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REPORTABLE

IN THE SUPREME COURT OF INDIA
CIVIL ORIGINAL/APPELLATE JURISDICTION

WRIT PETITION (C) NO. 838 of 2019

M.K. Ranjitsinh & Others …Petitioner(s)

Versus

Union of India & Others …Respondent(s)

With

CIVIL APPEAL No. 3570 of 2022

With

WRIT PETITION (C) NO. 549 of 2025

J U D G M E N T

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1. ***Godawan*, The Great Indian Bustard:** We may not find more apt lines to describe the present state and nature of one of the most wonderful avian species of our ecosystem, the conservation of which this Court has grappled with in the recent past:

> *"Luckily for one giant bird, they have such eyes. For millions of years, way before primates evolved into humans, they used this lateral vision to thrive in desert lands. This is the Great Indian Bustard, the State bird of Rajasthan. It's over three foot tall and weighs forty pounds,*

about as big as a bird can be and still be able to take wing. A bird that big should be easy to find.

Then people came and built wind turbines, and cables between tall pylons to ferry to the city electricity garnered from desert winds. Now the species is almost extinct."[1]

2. In Rajasthan, it is affectionately alluded by its cultural name as "*Godawan"*. It is inextricably connected to the culture and living of desert communities. The *Godawan* has been associated with the nobility of the Rajput kings and its majestic stature was likened to the qualities of a noble warrior, making it a subject of admiration in local art and literature. Its survival is a shared cultural responsibility, as the bird represents not just a species but the unique natural heritage and resilience of the arid landscapes. Traditional folklores have also revolved around formulaic folk motifs which usually rhyme like;

मरुधरा रो मोती, म्हारो प्यारो गोडावण;
धीमी-धीमी चाल चाले, नखरालो गोडावण;
धोरा वाली धरती माथे, घूमे म्हारो गोडावण;
सब पंछिया में ऊंचो, प्यारो गोडावण [2]

3. *Godawan* holds deep cultural and historical significance for the people of Rajasthan. It is considered a symbol of pride and grace,

[1] Martin Goodman, *My Head for a Tree: The Extraordinary Story of the Bishnoi, the World's First Eco-Warriors,* pg. 95 (Profile Books, 2025).
[2] "The pearl of the desert land, my dear Godawan; It walks with a slow, graceful gait, my stylish Godawan; On the land of the sand dunes, my Godawan wanders tallest among all the birds, my beloved Godawan"; (Ghorad Kare Che Yaad – Great Indian Bustard Song) <https://www.youtube.com/watch?v=pZP8KVMSc-Q>.

interwoven with local folklore and traditions, and is highly revered, particularly by communities like the Bishnois, who practice eco-veneration and include the bird in their traditional protection norms. This is a classic example depicting our country's tradition of ecocentric, rather than anthropocentric perspective of the universe[3]. There is much to learn from the philosophy of this community, a movement which began with Shri Jambheshwar, fondly known as Guru Jambhoji proclaiming firmly that *"A tree covered in greenery is my temple and my home"* to the deeply moving courage and sacrifice of 363 Martyrs in 1730 led by Amrita Devi Bishnoi to protect Khejri trees and late Radheshyam Bishnoi[4] (1997-2025) whose sacrifice will continue to inspire us in the times to come. By practising ecocentric living, they honour the intrinsic value of every living being,[5]

[3] A man said to the universe:
"Sir, I exist!"
"However," replied the universe,
"The fact has not created in me
A sense of obligation."- Stephen Crane.

[4] Rajat Ghai, *Radheshyam Bishnoi was a man rooted in the Thar; he must be remembered as India's very own 'Godawan Man'* (Down to Earth, May 31, 2025) <https://www.downtoearth.org.in/wildlife-biodiversity/radheshyam-bishnoi-was-a-man-rooted-in-the-thar-he-must-be-remembered-as-indias-very-own-godawan-man-sumit-dookia#google_vignette>.

[5] The Bishnoi Community's conservation impact is well reflected in Bombay Natural History Society and Rotary Fellowship of Wildlifers for Conservation's joint effort to install a *godawan* statue to honour the female bustard who tragically lost her life due to collision with power lines in Deg Rai Mata Temple, Oran. See, *The Heartfelt Story Of Rajasthan's Godawan Smarak: A Tribute To A Female Great Indian Bustard Who Tragically Lost Her Life* (BNHS, December 14, 2024) <https://blog.bnhs.org/the-heartfelt-story-of-rajasthans-godawan-smarak-a-tribute-to-a-female-great-indian-bustard-who-tragically-lost-her-life/>.
A detailed account of conservation story of Bishnoi Community is narrated in Martin Goodman, *My Head for a Tree: The Extraordinary Story of the Bishnoi, the World's First Eco-Warriors* (Profile Books, 2025), specifically chapter 7 that discusses the interactions of the author with late Radheshyam Bishnoi on GIB protection.

sustaining a delicate harmony that thrived long before we were told that we can conquer nature and overrule it.

4. The Great Indian Bustard (GIB), one of the heaviest flying birds in the world and a flagship species of the arid and semi-arid grasslands of the Indian subcontinent, is a majestic, long-legged bird that symbolizes the health of the fragile grassland ecosystem, as its presence indicates a balanced environment. Historically, this magnificent creature was found across much of India, but today, its population being critically endangered, is primarily concentrated in and around the Thar Desert. The urgent conservation efforts, including the state-led 'Project Godawan,' (Project GIB) seek to protect this cultural and ecological emblem from extinction, ensuring that the regal bird continues to grace the golden sands of the state for future generations.

5. Despite its immense historical, cultural, and ecological significance, today GIB is one of the rarest birds to spot due to a steep decline in its population in the last few decades. The GIB is, therefore, soon approaching the fate of recently extinct animals like Golden Toad, Western Black Rhinoceros, Pinta Giant Tortoise, Po'ouli, Bridle White-Eye, etc., which the universe has lost forever. The threats of climate change and unplanned development are real, and it is widely acknowledged that our planet is experiencing the sixth mass extinction in

its history. In addition to traditional conservation measures, steps must be taken to protect currently endangered animals, and moreover, to regenerate populations.[6] The present exercise is one such step in this regard.

6. The instant case concerns the protection of the Great Indian Bustard ('GIB') and the Lesser Florican ('LF'), both of which are on the verge of extinction, and invites our attention to the critical aspects of environmental protection and conservation. The issues in the instant case aptly demonstrate the contestation between the goals of preserving historically and ecologically significant species and green energy generation to address climate change, and have previously resulted in two orders of this Court, dated April 19, 2021, and March 21, 2024, directing certain measures. The present adjudication aims to move further towards greater certainty in our approach to conserving two species, and, importantly, to rethink environmental conservation going forward in our pursuit of sustainability and mutual coexistence with other living beings on our mother Earth.

7. **Endangerment of the Great Indian Bustard:** With time, the country has seen a rapid and steady decline in the population of the GIB.

[6] '18 Animals that recently went Extinct' (IFAW International, December 12, 2023) <https://www.ifaw.org/international/journal/18-animals-recently-extinct>.

As of 2018, the International Union for Conservation of Nature, or IUCN as it is popularly known, classified the GIB as a 'critically endangered' species. In IUCN's system of classification, only two categories indicate a graver threat to a particular species – 'extinct in the wild' and 'extinct'. The GIB has been classified as a critically endangered species from 2011 until the most recent assessment in 2018. From 1994 to 2008, it was classified as 'endangered' and in 1988, it was labelled 'threatened'.

8. The Rajasthan government estimates that only about 125 GIBs were present in the year 2013[7] while IUCN placed the number of mature GIBs between 50 and 249.[8] There are significant factors bearing upon the dwindling numbers and low rate of reproduction of the existing population of these species:

i. Pollution, climate change, predators and competition with invasive species are among the many threats that exacerbate the challenges faced by these vulnerable species.

ii. GIBs usually lay a single egg which has an incubation period of approximately one month. The GIBs nest on open ground or in cavities in the soil. Consequently, their eggs are also laid and

[7] Government of Rajasthan, Forest Department, 'Project Great Indian Bustard' <https://forest.rajasthan.gov.in/content/raj/forest/en/footernav/department-wings/project-great-indian-bustard.html>.
[8] IUCN Red List.

incubated on the ground. The eggs are therefore at risk of being preyed upon by local predators including mongooses, monitor lizards, and other birds. Cows may also trample on or crush the eggs while grazing in the grasslands.

iii. The loss of habitat is also a serious concern. As humans have expanded their settlements and economic activities into the grasslands, the natural habitat of the GIB has diminished. The expansion of human population and accompanying activities has also resulted in the fragmentation of the GIB's habitat.

iv. The expansion of infrastructure such as roads, mining and farming activities have cumulatively contributed to the dangers faced by the avian species.

v. The attrition of the existing population of these endangered birds has been *attributed to overhead transmission lines*.

9. **Writ Petition under Article 32 of the Constitution**: The present writ petition invoking the jurisdiction of this Court under Article 32 of the Constitution was filed in 2019 seeking immediate directions for the conservation of these species. The writ petition prayed for various directions via issuance of writs, inter alia, including:

a) direction to Respondents to urgently frame implement an emergency response plan for the protection and recovery of the GIB, including directions for the installation of bird diverters, immediate embargo on the sanction of new projects, as well as other measures in and around critical and semi-critical habitats; and

b) appointment of an Empowered Committee to oversee the implementation of the directions issued by the Court, to preserve and manage the endangered species and their habitats.

