

ACTION HISTORY OF RTI REQUEST No.WLIOI/R/E/21/00004

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|-----------------------------|--|
| Applicant Name | Gopal Singh Bhati |
| Text of Application | <p>1. The WII is doing the work of conservation and captive breeding of Great Indian Bustard in Jaisalmer district of Rajasthan. They have established a breeding center near Ramdeora. 2. It has been reported in local newspapers that the high tension power lines transmitting solar power from various solar parks to pooling station at BHADLA are a major threat to the life of these birds. 3. It has been reported in the media that NGT has passed an order for preparation of an action plan for protecting these birds from electrocution by these powerlines. There are news reports that bird diverters will be installed and various other measures will be undertaken. Please provide following information : A. Have any action plan been prepared by Wild Life Institute of India as ordered by the Hon. National Green Tribunal Principal Bench, New Delhi O.A. 385/2019 regarding Great Indian Bustard Conservation? B. If any action plan been prepared please provide the copy of the ACTION PLAN. C. Please provide the name of the areas from where the eggs of GIB has been picked up for artificial incubation at the Breeding Center. Applicant : Gopal Singh Bhati , Convener, Pokhran Phalodi Chapter of INTACH (Indian National Trust for Art and Cultural Heritage)</p> |
| Reply of Application | kindly see the attached cover letter and information provided to you under RTI Act have been sent to you separately by email. |

| SN. | Action Taken | Date of Action | Action Taken By | Remarks |
|-----|---------------------------|----------------|-------------------------|---|
| 1 | RTI REQUEST RECEIVED | 24/01/2021 | Nodal Officer | |
| 2 | REQUEST FORWARDED TO CPIO | 28/01/2021 | Nodal Officer | Forwarded to CPIO(s) : (1) P.K.Aggarwal |
| 3 | REQUEST DISPOSED OF | 04/02/2021 | P.K.Aggarwal- (CPIO) | |

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**Government of India
Wildlife Institute of India, Dehradun
Wildlife Institute of India
P.O.Box-18, Chandrabani, Dehradun, Uttarakhand,**

Dated: 04/02/2021

To

Shri Gopal Singh Bhati
Krsna Kunj Enclave
Ramdeora Road , Gomat
Pokhran
345021

Registration Number : WLIOI/R/E/21/00004

Dear Sir/Madam

I am to refer to your Request for Information under RTI Act 2005, received vide letter dated 24/01/2021 and to say that *kindly see the attached cover letter and information provided to you under RTI Act have been sent to you separately by email..*

In case, you want to go for an appeal in connection with the information provided, you may appeal to the Appellate Authority indicated below within ***thirty days*** from the date of receipt of this letter.

Director, WII

FAA & Director

Address: Wildlife Institute of India Chandrabani Dehradun

Phone No.: 01352646101

Yours faithfully

(P.K.Aggarwal)
CPIO & Deputy Registrar
Phone No.: 01352646110
Email : pka@wii.gov.in

No. WII/RTI/CPIO/2020-21 (Qtr-II)/89

Date: 04 February, 2021

To,

Mr. Gopal Singh Bhati
Krsna Kunj Enclave,
Ramdeora Road, Gomat, Pokhran, Pin:345021
Email: gsbpokhran@gmail.com

Sub.: Information under RTI Act, 2005-reg.

Ref.: Your Online RTI No. WLIOI/R/E/21/00004 dated 24.01.2021

Sir,

Please refer to your application cited above under RTI Act, 2005. In this context, the point-wise response to your queries is given below:

| Information Sought under RTI | Reply under RTI |
|---|--|
| It has been reported in the media that NGT has passed an order for preparation of an action plan for protecting these birds from electrocution by these powerlines. There are news reports that bird diverters will be installed and various other measures will be undertaken. Please provide following information: | |
| A. Have any action plan been prepared by Wildlife Institute of India as ordered by the Hon. National Green Tribunal Principal Bench, New Delhi O.A. 385/2019 regarding Great Indian Bustard Conservation? | Draft Action Plan communicated to MoEFCC is attached (page 1 to 8) |
| B. If any action plan been prepared please provide the copy of the ACTION PLAN. | Same as above #1. |
| C. Please provide the name of the areas from where the eggs of GIB has been picked up for artificial incubation at the Breeding Center. | Please see page No. 9 of attached document. https://wii.gov.in/images//images/documents/species_recovery_programme/gib_habitat_improvement_conservation_report_iii.pdf |

In case, you are not satisfied with the information provided above, you may file an appeal to the First Appellate Authority indicated below within **thirty days** from the date of receipt of this letter.

