

REPORTING FORMAT FOR THE GREAT BUSTARD MOU AND ACTION PLAN

This reporting format is designed to monitor the implementation of the Action Plan associated with the Memorandum of Understanding on the Conservation and Management of the Middle-European Population of the Great Bustard (*Otis tarda*). Reporting on the Action Plan's implementation will support exchange of information throughout the range and assist the identification of necessary future actions by the Signatory States. The questions presented here go beyond the scope of information already requested from CMS Contracting Parties for national reports to the CMS Conference of the Parties.

GENERAL INFORMATION

<p>Agency or institution responsible for the preparation of this report</p> <p>Ministry of Economy and Sustainable Development Nature Protection Directorate Radnička cesta 80, HR-10000 Zagreb Croatia</p>
<p>List any other agencies, institutions, or NGOs that have provided input</p> <p>Institute of Ornithology, Croatian Academy for Sciences and Arts</p>
<p>Reports submitted to date:</p> <p>First: 2001-2004 Second: 2005-2008 Third: 2008-2012 Fourth: 2012-2017</p>
<p>Period covered by this report</p> <p>2018-2022</p>
<p>Memorandum in effect in country since:</p> <p>04/06/2002</p>

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PART I. GENERAL

This questionnaire follows the structure and numbering of the Action Plan annexed to the Memorandum of Understanding to make it easier to read the relevant action points before the form is filled in. In some cases, however, sub-actions were not listed separately for the sake of simplicity and to avoid duplications. They should however be taken into consideration when answering the questions.

0. National work programme

Is there a national work programme or action plan already in place in your country for the Great Bustard pursuant to Paragraph 4(g) of the Memorandum of Understanding?

Yes No

1. Habitat protection

1.1 Designation of protected areas.

To what extent are the display, breeding, stop-over and wintering sites covered by protected areas?

Designation of protected areas under national law	Classification of Special Protection Areas according to the requirements of Art.4.1 of the EC Birds Directive
<input type="checkbox"/> Fully (>75%) <input type="checkbox"/> High (50-75%) <input type="checkbox"/> Medium (10-49%) <input type="checkbox"/> Low (<10%) <input type="checkbox"/> None <input checked="" type="checkbox"/> Not applicable ¹	<input type="checkbox"/> Fully (>75%) <input type="checkbox"/> High (50-75%) <input type="checkbox"/> Medium (10-49%) <input type="checkbox"/> Low (<10%) <input type="checkbox"/> None <input checked="" type="checkbox"/> Not applicable ¹

What measures were taken to ensure the adequate protection of the species and its habitat at these sites?

n/a

Where are the remaining gaps?

n/a

¹ The species occurs only irregularly, no regular stop-over or wintering sites identified.

Are currently unoccupied, but potential breeding habitats identified in your country?

Yes No Not applicable²

If yes, please explain how these areas are protected or managed to enable the re-establishment of Great Bustard.

1.2 Measures taken to ensure the maintenance of Great Bustard habitats outside of protected areas.

Please describe what measures have been taken to maintain land-use practices beneficial for Great Bustard outside of protected areas (e.g., set-aside and extensification schemes, cultivation of alfalfa and oilseed rape for winter, maintenance of rotational grazing, etc.).

n/a

To what extent do these measures, combined with site protection, cover the national population?

- Fully (>75%)
 Most (50-75%)
 Some (10-49%)
 Little (<10%)
 Not at all
 Not applicable¹

Are recently (over the last 20 years) abandoned Great Bustard breeding habitats mapped in your country?

Yes No Not applicable¹

What habitat management measures have been taken to encourage the return of Great Bustard?

n/a

If there were any measures taken, please provide information on their impact.

n/a

1.3 Measures taken to avoid fragmentation of Great Bustard habitats.

Are new projects potentially causing fragmentation of the species' habitat (such as construction of highways and railways, irrigation, planting of shelterbelts, afforestation, power lines, etc.) subject to environmental impact assessment in your country? Yes No Not applicable¹

Is there any aspect of the existing legislation on impact assessment that limits its effective application to prevent fragmentation of Great Bustard habitats? Yes No Not applicable¹

²Countries *outside* of the historic (beginning of 20th Century) breeding range of the species.

If yes, please provide details.