10. Another writ petition[9] filed by renewable energy developer ACME, is tagged with the primary writ petition, as well as a civil appeal[10] arising from an NGT order that concerns with deployment of Bird Flight Diverters ('BFD'). The issues in the tagged matters are congruent to the issues raised by main writ petition and will be addressed in our analysis.

11. **Interim Order of this Court dated 19.04.2021:** The writ petition led to the interim directions of this Court vide order dated 19.04.2021, imposing restriction on setting up of overhead transmission lines in a large territory of about 99,000 square kilometres. Directing accordingly, the court also appointed a three-member committee to assess the feasibility of laying high-voltage underground power lines. The Court also directed

[9] W.P.(C) No. 549 of 2025.
[10] C.A. No. 3570/2022.

that, in all cases where overhead power lines exist as of the date in the priority and potential GIB areas, steps shall be taken to install bird diverters pending consideration of converting the overhead power lines to underground power lines. Furthermore, the court directed that in all cases where it is feasible to convert overhead lines to underground power lines, this shall be undertaken and completed within one year. The said order was implemented by the Committee by granting sanctions on a case-by-case basis when undergrounding was not possible.

12. **Interlocutory Application by Respondents:** However, about six months after the order, it was felt by the respondents that the wide sweep and coverage of the directions, qua a large area of Rajasthan in the April 2021 order, was not feasible, as it hampered the solar energy production potential in the region. In this view, in November 2021, the respondents, namely the Ministry of Environment, Forests, and Climate Change ('MoEFCC'), the Ministry of Power, and the Ministry of New and Renewable Energy ('MNRE'), respectively, filed IA No 149293 of 2021 seeking modification of directions issued by the April 2021 order. The grounds for seeking modifications were primarily that:

a) The April 2021 order has vast adverse implications for the power sector in India and energy transition away from fossil fuels;

b) Respondent No. 4 (MNRE) was not heard before passing the order;

c) India has made international commitments, including under the agreement signed in Paris in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), for the transition to non-fossil fuels and for the reduction of emissions;

d) The area with respect to which the directions were issued is much larger than the actual area in which the GIBs dwell. Moreover, that area contains a significant proportion of the country's solar and wind energy potential;

e) Undergrounding high voltage power lines is technically not possible, and the coal-fired power, which would be used to replace the untapped energy from renewable sources in the concerned area, would cause pollution.

13. In the course of hearing of the interlocutory application, the Union of India filed an affidavit and comprehensive status report submitting and proposing that a blanket direction of the nature that has been imposed by this Court, would not be feasible in the conservation of the GIB, as global practice indicates that large swathes of land need not be closed off as a conservation strategy. Furthermore, it was noted that the decline in the population of GIBs began in the 1960s, well before the electrification of the area and the construction of transmission lines. Additionally, it was highlighted that the direction by this Court for laying high-voltage, or as

the case may be, low-voltage lines underground was practically impossible to implement. It was also argued that multiple alternative measures have been taken by the Union of India as well as the State Governments to conserve and protect the endangered species of GIB.

14. **Order of this Court dated 21.03.2024 and formation of the Expert Committee:** Taking stock of submissions of the stakeholders and the need to balance conservation of endangered species with imperative of protecting against climate change, which is possible only if ample thrust is placed upon renewable energy, the Court modified the direction as contained in April 2021 order by its order dated 21.03.2024 observing that there was no basis to impose a general prohibition in regard to the installation of transmission lines for the distribution of solar power in an area about 99,000 square kilometres. The primary reasons for the modification of the 2021 order in the context of power generation included, inter alia:

a. The diverse factors responsible for the reduction of the GIB population, including low fecundity, fragmentation, habitat loss, predators, and loss of prey, must be addressed, and the conversion of overhead into underground transmission lines is not likely to lead to the conservation of the species;

b. Underground power transmission cables are available only in 400 kV. The drum size for such cables is 250 m. These cables have a greater number of joints. As the number of joints increases, there is a corresponding rise in the risk to safety, especially for farmers whose land the cables are laid under. The downtime of electricity plants will also increase;

c. Flag Markers of underground cables do not serve the intended purpose in desert regions because of strong winds that blow and carry sand. This may cover or otherwise impact the flag markings. In the absence of functional markings, it is unsafe and impractical to underground high voltage cables in deserts;

d. Underground cables do not efficiently transmit AC power. The transmission loss in such cables is about five times higher;

e. Underground cables may give rise to environmental issues for many vulnerable species. They may also result in forest fires or other fires;

f. The area sought to underground powerlines has immense solar potential. To date, only 3% of this potential has been realised. If the remaining potential remains untapped, an additional 93,000 MW of coal would be required in the future. An estimated 623 billion kg of

carbon dioxide would be released from coal-fired power generation. This would significantly damage the environment and hinder global efforts to combat climate change.

15. This Court found it suitable to entrust the task of recommendation of protective, mitigation, and conservation measures to an expert committee. The relevant portions of the March 2024 order are as under:

> *"60. While balancing two equally crucial goals - the conservation of the GIB on one hand, with the conservation of the environment as a whole on the other hand - it is necessary to adopt a holistic approach which does not sacrifice either of the two goals at the altar of the other. The delicate balance between the two aims must not be disturbed. Rather, care must be taken by all actors including the state and the courts to ensure that both goals are met without compromising on either. Unlike other competing considerations, these do not exist in disjunctive silos. Therefore, a dilemma such as the present one does not permit the foregrounding of one of these as a priority, at the cost of the other. If this Court were to direct that the power transmission lines be undergrounded in the entire area delineated above, many other parts of the environment would be adversely impacted. Other endangered species may suffer due to the emission of harmful gases from fossil fuels. Rising temperatures and the attendant evils of climate change may not be halted in a timely fashion, leading to disastrous consequences for humankind and civilisation as a whole. The existential threat may not be averted.*
>
> *61. Moreover, the decision on whether to convert the overhead power transmission lines into underground lines is a matter of environmental policy. While adjudicating writ petitions which seek reliefs which are of the nature sought in the present case, this Court must conduct judicial review while relying on domain experts. Those who are equipped and trained to assess the various facets of a problem which is litigated before the Court must be consulted before a decision is taken. If this is not done, the Court may be in danger of passing directions without a full understanding of the issue in question. Consequently, in the absence of evidence which forms a certain basis for the directions sought, this Court must be circumspect in issuing sweeping directions. In view of the implications of the direction issuing a blanket prohibition on overhead transmission lines, we are of the view that the direction needs to be recalled and it will be appropriate if an expert committee is appointed. The committee may balance the need for the preservation of the GIB which is non-negotiable, on one hand, with the*

need for sustainable development, especially in the context of meeting the international commitments of the country towards promoting renewable sources of energy, on the other hand. By leveraging scientific expertise and engaging stakeholders in meaningful consultations, this approach ensures that conservation efforts are grounded in evidence and inclusive of diverse perspectives.

62. We are accordingly of the view that the order passed by this Court on 19 April 2021 needs to be suitably modified. A blanket direction for undergrounding high voltage and low voltage power lines of the nature that was directed by this Court would need recalibration for the reasons discussed above. This task is best left to domain experts instead of an a priori adjudication by the Court. Experts can assess the feasibility of undergrounding power lines in specific areas, considering factors such as terrain, population density, and infrastructure requirements. This approach allows for more nuanced decision-making tailored to the unique circumstances of each location, ensuring that conservation objectives are met in a sustainable manner."

16. Taking the suggestions from all the stakeholders and in view of the need of a high-stakes study, the Court deemed fit to constitute an expert committee comprising the following members:

(i) Director, Wildlife Institute of India, Dehradun;

(ii) Dr Hari Shankar Singh, Member, National Board for Wildlife;

(iii) Dr Niranjan Kumar Vasu, Former Principal Chief Conservator of Forest;

(iv) Mr. B Majumdar, former Chief Wildlife Warden and Principal Chief Conservator of Forest, Maharashtra;

(v) Dr Devesh Gadhavi, Deputy Director, The Corbett Foundation;

(vi) Shri Lalit Bohra, Joint Secretary (Green Energy Corridor), Ministry of New and Renewable Energy; and

(vii) Joint Secretary, Ministry of Environment, Forests and Climate Change.

17. Since the Committee was required to traverse the area of the setting up of transmission lines to facilitate solar power generation, the Court directed that the Committee shall consist of the following two special invitees:

(i) Shri Ashok Kumar Rajpur, Member Power Systems, Central Electricity Authority; and

(ii) Mr. PC Garg, Chief Operating Officer, Central Transmission Utility of India Ltd.