Director, WII, FAA & Director
Address: Wildlife Institute of India, Chandrabani, Dehradun
Phone No.: 01352640910

Thanking you,

Yours faithfully,

NO & CPIO (RTI)

Draft Action Plan of mitigation measures for protection of Great Indian Bustard

As ordered by the Hon. National Green Tribunal Principal Bench, New Delhi O.A. 385/2019 regarding Great Indian Bustard Conservation, the draft action plan on recommendations given in the order is as follows

Point 4.2. Mitigate all power transmission lines passing through priority bustard habitats identified by WII (Please refer Annexure 10) by undergrounding cables (where technically/ technologically feasible) or installing bird diverters to make them prominent to birds. The priority areas where this intervention is required has been mapped by the Wildlife Institute of India and a technical-cum-financial proposal has been submitted to RVPNL for necessary approvals from Rajasthan Energy Department for mitigation. This action must be expeditiously implemented in the short-term (1-3 years), as power-line mortality is currently the biggest threat to the species.

Action taken: The WII has identified existing transmission lines passing in the Great Indian Bustard (GIB) priority area of Rajasthan, and has recommended undergrounding 104 km of 33 kV lines and installing diverters on 1238 km lines (enclosed as Annexure 4.2.1). The Central Electricity Authority, Government of India has issued advisory vide letter no. CEI/1/4/2019 dated 01 May 2020, suggesting that identified existing ≤ 33 kV lines passing through GIB priority area (GIB Arc) may be undergrounded, and that of ≥ 132 kV may be provided with bird diverters in a time bound manner by the owner utility of the line (enclosed as Annexure 4.2.2). The Rajasthan Government has issued minutes vide letter no. F.NO 10(/Forest/2020 dated 04 September 2020 for the meeting held on 02 September 2020 under the chairpersonship of Principal Secretary (Forests) with Principal Secretary (Energy), that all existing power-lines passing through identified GIB habitat should have bird diverters installed (enclosed as Annexure 4.2.3). Also, in the above meeting, it was concluded that undergrounding of overhead transmission lines for the ongoing projects was not economically viable and the decision of the Government of Rajasthan (GoR) is being communicated to Ministry of Power, Government of India, whereas, the installation of Bird Diverters is to be implemented by Energy Department of Rajasthan.

For GIB habitat in Abdasa Kachchh, Gujarat, priority power lines for undergrounding (283 km) and for installation of bird diverters (600 km) has been mapped (enclosed as Annexure 4.2.4) and provided to CWLW Gujarat.

Action proposed: To save the only viable population (128 \pm 19SE) of Critically Endangered GIB, Rajasthan Energy Department will ensure that the following time bound actions are implemented by the owner utility of powerlines:

| Action | Owner agency for implementing | Line length (km) | Timeline |
|--|-------------------------------------|------------------|--|
| 1. Undergrounding of identified 33 kV lines in priority GIB area | Wind world | 21 | Timelines will be determined as per time required for procuring "right of passage". This is to be specified by the Department of Energy Rajasthan by January 2021. Meanwhile diverters will be fitted on these priority lines by May 2021. |
| | Jodhpur Discom | 45 | |
| | Suzlon | 38 | |
| 2. Installing diverters on identified ≥ 33 kV lines | Rajasthan Vidyut Prasaran Nigam Ltd | 500 | 261 km by May 2021, 125 km by Dec 2021, |

2

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|--|----------------|-----|---|
| in GIB priority area for the life of the Project* | (RVPNL) | | 114 km by Mar 2022 |
| | Suzlon | 624 | 43 km by May 2021, 117 km by Dec 2021, 464 km by Mar 2022 |
| | Jodhpur Discom | 70 | 70 km by Dec 2021 |
| | Greenko | 40 | 40 km by Mar 2021 |
| | Gamesa | 4 | 4 km by Mar 2022 |
| Maintenance of bird diverters for the life of the power-line is required to be ensured | | | |

Since bird diverters reduce and do not eliminate mortality, as and when undergrounding higher voltage power lines i.e. > 33 kV becomes technologically/economically feasible, undergrounding these power lines in GIB priority areas for effective mitigation of this crucial threat, as a permanent solution in the long-run (5-15 years) should be considered and acted upon by the Rajasthan Government to ensure long term survival of the State Bird of Rajasthan. As proposed by MNRE the undergrounding is kept to a bare minimum (limited to lines that cause maximum mortality, 104 km that are technically feasible), while installation of diverters is to be done on all other existing power lines in the GIB priority area as well as on all new overhead power lines within the GIB potential area (which are intermittently used by GIB. The GIB priority and potential area maps of Rajasthan and Gujarat is enclosed as Annexure 4.2.5.

