



**CONVENTION ON  
MIGRATORY  
SPECIES**

Distribution: General  
UNEP/CMS/Concerted Action 12.8  
Original: English

**CONCERTED ACTION FOR THE ASIAN POPULATION OF THE GREAT BUSTARD  
(*Otis tarda*)**

Adopted by the Conference of the Parties at its 12<sup>th</sup> Meeting (Manila, October 2017)

<p><b>A. Proponent</b> The Government of Mongolia, in collaboration with the Eurasian Bustard Alliance and the Wildlife Research and Conservation Center of Mongolia.</p>	
<p><b>B. Target species/population(s), and their status in CMS Appendices</b> Taxonomy Class: Aves Order: Otidiformes Family: Otididae Genus: <i>Otis</i> Species: <i>Otis tarda</i> Subspecies: Two recognized subspecies, both occurring in Asia: <i>Otis tarda dybowskii</i> and <i>Otis tarda tarda</i></p>	
Parties and Range States in Asia where the Concerted Action will be implemented (CMS Parties are shown in capital letters)	IRAN (ISLAMIC REPUBLIC OF), MONGOLIA, KAZAKHSTAN, KYRGYZSTAN, TAJIKISTAN, UZBEKISTAN, Turkmenistan, China and the Russian Federation.
Status in Red List and in CMS Appendices (I or II)	<p><u>IUCN Red List</u>: Vulnerable A2cd+3cd+4cd ver 3.1 <u>CMS Appendix I and II</u> Added to Appendix II in 1985 and Appendix I at COP4 (1994) (only central European populations). The global population was included in Appendix I at COP11 (2014). A Memorandum of Understanding (MOU) on the Conservation and Management of the Middle-European Population has been effective as of 2001. No CMS instrument exists for Asian populations. <u>Population size</u>: The estimated global population ranges between 44,000 and 57,000 individuals. The majority of which (57-70%) occur in Spain, with an additional 15-25% in European Russia along the lower Volga River (J. C. Alonso &amp; Palacín, 2010). Only approximately 2,000-3,500 Great Bustards survive in Asia</p>
<p><b>Migration patterns</b> The range of the Great Bustard stretches from Manchuria to the Iberian Peninsula. Great Bustards in the Iberian Peninsula are sedentary or make short seasonal movements of up to 200 km (J. A. Alonso, Martín, Alonso, Morales, &amp; Lane, 2001). Great Bustards in Central Europe are generally sedentary, but migrate irruptively to the south during severe winter conditions (Block, 1996; Streich, Litzbarski, Ludwig, &amp; Ludwig, 2006). Great Bustards breeding along the lower Volga River migrate 1,000 km to overwinter in Ukraine (Oparina, Litzbarski, Oparin, Vatske, &amp; Khrustov, 2001; Watzke, 2007). In the past, Great Bustards breeding in Kazakhstan and western Russian Siberia overwintered in large numbers in Turkmenistan, Azerbaijan and north-east Iran. Sightings in these countries are now uncommon (Kessler and Smith 2014). The eastern subspecies, which breeds in Mongolia, eastern Russia, and north-east China, is fully migratory, though a small number of older males may overwinter on breeding grounds if there is no snow cover. In north central Mongolia, females migrate 2,000 km over the course of four months to wintering grounds in central China (Kessler <i>et al.</i> 2013).</p>	

### C. Activities and expected outcomes

Great Bustard populations in Asia are proposed for Concerted Action under CMS in Mongolia and other Asian Range States for the triennium 2018-2020. This highly migratory species faces many threats across the migration range, including illegal hunting, poisoning, collisions with overhead cabling, poor reproductive rates, increasing isolation of breeding populations, agricultural intensification, and habitat loss.

The Concerted Action was discussed during the Conference “Advancing the Conservation of the Great Bustard in Asia” that took place in Ulaanbaatar (Mongolia) in May 2017, which reviewed the species’ status and initiated the updating of the Action Plan published in 1998.

After this initial meeting, rotating meetings of Asian Range States should be established to coordinate and oversee activities, discuss best practices, and guide through the process of implementation of the concerted action. The periodicity of these meetings is still to be agreed. China has offered to host the next meeting in 2018.

#### Activities

The main activity under the Concerted Action will be to update the existing Action Plan dating from 1998 and produce a revised, updated version ready for adoption at COP13.