18. The remit of the Expert Committee was to encompass the following:

a. Determining the scope, feasibility and extent of overhead and underground electric lines in the area identified as priority areas in the reports of the Wildlife Institute of India in the States of Rajasthan and Gujarat;

b. The need for adopting conservation and protection measures for the GIB as well as other fauna specific to the topography;

c. Identification of the measures to be adopted in the priority areas to ensure the long-term survival of the GIB and facilitate an increase

in its population. Such measures may include habitat restoration, anti-poaching initiatives, and community engagement programs;

d. Evaluating the potential consequences of climate change on GIB habitats, considering factors such as shifting precipitation patterns, temperature extremes, habitat degradation and developing adaptive management strategies to enhance their resilience;

e. Identification of suitable options in the context of sustainable development in the matter of laying power lines in the future. The alternatives identified should balance the conservation and protection of the GIB with the arrangement of power lines in a manner that facilitates the fulfilment of India's international commitments to develop renewable sources of energy;

f. Engaging with relevant stakeholders, including government agencies, environmental organisations, wildlife biologists, local communities, and energy industry representatives, to solicit inputs, build consensus, and promote collaborative efforts towards achieving conservation and sustainable development goals;

g. Conducting a thorough review of conservation efforts and innovative approaches in similar contexts globally, such as the Houbara

Bustard in the Middle East or the Black Stilt in New Zealand, to inform best practices;

h. Implementing a robust monitoring and research program to track GIB populations, habitat dynamics, and the effectiveness of conservation measures over time. This may include employing techniques such as satellite tracking, camera trapping, and ecological surveys to gather essential data for informed decision-making; and

i. Adopting any additional measures, both in regard to the priority and potential areas, as the Committee considers appropriate, including considering the efficacy and suitability of installing bird diverters on existing and future power lines on the basis of a scientific study.

19. By ordering thus, the Court recalled the order dated 19.04.2021 insofar as it imposed the injunction in respect of the area described as the priority and potential areas.

20. **The Committee Reports:** The expert committee, after holistic scientific analysis of all the issues concerning the conservation measures for the GIB and other threatened species, submitted its recommendation report to this Court on 03.09.2024 for the State of Rajasthan. While submitting the report, the Committee noted a lack of consensus among its

members on recommendations for the State of Gujarat and recommended maintaining the status quo in terms of the judgment dated 21 March 2024. However, on 07.11.2024, this Court directed the Committee to submit a report for Gujarat so that the matter can be discussed jointly for both States. The report for the State of Gujarat is now before us.

21. The Expert Committee reports that it held many proceedings, field visits, and stakeholder consultations to arrive at its decision. The process undertaken by the expert committee, primarily in State of Rajasthan, before arriving at its recommendations included:

a. Committee meetings, virtual and on-site

b. Site visit to Jaisalmer, Rajasthan (a hotspot for GIB conservation) on 1-2 July 2024 for assessing the ground situation concerning GIB habitats, transmission lines, and conservation efforts being implemented by the MoEFCC, Rajasthan Forest Department and WII, as well as holding stakeholder meetings.

c. Meeting for consultation with stakeholders, attended by all committee members and included power generation companies, power transmission companies, power

distribution companies, other industry representatives, and local communities.

d. In addition to the site visits and stakeholder meetings on the ground, a consultation workshop to prepare a conservation report for the GIB in Rajasthan was held at the Wildlife Institute of India on 6 July 2024, attended by all committee members and other stakeholders.

e. Meeting of committee members with the Chief Wildlife Warden, holding deliberations on various issues related to the subject.

f. Meeting at MNRE office, New Delhi, to reach a final balanced solution that aids the conservation of the GIB, LF, and associated fauna while balancing India's renewable energy targets.

22. As regards the peculiar character of *Godawan*, the GIB, the Committee expressed its findings that *Godawan* is a large bird of open grasslands and dryland habitats and is susceptible to hunting by humans and other predators. While their eyes are arranged laterally on the head to provide enhanced peripheral vision, which improves vigilance in open areas, this trait is maladaptive in current landscapes with linear aerial

infrastructures.[11] Additionally, bustards are slow breeders, and any loss of adult birds is very harmful to the viability of their population.

23. The Committee also noted that, out of the 26 bustard species across the globe, 15 (58%) are threatened / near-threatened[12]. This situation is more severe for Asia, especially India, where all three resident bustard species - the GIB, LF, and Bengal Florican - are found and are critically endangered.[13] The committee highlights that the historical decline of the birds was largely due to trophy hunting, which intensified alongside the development of intensive agriculture and energy infrastructure.[14]

24. **Recommendations for State of Rajasthan**: The report of the nine-member committee[15] is nearly unanimous, except for the notes of disagreement by one member. The recommendations by the majority members, include, inter alia:

(i) Rationalisation of GIB areas: The committee recommends a priority area of 14,013 sq. km by including 850 sq. km of area to the existing 13,163 sq. km of priority area in the State of Rajasthan.

[11] Martin, G. R., and J. M. Shaw. "Bird collisions with power lines: failing to see the way ahead?" Biological Conservation 143.11 (2010): 2695-2702.
[12] Collar, N. J., et al. "Averting the extinction of bustards in Asia", Forktail 33 (2017): 1-26.
[13] Committee Report (Rajasthan).
[14] Uddin, Mohib, et al. "High bird mortality due to power lines invokes urgent environmental mitigation in a tropical desert", Biological Conservation 261 (2021): 109262.
[15] In the course of the judgment, reference to recommendations made by the Committee must be understood as Recommendations made by the 'Majority Committee'.

(ii) Measures for Conservation and Protection of GIB (also applicable for Gujarat):

a) Initiation of restoration, conservation and consolidation of grassland ecosystem in India.

b) Identification of five critical sites in Rajasthan within the revised priority area for consolidation, restoration and protection, namely,

i. Desert National Park Wildlife Sanctuary- Salkha-Kuchri area,

ii. Sanu - Mokla - Parewar area,

iii. Pokhran Field Firing Range (PFFR) and buffer areas,

iv. Ramdevra area and habitats on the eastern periphery of the PFFR, and

v. Dholiya-Khetolai-Chacha area along with habitats adjoining southern boundary of PFFR.

c) Recommendations regarding measures for in-situ conservation of GIB within the revised priority areas of Rajasthan, in addition to this Court's judgement dated 21.03.2024, namely

i. Enclosure Establishment/Improvement;

ii. Predator management (monitoring, translocation and sterilisation);

iii. Weed removal and grass plantation;

iv. Food and water management;

v. Improving protection of GIB in the revised priority area;

vi. Community engagement, including designation of certain areas as conservation reserve;

vii. Administrative and institutional arrangements, such as cooperation between different states, initiation of Project Bustard along the lines of other Projects such as Project Tiger, Elephant etc.

(iii) Project Great Indian Bustard (Also applicable to the State of Gujarat): Finalization of the next phase of Project Bustard (Phase-II 2029-2033) and its funding through the National CAMPA funds. Provision of funding to the State Forest Departments for restoring habitats, mitigating threats and developing suitable sites for future release of captive GIB from the National Conservation Breeding Centre. Scaling up of the current activities being undertaken for

conservation breeding and habitat improvement, including in other range States; ensuring dedicated support for these activities.

(iv) Monitoring of GIB and Habitats (Also applicable to the State of Gujarat): Continuous monitoring of the GIB and LF Populations and the monitoring of habitat restoration efforts.

(v) Effects of Climate Change on GIB (Also applicable to the State of Gujarat): Continuation of study being undertaken by the WII for monitoring the impacts of climate change on GIB and LF, as well as the utility of enclosures to provide resilience against the effects of climate change. Further mechanistic studies on bustards and other associated taxa, and monitoring of climate change resilience of conservation actions.

(vi) Powerline Corridor through the revised priority area: The Committee has recommended providing a power corridor of up to 5 km width, which will be at a distance of 5 km or more to the south of the southern-most enclosure of Desert National Park. Coordinates of the Corridor to be proposed by the Rajasthan Forest Department ('RFD') and WII. If feasible, High-Capacity HDCV corridors are to be adopted to reduce the number of lines required to carry the same quantum of power. No new powerlines to be allowed in revised priority areas except through a dedicated

'powerline corridor'. No new wind turbines and new solar parks/plants of more than 2MW capacity should be allowed within the revised priority area.

(vii) Mitigation Measures in the Potential Areas (Also applicable to the State of Gujarat): The Expert Committee has recommended no restriction on the laying of powerlines in the Potential Area (area outside the revised priority area)

(viii) No Mitigation for low tension lines in 100m of settlement boundary (Also applicable to the State of Gujarat): The Committee has suggested no mitigation of existing and future powerlines of 11kV and below voltage in the 100 metre buffer around the settlement areas.

(ix) Recommendations for Mitigation of Powerlines:

- Powerlines of 11 kV and below: The Committee has recommended that all 11kV and below lines in the revised priority area be mitigated using insulated cables in horizontal configuration or insulated cables with bunching. Any new power line in a forest or critical area should preferably be laid underground. Critical wildlife habitat to be suggested by the WII

in consultation with the RFD will be considered for additional mitigation measures on a case-by-case basis.

- 33 kV lines: 80 km out of the 104 km of lines identified in the earlier order dated 19.04.2021 to be immediately undergrounded. The lengths proposed by the Committee to be undergrounded are at Para 44(b)/Report. The remaining 33 kV lines, to be identified by the WII and the Rajasthan Forest Department within 3 months, and these lines are to be mitigated using undergrounding/re-routing/insulated cables (Para 44(c)/Report). The Committee also recommends that segments of 33kV and above powerlines passing through enclosures be rerouted to more suitable locations that are 1-2 km away from the boundaries of the enclosures.

