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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

IN

**ORIGINAL APPLICATION NO. 19 of 2014 (M.A. Nos. 216/2015 &
1027/2015)**

IN THE MATTER OF:

Dr. Kashmiri Kakati

..... Applicant

Versus

The Union of India & ORS

..... Respondents

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Place: New Delhi

Dated: 11th November, 2025

S. Ahmed

SHARIQ AHMED
(Advocate for the Respondent No. 01)
D-864, LGF, New Friends Colony,
New Delhi-110025
Mob-9654887684
E-mail ID: shariqcounsel2005@gmail.com

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL
BENCH AT NEW DELHI**

IN

**ORIGINAL APPLICATION No. 19 OF 2014 (M.A.
Nos. 216/2015 & 1027/2015)**

IN THE MATTER OF:

Dr. Kashmira Kakati

...APPLICANT

Versus

THE UNION OF INDIA & ORS.

...RESPONDENTS

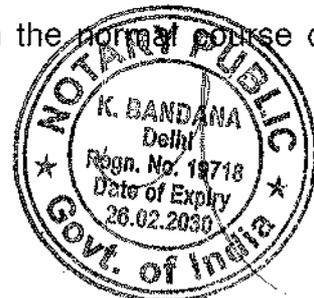
**ADDITIONAL - AFFIDAVIT ON BEHALF OF UNION OF INDIA- MINISTRY
OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (RESPONDENT
NO. 1)**

I, Rajendra Kumar son of Sh. Madan Singh, aged about 53 years, resident of A-287, East Gokalpur, Delhi-94, do hereby solemnly affirm and state as under:

1. That I am working as Scientist 'D' in the Ministry of Environment, Forest and Climate Change (hereinafter referred as MoEF&CC), Government of India, which has been arrayed as Respondent No. 1 in the present Original Application (hereinafter referred as 'OA'). Thus, I am conversant with the facts of the present OA. In response to the present OA, Reply Affidavit is being filed and being stated that the same has been drafted under my instructions, is based on records, is in the normal course of business and is true & correct.

STATEMENT OF FACTS:

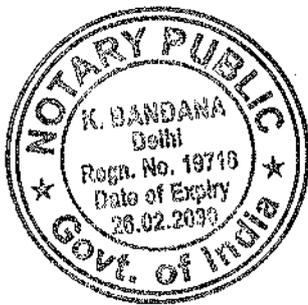
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2. The present OA was filed by Dr. Kashmira Kakati before this Hon'ble Tribunal under which this Hon'ble Tribunal had laid down certain directions to be complied by the Respondents with a view to protect the elephant population and other related issues. This Hon'ble Tribunal, in its judgment dated 08.12.2017 passed in the present Application, issued certain directions to the Central Government which are mentioned below:

- i. To declare the area inhabited or used by elephants as conservation reserves while exercising the power as conferred by Section 5 of the Environment Protection Act, 1986 read with the provisions of Wildlife (Protection) Act, 1972.
- ii. To declare Bogapani Corridor which connects upper Dehing via Bogapani tea estates as forming part of the elephant corridor and issue notification in this regard.
- iii. To conduct a survey of the elephant population in each state and consequently declare the area surrounding thereto as eco- sensitive zone.
- iv. To declare south Bramhaputra elephant ranges known as Dihing- Patkai Elephant Reserve established on 17th April, 2003 by Project Elephant as the elephant reserve/ elephant corridor.
- v. To exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals.
- vi. To mandate before any proposed development within the established elephant habitat a prior wildlife clearance from the standing committee of the national board of wildlife is mandatory.
- vii. Respondent No. 1 (MoEF&CC) shall consult project elephant to specially assess the impact of development as part of EIA process and ensure such assessment under Section 36 (4) of

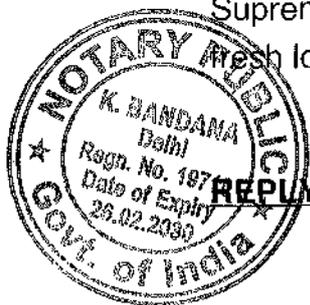


the Bio Diversity Act.

- viii. To constitute a Core Committee through MoEF&CC to be headed by Officer not below the rank of Additional or Joint Secretary in the Ministry who shall examine the report received from each State and to recommend declaration of area inhabited by the elephants as elephant reserve or elephant corridors by the Central Government an elephant reserve.
- ix. The Core Committee shall recommend to the Central Government further action in the matter relating to protection of elephants, declaration of elephant corridors, elephant reserves and for such other direction as may be necessary to fulfil the recommendations as contained in the Gajah (The Report of the Elephant Task Force).
- x. The Core Committee shall submit its report to the Tribunal within a period of one year from now and the Applicant will be entitled to approach this Tribunal for further direction as circumstances may require.