Specifications for standardizing bird diverters are being prepared by Central Electricity Authority in consultation with WII, and shall be shared with all power companies for deployment on all conductors and earth wires.

Point 4.3. Disallow new wind turbines, solar farms (photovoltaic power stations) from priority GIB habitats and remove existing ones that are in the critical areas. The priority areas where this intervention is required has been mapped by Wildlife Institute of India (Please refer Annexure 10). This action needs to be implemented in the long-term spanning 5-10 years from present.

Action taken: The Hon. NGT(CZ), in O.A. 63 & 64/2016, has ordered status quo in Jaisalmer with regards to establishment and operation of wind turbines (Order dated 06 September 2016 is enclosed as Annexure 4.3.1), and stated that "wind mills cannot be allowed to be established in the areas where it can cause harm to the GIBs which are critically endangered species and other species found in that area" (Order dated 10 October 2017 is enclosed as Annexure 4.3.2). In response to DCF(WL) Jaisalmer's letter no. 3541 dated 23 September 2016 (enclosed as Annexure 4.3.3), District Collector Jaisalmer instructed district Sub-Divisional Magistrates to ensure compliance of Hon. Courts' Order vide letter no. 6775-82 dated 27 October 2016 and again by letter no. 7919-20 dated 29 December 2016 (enclosed as Annexure 4.3.4). The enclosure with CWLW Rajasthan letter no F8(201) Legal/CWLW/2019/748 dated 20.11.2020 has already mentioned that a status quo has been maintained in Jaisalmer with regards to establishment and operation of windmills in compliance of the order (enclosed as Annexure 4.3.5).

Action proposed: New wind turbines proposed after the Hon. NGT (CZ) Order dated 06 September 2016 may be disallowed in the GIB priority area, in accordance to the MoEF&CC's letter no. F. No. 1-16/2019 WL dated 11 July 2019 to Hon. NGT-Principal Bench (enclosed as Annexure 4.3.6).

As per the WII's ongoing research, appropriate mitigation of power-lines associated with existing wind turbines and solar plants, can largely negate their direct impacts on GIB. Removal of existing wind turbines and solar plants from 'critical areas' may not be as essential as mitigating power-lines associated with them. Therefore, considering the costs/benefit ratio and legalities of decommissioning existing wind and solar projects, these installations may be retained provided their overhead power-lines are undergrounded (where and whenever technically/ technologically



feasible as a permanent solution in the long-run in 5-15 years) and installing bird diverters in the meantime to make them prominent to birds, and future expansion is not allowed in GIB priority area. The CWLW Rajasthan in his letter dated 20.11.2020 (enclosed as Annexure 4.3.5) has also opined against the removal of existing wind and solar farms owing to them being sources of green energy. WII will take up further research on mitigation measures to reduce bird mortality from existing wind turbines and their power lines.

Point 4.4. Develop predator-proof enclosures of 5-10 sq km area in known breeding sites in and around DNP to improve GIB recruitment, and keep away nest predators by routinely translocating dogs, pigs, foxes, mongoose and other species outside the enclosures using professional trappers. Number of water guzzlers inside the enclosures need to be reduced to curtail availability of surface water that attracts non-native nest/chick predators such as dogs, foxes, pigs and mongooses. Also establish such enclosures in the larger Thar (Jaisalmer) landscape, as identified by joint surveys of WII and RFD. These enclosures need to be developed and will serve as breeding sites and stepping stones for movement across the larger landscape.

Action taken:

As per the letter from CWLW Rajasthan dated 20.11.2020 (Annexure 4.3.5) the Forest Department has prioritized predator-proofing of important enclosures (six enclosures in first phase and some of these enclosures are prime breeding sites for GIB) out of the 73 enclosures established earlier in and around Desert National Park (DNP) WLS, with a combined area of 33.15 sq km and perimeter of about 48 km, following the recommended design of the WII. Of these, 18 satellite enclosures such as Ramdevra, Rasla, Chacha in important GIB areas were created earlier by Rajasthan Forest Department in important GIB areas outside DNP. Funds for predator proofing 10.5 km length of the fencing have been obtained by DCF (WL) Jaisalmer, which is underway, and DCF has further requested for funds to complete predator proofing work of the remaining 37 km fencing from CWLW, Rajasthan (enclosed as Annexure 4.4.1). The Rajasthan Forest Department has requested funds from MoEFCC, GOI for completing predator proofing work of the remaining ~37 km fencing of important enclosures during Phase 1 and ~88 km in Phase 2 under the Centrally Sponsored Scheme of Development of Wildlife Habitats vide letter no. F.11. (395) Dev-II/GIB/CWLW/2020-21/211 dated 12 November 2020 (enclosed as Annexure 4.4.2), as per the details given in the letter of DCF(WL) Jaisalmer (enclosed as Annexure 4.4.1). As per CWLW Rajasthan, one 200 ha closure has been made predator proof with 4 inch chain link.

