

F.No. 1-8/2020 WL (Pt.)
Government of India
Ministry of Environment, Forests and Climate Change
(Wildlife Division)

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-1 10003
Date: 22nd December, 2020

**The Registrar,
National Green Tribunal,
Principal Bench
New Delhi-110001.**

Sub: Compliance report of Order dated 20-02-2020 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors. before the Hon'ble National Green Tribunal, New Delhi-reg.

Sir,

Kind reference is invited to the order dated 04-09-2020 and 20-02-2020 in the above cited case, wherein the Hon'ble NGT has directed the Ministry to furnish a compliance report regarding a time bound action plan for the conservation of Great Indian Bustard.

Therefore, in compliance of the aforesaid order, the undersigned is directed to enclose an interim compliance report of the Joint Committee for the kind perusal of this Hon'ble Tribunal.

Yours faithfully,


22-12-2020

Rakesh Kumar Jagenia
Deputy Inspector General (Wildlife)
E-mail: digwl-mefcc@gov.in
Telefax: 011- 24695390

Encl.As above

Copy for kind information to :-

Shri Attin Shankar Rastogi, Standing Counsel for MoEF&CC, National Green Tribunal, New Delhi.

Interim compliance report of the Joint Committee constituted vide order dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India &Ors. pending before the Hon'ble National Green Tribunal, New Delhi.

1. That at the very outset the Ministry of Environment, Forest and Climate Change, Government of India wishes to submit that it attaches high importance to the matters of conservation and development of Great Indian Bustard (GIB in short) and Lesser Floricans, and is fully committed to pursue these with the relevant stakeholders.
2. That the Hon'ble NGT vide its order dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India &Ors., has been pleased to constitute a committee comprising the following officials, and directed to finalise an Action Plan on recommendations for conservation of Great Indian Bustard:-
 - i. Director General of Forest, MoEF&CC- **Chairperson**
 - ii. Additional Director General of Forest (Wildlife), MoEF&CC- **Member Secretary**
 - iii. Nominee of Ministry of Power, Govt. of India.
 - iv. Nominee of Ministry of New and Renewable Energy, Govt. of India.
 - v. Nominee of Energy Department of Gujarat
 - vi. Nominee of Energy Department of Rajasthan.
3. That since its constitution the Committee has been continuously engaging with different stakeholders including the Central Government Ministries of Power and New & Renewable Energy, the Central Electricity Authority, the Forest Departments, Energy Departments, and energy generation/ transmission agencies of the States of

Rajasthan, Gujarat, Maharashtra, and has held successive meetings dated 16th October 2019, 11thNov, 2019 , 05th May, 2020, 03rd Nov, 2020 and recently on 17th Dec, 2020 in this regard so that all the relevant issues are considered in their full comprehension and a time-bound actionable plan is prepared in the best interest of conservation and development of GIB. It is also to mention that while deliberations have been going on in the Committee meetings, concomitant and significant field action on the ground has also been pursued so that it becomes a matter of priority for all stakeholders, and these conservation and development measures are scaled-up with time.

4. That during the meetings of the Committee it was impressed upon by the Ministry of New & Renewable Energy (MNRE), Government of India that the main areas of conservation of GIB in western Rajasthan overlaps with one of the main renewable energy hubs of the country. As per inputs provided by the MNRE, the area has been in development as such since 2004 and already major power generation stations based on wind and solar energy totaling around 1500 MW have been commissioned. Although, the area has huge solar and wind power potential, only 2400 MW of additional renewable projects are under execution in that area which will be critical for energy security of the country. This will contribute not only for meeting national target of installing 1,75,000 MW renewable capacity by 2022 but also for meeting India's Nationally Determined Contribution (NDC) under the Paris Climate Agreement to achieve 40 percent of installed electric power capacity from non-fossil sources by 2030. These concerns were appreciated. However, given the needs of GIB conservation, it ought to be given highest priority, and all feasible action need to be taken to protect, conserve and develop the GIB population in this area. Accordingly, the Ministry of Environment, Forests and Climate Change has continually taken up

with all the concerned stakeholders in its deliberations so far so that they could appreciate the seriousness and the critical importance of concerted action to protect, conserve and develop GIBs and their habitats within the area of their operation, and start taking concerted action accordingly. A summary of such issues taken up in the Committee meetings are given in the following paragraphs:

- i. The first meeting of the Committee was convened on 16th October, 2019 under the Chairmanship of DGF&SS, MoEF&CC. During the meeting, it was brought to the notice of the committee that environmental clearances are being obtained for the power projects. It was highlighted that the projects which have already been contracted/initiated in the field, it would be difficult to initiate the mitigation like underground cable or aerial bunched cables or cornered conductors as it would amount to revising the project cost and initiating a fresh process for financial clearance. This might lead to the undue delay in execution of important projects of alternate energy. It was further brought to the notice of the committee that the power-lines passing through GIB arc are of higher voltage and at present there is no technology which is techno-economically feasible for under grounding such high voltage power cables. The power transmission agencies voiced the major issue relating to availability of financial resources for underground of technically feasible segments of the transmission lines. The committee, however, made clear that there is urgent need to have a time bound action plan for the implementation of all the mitigation measures such as under-grounding of power lines, installation of bird diverters and their regular maintenance and monitoring by the power agencies. The minutes of the Meeting are attached at **Annexure-I**.

- ii. A second meeting of the committee was convened on **11th November, 2019**. In the meeting, technical feasibility to have a hybrid power transmission line including underground as well as over ground transmission were discussed. However, the difficulties in maintenance of such hybrid systems and ensuring the uninterrupted supply of electricity without any transmission losses were brought before the committee. It was also informed that it might not be possible to introduce such systems in the existing power lines since most of the work has been completed and cost of the underground lines is 3 to 4 times higher and therefore, non-economic to convert the current overhead transmission lines into the hybrid transmission lines. The minutes of the Meeting are attached at **Annexure-II**.
- iii. Thereafter, a meeting was convened on **05th May 2020** to discuss progress by the relevant agencies for the formulation of the action plans, as well as various steps being taken on the ground by the GIB range states, Wildlife Institute of India, Dehradun, Ministry of New and Renewable Energy, Ministry of Power, State Energy Departments of Rajasthan and Gujarat. The minutes of the Meeting are attached at **Annexure-III**.
- iv. The Committee convened another meeting on **03rd November, 2020** and each of the recommendation listed in the order of the Hon'ble NGT dated 04.09.2019, and the progress made by different agencies, including on providing the requisite inputs to finalise the action plan was reviewed in detail. Specific directions were given by the Chairman of the Committee to each of the concerned stakeholders in this regard so that the plan could be finalised immediately. The minutes of the meeting are attached at **Annexure-IV**.

- v. A meeting of the Committee was again convened on **17th December, 2020**. The Committee discussed action taken by various stakeholders on each of the recommendations, and also the draft GIB conservation action plan prepared in consultation with various concerned stakeholders was deliberated during the meeting. Given the unique geography and the land tenure of the area, various constraints that were highlighted included:
- a. Technical Specifications of bird diverters are required to be finalized by Ministry of Power and Central Electricity Authority (CEA) in a time bound manner. CEA will also review and recommend if bird diverters are to be installed on the earthing wire alone or on all the wires in the transmission line.
 - b. Technical phrases used in Action Plan such as ‘critical area’, ‘priority area’ and ‘potential area’ must be used unambiguously so that clear delineation could be done on the map and on the ground without any overlap so that renewable energy project developers could plan accordingly.
 - c. As GIB potential area covers a very large geographical space, putting absolute restrictions on Renewable Energy projects would be counter-productive, as the area around Desert National Park (DNP) is very crucial for green energy supply of the country as informed by MNRE.
 - d. Under-grounding of transmission lines be taken up on priority as per technical feasibility, while widespread installation of bird diverters may be pursued strongly.
 - e. Various agencies on renewable energy emphatically requested that any restriction on new renewable energy projects should be made prospectively and not retrospectively. They submitted that all those projects for which clearances have been given already may be continued, otherwise this would create serious financial and technical complexities including revision of tariffs as the projects were given go-ahead after a

detailed bidding process. Further, under-grounding of already existing power-lines will entail huge financial resource for which funding support is required either from Government or by way of a suitable order on tariff by the electricity regulator which will have serious downstream impacts.

