work and good expertise and experience in conservation measures is available for the region. Progress has been achieved in some fields, and promising engagement has been made with non-environmental sectors, such as customs, border security, the private sector, and not least local communities.

However, there is a lot of thematic overlap in responsibilities of MEAs and the scope of work of governmental and non-governmental organisations. While this encourages different approaches to tackle issues from varying angles, there is a need to enhance the sharing of lessons learned, successes as much as failures, combine strengths from various sectors (also non-environmental, such as the sustainable development and animal husbandry sectors) and upscale.

Being situated under the auspices of UNEP, in conjunction with other MEAs, CMS is well placed to lobby for and influence higher level decision making, such as at the WTO and/or other UN organisations. Non-governmental stakeholders play an important role for supporting localised conservation measures. Ultimately however, the conservation of migratory mammals in Central Asia requires a strong commitment from governments for concerted action on the scale required.