Permissions were issued to DCF(WL) and WII for removal of nest predators from enclosures (enclosed as Annexure 4.4.3), and the WII and Rajasthan Forest Department translocated some predators (fox, monitor lizards and dogs) this year.

Water availability in the guzzlers is being strategically managed by Rajasthan Forest Department, based on the location, abundance and density of preferred and that of unwanted species, leaving guzzlers dry for discouraging unwanted species like dogs and pigs.

Action proposed: Process is underway to make 10.5 km length of the fencing as predator proof, as per current availability of funds with Rajasthan Forest Department. The funds for further predator proofing have been requested by CWLW Rajasthan from MoEF&CC and Phase 1 work would be completed within one year of receipt of required budget (enclosed as Annexure 4.3.5).

Even if enclosures are predator-proofed, predators (dogs, pigs, foxes, mongoose and others) that are already inside them need to be managed, to reduce GIB egg/chick predation. However, this exercise will be fruitful only after the enclosures are made predator-proof and monitored / repaired regularly for breakages, as communicated from the WII to CWLW Rajasthan vide letter no. F. No. WII/TMP/CAMPA-GIB Project/2016/13 dated 30 August 2019 (enclosed as

4

Annexure 4.4.4). The permission to remove nest predators would be extended by Rajasthan Forest Department as and when required to continue implementing this exercise.

Rajasthan Forest Department would strategically manage water guzzlers by drying out all but up to one guzzler per consolidated enclosure, for discouraging nest/chick predators like dogs and pigs.

The activity of creating enclosures outside DNP in the larger Thar landscape identified by joint surveys of the WII and Rajasthan Forest Department would be continued with funding obtained from Rajasthan State Govt. and Centrally Sponsored Scheme of Integrated Development of Wildlife Habitats, and the proposal for fund request would be prepared and sent by the DCF (Jaisalmer) as and when required on a case by case basis, provided Rajasthan Forest Department gets access to land, as Forest Department hardly own any land in these areas (enclosed as Annexure 4.3.5). Any such measures should keep in mind local community concerns and involvement before implementation.

Point 4.5. Create an inviolate area of 200 sq km (WII proposal- 500 sq km) in northern DNP as a National Park through voluntary and incentivized relocation of local people (if needed) with the mandate of conserving GIB.

Action taken: Rajasthan Forest Department has proposed an inviolate area in the form of National park of around 200 sq km. State government has issued directions to the District Collector Jaisalmer vide letter no. F.NO10()/Forest/2020 dated 04 September 2020 (enclosed as Annexure 4.5.1), and the DCF(WL) Jaisalmer has submitted the required details to District Collector, Jaisalmer vide letter no. 8073 dated 24 September 2020 (enclosed as Annexure 4.5.2).

Action proposed: Voluntary relocation of people from Desert National Park (DNP) WLS may be taken up only if necessary. In the past, public antagonism arising from legislative restrictions on land use/transactions in some Protected Areas has led to the persecution and local extirpation of GIB. Delineation of the proposed inviolate area would be revised to avoid existing settlements and privately owned lands as much as possible. Any proposed relocation program would be through incentivized relocation without any coercion, and with subsequent handholding that is implemented under flexible time frames. Action plan for relocation showing the boundaries of proposed inviolate area by Rajasthan Forest Department is enclosed as Annexure 4.3.5. Relocation plan will be submitted after finalization of relocation package.

Point 4.6. Delineate priority GIB habitats outside DNP as Eco Sensitive Zones where agro-pastoral practices are regulated to low-intensity through Zonal Management Plans and detrimental infrastructure such as wind turbines and overhead transmission lines are curtailed. This action needs to be implemented in the short-term (1-2 years).

