

2021 Report

IUCN SSC Bustard Specialist Group



CO-CHAIR
Mimi Kessler
Eurasian Bustard
Alliance, US



CO-CHAIR
Nigel Collar
BirdLife Global
Office, The David
Attenborough Building,
Cambridge, UK

**RED LIST AUTHORITY
COORDINATOR**
BirdLife International

NUMBER OF MEMBERS
47

SOCIAL MEDIA AND WEBSITE
Website: <https://bustards.org>

Mission statement

The IUCN SSC Bustard Specialist Group (BSG) actively promotes bustard research and conservation, develops conservation action plans for the most threatened species, and encourages information exchange and cooperation amongst bustard specialists and with other relevant organisations to enhance conservation of bustards and their habitats worldwide.

Projected impact 2021–2025

In the 2021–2025 quadrennium, the Bustard Specialist Group (BSG) plans to expand membership of the group to include motivated, committed bustard researchers and conservationists from all taxa and range areas, who share the vision of maintaining healthy and sustainable populations of bustards. The BSG will improve communication and cooperation between bustard experts and conservationists across political and language divides. The BSG will contribute proactively to Red List assessments of all bustard species and engage in continued research to clarify status and threats to bustard species, including cross-border counts and electronic tracking. The BSG will develop and provide guidance regarding action plans for bustards with a focus on species and populations threatened with extinction and provide consultation and advice to governments and conservation organisations to inform their programmes

of action. We will develop guidelines and programmes to address bustard species declines, with a focus on species under threat of extinction and threats facing multiple bustard species, such as poaching and unsustainable hunting, agricultural intensification, dog predation and powerline collisions. The BSG will assist with and implement habitat protection and restoration, captive breeding and reintroduction/reinforcement measures for threatened bustard species as appropriate. The BSG will increase awareness and concern among the public regarding bustard conservation and promote conservation management interventions for declining populations of bustards to relevant authorities and public forums.

Targets 2021–2025

ASSESS

T-005 Assess status, habitat requirements and threats to Bengal Florican (*Houbaropsis bengalensis*) across Brahmaputra floodplain, including use of Global System for Mobile Communications (GSM) tracking.

T-006 Undertake Bengal Florican monitoring in Assam.

T-007 Develop community monitoring for Great Indian Bustard (*Ardeotis nigricaps*) and Lesser Florican (*Sypheotides indicus*) in Rajasthan.

T-022 Evaluate Kori Bustard (*Ardeotis kori*) population status and range shift investigation, search for priority habitat.

T-023 Identify breeding and wintering critical areas for Little Bustard (*Tetrax tetrax*) in Spain.

T-030 Survey Bengal Florican population across all Nepal.

T-033 Research impact of captive breeding and hunting on Houbara populations.

T-034 Survey wintering areas of Eastern European Great Bustards (*Otis tarda*) and assess possibility for protection.

T-035 Identify suitable habitats of wintering population of Little Bustard in Iran and propose their conservation and protection.

T-037 Conduct threat assessment for Bengal Floricans at Koshi Tappu Reserve with focus on powerlines.

T-039 Conduct satellite telemetry of Lesser Florican.

T-043 Carry out range level population and habitat monitoring for Lesser Florican and Great Indian Bustard.

T-044 Carry out telemetry of Lesser Florican and Great Indian Bustard to learn life history, movement, seasonal habitat use and behaviour.

T-045 Assess bustard mortality due to powerlines and effectiveness of diverters for mitigation.



A flock of Critically Endangered Great Indian Bustards (*Ardeotis nigriceps*)
Photo: Gobind Sagar Bhardwaj

T-046 Assess population of predators of Great Indian Bustard and their impact.

T-047 Conduct genetic studies of Great Indian Bustard to inform management practices.

T-048 Conduct genetic analysis of wintering Eastern European Great Bustards.

T-050 Add Great Bustard to official list of British birds, methods to include publishing research paper.

T-053 Assess Asian Houbara (*Chlamydotis macqueenii*) demography and population trends in the Bukhara region, Uzbekistan.