- 66 kV and above: The Committee recommends rerouting of nine 66 kV lines with horizontal alignment of conductors and in horizontal configuration as per their indicated alignments, subject to finalisation of route by the State Transmission Utility/owner of the line in consultation with the CEA, Rajasthan Forest Department and WII within 6 months. The Committee has also recommended that the technical feasibility of rerouting

these lines through a 2km wide corridor on the right/east side of Mokla enclosure, in order to avoid haphazard rerouting.

- As regards remaining lines, the Committee has generally recommended that wherever undergrounding is not feasible, high tension power lines of 66kV and above be mitigated in other ways, with preference given to re- routing of critical sections to avoid important habitats/units in the revised priority areas.
- The Committee recommends that remaining powerlines of 33kV and above that pass through or are in the vicinity of enclosures are to be re-routed to locations that are 1-2 km away from the enclosures.

(x) <u>Use of Bird Flight Diverters (Also applicable to the State of Gujarat):</u>

The Expert Committee has not recommended the use of Bird Flight Diverters ('BFD') as a mitigation measure in either the revised priority or the potential areas on the basis of unproven efficacy and high cost of installation and maintenance. The Committee has recommended that an ongoing study by WII, assessing the effectiveness of bird diverters in reducing bird collision mortality with power lines, be conducted within a year (or an additional year or two years), and recommendations be submitted to the Ministry for further consideration.

(xi) The Committee recommends that all mitigation measures, such as undergrounding and re-routing, are to be started immediately and completed before 2028. Proposals for re-routing are to be discussed with the Rajasthan Forest Department and WII to ensure that the alignment does not compromise the goal of GIB conservation.

25. **Recommendations for State of Gujarat**: On similar lines with major mitigation recommendations for the State of Rajasthan, the Committee suggests following measures for Gujarat:

(i) Rationalisation of the GIB Priority Area: The committee recommends the Revised Priority Area of 740 sq. km. The Expert Committee modified some portion of the original Priority Area, but maintains a major part of the same for the State of Gujarat at 500 sq. km, and added approximately 240 sq. km to the Priority Area of Gujarat, and consolidates it into a new 'Revised Priority Area' (total 740 sq. km.).

(ii) Specific recommendations of in-situ measures for the State of Gujarat in the revised priority area (apart from the general recommendations adopted from the Rajasthan Report):

i. 'Jump Start' using fertile eggs from Rajasthan- a process where infertile egg is swapped with a fertile egg, allowing the female to incubate and raise chick in the wild.

ii. Tagging of remaining birds by GPS to facilitate jump start and subsequent monitoring.

iii. Consolidation of revenue areas around forest lands.

iv. *Prosopis juliflora* management which are an invasive species.

v. Removal of plantation of non-native woody species.

vi. Restoration of grasslands after removal of *prosopis*/plantations.

vii. Predator Management (particularly targeted at free ranging dogs).

viii. Restrictions on infrastructure within restored grassland areas.

ix. Designation of important areas as protected areas under the Wildlife (Protection) Act, 1972, indicative list of which is given.

x. Pasture development to reduce dependency of livestock on grassland protected for GIB.

(iii) Powerline Corridor passing through revised priority area: The Committee has recommended following two corridors:

i. A power corridor of 1 km width along the Akrimota-Bachunda 22kV transmission line upto Bhachunda 400 kV GIS. The Akrimota - Bhachunda 220 kV transmission line will be the

eastern border of the proposed corridor, while the Tera-Kunathiya road will be the western border. The committee recommends the continuity of the corridor from Bhachunda 400 kV GIS via Varsana – Bhachunda 400 kV line up to Bhachunda village, as highlighted in map 4 (a). The width of this part of the corridor will be up to 2 kms. All existing 66 kV and above lines originating or terminating at the Bhachunda substation and all future powerlines of 66 kV and above capacity coming to the Bhachunda substation are to be within the corridor only.

ii. Another power corridor is recommended from Kothara to Sindhodii Nani substation in the west and Suthri substation in the south. This corridor will be used to evacuate power from the windmills situated along the coast. Additionally, the 66 kV and above powerlines located between Nani Sindhodii and Godhra, are to be rerouted through the Corridor.

(iv) Timeline of action within priority area: The Committee has divided the revised priority area into two parts- north and south and provided timeline of 2 years for mitigation of existing lines in the northern part and mitigation in the remaining area to be done around 2028.

(v) Mitigation of existing 33kV lines:

i. The Committee has identified certain segments of four 33kV lines (total 79.2km) in the revised priority area for immediate undergrounding/re-routing outside the revised priority area. The Committee has also suggested that if undergrounding or re-routing is technically infeasible overall or in some sections, the sections may remain overhead, but they should be mitigated through conversion to insulated cables (preferably with bunching) and laid in horizontal configuration such that all wires (both conductors) are parallel to each other in the same height level. The technical feasibility and subsequent mitigation to be decided by a joint committee having representative of CEA, State Transmission Utility, GFD and WII and next best mitigation measure should be adopted

ii. All remaining 33kV lines in the revised priority areas are to be mitigated using underground/re-routing outside revised priority area or conversion to insulated-cables in single horizontal frame. The decision to be based on habitat suitability criteria and case to case technical feasibility. Such lines will be identified by WII and GFD within 3 months and technical feasibility be evaluated by CEA.

(vi) <u>Mitigation of existing 66kV and above lines:</u>

i. The Committee has recommended nine critical 66kV lines (total 64.9 km) for immediate undergrounding. The Committee has further recommended that where undergrounding some stretches of these lines is not technically feasible, the option of rerouting outside the revised Priority Area or through the proposed corridors should be considered. Further, where undergrounding is not technically feasible and re-routing is to be done, the State Transmission Utility/owner of the transmission lines refer to the alignments proposed in Map 4 and finalise them within 6 months, in consultation with the CEA, GFD and WII.

ii. The Committee has recommended that other existing 66 kV lines (10.2 km in length) in the revised Priority Area be mitigated on a case-to-case basis

iii. For 220 kV and above lines, the Committee has generally suggested measures such as re-routing outside the revised priority area or within the revised priority area through a powerline corridor or laying of lines in horizontal configuration. The measures from these three options are to be decided on case to case basis by a joint committee having representative of CEA, State Transmission Utility, GFD and WII.

iv. The Committee has further given specific recommendations for seven identified 220kV and 400 kV lines (total 48.4 km) (see table at pg. 3489, pdf pg. 2139 of Gujarat Report/Vol V of CC).

(vii) On account of large scale erection of transmission lines at the cost of avifaunal diversity, the Committee has recommended re-examination of undergrounding powerlines above 33 kV in critical habitat by power line experts, considering the advancement in technology.

26. **Consideration of Objections to the Committee Reports by Renewable Energy Generators:** Mr. Vikas Singh, learned senior counsel appearing for JSW and ACME, argued that while he agrees with the majority report so far as the stakes of ACME are concerned, he would argue that some of the committee's recommendations are not in line with India's solar energy generation commitment and go beyond the remit of the committee as outlined in this Court's 2024 order. Mr. Singh has made elaborate submissions arguing that the Expert Committee's recommendations on many issues are untenable and shall not be given effect. Ms. Aishwarya Bhati, Ld. ASG has responded to those submissions and also filed written submissions. We deem it fit to deal with Mr. Singh's arguments straightaway.

(i) Mr. Singh submits that the committee's recommendation to increase the priority area from 13,163 sq. km. to 14,013 sq. km. should be rejected. He submits that there is no quantitative analysis (e.g., projected GIB population viability gain) to show that adding these 850 km² will materially reduce extinction risk, especially given that the bulk of the GIB population was already within the original 13,163 sq. km. priority area.

In this regard, Ms. Bhati has invited our attention to the mandate of the Committee in terms of paragraph 69 of the 2024 order, which specifically provided that the Committee shall be at liberty to recommend other measures, including identifying and adding suitable areas beyond the priority zones if considered crucial for the conservation of species. Ms. Bhati submits that the committee has recommended the addition of priority areas after extensive consultation with Rajasthan Forest Department, scientific agencies including the Wildlife Institute of India and relevant stakeholders, by referring to extensive materials which are part of the Annexures to the Rajasthan Report. In this view, the objection to the addition of revised area by generators should be rejected.

We are in agreement with this submission, which is apparent from reading the remit of the committee from the Court's order. There is

no infirmity in the Committee's recommendation for the addition of areas vis-à-vis its mandate.

(ii) Mr. Singh submits that there should not be a blanket ban on the installation of solar projects over 2MW capacity or the laying of overhead transmission lines because there is no reasonable basis to allow solar projects under 2MW and stall projects above it. Ms. Bhati has invited our attention to the Committee Report, which elaborates on how the 2MW threshold is well reasoned because projects below 2MW shall help in *"generation of renewable energy by local communities to meet part of their increasing electricity demand and avail various government schemes"* without *"leading to additional habitat loss for the great Indian Bustard"*.

In our opinion, it would be improper for the Court to revisit a quantitative threshold determined by experts without any compelling reason.