Action taken: The GIB priority area outside DNP identified by WII (Available at wii.gov.in/gib_powerline_maps and enclosed as Annexure 4.2.5) can serve as 'shock absorber' to wildlife outside Protected Area, facilitate GIB movements between two populations – Desert National Park and Pokhran Field Firing Range, and regulate activities that are detrimental to GIB conservation such as expansion of transmission lines. A fresh proposal of declaring this area as Eco Sensitive Zone has been communicated by the DCF(WL) Jaisalmer to the District Collector Jaisalmer vide letter no. F () Misc/DCFWLJsm/2020-21/2849 dated 10 September 2020 (enclosed as Annexure 4.6.1) for consideration in the committee formed under District Magistrate by the State Government for this purpose vide Order no F56(4)/AR/GR-3/2007 date 03 July 2012. The meeting of the aforesaid committee could not be convened due to Code of Conduct being in application for Panchayati Raj and local bodies election.

Action proposed:



The meeting of the committee formed under District Magistrate by the State Government for this purpose will be convened as soon as the election process is over and based on the decision taken, the proposal will be forwarded with appropriate comments. The Rajasthan Forest Department in association with other State Departments will process these proposals at the earliest as per the Guidelines of Declaration of Eco Sensitive Zone by MoEF&CC (enclosed as Annexure 4.6.2). After declaration of the ESZ, the zonal master plans would incorporate incentivised agro-pastoral practices that are sensitive to GIB conservation.

Point 4.7. Engage with local communities to promote bustard-friendly practices such as stall-feeding of livestock during monsoon – GIB chick-rearing and grass growing season – and cultivating food crops preferred by GIB during monsoon such as gram, ground nut and millets while leaving the fields fallow for the remaining period. These land-uses can be promoted by Rajasthan Forest Department in conjunction with other State Departments, through appropriate financial and other incentive schemes, such as provisioning of fodder for stall feeding or compensatory payments to foregone production cost by opting for low intensity farming. This action needs to be implemented in the longer scale (4–8 years).

Action taken:

Currently, the Rajasthan State government has been organizing 'Chara-depots' in Jaisalmer during summer, to promote stall feeding of livestock. The District Collector, Jaisalmer during the meeting held on 10 November 2020, on the request of DCF (WL), Jaisalmer ordered continuation of 'Chara-depots' camps inside DNP, specifically around key breeding enclosures of DNP (Sudasari, RKVY, Chowani and Ramdevra) until the end of monsoon from 2021 and a proposal to be sent to State Government in this regard (enclosed as Annexure 4.7.1). This has been done to promote stall feeding of cattle inside DNP, so that grazing pressure is reduced during GIB breeding season.

Action proposed: Efforts would be made to organise 'Chara-depots' camps inside DNP, specifically around key breeding enclosures of DNP (Sudasari, RKVY, Chowani and Ramdevra) into a regular activity from 2021 onward. Consultation on promotion of bustard friendly agro-pastoral practices with the agriculture and animal husbandry departments, other agencies working in the area and local villagers facilitated by Rajasthan Forest Department would be initiated to examine the feasibility and develop strategies if conducive for implementation in one or two villages in GIB priority area on pilot basis. Pastures would be developed near settlements in an attempt to reduce livestock grazing in wilderness areas.

Point 4.8. Reduce poaching of GIB and other wildlife in the Thar landscape by improving protection enforcement through training of Forest Department frontline staff in smart patrolling tools with the help of conservation organizations such as WII and WWF, provisioning of better patrolling equipment, enrolling frontline staff from non-wildlife divisions of Forest Department and local volunteers in this activity, and ensuring trials of convicts. Further, it is to bring to the notice that areas controlled by Armed forces in Jaisalmer District harbor about 50% of the GIB population found in Rajasthan. This secure zone under the control of Army where human activities are minimal is a blessing for the bird on the verge of extinction. Thus, continued cooperation of Army, Air Force and Border Security Force to conserve the GIB and control the incidents of poaching could play a vital role as well.

Action taken: WII team and Rajasthan Forest Department staff have been regularly interacting with the Indian Army personnel in Pokhran Field Firing Range on issues relating to GIB conservation. For formal involvement of Indian Armed and Paramilitary forces in GIB conservation, a letter no. D.O. 15-7/2015-WL-Pt-2 dated 10 July 2020 was communicated by Additional Director General of Forest, MoEF&CC to General Officer Commanding-in-Chief, Southern Command of Indian Army (enclosed as Annexure 4.8.1).