T-056 Conduct GPS/GSM telemetry study of hand-reared Great Bustard females in Germany.

T-057 Monitor Lesser Florican in Saurashtra region of Gujarat State, India.

T-058 Conduct awareness programmes for sustainable agriculture and grassland protection near Lesser Florican sites.

T-059 Survey population demography and wintering areas of Eastern Great Bustard population and assess potential threats in China.

T-060 Study population genomics of Great Bustard for further evidence as to the status of the two subspecies of Great Bustard.

PLAN

T-008 Complete an Action Plan for Great Bustards in Asia, for submission to the 2023 Conference of Parties to the Convention on Migratory Species.

T-009 Conduct sensitivity mapping for Great Indian Bustard in Rajasthan to inform energy investment.

T-010 Identify grassland corridors and key threats to Bengal Florican in Brahmaputra Floodplain.

T-019 Develop best practice guidelines for the mitigation of powerlines to reduce bustard collisions.

T-024 Reclassify Little Bustard to 'Endangered' in Spain; develop national conservation strategy for the species.

T-028 Publish satellite tracking data for Ludwig's Bustard (*Neotis ludwigii*) to share information about the species' ecology and vulnerability to powerline collisions.

T-032 Develop Kori Bustard conservation action plan in Tanzania.

T-036 Update Action Plan for Bengal Florican in Nepal.

ACT

T-011 Continue to develop conservation breeding for Great Indian Bustard.

T-012 Pursue implementation of measures to reduce powerline collisions of Great Indian Bustards.

T-013 Develop community activities for Great Indian Bustard and Lesser Florican in Rajasthan and other important areas.

T-014 Conduct habitat restoration and protection, and reserve creation for Great Indian Bustard and Lesser Florican in Rajasthan and other important areas.

T-015 Conduct awareness programmes for sustainable agriculture near Lesser Florican sites.

T-016 Conduct community support and awareness programmes at Bengal Florican habitat in Assam.

T-017 Carry out habitat restoration and improvement (via organic cultivation) for Bengal Florican in Assam.

T-018 Conduct community education and awareness programmes, and citizen science programmes, relating to Bengal Florican in Brahmaputra Floodplain.

T-026 Implement community outreach and economic development programmes for Great Indian Bustard and Lesser Florican to include habitat improvement and awareness.

T-027 Create economic development programmes focusing on handicrafts in Great Bustard areas in Iran.

T-038 Conduct powerline marking and support of public litigation for powerline marking.

T-040 Carry out conservation breeding for Lesser Florican.

T-041 Implement predator management for Great Indian Bustard.

T-042 Conduct capacity building and outreach to stakeholders and collaborators for Great Indian Bustard protection and habitat.

T-049 Build breeding centre for Bengal Florican, improve husbandry protocols, start captive breeding, increase captive breeding population, conduct genetic study for captive breeding management.

T-051 Increase the area of land under the management of the Great Bustard Group.

T-052 Continue and improve captive breeding programme of Great Bustard with intention of eventually restoring populations to other regions of England.

T-054 Further improve Great Bustard habitats in the last three breeding areas in Germany.

T-055 Reintroduce/restore the extinct Great Bustard population in the Zerbster Land Special Protection Area (Germany).

Great Indian Bustard (*Ardeotis nigricaps*)
found in traditional crop fields
Photo: Vipin Fulzele



T-061 Conduct community survey and improve the community awareness to protect Great Bustard and its sympatric vulnerable species in China.

NETWORK

T-001 Increase membership of BSG to include experts on additional bustard taxa and range areas.

T-002 Provide a weekly forum for BSG members to share research findings and news (BSG Secretariat, with input from Membership).

T-003 Extend a multilingual website to facilitate communication between bustard experts in North Eurasia.

T-025 Organise group (virtual) conference for members of the BSG.

T-031 Encourage new researchers/students to take up study of Bengal Florican.

COMMUNICATE

T-020 Set up *Bustard Studies* as an open-access online journal.

T-029 Promote sustainable management and hunting of Houbara.