- f. Similarly, very large funds and lands are required for voluntary relocation of villages in the Desert National Park and the process itself is highly time consuming to serve a useful purpose in the immediate time period.
- g. Significant progress has been made towards construction and maintenance of predator proof fencing and GIB enclosures, however, for the system to have permanent benefits, sustainable funding successively over the years is required.
- h. A proposal for declaration of ESZ around DNP has already been formulated and is ready to be deliberated by the Committee constituted for this purpose by Government of Rajasthan. The Chief Wild Life Warden (CWLW), Rajasthan informed that by including Priority GIB habitats outside DNP in the proposed Eco Sensitive Zones, the boundaries of the proposed ESZ is stretching to hundreds of kilometres away from the DNP which is not a practical solution for effective management, and, therefore, alternative spatial delineation as per need and practical aspects of GIB conservation needs to be reviewed properly.
- i. Energy agencies submitted that under-grounding of power lines would also entail land acquisition. Timelines need to be fixed and fund requirement and sources of funds need to be ascertained to complete the process. Given the significance of the task, this should be acted on priority.

It was decided during the meeting that the views expressed by the concerned stakeholders are required to be suitably incorporated in the draft action plan. Further,

discussion is also required on the draft action plan before it is finalized and submitted to Hon'ble Tribunal.

5. Substantial progress has already been made on the recommendations made by the Wild Life Institute of India (WII). A detailed summary of the actions taken by the various stakeholders on the recommendation cited in para-2 of the Hon'ble NGT order dated 04-09-2019 are at **Annexure-V**.
6. Further, the Ministry has taken up an initiative on conservation breeding of the Great Indian Bustard (GIB) in collaboration with Rajasthan, Gujarat and Maharashtra Forest Departments and technical support from Wildlife Institute of India (WII), Dehradun. The Ministry with financial support from National Authority for Compensatory Afforestation Funds has sanctioned an outlay of Rs. 33.85 crores for the duration of five years (2016-2021) for the programme titled 'Habitat Improvement and Conservation Breeding of Great Indian Bustard-an integrated approach'. Under the project, the details of the major works done are at **Annexure-VI**.
7. Financial Assistance is also being provided by the Ministry to the Great Indian Bustard range states like Rajasthan, Maharashtra, Karnataka for undertaking works for the conservation and protection of Great Indian Bustard under the Centrally Sponsored Scheme-Development of Wildlife Habitat (CSS-DWH).
8. Gujarat State Forest Department has acquired 5321.09 ha. land from different agencies in the GIB landscape. In addition, 2988.57 ha. land has been acquired under Compensatory Afforestation Scheme. Therefore, collectively 8511.66 ha. of area has been acquired and has been developed as Great Indian Bustard habitat area. Due to the focused efforts of the department, the above said area has been restored as a GIB habitat and is being used by the GIB at present. In last five years 4,898 running meter fencing has been done within Great Indian Bustard habitat. Measures to curb the

invasion of *Prosopis juliflora* has been particularly mentioned in the Recovery Plan. Accordingly, *Prosopis juliflora* and other unwanted plant species are being uprooted and removed by the department and the area is being restored as grassland. Owing to this effort, till 2019-20 a large patch of 855 ha. of habitat has been restored and the GIB have observed to have started using it. To protect the GIB from predation by feral dogs, sterilization and vaccination programme of dogs is being carried out by the forest department in the 21 villages falling within the Eco-sensitive zone on a regular basis.

9. India submitted a proposal for listing of Great Indian Bustard in Appendix I of Convention on Migratory Species (CMS) during 13th meeting of the Conference of Parties (COP) to the CMS held in Gandhinagar Gujarat from 15th - 22nd February, 2020. The proposal was considered and accepted. This will further strengthen the conservation efforts for the Great Indian Bustard as it gets global protection. In addition, the Great Indian Bustard was adopted as the mascot for the CMS COP-13 and named as '*Gibi – the Great*'.
10. It is submitted that the Ministry of Environment, Forests and Climate Change is fully committed and taking effective measures in addition to steps already taken to strengthen the conservation of Great Indian Bustard in the country.
11. It is submitted before the Hon'ble NGT that due to unprecedented situation of COVID-19 in the country and physical restrictions imposed, it has been difficult for various stakeholders, scientists and field staff/ project team to visit the area and carry out field surveys in a time bound manner so that the Action Plan could not be finalized as yet. However, substantial progress has been made and the framework of the Action Plan has already been prepared. The same needs to be now refined and finalised in light of the concerns listed above so that speedy implementation of the

Plan could be effected by all the concerned stakeholders. Therefore, it is humbly requested from Hon'ble Tribunal to kindly grant six months time to enable the Committee to finalize the Action Plan for GIB conservation as directed in the order dated 04/09/2019 and 20/02/2020, and for this it is ever prayed.

F. No. 1-16/2019 WL
Government of India
Ministry of Environment, Forests and Climate Change
(Wildlife Division)

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003
Date: 31 October, 2019

Sub: Summary records of the meeting of the committee constituted in pursuance of the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors.

The undersigned is directed to enclose the minutes of the meeting of the committee constituted in pursuance of the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors. held on 16th October, 2019 under the Chairmanship of Director General of Forest & Special Secretary, MoEF&CC at Krishna Conference Hall, Indira Paryawaran Bhawan, and New Delhi-03.



(Dr. Pasupala Ravi)

Scientist C

E-mail: ddwlmef@gmail.com

Telefax: 011- 24695379

Encl. As above

Distribution:

1. The Secretary, Ministry of Power, Govt. of India.
2. The Chairperson, Central Electricity Authority, New Delhi.
2. The Secretary, Ministry of New and Renewable Energy, Govt. of India
3. The Principal Secretary, Department of Energy, Govt. of Rajasthan.
4. The Principal Secretary, Department of Energy, Govt. of Gujarat.
5. The PCCF (Wildlife) & Chief Wild Life Warden, Government of Rajasthan, Jaipur.
6. The Secretary, Centre for Wildlife and Environment Litigation (CWEL).
7. Dr. Y.V. Jhala, Senior Scientist, Wildlife Institute of India, Dehradun.

Copy for kind information to:

1. PPS to DGF&SS/ PPS to ADGF (WL)/ PPS to IGF (WL)/ PS to DIG(WL)
2. Director, WII Dehradun

Summary records of the meeting of the committee constituted in pursuance of the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors.

Dated: 16th October, 2019

Venue: Krishna Conference Hall,
Indira Paryavaran Bhawan, MoEF&CC, New Delhi

A meeting of the committee constituted in pursuance of the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors. was held on 16th October, 2019 under the Chairmanship of Director General of Forest & Special Secretary, MoEF&CC at Krishna Conference Hall, Indira Paryavaran Bhawan, and New Delhi-03. The list of participants who attended the meeting is at **Annexure**.

2. Shri M.S. Negi, Addl. DGF (MoEF&CC) welcomed all the members of the meetings and initiated the discussion. The committee is mandated to prepare a time bound action plan on the recommendations of WII and on the issue raised in the prayer by the applicant.