A training workshop for the field staff of DNP on Desert biodiversity and conservation techniques was conducted jointly by Rajasthan Forest Department and the WII on 12 November 2020. Request for funds for equipment to implement smart patrolling and training in DNP during 2020-21 under GIB Conservation Programme was communicated by CWLW Rajasthan to MoEF&CC vide letter no. F.11. (395) Dev-II/GIB/CWLW/2020-21/210 dated 12 November 2020 (enclosed as Annexure 4.8.2)

Action proposed: A technology aided patrolling framework with frontline staff and local wildlife enthusiasts (if needed) on the lines of MSTRIPES- Monitoring System for Tigers - Intensive Protection and Ecological Status implemented by National Tiger Conservation Authority (NTCA) would improve protection enforcement. The WII would provide technical support in developing tools and training of frontline staff.

Workshops and other outreach to sensitize Indian Armed and Paramilitary Forces on GIB conservation would be organized. The MoEF&CC would pursue for support of Indian Army and Border Security Force in the conservation and breeding programme of GIB at Ministerial level, as decided in the GIB Steering Committee Meeting on 21 July 2019 (enclosed as Annexure 4.8.3). The following timely actions would be implemented by the concerned agencies.

| Action | Task | Timeline |
|---|---|--|
| 1. Capacity building of DNP frontline staff in wildlife monitoring & conservation enforcement | Training by Rajasthan Forest Department (Forest Training Institute, Jaipur) in association with the WII and inputs from Wildlife Crime Control Bureau | One workshop by June 2021, followed by subsequent refresher trainings at least twice a year for new recruits |
| 2. Development of MSTRIPES tool | WII | By September 2021 |
| 3. Implementation of MSTRIPES tool | Rajasthan Forest Department with technical help of WII | Commencement by December 2021 |
| 4. Workshop with Indian Armed and Paramilitary Forces | Formal request by MoEF&CC for support from Indian Armed and Paramilitary Forces in GIB conservation | June 2021 (before the onset of next GIB breeding season) |
| | Outreach by WII and Rajasthan Forest Department | One workshop by Dec 2021 |

Point 4.9. Implement the conservation breeding programme by creating an offshore insurance population (if needed) by shipping a batch of about 10 GIB eggs to a state-of-the-art international breeding center such as IFHC houbara breeding center at Abu Dhabi that produces up to 30,000 houbara chicks every year (short-term solution 3-5 years), and meanwhile, establish a national breeding center by training staff, developing a state of the art center at Sorsan (main facility) and Ramdevra (satellite facility), where eggs collected from wild can be artificially incubated, hatched, reared and captive bred to create an insurance population that can be reintroduced into the wild.

Action taken: The GIB conservation breeding program is being implemented by WII under the Project- Habitat Improvement and Conservation of Great Indian Bustard with funding support of MoEF&CC (National CAMPA) and collaboration of Rajasthan Forest Department and International Fund for Houbara Conservation, Abu Dhabi (IFHC), one of the best agencies in the world for breeding bustards. Based on consultation between WII scientists and IFHC, the latter agreed to collaborate and assist in conservation breeding of GIB within India, instead of supplying eggs to Abu Dhabi. A state of the art pilot facility has been developed in Sam, Jaisalmer where 16 Great Indian Bustard

chicks of 2-16 months age are being reared from wild collected artificially hatched eggs by a team of scientists and technicians from WII, with the assistance and training by IFHC. Therefore, the need to export eggs to Abu Dhabi no longer exists.

Action proposed: The Conservation Breeding Facility at Ramdevra is almost complete and will be functional in by March 2021 where GIB will be reared for the long-run starting from the next breeding season in monsoon 2021. After the operationalization of Ramdevra facility, work on setting up of Sorsan facility will be initiated.

For successfully reintroducing captive bred birds into the wild, the programme needs to be run by WII for long-term (35 years) with appropriate financial support from MoEF&CC on a regular basis, as per the approved MoA between MoEF&CC, Rajasthan Government and the WII (enclosed as Annexure 4.9.1) for continuation of Project activities by the WII in collaboration with Rajasthan Forest Department and International Fund for Houbara Conservation. Efforts will be made to procure eggs/birds from surviving GIB populations in other range states (Gujarat, Karnataka, Andhra Pradesh and Maharashtra) for representation in the Founder Population of GIB for conservation breeding.

Other range states (Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Telangana, and Karnataka) should identify and manage grassland/savanna habitat patches (~ 200 km² each) without hostile infrastructure for Bustards as per the MoEF&CC's Bustard recovery Guidelines (Annexure 4.9.2) for augmentation and reintroduction of captive bred birds. WII will provide the technical assistance required for identification, management and reintroduction.