(iii) Mr. Singh also submitted that rather than imposing omnibus prohibition across the priority area, the Court should mandate site-specific safeguards for any projects, such as undergrounding of the highest-risk segments, compulsory installation of certified bird

diverters on all overhead spans, use of insulated cables, seasonal adjustments, and any other measure as may be recommended.

Ms. Bhati submits, and as it is apparent from the Committee report that there are, in fact, case-based measures recommended at certain instances, and this is the reason for the classification of various powerlines and varied mitigation measures for different areas.

The Committee report in any manner cannot be read to imposed omnibus restrictions or make wholesale recommendations as submitted by Mr. Singh. The argument, therefore, is rejected.

(iv) Alternatively, he submits that the Court should consider exempting projects currently being set up in the Revised Priority Area (for which land has already been allotted by the State Government) from the restrictions imposed in the report of the Expert Committee. In this view, he submits that the Expert Committee has deviated from its mandate, as tasked by the Supreme Court, which was not to reinstate a blanket ban but to devise nuanced, site-specific recommendations that reconcile GIB protection with sustainable development.

Additionally, he submits that the State Government be directed to grant alternative land for the development of solar projects, such as those of JSW, that are now included in the Priority Area, without incurring any additional costs. He further submits that the Expert Committee has made recommendations without referring to parallel international studies and practices, including those in Germany, and has also failed to appreciate the successful conservation of the Asian Houbara Bustard in Iran by identifying high-risk collision hotspots and installing spiral bird diverters.

Ms. Bhati submits that there is no embargo placed by Committee on generators to request the State Government for an alternate land. In fact, this is an issue that the Committee has not addressed at all.

We are of the view that the State Government can consider the representation of Generators on its own merits.

27. Mr. Singh also argues that there are two aspects to undergrounding of powerlines – technical and financial. He proposes that instead of adopting the omnibus and one-size-fits-all recommendation of the Committee regarding underground powerlines, this Court shall delegate the authority to direct undergrounding to the Central Electricity Authority,

a statutory body, which shall deal with undergrounding where possible, and where not, recommend BFDs on a case-by-case basis under section 68 of the Electricity Act, 2003.[16]

28. While this submission is rooted in core electricity regulatory oversight, we are of the view that when a committee, which also comprises electricity regulation experts, has made recommendations on an aspect of the interlinkage of electricity generation and species protection, it would not be proper to further delegate the exercise to a new body and delay the measures. This Court expedited the hearing for the matter and nudged the Committee to submit its reports in a timely manner, so that measures, as necessary, can be implemented as soon as

[16] **Section 68. Overhead lines.–**
(1) An overhead line shall, with prior approval of the Appropriate Government, be installed or kept installed above ground in accordance with the provisions of sub-section (2).
(2) The provisions contained in sub-section (1) shall not apply--
(a) in relation to an electric line which has a nominal voltage not exceeding 11 kilovolts and is used or intended to be used for supplying to a single consumer;
(b) in relation to so much of an electric line as is or will be within premises in the occupation or control of the person responsible for its installation; or
(c) in such other cases, as may be prescribed.
(3) The Appropriate Government shall, while granting approval under sub-section (1), impose such conditions (including conditions as to the ownership and operation of the line) as appear to it to be necessary.
(4) The Appropriate Government may vary or revoke the approval at any time after the end of such period as may be stipulated in the approval granted by it.
(5) Where any tree standing or lying near an overhead line or where any structure or other object which has been placed or has fallen near an overhead line subsequent to the placing of such line, interrupts or interferes with, or is likely to interrupt or interfere with, the conveyance or transmission of electricity or the accessibility of any works, an Executive Magistrate or authority specified by the Appropriate Government may, on the application of the licensee, cause the tree, structure or object to be removed or otherwise dealt with as he or it thinks fit.
(6) When disposing of an application under sub-section (5), an Executive Magistrate or authority specified under that sub-section shall, in the case of any tree in existence before the placing of the overhead line, award to the person interested in the tree such compensation as he thinks reasonable, and such person may recover the same from the licensee.
Explanation.-- For the purposes of this section, the expression "tree" shall be deemed to include any shrub, hedge, jungle growth or other plant.

possible. In an exercise where time is of the essence, we do not find it fitting to delegate the matter for further consideration.

29. Mr. Maninder Singh, learned senior counsel appearing for Sustainable Power Developers Association (SPDA), which is representing the interests of solar power developers, submits that more than 21 solar energy generation projects are awaiting permission under section 68 of the Electricity Act, 2003. If these permissions are granted, these 21 projects can be completed soon, resulting in the production of more than 9000 MW of power. Arguing so, Mr. Maninder Singh opposes the prayers made by the Petitioners regarding an increase in the revised priority area, establishing a power line corridor, undergrounding of lines above 66kV, installation of BFD, etc.

30. Mr. Maninder Singh invites our attention to previous judgments and orders of this Court in ***Centre for Environmental Law, World Wide Fund-India v. Union of India***,[17] ***T N Godavarman Thirumulpad v. Union of India***,[18] and ***U. P. Public Service Commission v. Rahul Singh***[19] and argues that the views/recommendations of Expert

[17] (2013) 8 SCC 234.
[18] Judgment dated 13.02.2012 in W.P. 202/1995 (Protection of Red Sandalwood); T N Godavarman Thirumulpad v. Union of India.
[19] (2018) 7 SCC 254.

Committees have been traditionally accepted by this Court, and the same should be done in the instant case.

31. As Mr. Maninder Singh's submissions before us are majorly for accepting the recommendations of the Expert Committee, we will be dealing with these submissions when we examine and consider the Expert Committee recommendations.

32. Mr. Vishrov Mukerjee, learned counsel appearing for Wind Independent Power Producers Association, an association of wind power developers, submits that wind projects stand on a different footing than solar projects and therefore recommendations in respect to solar projects are inapplicable to wind generators.

33. Mr. Mukerjee argues that instead of undergrounding cables, BFDs shall be resorted to as they are much more effective. Mr. Mukerjee also seeks a declaration from this Court to treat the April 2021 order as a change in law event and allow wind power projects in the Priority and Potential areas which have been commissioned prior to 19.04.2021 to continue with overhead transmission lines with installation of appropriate mitigation measures such as BFDs and any other measures suggested by the Committee and exclude Wind Power Projects from the requirement of undergrounding transmission lines in the Priority and Potential areas.

34. We have made it clear to Mr. Mukerjee that the issue arising for consideration relating to problems caused by transmission lines have got nothing to do with the source of generation of power, be it thermal, hydro, solar or wind. In any event of the matter, as the Committee has not considered the distinction between solar and wind generations, we are not inclined to consider the submissions at this stage.

35. **CSR to include Corporate Environmental Responsibility**: The legal formation of Corporate Social Responsibility (CSR) in India is intended to mark a paradigm shift from voluntary philanthropy to statutory obligation. Under Section 135 of the Companies Act, 2013, Parliament institutionalized this duty by mandating companies to meet specific financial thresholds espousing social responsibility. This provision effectively codifies the principle that corporate profit is not solely the private property of shareholders but is partly owed to the society that enables its generation. The magic of legitimacy is in the perspective that *private property is a trust*.

36. This statutory mandate redefines the traditional role of corporate governance. Historically, a director's primary duty was to maximize value for shareholders. However, Section 166(2) of the Companies Act, 2013 dismantled this narrow view by imposing a broader fiduciary duty. Directors are now legally mandated to act in good faith not just for

members, but for the "*best interests of the company, its employees, the shareholders, the community, and for the protection of environment.*" This crucial expansion recognizes that a corporation is an organ of society, and its "social" responsibility extends to the wider community impacted by its operations.

37. The definition of "community" within the CSR framework has been expanded to explicitly include the natural world, cementing the link between social welfare and environmental health. Schedule VII of the Companies Act, 2013 enumerates permissible CSR activities, specifically listing "*ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, and conservation of natural resources.*" By categorizing these ecological activities as "social" responsibility, the law acknowledges that as human beings, we cannot “own” or “use” environment for “our purpose”. The corporate duty must evolve from merely protecting the shareholders to protecting the ecosystem that we all inhabit.

38. Therefore, the corporate definition of "Social Responsibility" must inherently include "Environmental Responsibility." Companies cannot assert to be socially responsible while ignoring equal claims of the environment and other beings of the ecosystem. The Constitution of India, under Article 51A(g), imposes a fundamental duty on every citizen "*to*

protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures." A corporation, as a legal person and a key organ of society, shares this fundamental duty. CSR funds are the tangible expression of this duty. Consequently, allocating funds for the protection of environment is not a voluntary act of charity but a fulfilment of a constitutional obligation.

39. The obligation to protect endangered species is paramount. In *Centre for Environmental Law, World Wide Fund-India* (supra), this Court emphasized the "Species Best Interest" standard, prioritizing the survival of endangered species over commercial or industrial interests. Where corporate activities such as mining, power generation, or infrastructure threaten the habitat of endangered species, the "Polluter Pays" principle mandates that the company bears the cost of species recovery. CSR funds must, therefore, be directed towards ex-situ and in-situ conservation efforts to prevent extinction.

40. The non-renewable power generators operating in the priority as well as non-priority areas in Rajasthan and Gujarat must always remember that they share the environment with the *Godawan*, the Great Indian Bustard and must undertake their activities as if they are guests in its abode.