3. Shri Bhanu Bansal, who represented the Centre for Wildlife and Environment Litigation (CWEL) made a brief presentation on the matter. He further highlighted the prayers made by them before the NGT in the petition:-

- I. Declaration of critical GIB habitat as an " inviolate area"
- II. Disallow new wind turbines ,solar farms(photovoltaic power stations) from priority GIB habitats and remove existing ones that are in the critical areas
- III. Undergrounding of power lines as per the WII recommendations in a time bound manner
- IV. Deployment of Bird Diverters in accordance with policy finalized by WII.
- V. Finalization of policy for undergrounding of power line cables from 33 kv to 440 kv
- VI. Imposition of Exemplary cost on Power Line Corporations who fails to oblige the way forward within the stipulated time limit as per the Pollution Pays Principle.

He stated that the reasons for the deaths of the GIB is high tension power lines and requested to disallow/underground the powerlines in high priority GIB Arc area and install bird diverters in the area outside the GIB arc as recommended by the WII to prevent the deaths of the GIB.

4. It was brought to the knowledge of Sh. Bansal that while appreciating the concerns about GIB conservation raised by him, the Joint Committee would restrict the discussion, suggestions, on the issues raised in the prayer of the Original Application filed in NGT.

5. Dr. Y.V. Jhala, Scientist G, WII stated that WII had submitted the report and made the following recommendations which are presented as below :-

“ 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.

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.

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.

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.

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).

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.

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,

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

4.10. To continue with targeted research on GIB to characterize threats spatio-temporally, understand landscape use pattern.”

He also highlighted that since, GIBs are slow breeding birds and if their mortality continues at this rate, it may lead to extinction of the species. He requested and recommended the Ministry of Power and Ministry of New and Renewable to instruct their companies to install bird diverters on the power lines and underground certain portions in critical bustard passage ways. He urged to implement the mitigation measures as suggested by WII. He also informed that WII would be undertaking the works of removal of predators from the GIB enclosures. He requested the Rajasthan Forest Department to complete the works of repairing of the enclosures after which removal of predators was relevant.

6. Shri Arindam Tomar, APPCF & Chief Wildlife Warden, Rajasthan informed that there are four court cases against the Rajasthan Forest Department related to the GIB. He also highlighted that WII has prepared a map showing the critical bustard habitats in Rajasthan

which is known as GIB Arc. He also mentioned that the bird diverters installed by the power agencies are needed to be monitored and regularly maintained. Although, the GIB Arc does not have legal sanctity, but Hon'ble N.G.T. has considered the Arc in OA no. O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors case and directed the agencies to follow the recommendations of the WII. Further, there are also cases regarding GIB conservation Writ Petition (C) No. 838 of 2019 titled M. K. Ranjitsinh & Ors. Vs. Union of India & Ors. filed in the Supreme Court of India. , a Suo moto petition filed in Jodhpur High Court and Original Application no. 63 of 2016 titled Mahendra Singh Borawat Vs. Union of India & Ors. in NGT Bhopal.

7. Officials from Rajasthan Rajya Vidyut Prasaran Nigam Limited(RRVPNL) informed that the powerline development agencies are not clear about the procedures/NOCs to be obtained before implementing the power projects as the area under the GIB Arc is not the part of ESZ or falling under any of the boundaries of the Protected Area. He also stated that Environment Clearances are being obtained before implementation of the power projects.

8. Joint Secretary, Ministry of New and Renewable informed that their Ministry had already issued a circular to the power supply agencies under them to take mitigation measures on the power lines to mitigate the mortalities of birds. He also highlighted that we should also look for other factors apart from the powerlines which are leading to the mortalities of birds.

9. Representative of CEA mentioned that there is a need to identify the powerlines as well as the owner of the powerline to assess the source of funding and cost involved for mitigation measures as well as undergrounding the powerlines.

He further stated that CEA after receiving the recommendations of the task force constituted under by the MoEF&CC to find out the problems of electrocution of animals, birds by the powerlines is planning to bring out the necessary modifications/amendments in CEA (Measures Relating to Safety and Electric Supply) Regulations, 2010 (as Amended) for under grounding upto 33 KV in national parks, wildlife sanctuaries, forested areas, eco-sensitive zone etc.

He highlighted that, for the projects, which are already been contracted/initiated in the field, it will be difficult to initiate the mitigation like underground cable or aerial bunched cables or covered conductors as it will amount to revising the project cost and initiating a fresh process for financial clearance. This may lead to the undue delay in execution of important projects of alternate energy.

He further stated that, the powerlines passing through GIB area are of higher voltage and at present there is no technology which is techno-economically feasible or not for under grounding such power cables. However, we have to explore such possibilities in the future for safeguarding the critically endangered GIB.

10. Dr. Y.V. Jhala intimated that as already mentioned in the report that priority areas and powerlines intervention have already been identified, mapped and technical- techno financial proposal has been submitted to the RRVPNL for necessary approval from the Rajasthan energy department for mitigation.

He also intimated that one of the Mumbai based powerline development agencies working in Madhya Pradesh had consultation with WII and they have informed that they have the technology to underground powerlines upto 220KV.

11. Shri Siddhanta Das, DGF&SS and the Chairman of the Committee mentioned that declaration of the areas under the GIB Arc as Community Reserve or Conservation Reserve would help to make legal sanctity of the GIB Arc. He also highlighted to have time bound action plan for the implementation of the mitigation measures such as undergrounding of power lines, installation of bird diverters and their regular maintenance and monitoring by the power agencies.

12. After through deliberation, the committee decided the following:-

- (i) All the powerline development agencies already working in GIB habitat or intend to work should be invited especially to discuss and consider the technological and economic feasibility of undergrounding different capacity of power lines.
- (ii) WII will furnish the details about the powerlines identified for mitigation in the GIB habitat area along with the details of the powerline owner with the CEA, M/o Power and MNRE, so that necessary action may be initiated by them by planning the mitigation measures and arranging the financial.
- (iii) The representative of RRVNPL may please intimate the action taken by them on the techno-financial proposal submitted by the WII to the Govt. of Rajasthan in the next meeting.
- (iv) The Rajasthan Forest Department would explore the possibilities of declaration of area under the GIB Arc as Protected Area such as Conservation Reserve or Community Reserve
- (v) Representative of Gujarat Electricity Development Agency will bring about the details about the mitigation measure including undergrounding of the cables taken up by Govt. of Gujarat in GIB habitat area.

The meeting ended with the vote of thanks to the Chair.

List of Participants

1. Sh. Siddhanta Das, DGF&SS
2. Sh. M.S.Negi Addl. DGF(WL)
3. Ms. Roui Kullai, DIG (WL)
4. Sh. Arindam Tomar, CWLW Rajasthan
5. Dr.Y.V. Jhala, Senior Scientist, WII.
6. Sh. Bhanu Bansal, Centre for Wildlife and Environment Litigation
7. Sh. V.K.Gupta, Centre for Wildlife and Environment Litigation
8. Sh. Y.K.Raizada, Director (Techno), Rajasthan Rajya Vidyut Prasaran Nigam Limited
9. Smt. Kanika Sharma, Superintending Engineer, Rajasthan Rajya Vidyut Prasaran Nigam Limited
10. Ms. S. Chhakchhuak, Director, Gujarat Energy Development Agency, Gujarat
11. Sh. Ravinder Gupta, Central Electricity Authority
12. Sh. A.S. Parira, Ministry of New and Renewable Energy
13. Sh.Dilip Nigam, Ministry of New and Renewable Energy
14. Dr. Pasupala Ravi, DD(WL)
15. Sh. Ravi Kumar, Legal Asst. (WL)

Summary records of the 2nd meeting of the Committee constituted by the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors.