Activities and results 2021

ASSESS

Red List

T-053 (KSR 6)

Number of new national Red List assessments published: 0

Result description: A census of Asian Houbara was completed in 2021 and will be repeated in 2022 to assess population trends in Bukhara, Uzbekistan.

Research activities

T-007 (KSR 5)

Number of trained groups on community monitoring: 2

Result description: Selected youth from Great Indian Bustard and Lesser Florican sites were trained and involved in bird and habitat monitoring.

T-023 (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 0

Result description: This is done in practice, but not yet published. It will be delivered to the Spanish Ministry of Environment by late March and hopefully submitted to a scientific journal in 2022.

T-030 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: Bird Conservation Nepal (BirdLife in Nepal) has completed a survey on Bengal Florican population and results are yet to be published. Himalayan Nature has planned some education and awareness programmes in east Nepal, at Koshi Tappu Wildlife Reserve.

T-033 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: Research into the performance of released captive-bred Asian Houbara and migration dynamics is ongoing.

T-034 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: Wintering areas of Eastern European Great Bustards in the Crimea are currently being investigated.

T-035 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: We have collected the Little Bustard distribution records and after preparing environmental data we will start habitat suitability modelling.

T-037 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: A researcher from Tribhuvan University is being identified to complete threat assessment for Bengal Floricans; this will be done by end of March with studies following in April.

T-039 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: The Corbett Foundation (TCF) has provided technical expertise to Gujarat Forest Department in putting satellite tags successfully on six Lesser Floricans in Gujarat. One male and one female Lesser Florican were released in Blackbuck National Park in September 2020 and four males were tagged in Kutch. The tagged female died after collision with a power line in Maharashtra in July 2021. A paper has been published on these findings in the *Journal of Bombay Natural History Society* (<http://www.bnhsjournal.in/index.php/bnhs/article/view/167575>).

T-048 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: We collected material (bustard feathers) of Eastern European Great Bustard in the nesting and wintering



Male Bengal Florican (*Houbaropsis bengalensis*) rescued in Cambodia in 2019
Photo: ACCB/Pau Puigcerver

First record of Bengal Florican (*Houbaropsis bengalensis*) hatched in captivity, on 09-07-2019
Photo: Angkor Centre for Conservation of Biodiversity ACCB/Pau Puigcerver

areas. We are looking for funding to continue research.

T-050 (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 0

Result description: Although the population of Great Bustard is growing through natural breeding, the percentage of the population which is made from hand reared birds is still too high for a formal application to be admitted to the British Birds list. An application may be possible in three years or so.

T-056 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 100

Result description: In 2019, we started a new tracking system of hand-reared Great Bustard females: solar powered GPS/GSM tags on necklace collars. In 2019, 12 females were marked, in 2020 five, and in 2021 ten. Survival was better than expected, and at the end of 2021 at least five birds from the first year were still alive and sending. Altogether, the data set comprises ca. 1.2 million locations, so far. First analyses focused mainly on Great Bustard vs wind farm interactions in order to avoid new wind farms on the flyways between the three remaining Great Bustard areas in Germany.

T-059 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 90

Result description: Eastern Great Bustard (*Otis tarda dybowskii*) was once widely distributed in 19 provinces and municipalities in China. However, due to the destruction and loss of habitat caused by human disturbance, its habitat is getting worse and