41. **Submissions by Petitioner[20] with Objection to Committee's recommendation:** Mr. Shyam Divan, learned senior counsel, accepts most of the recommendations made by the Committee and suggests that the following measures, as suggested by the Committee must be implemented at the earliest.

42. Recommendations of the Committee with respect to Rajasthan that the Petitioner accepts:

a. Modification of the Priority Area from 13,163 sq. kms. to 14,013 sq. kms.

b. Initiation of restoration, conservation and consolidation of grassland ecosystem in India, along with the identification of five such critical sites.

c. Key measures for in-situ conservation, read with Paragraphs 71-72 of this Hon'ble Court's judgment dated 21.03.2024, including declaration of important areas such as Degray Oran as Conservation/Community Reserve

d. Project GIB along with its funding

e. Monitoring of GIBs and their habitats

[20] The reference to Petitioner(s)/submission by Petitioner(s) in the text of the judgment is with respect to Petitioner(s) in Writ Petition (C) No. 838 of 2019, unless specified otherwise.

f. Continuation of study by WII regarding impact of climate change on GIBs

g. Powerline Corridor through the Revised Priority Area

h. No mitigation measures for existing and future powerlines of 11kV and below within 100m of the settlement boundary

i. No new wind turbines, no new solar parks/plants of more than 2MW, no expansion of existing solar parks and wind farms to be allowed within the Revised Priority Area

j. Identified 80km of 33kV powerlines to be undergrounded immediately

k. Identified nine 66kV and above lines to be re-routed immediately in a powerline corridor, with horizontal configuration.

43. Recommendations of the Committee with respect to Gujarat that the Petitioner accepts:

l. Modification of Priority Area from 500 sq. kms. to 740 sq. kms.

m. Key measures for in-situ conservation along with specific suggestions for the State of Gujarat such as designation of important areas (like Naliya Grassland and other associated areas) as Conservation Reserve; removal of non-native plantation etc.

n. Project GIB and its funding

o. Monitoring of GIBs and their habitats

p. Continuation of study by WII regarding impact of climate change on GIBs

q. No mitigation measures for existing and future powerlines within 100m of the settlement boundary

r. No new wind turbines, no new solar parks/plants of more than 2MW, no expansion of existing solar parks and wind farms to be allowed within the Revised Priority Area.

s. Identified 79.2km of 33kV powerlines within the Revised Priority Area to be undergrounded or re-routed outside the Revised Priority Area

t. Identified nine critical 66kV lines (total 64.9 km) to be immediately undergrounded

u. Two powerline corridors through the Revised Priority Area

v. All mitigation measures to be adopted and implemented within 2 years

44. **Objections/Additional measures suggested by Petitioners:** Over and above the measures suggested by the Committee, though in the

written submissions, detailed objections are articulated, Mr. Divan confined his submissions to the following measures. In fact, after having disposed of the objections of the Power Developers, the issue arising for our consideration will naturally be confined to the following objections/suggestions which are as follows:

a. Drawing from the dissent note, Mr. Divan suggests that the area of 657 sq. km for the Rasla region must be added to the Revised Priority Area in Rajasthan to avoid fragmentation of the Revised Priority Area (total of 14,670 sq. kms).

b. There ought to be mitigation measures in the Potential Areas (i.e., areas outside the Revised Priority Areas). These measures include:

    i. All future lines to run through a powerline corridor.

    ii. All existing and future lines must be marked with BFDs.

c. No new overhead powerlines (except 11kV and below) in the Revised Priority Areas.

d. No limestone or other mines in the priority areas or the revised priority areas.

e. The leases of existing wind turbines ought not to be renewed and the turbines in the revised priority areas be dismantled once their life is over.

f. All existing and new powerlines of 11kV and below in the Revised Priority Area ought to be converted into Aerial Bunched Cables.

g. 250km of critical powerlines in Rajasthan, as identified by Wildlife Institute of India, ought to be directed to be undergrounded in a time bound manner not exceeding 12 months.

h. All powerlines of 400kV and below ought to be

(1) undergrounded; or

(2) rerouted in a powerline corridor in a time-bound manner.

These lines be marked with good quality BFD until they are undergrounded/re-routed.

i. Mitigation of two lines of 400 kV from Bhachunda-Varsana (approx. 11.5 kms) in the State of Gujarat in the manner suggested in the Dissent Note to the Gujarat Report.

j. All existing powerlines of 765kV must be marked with BFDs.

45. Mr. Prashanto Chandra Sen, learned senior counsel, joined Mr. Divan and made arguments on environment protection, particularly the need to take a shift from the anthropocentric to ecocentric approaches of environmental conservation.

46. **Analysis:** We will now deal with each of the objections/suggestions as articulated hereinabove:

A. Re: Inclusion of 657 sq. kms to the Revised Priority Area in Rajasthan

47. The Committee has recommended that the priority area of 13,163 sq. km. as per this Court's order dated 21.03.2024, is extremely important for GIB conservation and hence kept intact, however, the additional important area of 5977 sq. km., as mentioned in para 51 of the Supreme Court judgement, was deliberated upon by the committee, and the Committee has decided to entirely exclude (except for some critical patches) the additional important area due to the following reasons:

a. The area (particularly the northern arm) has relatively fewer GIB sightings and is important for the transmission of power that may be generated towards the west of the priority area in the future.

b. The area has intensive agriculture due to irrigation and requires the addition of power capacity. The lower arm, on the other hand, is important for renewable energy production and already has a dense network of power lines that is difficult to mitigate.

48. While the Committee excludes the area and nomenclature of additional important areas altogether, it also felt that some parts of the existing additional important areas are very important for conservation of the GIB and should be retained for addition to the Priority Area. Furthermore, some more areas, were recommended for inclusion in the

Priority Area based on GIB sightings, habitat suitability, and importance for other associated species. In this view, a total area of 850 sq. km, consisting of GIB habitats around i) Sam (such as grasslands adjoining Rojani ki Basti, Hameero ki Basti, Turke ki Basti), ii) Netsi and iii) southern boundary of PFFR (particularly Lathi, Dholiya, Chacha, Odhaniya) was recommended for addition to the Priority Area.

49. The Committee also excluded a minimal 0.005 sq. km. area from existing priority area observing that *"the area is surrounded by irrigated agriculture and is close to the Chandhan village, making it an unsuitable habitat for the GIB."*[21] The revised priority area for Rajasthan, as recommended by the committee, shall be 14,013 sq. km. However, in such modifications, the Committee has excluded the area around Rasla-Degray/Degrai Oran Enclave.

50. The Petitioners submit that there is a major oversight in the priority area with respect to Rasla-Degrai Oran Enclave which comprises an area of 657 sq. km. between Rasla Enclosure and the boundary of Priority Area and invites our attention to the recent order of this Court dated 18.12.2024 in ***T N Godavarman Thirumulpad v. UoI & Ors***[22] whereby this Court had directed the State to identify, survey, and notify Orans and similar sacred

[21] Committee Report (Rajasthan), Paragraph, 26(b)(iii).
[22] I.A. No. 41723/2022 in WP (C) No. 202/1995.

groves as forest land, reflecting both their cultural significance and ecological value. Per Petitioners, the area around Rasla is very important as Rasla and Degrai are locations where populations have been sighted during the breeding season. The area of 657 sq. km. lies between the Pokharan and Rasla-Degray Oran regions, which also serve as a wintering site and a stopover for GIBs when they fly from the relatively safe zones in Pokhran to and from the Desert National Park. Petitioners submit that due to this exclusion, which was once an additionally important area, the Rasla Priority Area has been reduced to an island with no connectivity with the adjoining priority area of the Pokhran region.

51. The anxiety of the Petitioners is that once an area is removed from a priority area and in the absence of any additional important area, there will be no protection in the region for GIBs, including BFDs. This apprehension is not without merit, petitioners argue, highlighting the dissenting note as to how additional important areas play a significant role as a corridor, and the significance of the Rasla region becomes apparent in this light. Noting so, the dissenting note recommends the following:

> ***"4.5 Recommendations for Additionally Important Areas of Rajasthan***
>
> ***4.5.1.*** *Considering all the ecological insights and information mentioned above, my humble submission is as follows.*
>
> ***4.5.2.*** *The removal of the entire southern arm of the original additionally important area will lead to a) the loss of connectivity between the two subpopulations through the south, as the corridor*

between the Degrai Oran and Revised Priority Area is compromised, b) if the existing lines (33Kv and above) in this area are not mitigated with bird flight diverter, it would pose a high risk of collision to bustards and all the other associated threatened avian species of the topography, leading to significant bird mortality c) adding new lines in this area would also add to the existing threat and may further compromise the safety of all the threatened bird species. Therefore, I submit the following recommendations.