Dated: 11th November, 2019

Venue: Krishna Conference Hall,
Indira Paryavaran Bhawan,
MoEF&CC, New Delhi

The 2nd meeting of the committee constituted by the Order of the Hon'ble National Green Tribunal, New Delhi dated 04/09/2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors. was held on 11th November, 2019 under the Chairmanship of Director General of Forest & Special Secretary, MoEF&CC at Krishna Conference Hall, Indira Paryawaran Bhawan, New Delhi-110003. The list of participants who attended the meeting is at **Annexure**.

2. Shri M.S. Negi, Addl. DGF (MoEF&CC) welcomed all the members of the committee, special invitee from the powerline development agencies and initiated the discussion. It was brought to the notice of the representatives of the power line development agencies that the Joint Committee constituted by the NGT has the mandate for preparing a time-bound action plan for protection of Great Indian Bustards.

3. The applicant, Centre for Wildlife and Environment Litigation (CWEL) in their application have prayed the Court to direct the Ministry of Environment, Forest & Climate Change to take various steps for the protection of the Great Indian Bustards and its habitats including undergrounding of power lines and deployment of bird diverters as per the recommendations in a time-bound manner.

4. The Wildlife Institute of India in its report filed before the Hon'ble NGT has, inter-alia, recommended to mitigate all power transmission lines passing through priority Bustard habitats identified by WII by undergrounding cables (where technologically feasible) or installing bird diverters to make them prominent to the birds and also to the new wind turbines, solar farms from priority GIB habitats.

5. The Committee has invited the power line development agencies to know their views about technical/technological feasibility of undergrounding of the power lines in priority GIB habitat areas.

6. The representatives of TATA Power briefed about their project and stated that they have taken NOC from the Rajasthan Forest Department for the project and already completed 90% of the work. They are using bird diverters at every 10 mtr. length of the wire. They categorically stated that their powerline is not going through the GIB arc.

7. On being enquired, they elaborated that within their solar farm, the electricity is being transmitted from solar panel to the transformer station through 33 KV underground cables and at the station, the electricity is being stepped up to the voltage of 220 KV and from there being transmitted through overhead transmission lines. On being asked whether it is feasible to adopt a hybrid system of transmission of electricity, they intimated that though it is feasible to have a hybrid system yet as per the present technology available with them, it is difficult for them to maintain such hybrid system efficiently and at the same time ensuring the uninterrupted supply of electricity without any transmission losses. It may not be possible for them to introduce such systems in the existing power lines since most of the work has been completed.

8. The representatives of Essel Surya Urja Company of Rajasthan Ltd. briefed about their project. They mentioned that their project is also outside the purview of the GIB arc. They also stated that though it is possible to have a hybrid stem of transmission of power through overhead and underground power lines yet the maintenance of such hybrid transmission lines is difficult and problematic. At this stage they are not in a position to make any change in their plan and to convert the transmission lines into hybrid transmission lines, as it may lead to delay in execution of project and unplanned rise in project cost.

9. The representatives of the Sprng Vayu Vidyut Pvt. Ltd. intimated that as part of their 200 MW Wind Power Project in District Dhar of Madhya Pradesh, they are laying 220 KV power evacuation line from wind farm in village Panda to Power Grid 220/400 KV Rajgarh Substation part (3 km) of which will be passing through Sardar Pur Wildlife Sanctuary. They are proposing for a hybrid 220 KV power transmission line including underground 220 KV line in 3 km stretch of Sardar Pur Wildlife Sanctuary. The proposal will shortly be submitted to the Standing Committee of NBWL. They intimated that it is technically feasible to have a hybrid power transmission line including underground as well as overground transmission line but maintenance of such power lines is difficult and cost of the underground lines is 3 to 4 times higher. They further explained that they have adopted this hybrid stem because the stretch of the transmission lines, which is to be made underground, is small and they have pre-planned the management of this stretch in advance.

10. The representative from Power Grid Corporation of India Limited (PGCIL) intimated that they have done undergrounding of 220 KV power lines upto 12 km and even in the city areas attempts have been made to underground 400 KV power lines, however, the hybrid system of power lines is problematic in maintenance.

11. Representative from Central Electricity Authority stated that it could be possible to introduce the hybrid system of power transmission lines only in the new project if sufficient provisions are made for taking care of the problems linked with the hybrid system and seeing the available technology in the present time, it will be difficult and non-economic to convert the current overhead transmission lines into the hybrid transmission lines.

12. On the claim of representatives of TATA Energy & Essel Surya Urja Private Limited that their projects are outside GIB, Shri Arindam Tomar, APPCF & Chief Wildlife Warden, Rajasthan reacted and informed that as per the maps of the Wildlife Institute which have been supplied to the power development agencies both projects of Tata Power are falling within the GIB arc.

13. The Scientists from WII informed that in GIB arc there is few kilometers area which can ensure bird security. They also informed that there are examples of technical feasibility of hybrid system, undergrounding of powerlines. In Gujarat, it has been done and also PGCIL has also done the same.

14. After this discussion it could be inferred that seeing the current available technology, it will be difficult to convert the existing overhead transmission lines into underground transmission lines immediately. However, with the introduction of new technology, it could be possible to underground these lines in future. The Committee also inferred from the discussion that new projects for undergrounding the transmission lines are feasible, if sufficient provisions are made in the project report for taking care of the problems linked with the underground/hybrid system of power transmission lines.

15. The representative of Ministry of New and Renewable mentioned that the whole discussion is centered on solar projects only. They also informed that there are many wind energy projects are operating in the GIB area. Therefore wind energy developers are also need to be called and heard. They further stated that high priority GIB area information may also be shared with MNRE so that the future projects can be awarded with due care.

16. It was also noticed that Gujarat Electricity Development Agency (GEDA) have not yet given the information about mitigation measures adopted by them including undergrounding of transmission lines.

17. After through deliberation, the Committee decided the following:-

(i) Rajasthan Forest Department along with the representatives of Tata Power and Scientists from WII will ascertain the position of transmission lines in GIB arc and submit the report to the Committee by 10th of December, 2019.

(ii) As requested by the representative of Ministry of New and Renewable, wind power agencies working in GIB habitat or intend to work would also be invited for the next meeting. Ministry of New & Renewable Energy will provide the list of such wind power agencies who can be invited for next meeting.

(iii) It was also brought to the notice of the committee that the information of powerlines agencies identified for mitigation in the GIB habitat area along with the details of the powerline owner has not been shared with the CEA, M/o Power and MNRE. WII is requested to the share the requisite information with them at the earliest.

(iv) Gujarat Electricity Development Agency should send the requested information immediately.

The meeting ended with the vote of thanks to the Chair.