distribution range is shrinking. Despite research in the past there is still a lack of comprehensive understanding and analysis of its distribution, which is not conducive to the determination of key protected areas and the scientific formulation of protection countermeasures. This study is based on field surveys, combined with literature data and network reports of the birds over the past 20 years; according to the range of activities, we collected the distribution data and analysed the distribution of breeding sites, wintering sites and stopover sites. The result shows *Otis tarda dybowskii* is only distributed in 14 provinces and municipalities such as Inner Mongolia, Henan, Hebei, Shaanxi and Shanxi; among them, 70.91% are distributed in Shaanxi Province, Henan Province and Inner Mongolia. There are important breeding sites for *Otis tarda dybowskii* including Tumuji National Nature Reserve, Huihe National Nature Reserve and Gaogeshitai Hanwula National Nature Reserve in Inner Mongolia; 14.72% of breeding sites are outside reserves. The wintering sites are mainly distributed in the Yellow River Wetland at the junction of Shaanxi, Shanxi and Henan, the National Nature Reserve of the Yellow River Wetland for Birds in Xinxiang, Henan, Cangzhou and Baiyangdian, Hebei. The middle and lower reaches of the Yellow River are also the southernmost extension of the wintering area. Tumuji National Nature Reserve in Inner Mongolia and Mingshui National Nature Reserve in Heilongjiang also have relatively stable wintering records, and it partially exhibits migratory behaviour. The distribution of stopover sites is relatively scattered, such as Wuliangshuai Nature Reserve, Gaogestai Hanwula National Nature Reserve, Huihe National Nature Reserve in Inner Mongolia, Momoge National Nature Reserve in Jilin, Shandian

River National Wetland Park, Cangzhou in Hebei, Yeya Lack in Yanqing District of Beijing, and Qingdianwa Wetland in Jixian County of Tianjin. We believe that we should strengthen the protection of these important habitats and control potential risks and raise public awareness of protection to reduce interference and improve their survival rate. Through integrating the distribution data of the past 20 years, we have a more comprehensive understanding of the distribution of the Eastern Great Bustard subspecies and the threats it currently faces, which provides a scientific basis for the formulation and implementation of protection countermeasures.

T-060 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 50

Result description: This sampling collection and data analysis of Great Bustard is still ongoing. We are working with the members of BSG. This year we will ensure it goes forward continuously.

PLAN

Planning

T-008 (KSR 8)

Number of plans invited/endorsed by national governments/conservation authorities: 1

Result description: We have received contributor reviews of the draft Action Plan for Great Bustards in Asia, and now must incorporate them into the document.

T-009 (KSR 8)

Number of conservation plans/strategies developed: 2

Result description: Mapping was completed by Bombay Natural History Society (BNHS) for Central Asian Flyway planning of Great Indian Bustard in Rajasthan; mapping was



Asian Houbara Bustard
(*Chlamydotis macqueenii*)
Photo: Gobind Sagar Bhardwaj

T-026 (KSR 10)

Number of threatened species benefiting from in situ conservation action: 2

Result description: (1) Grassland restoration work has been initiated in Kanakpar village in Kutch, Gujarat, where over 50 acres of community grazing area has been restored. The annual production during good monsoon is about 30 tonnes which is stored and used for village livestock to reduce free grazing pressure on the surrounding natural grasslands/bustard habitat. (2) Around 10 farmers were involved in practicing organic/pesticide-free farming in the bustard landscape; 7,000 kg of groundnut was cultivated without any pesticide and sold within one month. (3) Awareness was raised in more than 30 schools in the eco-sensitive area of Kutch Bustard Sanctuary.

T-038 (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 2

Result description: TCF has installed around 800 bird-diverters on two powerlines (~3 km). In total, four types of diverters have been installed on 11 kV and 66 kV powerlines, passing through important bird habitats in Kutch, Gujarat. The method suggested by Wildlife Institute of India (WII) and international agencies has been followed for the scientific installation to make it more effective. The TCF team is conducting a scientific study to check the impact of such bird-diverters on bird mortality.

T-049 (KSR 10)

Number of captive breeding facilities built and operative: 0

Result description: The breeding facility of Bengal Florican is completed. Construction of an adequate quarantine facility will be completed in 2022.

T-051 (KSR 10)