Point 4.10. To continue with targeted research on GIB to characterize threats spatio-temporally, understand landscape use patterns using satellite telemetry, and objective monitoring of their population status by involving research organizations, understanding of species biology, behavior, reproduction, genetics, ecology and management in wild and captivity of GIB, and collection of biological samples for species identification from carcasses, for disease screening for better understanding of threats, develop disease prevention protocol, and forensic examination of mortalities.

Action taken: Researchers and Scientists have worked on ecological and conservation aspects of GIB in the past. Further, significant progress has been made in ecological and conservation research of the GIB under the WII's Project- Habitat Improvement and Conservation Breeding of Great Indian Bustard, funded by MoEF&CC (National CAMPA), and implemented in collaboration with State Forest Departments and NGO partners. The Project is ongoing since 2016 with due permissions (enclosed as Annexure 4.10.1), and has generated comprehensive understanding of a) threats such as power-lines through surveys and free-ranging dogs through radio-tracking, b) species' biology, habitat use and ranging patterns based on telemetry of five female GIB in Thar and two female GIB in Kachchh, c) numbers and distribution of GIB population in Thar landscape through surveys during 2016, 2017-18, and d) ecology, behavior, and genetics of GIB population and the project reports have been regularly submitted to MoEF&CC.

Action proposed: Additional 12-15 birds need to be captured and tagged for robust inference of ecology and space use, efforts to achieve this data and use it for conservation management of GIB will be done in all earnest. Identification of areas which are intensively used by GIB for breeding or foraging and are extremely important for their continued survival, need further refined research based on long-term (3-5 years) telemetry and observational data. This information is being generated by the WII Project- Habitat Improvement and Conservation Breeding of Great Indian Bustard, and maps of intensively used areas as well as GIB habitats in other bustard range states will be developed by 2025. Research would be continued for better understanding of species ecology and breeding biology. Biological samples would also be continuously obtained of captive and wild individuals with requisite permissions for genetic analysis, disease monitoring and physiological studies. Funding support for this research plan and necessary research permissions inclusive of telemetry, biological sample collection to WII would require facilitation by MoEF&CC, Rajasthan and other State Forest Departments.



8

Annexures

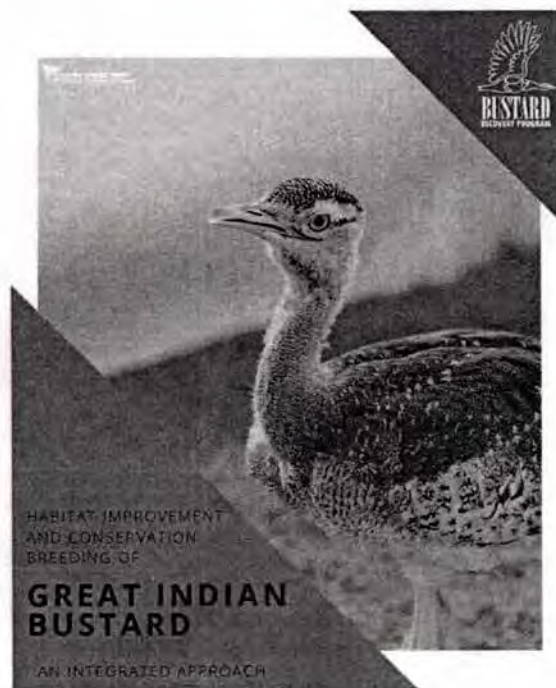
- 4.2.1. Power-line mitigation proposal submitted by WII to RVPNL & RFD.
- 4.2.2. Advisory issued by Central Electrical Authority (CEA) dated 01 May 2020.
- 4.2.3. Minutes of the Meeting of Rajasthan Forest Department on power-line mitigation dated 04 September 2020.
- 4.2.4. Details of power-lines proposed for mitigation in Great Indian Bustard habitats of Kutch, Gujarat
- 4.2.5. Maps of Great Indian Bustard priority and potential areas in Thar, Rajasthan and Kutch, Gujarat
- 4.3.1. Hon. NGT(CZ) Order dated 06 September 2016 in O.A. 64/2016 Mahendra Borawat vs UOI.
- 4.3.2. Hon. NGT(CZ) Order dated 10 October 2017 in the O.A. 63/2016 Mahendra Borawat vs UOI.
- 4.3.3 Letter from DFO(WL) Jaisalmer regarding Hon. NGT(CZ) O.A. 64/2016 dated 23 September 2016.
- 4.3.4. Letter from District Collector Jaisalmer regarding Hon. NGT(CZ) O.A. 64/2016 29 December 2016.
- 4.3.5. Letter from CWLW Rajasthan to Director, WII, Dehradun F8(201)Legal/CWLW/2019/748 dated 20.11.2020
- 4.3.6. Letter from DIG(WL) to Hon. NGT regarding factual report on GIB dated 11 July 2019.
- 4.4.1. Letters from DCF(WL) Jaisalmer for predator-proofing of enclosures.
- 4.4.2. Letter from CWLW Rajasthan to MoEF&CC for funds to construct predator proof fences dated 12 November 2020.
- 4.4.3. Permission letters from CWLW Rajasthan for predator removal in DNP.
- 4.4.4. Letter from WII regarding predator removal exercise to CWLW Rajasthan dated 30 August 2019.
- 4.5.1. Minutes of the Meeting on land related issues of DNP dated 04 September 2020.
- 4.5.2. Letters from DCF(WL) Jaisalmer to District Collector Jaisalmer.
- 4.6.1. Letter from DCF(WL) Jaisalmer to the District Collector Jaisalmer on Eco-Sensitive Zone dated 10 September 2020
- 4.6.2. Guidelines for declaration of Eco-Sensitive Zone issued by MoEF&CC.
- 4.7.1. Minutes of the Meeting regarding stall feeding of livestock in and around DNP dated 10 November 2020.
- 4.8.1. D.O. letter from ADG, MoEF&CC to GOC, Southern Command, Indian Army dated 10 July 2020.
- 4.8.2. Letter from CWLW Rajasthan to MoEF&CC for funds for Smart Patrolling in DNP dated 12 November 2020.
- 4.8.3. Minutes of the Meeting of GIB Steering Committee held on 21 July 2019.
- 4.9.1. Approved Tripartite MoA between MoEF&CC, Rajasthan Government and WII on GIB and LF Conservation Breeding.
- 4.9.2. MoEF&CC's Guidelines for State Action Plan for Resident Bustards' Recovery Programme
- 4.10.1. Project permissions from CWLW Rajasthan for GIB telemetry, GIB egg collection and wildlife carcass sampling in Jaisalmer.