Have there been any such projects implemented in any Great Bustard habitat in your country since signing this Memorandum of Understanding? Yes No Not applicable¹

Please, give details and describe the outcome of impact monitoring if available.

n/a

2. Prevention of hunting, disturbance and other threats

2.1 Hunting.

Is Great Bustard afforded strict legal protection in your country? Yes No

Please, give details of any hunting restrictions imposed for the benefit of Great Bustard including those on timing of hunting and game management activities.

The Great Bustard is strictly protected species in Croatia according to the Nature Protection Act (OG No 80/13, 15/18, 14/19 and 127/19) and Ordinance on strictly protected species (OG 144/13 and 73/16). Hunting is not allowed.

Please, indicate to what extent these measures ensure the protection of the national Great Bustard population? The national population is covered by restrictions on hunting to prevent hunting-related disturbance:

- Fully (>75%)
- Most (50-75%)
- Some (10-49%)
- Little (<10%)
- Not at all
- Not applicable¹

2.2 Prevention of disturbance.

What measures have been taken to prevent disturbance of Great Bustard in your country, including both breeding birds and single individuals or small flocks on migration?

Please, indicate to what extent these measures have ensured the protection of the national population.

The Great Bustard is strictly protected species in Croatia according to the Nature Protection Act (OG No 80/13, 15/18, 14/19 and 127/19) and Ordinance on strictly protected species (OG 144/13 and 73/16). Disturbance is not allowed.

The national population is covered by restrictions on other activities causing disturbance:

- Fully (>75%)
- Most (50-75%)
- Some (10-49%)
- Little (<10%)
- Not at all
- Not applicable¹

2.3.1 Prevention of predation.

What is the significance of predation to Great Bustard in your country?

No data exists.

What are the main predator species?

No data exists.

What measures have been taken to control predators in areas where Great Bustard occurs regularly?

n/a

How effective were these measures?

- Effective (predation reduced by more than 50%)
- Partially effective (predation reduced by 10–49%)
- Less effective (predation reduced by less than 10%)
- Not applicable¹

2.3.2 Adoption of measures for power lines.

What is the significance of collision with power lines in your country?

Collision with power lines was not recorded in Croatia.

What proactive and corrective measures have been taken to reduce the mortality caused by existing power lines in your country?

Since the Great Bustard is not breeding in Croatia and is considered to be regionally extinct (RE) according to the Red Book of Birds of Croatia (Tutiš et al 2013), there is no need for proactive measures to reduce the mortality of this particular species, caused by existing power lines.

However, the distribution system operator company responsible for delivery of electricity in Croatia (the HEP-Operator distribucijskog sustava d.o.o. - HEP ODS) informs the Ministry of Economy and Sustainable Development on the incidents of birds being killed on power lines and technical solutions for the protection of birds from electrocution installed at some critical locations in Croatia. HEP ODS keeps gathered data on interruptions and failures in the medium-voltage network caused by birds, in order to identify problematic power lines and locations. On problematic locations technical solutions are installed to protect birds from electrocution. HEP ODS informs the Ministry about the incidents of bird electrocution and implemented protection measures.

Furthermore, it is important to stress that According to the Environmental Protection Act and the Regulation on Environmental Impact Assessment, for electricity transmission facilities of 220 kV or more, the Environmental Impact Assessment (EIA) is obligatory. Through this procedure measures that can prevent or reduce mortality of birds in general (caused by new power lines) can be prescribed.

What is the size of the populations affected by these corrective measures?

n/a

How effective were these measures?

- Effective (collision with power lines reduced by more than 50%)
- Partially effective (collision with power lines reduced by 10–49%)
- Ineffective (collision with power lines reduced by less than 10%)
- Not applicable¹

2.3.3 Compensatory measures.

What is the size (in hectares) of Great Bustard habitat lost or degraded for any reasons since the Memorandum of Understanding entered into effect (1 June 2001)?

n/a

What is the size of the populations affected?

n/a

Were these habitat losses compensated? Yes Partially No Not applicable¹

If yes, please explain how.

n/a

Were these measures effective? Yes Partially No Not applicable¹

Please, give details on the effectiveness or explain why they were not effective if that is the case.
n/a

3. Possession and trade

Is collection of Great Bustard eggs or chicks, the possession of and trade in the birds and their eggs prohibited in your country? Yes No

How are these restrictions enforced? What are the remaining shortcomings, if any?

The Great Bustard is not breeding in Croatia and trade of the birds or their eggs was never recorded. The Great Bustard is a strictly protected species, so possession of and trade in the birds and their eggs is prohibited.