List of Participants

1. Sh. Siddhanta Das, DGF&SS
2. Sh. M.S.Negi Addl. DGF(WL)
3. Sh. Rakesh Kumar Jagenia, DIG (WL)
4. Sh. ArindamTomar, CWLW Rajasthan
5. Dr.Sutirtha Dutta, Scientist, WII.
6. Sh.Bipin C.M., Associate, WII
7. Sh. Kamal Maheshwari, CEO, ESUCRL.
8. Sh.S.N.Sunkari, Director, ESUCRL.
9. Sh.M.K.Singh, CGM, Powergrid India.
10. Sh. Mahesh D Paranjpe, CEO, Tata Power Renewable Energy Ltd.
11. Sh. Avinash D Mirajkar, Sprng Energy Pvt. Ltd.
12. Sh. Ravinder Gupta, Central Electricity Authority
13. Sh. A.S. Parira, Ministry of New and Renewable Energy
14. Sh.Dilip Nigam, Ministry of New and Renewable Energy
15. Sh.G.Upadhyay, Ministry of New and Renewable Energy
16. Sh. Ravi Kumar, Legal Asst. (Wildlife)
17. Sh. Aditya Bisht, Project Scientist, Wildlife

F. NO. 1-8/2020-WL
Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

1st Floor, Agni Wing
Indira Paryavaran Bhawan,
Jor Bag Road, Aliganj, New Delhi-110003
Date: June, 2020

Sub: Summary records of the meeting convened on 5th May, 2020 to discuss on plans for protection and conservation of Great Indian Bustard in the Country-regd.

The summary records of the meeting convened through video conference under the Chairmanship of Director General of Forest & Special Secretary, MoEF&CC on 05th May, 2020 to discuss on plans for protection and conservation of Great Indian Bustard (GIB) in the Country is enclosed for necessary actions.


(Rakesh Kumar Jagenia)

Deputy Inspector General of Forest (Wildlife)
Email: digwl-mefcc@gov.in

Distribution:

1. Secretary, Ministry of New & Renewable Energy, Government of India
2. Secretary, Ministry of Power, Government of India
3. Chairperson, Central Electricity Authority
4. Chairperson, National Highway Authority of India
5. Principle Secretary, Department of Energy, Government of Rajasthan
6. Principle Secretary, Department of Energy, Government of Gujarat
7. CMD, Power Grid Corporation of India Limited
8. CWLW, Government of Rajasthan
9. CWLW, Government of Gujarat
10. CWLW, Government of Maharashtra
11. CWLW, Government of Karnataka
12. CWLW, Government of Andhra Pradesh
13. Director, WII, Dehradun
14. Managing Director, Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
15. Managing Director, Jodhpur Vidyut Vitran Nigam Limited, Jodhpur
16. Managing Director, Gujarat Energy Transmission Corporation Limited, Vadodara

Copy to: Sr. PPS to DGF&SS/ Sr. PPS to IGF (WL), MoEF&CC

Encl: Summary records of the meeting

Summary records of the meeting convened on 05th May, 2020 through video conferencing to discuss on plans for protection and conservation of Great Indian Bustard in the Country.

Date: 05th May, 2020

**Venue: Krishna Conference Hall,
Indira Paryavaran Bhawan,
MoEF&CC, New Delhi**

1. A meeting on the subject was convened on 05th May, 2020 through Video Conferencing to discuss and understand the present status of conservation of Great Indian Bustard (GIB) and Lesser Florican in the States of Rajasthan, Gujarat, Maharashtra, Karnataka and Andhra Pradesh with specific reference to the ongoing Court case at Hon'ble Supreme Court of India and at Hon'ble NGT. Director General of Forests & Special Secretary, MoEF&CC chaired the meeting. The list of participants who attended the meeting is at **Annexure**.
2. DGF&SS, MoEF&CC welcomed all the participants and special invitees from the wind and power development agencies and initiated Agenda wise discussion.
3. The Writ Petition (C) no. 838/2019 M.K. Ranjitsinh & Ors Vs. UOI & Ors. is on death of Great Indian Bustard and the lesser Florican due to power transmission lines and wind turbines and overall conservation of GIB and Lesser Florican. The directions of Hon'ble Supreme Court in Writ Petition 838/2019 were read out and the respondents present in the meeting were requested to share action taken as per Hon'ble Supreme Court order.
4. APCCF & CWLW, Rajasthan informed that the State Government of Rajasthan have received the order of the Hon'ble Apex Court and although efforts to convene the meeting of Dr. Manish Singhvi, Learned Senior Counsel who has appeared for the State of Rajasthan with the Chief Secretary of Rajasthan were initiated, the said meeting could not be convened due to COVID-19 lockdown. He also informed that the temporary Conservation Breeding Centre (CBC) at Sam is functioning well and till date 10 eggs of GIB have hatched. The work on setting up of two CBCs at Ramdeora and Sorsan has already started. At Ramdeora, Wildlife Institute of India has carried out construction works through CPWD and the Ramdeora facility is almost ready except electricity supply. Till this permanent facility becomes functional, temporary centre would be continued at Sam. With respect to CBC at Sorsan, Baran, the process of transfer of land for the establishment of CBC has been completed, and now the design of CBC is awaited from CPWD. Once completed, this becomes the main Conservation Breeding Center. The Rajasthan Forest Department has issued all permissions to WII. He also informed that satellite tagging has been done for 3 GIBs and 4 Lesser Florican individuals. He then went on to inform that there are two source populations of GIB, one at Desert National Park and the other one at Ramdeora. Dogs have been removed from the Ramdeora site. With regard to other predators, there has not been any headway. He requested the Ministry to consider additional financial assistance to the State for *in-situ* conservation measures such as construction and maintenance of the GIB enclosures, habitat improvement etc. He also requested to expedite the process of funding under the CSS-DWH for the APOs submitted for the FY 2020-21. The CWLW, Rajasthan informed that the enclosures have been fenced since 1982. He informed that there are no power lines in the Desert National Park. He also informed that GIB Arc located outside the Protected Area where developmental works cannot be brought to halt as this would lead to backlash

from the local people which would ultimately be against the GIB conservation. Instead, channelizing all the conservation efforts for the GIB in the Desert National Park and Ramdeora is a better option. He was also of the view that all the power lines in the GIB Arc area cannot be undergrounded.

5. APCCF (Wildlife), Gujarat, informed that they have decided to file an affidavit in response to W.P. (C) No. 838/2019. He also informed that around 22000 ha of ESZ has been notified around the concerned sanctuary in Gujarat. Local field officers of Gujarat Forest Department remain in touch with the Revenue authorities for conservation of GIB and Lesser Florican outside the Protected Areas. He informed that in 2016, there were 25 GIB individuals but now only 5-7 GIB individuals (all females) are being reported. Therefore, Gujarat needs permission for re-introduction of male chicks of GIB from Rajasthan.
6. CWLW, Maharashtra informed that the state of Maharashtra was the first in India to have a sanctuary for GIB. The present area of the sanctuary is 355 km² in Sholapur, Narora. As per the status report of WII, 11 clusters have been identified for GIB conservation. Population of GIB in Maharashtra comprises of 8 individuals. The State of Maharashtra has already filed affidavit in the Hon'ble Supreme Court in November 2019. There are two overhead lines in the GIB sanctuary, one is 11kV and the other one is 33 kV. Rs. 55 lakhs have been deposited for undergrounding works and remaining Rs. 2.24 lakhs would be deposited soon. The cost for meeting out the expenses for conservation of GIB population and its habitat would be included in the APO for CSS as per allocation.
7. APCCF (Wildlife), Karnataka informed that Rs. 1.72 cr has been sanctioned for establishment of a centre for GIB conservation in Karnataka. GIB sightings are being recorded with GPS co-ordinates. There is no problem of electricity lines in Protected Area for GIB in Karnataka. He also informed that Karnataka CWLW is not the respondent in the Writ Petition pending in Hon'ble Supreme Court. It was clarified that the State Government of Karnataka is indeed a respondent and the APCCF (Wildlife) get suitable instructions from the Government.
8. Joint Secretary, MNRE informed that MNRE had issued advisory to all States to install bird diverters in the overhead power lines. He highlighted that undergrounding of existing power lines under the GIB Arc would have huge financial implications since majority of power projects have started production of electricity or have completed the installation of overhead power lines. He mentioned that as per information received from Power Grid Corporation of India, it is not possible to underground all the existing high tension power lines. There are tariff implications also due to increased cost for undergrounding of cables.
9. Director, Ministry of Power informed that as per information received from Central Electricity Authority, power lines of 33 kV and below could be made underground for the new upcoming power projects. He also informed that CEA is considering amending its safety guidelines on undergrounding of all new 33 kV and below power lines in such areas.
10. MD, Rajasthan Vidyut Vitran Nigam Limited, Jodhpur informed that Rs. 170 cr demand has been raised with the State Government for undergrounding of 33 kV and

11 kV power lines from the GIB arc area. However, he highlighted that for undergrounding the existing high tension power lines, the power agencies/ companies would have to incur huge financial expenditures since it was not planned at the time of project formulation and implementation phase.