Table 1 Details of Great Indian Bustard nests located in Desert National Park, Jaisalmer

| S. No | Nest confirmation date | Enclosure/Area | Land cover | Fate of the nest |
|-------|------------------------|---------------------------------|------------------|------------------|
| 1 | 14- June-2019 | RKVY/Near Digha Magara | Grassland | Collected |
| 2 | 16- June-2019 | ACD/ Near Jhopa | Barren,Grassland | Collected |
| 3 | 17-June-2019 | ACD/ Near Northeast corner | Barren,Grassland | Collected |
| 4 | 18-June-2019 | ACD/ Near B Chowki | Grassland | Collected |
| 5 | 20-June-2019 | ACD/Bhagu Magara, Nanga Dadhiya | Grassland | Collected |
| 6 | 23-June-2019 | ACD/ Near Nadi | Barren,Grassland | Collected |
| 7 | 25-June-2019 | PPC Chowani | Barren,Grassland | Unknown |
| 8 | 01-July-2019 | RKVY/Near Digha Magara | Barren,Grassland | Predated |
| 9 | 02-July-2019 | ACD/Near Nanga Dadhiya | Grassland | Predated |
| 10 | 02-July-2019 | RKVY/Near RKVY Guzzler | Grassland | Unknown |
| 11 | 03-July-2019 | ACD/Near Euphorbia clump | Barren,Grassland | Collected |
| 12 | 11-July-2019 | ACD/Near Jhopa | Barren | Collected |
| 13 | 18-July-2019 | ACD/Near Bhagu Magara | Barren,Grassland | Collected |
| 14 | 18-July-2019 | ACD/Jhopa and Bhagu Magara | Barren,Grassland | Hatched |
| 15 | 08-November-2019 | PPC Chowani | Grassland | Collected |
| 16 | 14-January-2020 | RKVY choki | Grassland | Collected |
| 17 | 05-March-2020 | ACD/Bhagu Magara | Grassland | Collected |
| 18 | 23-March-2020 | ACD/Near Nanga Dadhiya | Barren,Grassland | Predated |
| 19 | 24-March-2020 | ACD/In A enclosure | Grassland | Predated |

(10)

https://wii.gov.in/images//images/documents/species_recovery_programme/gib_habitat_improvement_conservation_report_iii.pdf



PROGRESS REPORT III
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Wildlife Institute of India

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Total pages 134

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