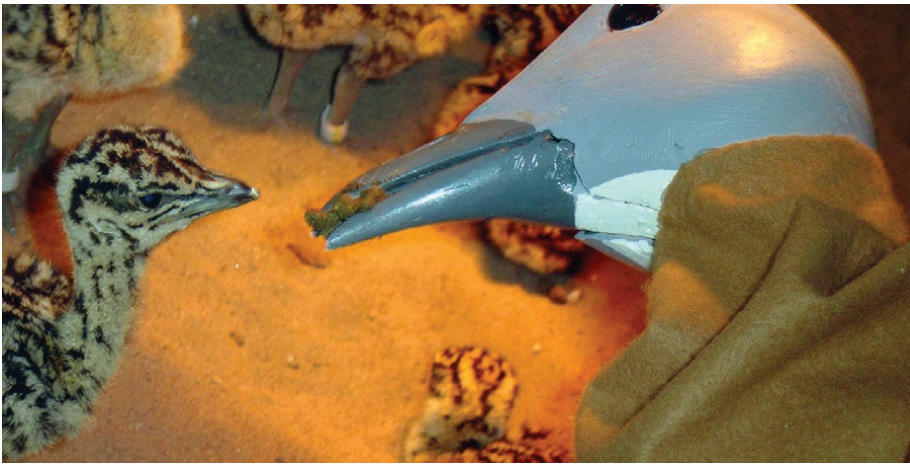
Number of areas under management for the species or group of species: 1

Result description: The first targeted government-funded Great Bustard agri-environment schemes have been approved (12 hectares) and will be in place in spring 2022. Further schemes are planned.

T-052 (KSR 10)

Number of threatened species benefiting from ex situ conservation action: 1

Result description: No fertile eggs of Great Bustard have been produced. An additional facility has been constructed and is in the process of being populated. Changes have been made to the management of the other two captive breeding populations.



Puppet feeding Great Bustard
(*Otis tarda*) chicks
Photo: Great Bustard Group

also completed by a joint group for the International Finance Corporation (IFC).

T-010 (KSR 8)

Number of technical documents to support the development of conservation plans/strategies: 1

Result description: The report on grassland corridors is ready and has been submitted to BirdLife.

T-019 (KSR 8)

Number of technical documents to support the development of conservation plans/strategies: 1

Result description: The manuscript is under its second revision.

T-024 (KSR 8)

Number of Assess to Plan (A2P) species assessments completed: 1

Result description: This passed through the Fauna and Flora Committee of the Spanish Ministry of Environment and is soon to be published as a legal decree.

T-028 (KSR 8)

Number of technical documents to support the development of conservation plans/strategies: 0

Result description: Work was put on hold the past six months due to maternity leave/change of job for the main collaborators.

T-036 (KSR 8)

Number of conservation plans/strategies updated: 0

Result description: A draft is prepared and being consulted on with in-country experts.

ACT

Conservation actions

T-014 (KSR 10)

Number of areas under management for the species or group of species: 2

Result description: We conducted pilot work on habitat restoration at one site each for Great Indian Bustard and Lesser Florican. The process of declaring one community reserve is underway.

T-018 (KSR 10)

Number of threatened species benefiting from in situ conservation action: 1

Result description: The education and awareness activities under a Zoological Society of London Edge Fellowship are ongoing.

T-054 (KSR 10)

Number of areas under management for the species or group of species: 70

Result description: Havelland region: After one year without staff, there is now a 0.5 job position continuing the coordination of habitat management of Great Bustard on a low level (formerly three employees). Belzig region: Business as usual: agri-environmental schemes financed by the state of Brandenburg (like in Havelland) are coordinated by the local staff of two persons. A vegetation study from 2021 is dealing with the effects of low-level fertilisation. Fiener Bruch region: Ten years after elaboration of a management plan for the Brandenburg part, there is still no staff nor money for management available. In the western part (state of Saxony-Anhalt), implementation of agri-environment schemes is organised to some extent by the Great Bustard NGO; the respective contract with the regional government (state of Saxony-Anhalt; cf. <https://www.grosstrappe.org/eler-projekt-fiener-bruch/>) was updated and continued in 2021.

T-055 (KSR 10)

Number of species with increased or prevented decrease in population or range size, as a result of conservation actions: 100

Result description: After five years of preparations – including check of IUCN and MoU (Bonn Convention) reintroduction criteria, a feasibility study (https://www.grosstrappe.org/wp-content/uploads/2017/02/PDF_Machbarkeitsstudie-Zerbster-Land_28_06_19.pdf), public relations work among the local population and the farmers, etc. – a fenced release site of 15 ha was established. The first agri-environmental measures were started in 2020 and continued in 2021. In 2022 we are planning to release the first hand-reared Great Bustards from our captive rearing programme and to start the ‘real’ reintroduction there. After losing nearly 30 former Great Bustard sites in Germany since ca. 1970, and 30 years of management of the last three areas, this is the first re-establishment of a former Great Bustard site in Germany (cf. also <https://www.grosstrappe.org/eler-projekt-fiener-bruch/>).