11. MD, GETCO, Gujarat informed that in compliance of the directions given by Gujarat Forest Department, they have completed survey works and identified six power lines under the control of GETCO in the Eco-sensitive Zone of the Kutch Bird Sanctuary and would be undergrounding 66 kV powerlines over 12 km wherever feasible and installing bird diverters on powerlines up to 66 kV where undergrounding is not possible. They have already identified the agency and the work is expected to be completed by March, 2021 for undergrounding. For 220 kV powerlines under their control in this area, they are considering installing bird diverters for which tender work is under process. The total financial implication is Rs. 45 crores. They have also written to CEA regarding revision of tariff.
12. Dean, Wildlife Institute of India (WII) made a brief presentation on the project activities conducted so far and the existing threats to GIB. He also presented a small video clipping on the conservation breeding programme of the GIB at Sam, Jaisalmer.
13. Dean, WII informed that the GIB Arc was identified based on surveys carried out by the WII and Rajasthan Forest Department. The total area of the GIB Arc including the Desert National Park is 9800 km². He informed that 104 km of power lines in the GIB Arc are required to be made underground. These are high tension power lines for which estimated Rs. 586 million is required. He informed that the adverse impact of transmission lines on GIB and lesser Florican in India is mainly based on models in bustard range countries abroad e.g. Spain. As per the extrapolation done by them based on the data from abroad, 6-10 GIB die every year due to collisions with power lines in the GIB Arc. They had tagged 7 GIB individuals, of which four had died due to collisions with power lines illustrating high mortality rate.
14. The Rajasthan Forest Department and the TATA Power Limited were requested to submit the details of the power lines passing through the GIB Arc as decided in the previous meeting in connection with O.A. No. 385/2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India and Ors. filed in Hon'ble NGT.
15. The meeting was concluded with the following observation and a vote of thanks to the chair:
 - (a) MNRE would obtain from all States the update and outcomes/ benefits as well as difficulties faced by power agencies towards compliance of their advisory and share it with MoEF&CC.

(Action: MNRE)
 - (b) GETCO, Gujarat will complete the work of installation of bird diverters on the remaining stretch of power lines at the earliest.

(Action: GETCO)

(c) All Respondents in W.P. (C) 838/2019 will take appropriate timely action.

(Action: All respondents in W.P. (C) 838/2019)

(d) All GIB and Lesser Florican range states shall submit their APOs under the CSS-'Development of Wildlife Habitats' with inclusion of activities related to Conservation of GIB and Lesser Florican, at the earliest.

(Action: CWLWs of Rajasthan, Gujarat, Maharashtra, Karnataka and Andhra Pradesh)

(e) Wildlife Institute of India shall also undertake research project activities/ works under the 'Habitat improvement and conservation breeding of the Great Indian Bustard (GIB): An Integrated Approach' in other GIB project States i.e. Maharashtra and Gujarat to have a comprehensive picture, and update the Ministry.

(Action: WII, Dehradun)

(f) The proposed GIB Arc needs to be refined with priority areas (preferably in and around DNP and Ramdeora, Jaisalmer) identified by WII in consultation with the Rajasthan Forest Department so that the conservation and protection of GIB could be undertaken in right earnest. WII will share the actual scientific evidences/ reports on threat of electrocution of GIB.

(Action: WII, Dehradun and Rajasthan Forest Department)

(g) Rajasthan Forest Department along with the TATA Power Limited will compile the details of power lines in the proposed GIB arc area and share with the Ministry of Environment, Forest and Climate Change.

(Action: Rajasthan Forest Department and TATA Power Limited)

Meeting through Video Conferencing to discuss on plans for protection and conservation of Great Indian Bustard (GIB) and Lesser Florican in the Country.

Date: 05.05.2020

List of Participants

1. Shi Sanjay Kumar, Director General of Forests & Special Secretary, MoEF&CC
2. Shri Soumitra Dasgupta, Inspector General of Forest (Wildlife), MoEF&CC
3. Shri B.P. Yadav, Joint Secretary, MNRE
4. Shri Rakesh Kumar Jagenia, Deputy Inspector General of Forest (Wildlife), MoEF&CC
5. Shri Nitin Kakodkar, PCCF & CWLW, Maharashtra
6. Shri Arindam Tomar, APCCF & CWLW, Rajasthan
7. Shri Subhash Malkhede, APCCF (Wildlife) from the Karnataka Forest Department
8. Shri Sanjay Sisodia, Additional Principal Chief Conservator of Forests (Wildlife), Gujarat
9. Dr. Dhananjai Mohan, Director, Wildlife Institute of India, Dehradun
10. Shri Goutam Ghosh, Ministry of Power
11. Shri Avinash Singhvi, Managing Director, Rajasthan Vidyut Prasaran Nigam Limited, Jodhpur
12. Dr. Y.V. Jhala, Scientist G and Lead Project Investigator, WII-CAMPA-GIB Project
13. Mr.B.B. Chauhan, Managing Director, GETCO, Gujarat
14. Shri Biswajit Mukhopadhyay, General Manager, Environment, NHAI
15. Representatives of Rajasthan Vidyut Prasaran Nigam Limited, Jaipur
16. Representatives of Powergrid Corporation of India Limited, New Delhi
17. Representatives of Sprngenergy, other wind and solar farms/projects agencies operating at Rajasthan and Gujarat

Summary records of the meeting convened on 3rd Nov, 2020 through video conferencing to review and discuss on plans for protection and conservation of Great Indian Bustard in the country.

Date: 03rd Nov., 2020

**Venue: Krishna Conference Hall,
Indira Paryavaran Bhawan,
MoEF&CC, New Delhi**

A meeting was convened on 3rd Nov, 2020 through Video Conferencing to discuss on plans for protection and conservation of Great Indian Bustard (GIB) and Lesser Florican in the Country, under the Chairmanship of Director General of Forests & Special Secretary, MoEF&CC. The list of participants who attended the meeting is at **Annexure**.

DGF&SS, MoEF&CC welcomed all the participants and initiated the discussions. He informed that the primary objective of the meeting is to have a detailed discussion on the action taken by the concerned agencies on recommendations made by the Wildlife Institute of India on GIB conservation and recovery that are mentioned in para-2 of the Hon'ble NGT order dated 04-09-2019 in O.A. No. 385 /2019 in the matter of Centre for Wildlife and Environment Litigation (CWEL) Vs. Union of India & Ors. He also emphasized that as per para-3 of the Hon'ble NGT order dated 04-09-2019 the Ministry had to submit a time bound action plan on the recommendations cited in para-2 of the order. The same has been delayed inordinately, and any further delay may be taken very seriously by the Hon'ble NGT. On this, the DGF & SS desired that the Draft/Action Plan must be got ready immediately and the same be filed in the Hon'ble NGT before the next dated of hearing i.e., 23.11.2020.