Other actions envisaged include:

- (i) Ensure the enforcement of laws to stop illegal hunting especially in areas where the Great Bustard breeds, gathers for migration, and overwinters
- (ii) Establish communication between game wardens or protected area employees concerning movement of Great Bustard populations between countries
- (iii) Educate local communities, city dwellers, farmers and international hunters about the importance of conserving the Great Bustard
- (iv) Involve local people in conservation actions
- (v) Reduce mortality due to collisions
  1. Mark or bury troublesome power lines
  2. Institute planning procedures to consider Great Bustard mortality when siting wind turbine developments
- (vi) Establish new protected areas at breeding grounds, key stopover sites, and wintering grounds
  1. Prevent habitat destruction
  2. Encourage agricultural practices that are friendly to Great Bustards
  3. Prevent poaching
  4. Plan a conservation site network with consideration to maintain gene flow and juvenile dispersal
- (vii) Enlarge and upgrade existing protected areas
  1. Mitigate habitat fragmentation
  2. Improve anti-poaching enforcement
  3. Establish agricultural practices that are friendly to Great Bustards
- (viii) Conduct research on Great Bustards and their habitats
  1. Undertake field surveys to identify lek sites, including surveys of hunters and farmers.
  2. Continue monitoring studies to establish accurate population numbers and trends
  3. Continue satellite tracking to improve understanding of migratory routes, key stopover points, leks, reproductive success and adult mortality
- (ix) Develop and promote compatible agricultural methods
  1. Develop guidelines for timing of agricultural machinery use to minimize destruction of nests and chicks
  2. Encourage the reduction of agricultural chemical use, that destroys Great Bustard’s insect food base
  3. Eliminate use of chemicals that poison Great Bustards
  4. Discourage agricultural irrigation in areas where Great Bustards nest
  5. Financial subsidies and incentives for low-intensity agriculture may be necessary due to the harsh growing season
- (x) Prevent damage to nests due to steppe fires
- (xi) Enforce rules against poisoning of wildlife and sale of illegally-obtained wild meat
- (xii) Increase reproductive success by preventing the loss of eggs and chicks to predators.

<p><b>Expected Outcomes</b></p> <ul style="list-style-type: none"> <li>- Improve knowledge on the status of the Asian Great Bustard</li> <li>- Establish a network of experts across the region</li> <li>- Have a better understanding of threats</li> <li>- Promote transboundary cooperation</li> <li>- Stop and reverse population decline</li> </ul>
<p><b>D. Timeframe</b></p> <p>Concerted Action should commence immediately with cooperation among CMS Parties and non-Party Range States. Main dates are:</p> <p>May 2017. Conference in Ulaanbaatar</p> <p>July 2017. Discussion of Concerted Action at Sessional Committee of Scientific Council in Bonn</p> <p>October 2017. Approval of Concerted Action at COP12 in Manila</p> <p>2018. New conference to review progress, hosted by China</p> <p>2019. Update on progress discussed at Sessional Committee of Scientific Council</p> <p>2020. Review and extension of concerted action at CMS COP13, submission of Action Plan for adoption at COP13</p>
<p><b>E. The case for action, based on:</b></p> <p>(i) Conservation priority</p> <p>The Asian Great Bustard has shown continued decreasing population trends particularly in Asia and therefore has been identified as a priority for conservation action and is listed as vulnerable by IUCN. This species is also listed on CMS Appendix I, which includes an obligation to protect its habitat. In the past, international trade in Great Bustard feathers resulted in the listing of this species on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This trade has largely been halted. It is also listed on Annex I of the European Union's Birds Directive which has supported the designation of protected areas (CMS, 2014).</p> <p>This species has suffered rapid population reductions across most of its range owing to the loss, degradation and fragmentation of its habitat, as well as hunting. Hunting in Central and East Asia results in high rates of adult mortality. Land-use changes in the Russian Federation and Central Asian States may be having a significant impact on the species and the extent of its remaining habitat, such that it is likely to continue declining at a rapid rate over the next three generations. Population viability analysis has shown that the Great Bustard extinction risk is most sensitive to the survival of females and productivity.</p> <p>The main threats are:</p> <ul style="list-style-type: none"> <li>• <u>Mortality due to illegal hunting and poisoning</u></li> <li>• <u>Disruptive agriculture decreasing reproductive success</u></li> <li>• <u>Power lines, wind turbines and infrastructure causing collision</u></li> <li>• <u>Decreasing food availability due to agricultural chemical use</u></li> <li>• <u>Habitat fragmentation and loss at breeding sites</u></li> <li>• <u>Habitat fragmentation and loss at non-breeding sites</u></li> <li>• <u>Increasing human disturbance</u></li> </ul> <p>(ii) Relevance</p> <p><u>Threats are connected especially with migration.</u> In Asia, the Great Bustard is migratory with a large range stretching from Russia and Manchuria in the north, through Mongolia and Kazakhstan to southern wintering ranges in Azerbaijan, Iran, Turkmenistan, and central China. The long distances migrated by the Great Bustard in Asia, its propensity to make multiple migratory stopovers, and nomadic movements on stopovers and wintering grounds, expose the species to threats over a large spatial scale such as collisions, hunting and poisoning (Andryushchenko &amp; Popenko, 2012; Chan &amp; Goroshko, 1998; Oparin, Kondratenkov, &amp; Oparina, 2003; Yan, 1982) Conservation efforts must be applied across the migratory range to achieve population increases. <u>The conservation of the species can only be secured through multilateral action.</u></p> <p>The proposed actions will link to the African-Eurasian Migratory Landbirds Action Plan (AEMLAP), a CMS instrument under which the Great Bustard is listed in Category A. An existing MOU on Conservation of the Great Bustard, signed in 2001 and overseen by CMS, is in place for the Middle European subpopulation.</p>