Synergy

T-013 (KSR 10)

Number of community activities designed and implemented: Community activities designed and implemented.

Result description: Programmes were developed for Great Indian Bustard and Lesser Florican on nature education grassland development.

T-015 (KSR 11)

Number of rural communities involved in species conservation programmes and sustainable use practices: 0

Result description: We conducted a few sensitisation programmes near Lesser Florican sites but systematic work on sustainable agriculture has not yet been initiated.

T-061 (KSR 11)

Number of rural communities involved in species conservation programmes and sustainable use practices: 100

Result description: The Great Bustard returned to China for overwintering for six continuous years, and the surprising news is that three individuals chose wintering sites very close to Beijing (see <https://app.gmdaily.cn/as/opened/n/72ae44bd-332349fa8638c3ae8dc8ccd8>). Through the news reported by *Guangming Daily*, photos and video supported strongly that power lines, plastic bags/trash and stray dogs are posing threats to the survival of Great Bustards. Fortunately, volunteers, local communities and conservation researchers are working together to protect Great Bustard. In the beginning, only three individuals wintered in Tongzhou, Beijing, however, another individual joined the population by mid-December.

Technical advice

T-029 (KSR 11)

Number of technical documents provided to support conservation actions: 1

Result description: Peer-reviewed papers were published emphasising the need for regulation of hunting (Dolman, P.M., et al. (2021). ‘Sustainable hunting and the conservation of the threatened houbara bustards’. *Journal for Nature Conservation* 61: 126000. <https://doi.org/10.1016/j.jnc.2021.126000>) and the dangers current large-scale unregulated and opaque programmes of captive breeding and release pose to African Houbara (*Chlamydotis undulata*) and Asian Houbara (Dolman, P.M., et al. (2021). ‘Captive breeding and the conservation of the threatened Houbara bustards’ *Endangered Species Research* 46:161–173. <https://doi.org/10.3354/esr01151>). This will be followed by further advocacy.

NETWORK

Membership

T-001 (KSR 2)

Number of SSC members recruited: 4

Result description: In 2021, we added new members to the group and are currently further expanding membership in Central

Europe and the Caucasus. We are actively searching for members in Africa and Australia.

T-025 (KSR 2)

Awareness of BSG members on projects related to bustards: achieved

Result description: A virtual conference was held in 2021.

Synergy

T-003 (KSR 2)

Generation of Eurasian Bustard Alliance: achieved

Result description: The site is completed. However, it will require volunteer translators to continue to provide new material in the multiple site languages as we update the site over time.

COMMUNICATE

Communication

T-020 (KSR 12)

Number of Species e-bulletin, Save Our Species newsletter, SSC Groups’ newsletter editions produced: 0

Result description: A draft template for main articles was prepared.

Acknowledgements

The Bustard Specialist Group thanks the Smithsonian National Zoological Park Conservation Biology Institute for hosting the group’s Secretary, Sara Hallager, who provides much appreciated support for the group.

Summary of achievements

Total number of targets 2021–2025: 59

Geographic regions: 8 Global, 2 Africa, 41 Asia, 10 Europe

Actions during 2021:

Assess: 14 (KSR 5, 6)

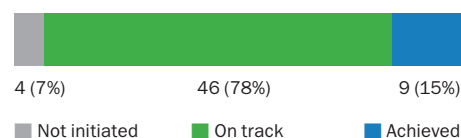
Plan: 7 (KSR 8)

Act: 13 (KSR 10, 11)

Network: 3 (KSR 2)

Communicate: 1 (KSR 12)

Overall achievement 2021–2025:



■ Not initiated

■ On track

■ Achieved