Thereafter, action on the above WII's recommendations were discussed one-by-one:-

Recommendation 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."*

Discussion and Decision: The Conservator of Forests (Wildlife), Rajasthan Forest Department informed that a Joint Committee meeting of Principal Secretary, Forests and Energy Department. has taken place and it has been decided that the undergrounding of power cables is not possible for the ongoing projects. However, technically approved bird diverters would be installed in the GIB arc.

The Joint Secretary, MNRE mentioned that an advisory has been issued in February 2019 for mandatory installations of bird diverters in power lines and they have sought feedback of the State/UT Governments. on implementation of this advisory. However, they haven't received the Action Taken Report (ATR) from all states.

The Director, M/o Power mentioned that Central Electricity Authority has also issued an advisory for undergrounding of transmission lines upto 33 KV level. He stated that the undergrounding of high tension power cables above 33kV is not feasible.

The Chairperson directed that Rajasthan Government should send action taken report and their recommendations immediately to the Ministry of Power which may take the advice of Central Electricity Authority on technical and economic feasibility of undergrounding of power cables in the Critical and Priority GIB Areas.

(Action: Rajasthan Forest Department, MNRE and Ministry of Power)

Recommendation 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.”*

Discussion and Decision: The chairperson requested Director, WII to elaborate on GIB “Priority Areas” and “Critical Areas”. The Director, WII informed that the GIB priority area is of 13000 sq. km. and transmission lines are critical. They mentioned that GIB is a large critically endangered bird and there are 129 individuals are in the area i.e. $\frac{3}{4}$ of the global populations is concentrated in this landscape. They also stated that the nature of the GIB is that this bird requires large area for survival. A total length of 104 km of 33kV transmission lines have been mapped which have to be undergrounded and bird diverters are required to be installed in power lines of higher voltage.

The Advisor, MNRE stated that many private sector projects have been allocated in this area after competitive bidding which cannot be stopped at this stage. However, the WII is of the view that new projects need to be disallowed in the critical area.

Joint Secretary, MNRE requested that an order may be issued by the Ministry to clarify and exactly map out the critical GIB area where no activity can take place.

The Chairperson directed that WII shall map “Critical Area” and share with MoEFCC, MoP, MNRE and State Governments of Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka for further action.

(Action: Wildlife Institute of India, Dehradun)

Recommendation 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.”*

Discussion and Decision: The DFO, Jaisalmer informed that the enclosures are already there and they are working on the installation of predator proof fencing. Due to budget constraints, progress is slow. The DGF&SS advised Government of Rajasthan that this being a priority area, additional funding may be sought under the Centrally Sponsored Scheme of Development of Wildlife habitat from the MoEF&CC.

(Action: Rajasthan Forest Department)

Recommendation 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.”*

Discussion and Decision: DGF &SS directed that Government of Rajasthan shall share the Action Plan with MoEFCC within a week’s time outlining first the boundaries of the proposed inviolate area (around 200 km²) and thereafter relocation plan that is necessary to keep the area inviolate including the area where the concerned human population is to be relocated.

(Action: Rajasthan Forest Department)

Recommendation 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)”*

Discussion and Decision: On the issue of delineating priority GIB habitats outside DNP as Eco Sensitive, CF, Wildlife, Rajasthan Forest Department informed that the State Govt. is working on it and will send the proposal shortly to Government of India. The DGF&SS emphasized that the eco sensitive zone declaration should be a priority for the State Government, and the proposal should be sent to MoEFCC at the earliest.

(Action: Rajasthan Forest Department)

Recommendation 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, 4 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).”*

Discussion and Decision: The DFO, Jaisalmer informed that at district level the stall feeding of livestock is being done in drought season. However, the DGF&SS directed that recommendation is regarding stall feeding of in a regular manner during monsoon season,

growing of GIB preferred crops and keeping the fields fallow thereafter. He directed that the DFO should immediately convene meeting with the District Collector and other line departments to take action on this recommendation and the Rajasthan Forest Department shall revert to this Ministry at the earliest.

(Action: Rajasthan Forest Department)

Recommendation 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.”*

Discussion and Decision: On the issue of capacity building and training, the DGF&SS mentioned the Rajasthan already has a forest training institute at Jaipur and the Forest Department, Rajasthan in collaboration with the WII should carry out a capacity building training of the field staff and also a training programme with the BSF and armed forces in the region. The assistance of WCCB should also be sought, and mode of regular interaction should be planned. A plan should immediately be prepared for this purpose.

(Action: Rajasthan Forest Department and Wildlife Institute of India, Dehradun)

Recommendation 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 5 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.”*

Discussion and Decision: On the implementation of conservation breeding programme of GIB, the WII informed that 16 young bustard chicks are being successfully reared in the satellite center at Ramdevra. Therefore, offshore population establishment may not be necessary. DGF & SS directed WII to update the Conservation Breeding Action Plan in this regard and share with the Ministry.

(Action: Rajasthan Forest Department and Wildlife Institute of India, Dehradun)

Recommendation 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.”*

Discussion and Decision: The Director WII informed that the research on GIB is being continued in the region. DGF & SS directed WII to update the Research Action Plan in this regard and share with the Ministry.

(Action: Wildlife Institute of India, Dehradun)

General:

After thorough deliberation, the DGF&SS observed that most of the actions on the aforesaid recommendations required are on part of the Wildlife Institute of India, Rajasthan Forest Department., Ministry of Power and Ministry of New and Renewable Energy. The Action Taken Report on the above decisions should be sent by the concerned Ministries/Departments/States to the Ministry with a copy to the Director, WII, Dehradun by 11.11.2020.

It was decided that a draft GIB Conservation Action Plan has to be prepared by WII on the aforesaid recommendations of the Hon’ble NGT in consultation with the Rajasthan Forest Department, Ministry of Power and Ministry of New and Renewable Energy within 10 days positively so that the same would be finalized in the next meeting of the committee and submitted to Hon’ble NGT before 23rd Nov, 2020.

(Action: Wildlife Institute of India, Dehradun)

The meeting ended with vote of thanks to the chair.

Annexure

Meeting through Video Conferencing to discuss on plans for protection and conservation of Great Indian Bustard (GIB) and Lesser Florican in the Country.

Date: 03.11.2020

List of Participants

1. Shi Sanjay Kumar, Director General of Forests & Special Secretary, MoEF&CC.
2. Dr. Dhananjai Mohan, Director, Wildlife Institute of India, Dehradun.
3. Shri Sunil Limaye, APCCF (Wildlife), Maharashtra.
4. Shri Subhash Malkhede, APCCF (Wildlife), Karnataka
5. Shri Rahul Pandey, CCF Wildlife, Govt. of Andhra Pradesh
6. Shri B.P. Yadav, Joint Secretary, Ministry of New and Renewable Energy.
7. Sh. Dilip Nigam, Advisor (Solar) Ministry of New and Renewable Energy.
8. Dr. Y.V. Jhala, Scientist G and Lead Project Investigator, WII-CAMPA-GIB Project.
9. Shri Yuvraj, CF Wildlife, Govt. of Maharashtra.
10. Ms. Akanksha Mahajan, CF Wildlife, Govt. of Rajasthan.
11. Shri Kapil Chandrawal, DCF Wildlife, Jaisalmer
12. Shri Goutam Ghosh, Director, Ministry of Power.
13. Shri R.N. Singh, Power grid Corporation of India Limited, New Delhi.
14. Shri S.B. Patil, OSD, Gujarat Energy Development Department
15. Shri Rakesh Kumar Jagenia, Deputy Inspector General of Forest (Wildlife), MoEF&CC.
16. Shri C. Sasi Kumar, Technical Officer, Wildlife.
17. Shri Ravi Kumar, Legal Assistant, Wildlife.