<p>(iii) Absence of better remedies</p> <p>As populations are experiencing declines due to threats across the migration range, cooperation between range states is required. A collaborative effort is necessary to encourage timely engagement of CMS Parties, together with non-Party Range States, to coordinate and increase conservation actions. CMS provides a neutral intergovernmental platform and framework for conservation action otherwise lacking between Asian Range States.</p>
<p>(iv) Readiness and Feasibility</p> <p>Mongolia has shown initiative as a lead country for the coordination of conservation of the Great Bustard through initiation of the proposal to list global populations on CMS Appendix I at COP11. Central Asian States have shown willingness to coordinate joint action to conserve migratory mammals through the Central Asian Mammals Initiative (CAMI), which includes participation of non-Party Range States. A similar approach should be followed with the Great Bustard.</p>
<p>(v) Likelihood of success</p> <p>The proposed research activities are straightforward, feasible activities to develop effective monitoring schemes. The vastness of survey areas, poor monitoring, inadequate capacity in the countries and a lack of data pose challenges that require cooperation to overcome. Bringing together the main experts will ensure a good diagnosis of threats.</p> <p>The likelihood of success increases when the actions are linked with other organizations. The Eurasian Bustard Alliance, Wildlife Science and Conservation Center of Mongolia and Ornithology Laboratory of the Mongolian Institute of Biology have conducted extensive research on the central Mongolian populations of Great Bustard, contributing a base of knowledge, establishing research methods, and carrying out public outreach. The Trust for Mutual Understanding donated funding to organize the meeting in Ulaanbaatar in 2017 to agree on conservation actions for the Great Bustard under the framework of CMS and initiate revision of the Action Plan.</p>
<p>(vi) Magnitude of likely impact</p> <p>If correctly implemented, the Concerted Action Plan can have significant impact, resulting not only in the conservation of the Great Bustard, but of broader steppe and agricultural landscape biodiversity. The Great Bustard can be portrayed as an umbrella species and actions will contribute to improvement of steppe biodiversity.</p> <p>Other impacts of concerted action may include;</p> <ul style="list-style-type: none"> <li>• Improvement of anti-poaching enforcement, which will have knock-on effects for other species</li> <li>• Improvement of knowledge data quality and monitoring</li> <li>• Improvement of local and regional capacity to implement conservation measures</li> <li>• Access to more funding as government priority for the species increases</li> <li>• Sharing of knowledge and techniques</li> <li>• Establishing a network of experts</li> </ul>
<p>(vii) Cost effectiveness</p> <p>Any funding that could be channeled to conservation of priority habitat in China, Mongolia, the Russian Federation or Kazakhstan (for example, through bilateral migratory bird agreements) would contribute to conservation efforts in those countries, although it will be necessary to identify where the funding would be most cost effective. Concerted action will promote cost effectiveness by avoiding the duplication of work or effort by one range state without corresponding action by neighbouring States. Synergies with AEMLAP will not only multiply the scale of impact but also minimize costs.</p>
<p>(viii) <b>Associated benefits</b></p> <ul style="list-style-type: none"> <li>• Prevention of steppe fires: not only to save wildlife but also human lives and properties</li> <li>• Prevention of pollution and poisoning: this will not only protect wildlife but also human beings and livestock</li> <li>• Measures to mitigate collisions with power lines and wind turbines will also benefit other avian species</li> <li>• Designation of protected areas and habitat management will also benefit other wildlife</li> <li>• By involving local communities, more sustainable conservation solutions can be reached</li> </ul>