4.5.3. *The area between the Rasla Enclosure and the boundary of the Priority Area, 52pprox. 657 sq km., shown within the black boundary in the Map-2 above, should be merged with the 'Revised Priority Area' to maintain connectivity between Pokharan and Rasla Priority Areas.*

4.5.4. *The Degrai Oran area is an important habitat for bustards, and many other threatened fauna; however, to maintain a balance between the conservation of critically endangered species and development, the PGCIL's Fatehgarh-2 Substation Area (~2 km2) is excluded from the suggested polygon, shown as '3' in Map-2. The remaining area within this polygon has important bustard habitats and grazing grounds crucial for birds and local communities.*

4.5.5. *The addition of new and expansion of existing solar parks and wind farms should be prohibited in this area, as it would further lead to loss of habitat for birds and loss of grazing ground for local communities' livestock. A majority of the local communities here are associated with pastoralism and these habitats also serve as their traditional grazing grounds. Thus, preserving these habitats will also be beneficial to the pastoralist communities.*

4.5.6. *All the existing lines in these areas (except 11Kv and below) should be marked with Bird Flight Diverter (BFD), as per the installation design given at para 18.2. of this note.*

4.5.7. *No new overhead lines (except 11Kv and below) should be allowed in this area. The existing and new powerlines (only of 11Kv and below) should also be installed with Aerial Bunched Cable, and marked with BFD in 'critical areas' identified following the recommendations made at Para 11.2.4 of this note."*

52. Having considered the matter in detail and taking a holistic view for rationalisation of the priority area with respect to Rajasthan, the Committee recommended that, *"The lower arm, on the other hand, is important for renewable energy production and already has a dense*

network of power lines that is difficult to mitigate".[23] The conclusion of the Committee is based on field visits and stakeholder consultation.

53. As an important step towards conservation, the Committee took the decision of including an extent of 20 sq. kms around Rasla as an integral part of the revised priority area itself. The revised priority area, of 14,013 sq. kms therefore, includes 20 sq. km area with and around Rasla. Additionally, the contiguous area has already been declared the Desert National Park, having its own stringent regulatory measures. The Committee noted the difficulty of bringing about any variation in the existing network of power lines as there exist couple of power sub-stations in the area. Having taken a holistic view, the Committee was of the opinion that the revised priority area, coupled with the additionally important area, is adequate for habitat sustainability of GIB.

54. To bring about efficient regulatory measure, the units of Eco Task Force can be deployed even in these areas and in fact the Committee has specifically recommended such measure in para 32(e)(ii) where it has recommended that *"Units of the Eco Task Force can be engaged for protection and day-to-day management of the proposed enclosures within the Field Firing Range. Similarly, units of the Eco Task Force currently*

[23] Committee Report (Rajasthan), Paragraph, 26(b)(i).

deployed in DNP can be used for protection activities in neighbouring non-protected areas as well."

55. The Committee's recommendation also finds ground in the fact that there is already a dense network of existing power lines from 765 Kv Fatehgarh-I Substation and 765 Kv Fatehgarh-II Substation in the adverted 657 sq. km area forming part of the proposed potential area, from which large quantum of renewable power is being exported.

56. The measures suggested by the Committee regarding community engagement clearly include that, after considering the matter, the State of Rajasthan shall endeavour to designate areas around Dholiya, Khetolai, Chacha, *Rasla and Degrai Oran*, etc., as community reserves and should be managed with participation of local communities.

57. In view of the above, we are of the opinion that the measures suggested by the Committee are adequate. Over and above that, we are of the opinion that effective and efficient regulatory measures by the concerned duty bearers of conservation will be taken periodically as and when required and will prove effective and beneficial in the long term.

B. <u>Re: Even with respect to Non-Priority Areas, all Future Lines should Run through Power Line Corridors</u>

58. It is suggested that mitigation measures must be undertaken for the areas outside the revised priority area. For this purpose, it is recommended that all future lines be routed through power line corridors.

59. As regards the suggestion to provide a powerline corridor even with respect to areas outside the revised priority area, we are of the opinion that the Committee has identified that GIB movements are majorly confined to the Revised Priority area, in which two corridors have already been proposed by the Expert Committee to meet the objective. However, we direct that in the cases of dedicated lines starting from different Renewable Energy ('RE') Pooling stations, but terminating at a common Grid Pooling station, the routes shall be optimised in such a way that they share a maximum common stretch to the extent possible. Equally, in case of lines starting from different RE plants, but terminating at a common RE Pooling station, their routes may be optimised in such a way that they also share a maximum common stretch to the extent possible. There shall be a direction to the concerned authorities to ensure this requirement.

C. Re: All Existing and Future Lines must be marked with Bird Flight Divertors ('BFDs')

60. After recommending the rerouting of certain powerlines for ensuring consolidation of GIB strongholds, the committee observes that such rerouting will nullify the requirement of additional mitigation measures,

such as the installation of Bird Flight Diverters.[24] Commenting on additional mitigation measures for both States, the committee recommends measures on case-by-case basis to be decided by local Forest Departments and observes that[25]:

> *"**44. (h) (…)** BFD are known to reduce bird collisions significantly[26], except in the case of bustards where their effectiveness is lower[27]. These devices come with installation and maintenance costs. Depending on the landscape, additional modifications may be necessary to install diverters effectively. Despite all investments and all possible modifications, the bird diverters can help to mitigate only a singular threat. Moreover, its efficacy in reducing bird mortality (particularly GIB) is far from proven in the Indian context. Since more than 50% of the transmission lines in the revised priority area already have bird diverters, it allows for evaluating the efficacy of the existing bird diverters before recommending the use of such measures. Bird flight diverters may offer a quick fix to a specific problem (collision with power lines) if at all its efficacy is proven but they would be cost-intensive due to recurring maintenance issues on account of reported poor quality. Strategic planning of power lines and targeted habitat management, on the other hand, provides long-term benefits and a sustainable solution that will not only help the GIB, but it will also tackle broader ecological problems, benefiting the entire ecosystem. Given the unproven efficacy of BFDs and the high cost involved in installation and maintenance of the same, spending such a huge amount may not be in the overall interest of common consumers as the same shall be eventually passed on to them. Therefore, the committee is of considerate view to presently focus more on other measures as recommended in the preceding paras. The committee also recommends that an ongoing study by WII for assessing the effectiveness of bird flight diverters in reducing collision mortality of birds with power lines shall be done within a year and recommendations submitted to the Ministry for further consideration."*
>
> (emphasis supplied)

[24] Committee Report (Rajasthan), pg. 40.
[25] Committee Report (Rajasthan), pg. 42.
[26] Barrientos, Rafael, et al. "Meta-analysis of the effectiveness of marked wire in reducing avian collisions with power lines." Conservation Biology 25.5 (2011): 893-903.
[27] Silva, Joao Paulo, et al. "The effects of powerlines on bustards: how best to mitigate, how best to monitor?" Bird Conservation International 33 (2023): e30.

61. The view of the Committee with respect to deployment of BFDs is in consonance with Indian experience about maintenance. Apart from the effectiveness of BFDs, which is a matter of science, maintenance is an issue that is integrally connected to the institutional discipline, which means that there must be a regular follow-up of the maintenance of the instruments, particularly since a large number of these instruments are deployed, and the human resources, coupled with the discipline to maintain them with regularity and efficiency is a big issue for public administration. For this reason, we are inclined to accept the suggestion of the Committee to await detailed studies undertaken by WII for the assessment and effectiveness of BFDs. We therefore direct the authorities to ensure that at least one agency, apart from WII, assesses the efficiency and effectiveness of BFDs at the same time and undertakes a pilot project in some areas before making final recommendations.

62. The real test before deployment of these instruments is twin-fold. Firstly, they must be durable and long lasting. Secondly, they must virtually be maintenance free. As the issue relating to deployment of BFDs is integrally connected to effectiveness of the device and efficiency in its maintenance, we are not inclined to give a direction to deploy them. However, in view of the ideas expressed in:

a. Affidavit filed on 15.03.2021 on behalf of the Ministry of Power in the present case states that the CEA has suggested the installation of bird diverters on high voltage lines in the critical areas. The affidavit further stated that BFDs are to be placed on identified stretches to prevent collisions between birds and transmission lines.

b. Wildlife institute of India in its presentation to the Expert Committee has recommended the use of good quality of BFD as a mitigation measure on overhead lines.

63. We direct the Inspector General, Wildlife Division, MoEFCC, Government of India, to ensure that necessary studies are undertaken and take appropriate action for its deployment.

D. Re: Regarding no new overhead powerlines (except 11kV and below) in the revised priority areas and leases of existing wind turbines not to be renewed

64. Petitioners submit that no new lines ought to be allowed in the Revised Priority Areas (even through a dedicated powerline corridor) as these areas are now the last remaining habitat of bustard, which ought to be kept sacrosanct and free from further appearance of overhead powerlines/renewable energy projects.