Detailed summary of the Actions Taken by the various stakeholders on the recommendation cited in para-2 of the Hon’ble NGT order dated 04-09-2019

Recommendation 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:

- a. 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.
- b. The Central Electricity Authority (CEA), Government of India has issued advisory vide letter no. CEI/1/4/2019 dated 01 May 2020, suggesting that
 - i. Identified existing lines of 33 kV and below voltage level passing through GIB Arc may be made underground in a time bound manner by the owner utility of the line.

- ii. New/proposed lines of 33kV and below voltage level passing through GIB Arc may be laid as underground cable.
 - iii. Identified existing lines of 132 kV and above voltage level passing through GIB Arc may be provided with bird diverters in a time bound manner by the owner utility of the line.
 - iv. Route alignment of new/proposed lines of 132 kV and above voltage level should avoid passing through GIB Arc. Wherever, it is not possible to avoid GIB Arc, such lines should provide bird diverters.
- c. The CEA is also in the process of finalizing the technical specifications of the bird diverters in consultations with various stakeholders.
- d. The Gujarat Government informed that they have been sensitizing the power companies for strict compliance of the mitigation measures to be taken such as Installation of reflectors/diverters, Painting the tips of wind turbines orange and undergrounding < 66kv transmission lines in the already developed projects. In response to active follow up by field level forest officers Suzlon has installed bird diverters in the transmission lines crossing critical bustard habitats.

Recommendation 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 :

- a) In pursuance of the directions given by Hon’ble NGT(CZ), in O.A. 63 & 64/2016 DCF(WL) Jaisalmer's has written a letter no. 3541 dated 23th September, 2016 to District

Collector, Jaisalmer who further instructed district Sub-Divisional Magistrates to ensure compliance of Hon. Tribunal Order vide letter no. 6775-82 dated 27th October, 2016 and again by letter no. 7919-20 dated 29th December, 2016. The CWLW, Rajasthan vide letter no F8(201) Legal/CWLW/2019/748 dated 20th November, 2020 has mentioned that a status quo has been maintained in Jaisalmer with regards to establishment and operation of windmills in compliance of the order.

Recommendation 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 :

- a. As per the letter from CWLW, Rajasthan dated 20th November, 2020, 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.

- b. Predator proofing of 10.5 km length of the fencing is underway.
- c. As per CWLW, Rajasthan, one 200 ha enclosure has been made predator proof with 4inch chain link. Permissions were issued to DCF(WL) and WII for removal of nest predators from enclosures, 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.

Recommendation 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 as 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 4thSeptember, 2020, and the DCF(WL) Jaisalmer has submitted the required details to District Collector, Jaisalmer vide letter no. 8073 dated 24 September 2020.

Recommendation 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:

- a. A fresh proposal of declaring 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 for consideration in the committee formed under District Magistrate by the State Government for this purpose.

Recommendation 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, 4 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:

- a. The Rajasthan Government has been organizing 'Chara-depots' in Jaisalmer during summer, to promote stall feeding of livestock.
- b. The District Collector, Jaisalmer during the meeting held on 10th 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 to promote stall feeding of cattle so that grazing pressure is reduced during GIB breeding season, and a proposal to this end should be sent to State Government. Accordingly, the State of Rajasthan will consider extending 'Chara-depots' inside DNP till the end of monsoons from 2021.

Recommendation 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 harbour 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:

- a. WII 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 10th July, 2020 was sent by Additional Director General of Forest, MoEF&CC to General Officer Commanding-in-Chief, Southern Command of Indian Army.

- b. 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 12th November, 2020.

Recommendation 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 :

- a. 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 is collaborating and assisting in conservation breeding of GIB within India.
- b. A state of the art pilot facility has been developed in Sam, Jaisalmer where 16 Great Indian Bustard chicks of 1-16 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.

Details of the major works done under the project ‘Habitat Improvement and Conservation Breeding of Great Indian Bustard-an integrated approach’.

- i. To utilize the GIB breeding season in 2019-20, a temporary GIB Conservation Breeding Center has been established at Sam, Jaisalmer. Seven GIB chicks were hatched in the Conservation Breeding Centre from wild collected and artificially incubated eggs during March- October, 2020. Two chicks were hatched from the eggs collected from Pokhran area. A total of 16 GIB chicks have been artificially hatched from eggs collected from wild till date. These chicks are being reared in close collaboration with Rajasthan Forest Department and technical support of International Fund for Houbara Conservation / Reneco and the oldest chick is 16 months of age. The Program is well placed in achieving the target of founder population in another two years, much earlier than expected.

The construction of veterinary unit at Ramdevra, juvenile rearing, food preparation and storage unit, live food rearing unit, post mortem and quarantine unit, adult rearing tunnels (aviaries), road, electricity and water supply; modification of incubation, hatchery and first age chick rearing facilities is expected to be complete in another few months.

Four GIB females were tagged in Desert National Park and Pokhran areas of Thar between March and July 2020. The birds were captured using nylon noose traps in foraging paths, nests and water guzzlers. The birds were fitted with solar powered GSM/GPRS backpack PTTs (E-obs and Microwave telemetry).

- ii. As part of social engagement, the project team surveyed villages in Jaisalmer district to assess livelihood concerns and conservation attitude of the local population. It was intended to involve the locals as stakeholders in GIB conservation to create goodwill, and these social surveys would help in developing outreach programs. Additionally, customized nature education programmes in 22 schools, skill development workshop for responsible nature tourism to local youth and forest department staff, awareness program to sensitize locals and tourists on grassland and GIB conservation at Desert festival, Jaisalmer were conducted. Publicity materials such as posters, t-shirts, caps, books, bags, brochures for power agencies and other stakeholders were prepared and widely disseminated. The project team met with representatives of various private and government power agencies as well as senior government officials, media and legal fraternity to sensitize them on the critical issue of power line mitigation for GIB conservation. Training workshops on population, habitat and threat surveys involving Forest Department staff and volunteers in bustard range states have been also carried out. Sensitization workshops have been also organized with the Indian Army officials to seek their support in conservation and protection of GIBs.
- iii. Surveys were conducted to examine bird crossing rates and use of wind turbine areas by birds and mammals. Behavioural observations to understand the activity, foraging and breeding behavior of GIB were conducted in Thar during April- July 2020. Habitat assessment of nest sites and areas used by tagged birds are being carried out.
- iv. Under pilot habitat management, 801 dogs from 23 villages in/around DNP were sterilized in collaboration with Humane Society International (HSI)- India and Rajasthan Forest Department. Meetings with the local community to manage a portion of their land in GIB-friendly manner, and interactions with power agencies and bird diverter suppliers for marking critical power lines have been also done. Trapping of

nest predators such as foxes and monitor lizards are being carried out in the enclosures of Desert National Park from June 2020 onwards. The captured predators were relocated at a considerable distance outside the enclosures.

- v. Repairing and maintenance of the boundary fence of critical enclosures in the Desert National Park have been carried out to minimize the access to livestock and nest predators, thereby aiding the frontline staff in protecting key GIB habitats during the breeding season.
- vi. Bird diverters designed based on technical inputs from WII to local vendors for manufacturing indigenous low cost bird diverters were procured and distributed to Suzlon energy ltd. for installation. These diverters were installed according to the design provided by WII on 250m segment of 33KV line near Mokla during July, 2020. Total 105 diverters were installed in this pilot step to examine their field longevity and efficacy. To this end, long-term studies are ongoing, since it requires many years and bird crossing/ collision events to detect the field life and effectiveness of these products in reducing crossings and/ or collisions.