(ix) Relationship to other CMS actions
<p>A Memorandum of Understanding on the Conservation and Management of the Middle European Population of Great Bustard came into force on 1 June 2001. The 4<sup>th</sup> Meeting of Signatories (MOS4) is scheduled to be held in Germany in 2018. Lessons learned from this MOU can be applied to Asian Great Bustard, and vice versa.</p> <p>The Concerted Action Plan will contribute to the goals and listed actions of AEMLAP which aims to improve the conservation status of migratory landbird species in the African-Eurasian region through international coordination for these species, and catalyzing necessary actions at the national level. Another CMS plan, the Central Asian Mammals Initiative (CAMI), has similar objectives of achieving trans-boundary cooperation for habitat protection, migration corridors and fighting poaching.</p> <p>Implementing the Concerted Action on Asian Great Bustard will contribute to the Strategic Plan for Migratory Species (SPMS) and in particular to Targets 3, 5, 6, 7, 9, 10, 13 and 15.</p>

## References

- African-Eurasian Migratory Landbirds Action Plan (AEMLAP), CMS, 11<sup>th</sup> Meeting of the Conference of the parties, Quito Ecuador, Nov. 2014.
- Alonso, J. A., Martín, C. A., Alonso, J. C., Morales, M. B. and Lane, S. J. 2001. Seasonal movements of male great bustards in central Spain. - *J. F. Ornithol.* 72: 504–508.
- Alonso, J. C.; Palacín, C. 2010. The world status and population trends of the Great Bustard (*Otis tarda*): 2010 update. *Chinese Birds* 1(2): 141-147.
- Andryushchenko, Y. A. and Popenko, V. M. 2012. Birds and power lines in steppe Crimea: positive and negative impacts. - *Пернатные хищники и их охрана [Raptors their Conserv.* 24: 34–41.
- Antonchikov, A. N. 2008. The great bustard. In: Zubakin, V. and Lubimova, K. (eds), *Rare avian species in the Important Bird Areas of Russia*, pp. 45-50. Russian Bird Conservation Union, Moscow.
- Antonchikov, A. N. 2011. *Conservation of the great and little bustards in Volgograd region*. Nauchnaya kniga, Saratov, Russia.
- BirdLife International. 2016. *Otis tarda*. The IUCN Red List of Threatened Species 2016: e.T22691900A90337411. <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22691900A90337411.en>.
- Chan, S.; Goroshko, O. 1998. *Action plan for the conservation of the Great Bustard*. BirdLife Asia, Tokyo.
- CMS (2014). Proposal for Inclusion of the Global Population of the Great Bustard (*Otis tarda*) in CMS Appendix I, 11<sup>th</sup> Meeting of the Conference of the Parties, Quito Ecuador, Nov. 2014.
- Heredia, B., Rose, L. and M. Painter (1996). *Globally Threatened Birds in Europe: Action Plans*. Council of Europe Publishing, Strasbourg.
- IUCN. 2016. The IUCN Red List of Threatened Species. Version 2016-3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 07 December 2016).
- Kessler, A. E., Batbayar, N., Natsagdorj, T., Batsuur, D. and Smith, A. T. 2013. Satellite telemetry reveals long-distance migration in the Asian great bustard *Otis tarda dybowskii*. - *J. Avian Biol.* 44: 311–320.
- Kessler, A. E. and Smith, A. T. 2014. The Status of the Great Bustard (*Otis tarda tarda*) in Central Asia: from the Caspian Sea to the Altai. *Aquila* 121: 115-132.
- Kessler, M. 2016. Modern status of the Great Bustard in Central Asia and the steps for its preservation. *Steppe Bulletin* 46: 61-69.
- Nagy, Szabolcs (2009) International single species action plan for the Western Palearctic population of the Great bustard, *Otis tarda tarda*.
- The Strategic Plan for Migratory Species for the period 2015-2023, 18<sup>th</sup> Meeting of the Scientific Council of CMS, 1-3 July, 2014.
- Yan, A. H. 1982. The wintering ecology and hunting of great bustard. - *Chinese J. Zool.* 1: 37–39.