65. As regards future power lines in the revised priority area, the Committee examined the issue in detail and has given a clear and categorical recommendation. It is necessary to extract the relevant portion for clarity and certainty:

> ***"43.*** *Further, as per para 66(e), with regards to balancing sustainable development and GIB conservation in the matter of laying future power lines. It is also noted that Power generated from the RE generators is evacuated through power lines of 11 kV and 33 kV lines, which are owned by RE generators and further transmission of this power is done through high voltage lines (66 kV and above voltage level) which are owned by State Transmission utilities and also by Transmission Service Providers (TSPs) and further power will be distributed by Distribution lines (LV, 11 kV and 33 kV) which Electricity Distribution companies own. Extension of distribution lines right up to end use is necessary if the distribution network supplies the electricity. Considering both the historical and recent decline of the GIB for many reasons, not only due to transmission lines, the committee recommends measures which include mitigation of all threats, including the need for habitat management across the GIB areas in the State of Rajasthan. The details of the specific interventions for GIB areas in Rajasthan are given below:*
>
> *(…)*
>
> *(d)* ***Restrictions on future renewable energy projects within the Revised Priority Areas of Rajasthan:*** *Considering the risk posed to the GIBs, LFs and other associated species now surviving in the last remaining habitats of the revised priority areas, it is proposed that no new overhead powerlines except through dedicated power corridors (except 11kV and below capacities with mitigation or as in 43c above) and no new Wind turbine should be allowed in the revised Priority Area. New solar parks/plants of more than 2 MW capacity and expansion of existing solar parks should not be allowed within revised Priority Areas. This relaxation will help in the generation of renewable energy by local communities to meet part of their increasing electricity demand and avail various government schemes.*
>
> *As per present Central Electricity Regulatory Commission (CERC) regulations, new renewable energy plants with a capacity of less than 50MW are not eligible for connection to the Inter-State Transmission System (ISTS). Further, in case of capacity enhancement of any existing plant after 50 MW, the minimum capacity required for ISTS connection is 5 MW. Thus, the relaxation for solar plants up to 2 MW would not lead to additional habitat loss for the Great Indian Bustard."*

66. There is a similar recommendation for the State of Gujarat as following:

> *"**15. Committee's recommendations regarding laying future power lines and energy infrastructure in the revised Priority area**: It was agreed that general recommendations for mitigating the threat to GIB from powerlines and energy infrastructure in Rajasthan should apply to Gujarat as well. Thus, the committee ratified the recommendations made in paras 43c and 43d of the Rajasthan report. Additionally, and similar to 43b of the Rajasthan Report, the committee recommended that no blanket restriction should be kept on laying new power lines outside the revised priority area.*
>
> *(…)*
>
> *c. **Restrictions on future renewable energy projects within the Revised Priority Areas of Gujarat:**….. (Ref: Para 43d of Rajasthan report)*
>
> *(…)*
>
> ***19. Power connections for agricultural purposes:** Taking into account both the ecology of the GIB and LF - which uses agricultural areas - and the agricultural dependence of people living in the revised priority area of Gujarat, the committee reiterates its suggestion mentioned in para 15 and 16 of this report, that no additional restrictions should be placed on providing domestic and agricultural connections to people living within the revised priority area."*

67. The proposal of the Committee is accepted, and it is directed that no new overhead powerlines except through dedicated power corridors (except 11kV and below capacities) and no new Wind turbines should be allowed in the revised Priority Area. Furthermore, it is directed that new solar parks/plants with a capacity exceeding 2 MW and the expansion of existing solar parks should not be permitted within the revised Priority Areas.

E. Re: Prohibition on limestone or other mines in the priority areas or revised priority areas

68. Petitioners submit that the Court should prohibit limestone or other mining in the priority areas or revised priority areas. Though the issue of mining in the province of GIB was not under scrutiny in our orders dated 19.04.2021 and 21.03.2024 or in the expert committee report, we are of the opinion that mining, even of minor minerals, is subject to the regulatory regimes under the Mines and Minerals (Development and Regulation) Act, 1957, the Environment Protection Act, 1986 and such relevant statutes. The statutory authorities, as well as the regulators, will certainly be aware of the fragility and importance of this area, and we believe that no decisions will be made that would even marginally impinge upon the conservation and protection of GIB.

F. Re: Conversion of existing and installation of new 11 kV and below Powerlines as Aerial Bunched Cables in Revised Priority Areas

69. Petitioners submit that all existing powerlines and all new powerlines of 11 kV and below in the Revised Priority Area ought to be insulated and should be converted and installed as Aerial Bunched Cables. With respect to distribution Mitigation of distribution lines (11kV and below) in the revised Priority Area of Rajasthan, the recommendation of the Committee are as under:

> *"**44 (a). Mitigation of distribution lines (11kV and below) in the revised Priority Area of Rajasthan:** Providing electricity to all residents through underground transmission lines will be very difficult and economically very costly. Overhead lines with insulated power cables will eliminate the possibility of electrocution. The committee suggests that all lines of 11 kV and below may be mitigated using an insulated cable in horizontal configuration or insulated cables with bunching. In addition, if any new power line is allowed on forest land or other critical area, the same should be preferably laid underground..."*

70. We are not inclined to direct the conversion of powerlines into aerial bunching. Instead, there shall be a direction that all lines of 11 kV and below may be mitigated using an insulated cable in a horizontal configuration or insulated cables with bunching.

G. Re: Undergrounding of 250 Km of critical power lines identified by WII in Rajasthan in a time-bound manner

71. It is absolutely necessary to implement this recommendation with expedition. For this purpose, we direct that the Inspector General, Wildlife Division, MoEFCC, Government of India, as a duty-bearer, will be responsible for overseeing and implementing the recommendations of the Committee as approved by us within two years from the date of our order.

H. Re: Mandatory Undergrounding or Time-Bound Rerouting of All Powerlines (400 kV and Below)

72. Petitioners submit that the critical powerlines located within the Revised Priority Area should be undergrounded wherever feasible. It is submitted that WII has already identified approximately 250 km of critical powerlines that pose a high risk and therefore directions should be issued

for their immediate undergrounding. Where undergrounding is found to be infeasible, the powerlines should be rerouted outside the Revised Priority Area through a designated powerline corridor, petitioners submit.

73. We are not inclined to take a different view of the matter as the Committee has taken stock of the issue.

I. Re: Mitigation of two lines of 400 kV from Bhachunda-Varsana of approx. 11.5 Kms

74. Petitioners submit that the two 400 kV lines listed at serial numbers 1 and 2 of the table, running from Bhachunda to Varsana (approximately 11.5 km), are not existing lines as only the pylons have been installed. It is further argued that no approval for the erection of these lines was granted by the erstwhile three-member Court-appointed Committee, as is evident from its report dated 07.02.2024. Moreover, the pylons were installed even before any application for permission was made to the erstwhile Committee, which has recorded the matter as one seeking post facto approval. Notwithstanding the above, the petitioners submit that if the line is permitted to remain without appropriate mitigation, it would pose a very high risk to the existing population of the GIB.

75. These lines have been taken note of by the Committee as reflected in Annexures to the Committee Report and suggested the required measures. We are not inclined to take a different view on this aspect.

76. **Directions:** In terms of the conclusions arrived at in the foregoing analysis, we direct as under:

i. The revised priority area for Rajasthan, as recommended by the Expert Committee, shall be 14,013 sq. kms., and the revised priority area for Gujarat, as recommended by the committee, shall be 740 sq. kms.

ii. The measures recommended by the committee for in-situ and ex-situ conservation of GIB within the priority areas of Rajasthan and Gujarat shall be implemented forthwith.

iii. Recommendations of the committee with respect to the monitoring of GIB in the revised priority areas shall be given effect immediately.

iv. Recommendation of the committee for the conduct of long-term studies on the effects of climate change on GIB must be conducted.

v. Recommendations of the committee for providing a power corridor of up to 5 km width, which will be at a distance of 5 km or more to the south of the southern-most enclosure of Desert National Park, are accepted.

vi. Recommendations of the committee negating the necessity for Mitigation of existing and future power lines of 11 kV and below voltage in the 100-metre buffer around the settlement is accepted.

vii. Restrictions as stipulated by the committee on future renewable energy projects within the Revised Priority Areas of Rajasthan are approved.

viii. The committee's recommendation pertaining to the immediate undergrounding of 80 km of 33 kV line in Rajasthan is accepted.

ix. Recommendations of the committee pertaining to the Mitigation of 33 kV lines in the revised Priority Area of Rajasthan is accepted.

x. Recommendations of the committee regarding the rerouting of certain specific existing lines of 66kV and above in the revised Priority Area of Rajasthan shall be done in a time-bound manner.

xi. All the mitigation measures such as undergrounding, rerouting as suggested in the Committee Report should be started immediately and completed within two years from the date of our order.

xii. In the cases of dedicated lines starting from different RE Pooling stations, but terminating at a common Grid Pooling station, the routes shall be optimised in such a way that they share a maximum common stretch to the extent possible.

xiii. In case of lines starting from different RE plants, but terminating at a common RE Pooling station, their routes may be optimised in such a way that they also share a maximum common stretch to the extent

possible. There shall be a direction to the concerned authorities to ensure this requirement.

xiv. The competent authority will engage with the issue of BFDs and take appropriate action, based on scientific analysis, for its deployment.

xv. The competent authority will ensure the undergrounding of 250 km of critical power lines identified by WII in Rajasthan in a time-bound manner not exceeding more than 2 years.

xvi. Other recommendations of the Committee, which are in addition to the above directions, will be implemented as soon as possible.

77. With these directions, the writ petition(s) and civil appeal are disposed of. Pending applications including the applications for intervention/impleadment are also disposed of accordingly.

……...J.
[PAMIDIGHANTAM SRI NARASIMHA]

……...J.
[ATUL S. CHANDURKAR]

NEW DELHI;
DECEMBER 19, 2025