Nature protection inspectors, custom officers and police officers are educated and trained to control and enforce provisions of the Nature Protection Act and Act on transboundary traffic and trade in endangered species (OG 80/13, 14/19 and 69/22) that gives the framework for implementation of the EU CITES regulations.

Please indicate if any exemption is granted or not all of these activities are prohibited.
n/a

4. Recovery measures

4.1 Captive breeding* in emergency situations.

Is captive breeding playing any role in Great Bustard conservation in your country? Yes No

Please, describe the measures, staff and facilities involved and how these operations comply with the IUCN criteria on reintroductions.

n/a

4.2 Reintroduction.

Have there been any measures taken to reintroduce the species in your country? Yes No

If yes, please describe the progress. If there was any feasibility study carried out, please summarize its conclusions.

n/a

4.3 Monitoring of the success of release programmes.

Are captive reared birds released in your country? Yes No

* In effect, "captive breeding" should be read as "captive rearing" according to current practices.

If yes, please summarize the experience with release programmes in your country. What is the survival rate of released birds? What is the breeding performance of released birds?

n/a

What is the overall assessment of release programmes based on the survival of released birds one year after release?

- Effective (the survival is about the same as of the wild ones)
- Partially effective (the survival rate is lower than 75% of the wild birds)
- Ineffective (the survival is less than 25% of wild birds)
- Not applicable³

5. Cross-border conservation measure

Has your country undertaken any cross-border conservation measures with neighbouring countries?

- Yes No Not applicable⁴

Please, give details of your country's collaboration with neighbouring countries on national surveys, research, monitoring and conservation activities for Great Bustard. Especially, list any measures taken to harmonise legal instruments protecting Great Bustard and its habitats, as well as funding you have provided to Great Bustard for particular conservation actions in other Range States.

n/a

6. Monitoring and research

6.1.1 Monitoring of population size and population trends.

Are the breeding, migratory or wintering Great Bustard populations monitored in your country?

- Yes No

What proportion of the national population is monitored?

- All (>75%)
- Most (50-75%)
- Some (10-49%)
- Little (<10%)
- None
- Not applicable¹

³ No release is taking place in the country.

⁴ For countries which do not have any transboundary population.

What is the size and trend in the national population?⁵

n/a

Breeding/resident population

Non-breeding population (on passage, wintering)

No. of adult males: _____

No. of adult males: _____

No. of females: _____

No. of females: _____

No. immature males: _____

No. immature males: _____

Trend: Declined by ___% over the last 10 years

Trend: Declined by ___% over the last 10 years

Stable

Stable

Increased by ___% over the last 10 years

Increased by ___% over the last 10 years

For countries where the species occurs only occasionally, please give the details of known observations within the reporting period:

One specimen was observed on 6. December 2020 near Bebrina (Slavonski Brod). Age or sex was not reported.

6.1.2 Monitoring of the effects of habitat management.

Is the effect of habitat conservation measures monitored in your country?

Yes Partially No Not applicable¹

Please, provide a list of on-going and completed studies with references if results are already published.

n/a

What can be learned from these studies?

n/a

What are the remaining gaps and what measures will your country do to address these gaps?

n/a

⁵ Only for countries where the species occurs regularly.

6.2.1 Comparative ecological studies.

Have there been any comparative studies carried out on the population dynamics, habitat requirements, effects of habitat changes and causes of decline in your country in collaboration with other Range States?

Yes No Not applicable¹

Please, provide a list of on-going and completed studies with references if results are already published

n/a

What can be learned from these studies?

n/a

What are the remaining gaps where the Memorandum of Understanding could assist?

n/a

6.2.2 Studies on mortality factors.

Are the causes of Great Bustard mortality understood in your country?

Yes Partially No Not applicable¹

Please, provide a list of on-going and completed studies with references if results are already published.

The historical status and mortality factors in Croatia have been studied. Results were presented at Great Bustard Scientific Symposium in Szarvas, Hungary in April 2013 and published in Hungarian journal Aquila:

Kralj, J., Barišić, S., Ćiković, D., Tutiš, V. (2014): Status and mortality factors of the Great Bustard (*Otis tarda*) in Croatia during the 20th century. Aquila 121:173-178.

What can be learned from these studies?

In the 20th century the Great Bustard (*Otis tarda*) was a passage migrant and winter visitor in Croatia. Occurrences were more frequent at the beginning of the century, but they turned scarcer and more irregular in later years. Birds were observed between October and April. During winter, Great Bustards were more frequently recorded in Southern Croatia, while records from Northern Croatia dominated during autumn and spring. Hunting can be identified as historically the most

important mortality factor prior to legal protection of the species. Shooting occurred between December and March mostly in Southern Croatia.

What are the remaining gaps and what measures will your country do to address these gaps?
n/a

6.2.3 Investigation of factors limiting breeding success.

Are the factors limiting breeding success in core populations understood in your country?

Yes Partially No Not applicable⁶

Please, provide a list of on-going and completed studies with references if results are already published

n/a

What can be learned from these studies?

n/a

What are the remaining gaps and what measures are you going to take to address these gaps?

n/a

6.2.4 Studies on migration.

Were there any studies on migration routes and wintering places carried out in your country?

Yes Partially No Not applicable¹

Where are the key sites and what is the size of the population they support?

n/a

⁶ Only for breeding countries.

Do you have any knowledge about the origin of these birds supported by ringing or other marking methods?

n/a

What are the remaining gaps and what measures will your country do to address these gaps?

n/a

7. Training of staff working in conservation bodies

Is there any mechanism in place in your country to share information on biological characteristics and living requirements of Great Bustard, legal matters, census techniques and management practices to personnel working regularly with the species? Yes No Not applicable¹

If yes, please describe it.

Have personnel dealing with Great Bustard participated in any exchange programme in other Range States? Yes No Not applicable¹

If yes, please give details on number of staff involved, country visited and how the lessons were applied in your country.

n/a

8. Increasing awareness of the need to protect Great Bustards and their habitat

What measures have been taken to increase the awareness about the protection needs of the species and its habitat in your country since signing the Memorandum of Understanding?

In the reporting period there was no specific information campaigns and awareness raising activities related to the Great Bustard.

Do farmers, shepherds, political decision makers and local and regional authorities support Great Bustard conservation? Yes Partially No

Local and regional authorities, as well as hunting organisations support Great Bustard conservation, but farmers and shepherds barely have a chance to ever see this species in Croatia, so usually are not aware about it.

What are the remaining gaps or problems and how are you going to address them?

Occasional observations of rare birds in Croatia are regularly reported to the Institute of Ornithology, but in the reporting period there were no any observation of the Great Bustards reported in Croatia. We presume that it largely reflects the current situation (being very irregular in Croatia), but it is also possible that some records remain unreported. The info about that bird should be from time to time given through web-pages of different NGOs.

9. Economic measures

Have there been any initiatives taken to develop economic activities that are in line with the conservation requirements of Great Bustard in your country?

Yes Partially No Not applicable¹

What percentage of the population is covered in total by these measures?

- All (>75%)
- Most (50-75%)
- Some (10-49%)
- Little (<10%)
- None
- Not applicable

How effective were these measures?

- Effective (more than 50% of the targeted area is managed according to the species' needs)
- Partially effective (10–49% of the targeted area is managed according to the species' needs)
- Ineffective (less than 10% according to the species' needs)
- Not applicable¹

10. Threats

Please, fill in the table below on main threats to the species in your country. Use the threat scores categories below to quantify their significance at national level. Please, provide an explanation on what basis you have assigned the threat score and preferably provide reference. Add additional lines, if necessary.

Threat scores:

Critical: a factor causing or likely to cause **very rapid declines** (>30% over 10 years).

High: a factor causing or likely to cause **rapid declines** (20-30% over 10 years).

Medium: a factor causing or likely to cause relatively **slow, but significant, declines** (10-20% over 10 years).

Low: a factor causing or likely to cause **fluctuations**.

Local: a factor causing local declines but likely to cause **negligible declines at population level**.

Unknown: a factor that is likely to affect the species but it is unknown to what extent.

Threat name	Threat score	Explanation and reference
Habitat loss		
Losses of eggs and chicks		
Predation		
Collision with powerlines		
Human disturbance		
Pesticides		
Illegal hunting		
Others (specify)		

PART II. COUNTRY-SPECIFIC ACTIONS

Please report on the implementation of the country-specific actions listed for your country in Part II of the Action Plan and provide information if that is not already covered by your answers under Part I. Please describe not only the measures taken but also their impact on Great Bustard or its habitat in the context of the objectives of the Memorandum of Understanding and the Action Plan. Where you have already answered on country-specific actions in Part I, please only add a reference to the relevant answer here.

Having the Great Bustard only as irregular visitor, not many measures can be applied. Hunting is completely banned, and there were no indications of illegal hunting in 21st century. The measures related to reducing collision with powerlines are described under 2.3.2.