This Hon'ble Tribunal had also directed for registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines. Further, the Coal India Limited was directed to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve. The Coal India Limited under **Civil Appeal No. 9710-9711 of 2018** challenged these directions, as laid down in the Judgment dated 08.12.2017 passed in the present OA, before the Hon'ble Supreme Court of India and after considering the said Civil Appeal, Hon'ble Supreme Court of India remitted the matter back to this Hon'ble Tribunal for fresh look.

REPLY ON MERITS:



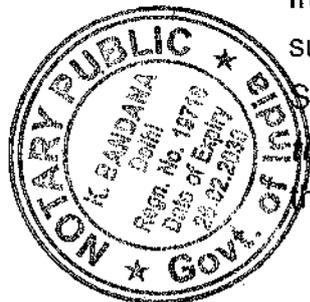
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It is being most humbly submitted before this Hon'ble Tribunal that:

3. The Government of India launched the Project Elephant in 1992 as a Centrally Sponsored Scheme (herein as 'CSS') for protection of elephants, their habitats and corridors, to address issues of human-elephant conflict and welfare of captive elephants in the country. The mandate of the Project Elephant is to look after administrative as well as policy related matters for management of both wild and captive elephants. One of the main objectives of this CSS is to provide technical and financial support to all the elephant ranging States in the country, including the State of Assam. The CSS Project Elephant has been merged with CSS Project Tiger in 2023-24 and now known as "**CSS Project Tiger & Elephant**". The merger has been done to maximize the resources and to bring both the species in focus so far as conservation and management is concerned.

4. The answering Respondent had filed its Reply Affidavit before the **Hon'ble Supreme Court** of India in **Civil Appeal No. 9710- 9711 of 2018 titled as 'Coal India Limited v/s Dr. Kashmiri Kakati & Others'**. A true copy of the Reply Affidavit along with the annexures filed before the Hon'ble Supreme Court of India in Civil Appeal No. 9710-9711 of 2018 is placed hereto and marked as **Annexure-R1**. The answering Respondent in its reply mentioned about the **Steering Committee** as well as the **Central Project Elephant Monitoring Committee** (hereinafter referred as '**CPEMC**'). These Committees were established by the MoEF&CC under the Project Elephant. The answering Respondent respectfully submits that the **Steering Committee** was constituted in the year 1995, which is the Apex Committee of Project Elephant and is headed by the Hon'ble Minister of Environment, Forest and Climate Change. The mandate of the Committee is to review the implementation of Project Elephant and to provide suitable guidance from time to time and functions as a core committee. It is further submitted that the **CPEMC** was constituted in light of the Order of Supreme Court dated 22.10.2018 passed in **W.P. (C) No. 489/2018 titled as 'Prerna Singh Bindra & Ors. v/s Union of India & Ors.'** with the objectives to monitor the implementations of directions/ instructions/



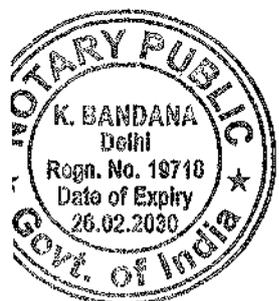
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guidelines of the Ministry and the Hon'ble Courts related to conservation and protection of elephants. The **CPEMC** is headed by the Additional Director General of Forests Level Officer.

5. It is also submitted that for the welfare of captive elephants, Project Elephant had constituted a Captive Elephant Healthcare and Welfare Committee (**hereinafter referred as 'CEHWC'**) to look into the issues related to healthcare, welfare and management of captive elephants in the Country. The committee is headed by the Inspector General of Forests & Director of Project Elephant. A true copy of the Office Memorandum dated 22.08.2019 by which **CEHWC** was constituted, is annexed herewith as **Annexure-R2**.
6. The answering Respondent submits that there are three Committees at present, as mentioned above, working synchronously for the welfare of Wild as well as Captive Elephants. As far as notifying and declaring area inhibited by elephants as elephant corridors/ reserves is concerned, the State Government may, by notification, declare its intention to constitute any area other than an area comprised within any reserve forest or the territorial waters as a sanctuary if it considers that such area is of adequate ecological, faunal, floral, geomorphological, nature or zoological significance, for the purpose of protecting, propagating or developing wild life or its environment under Wildlife (Protection) Act, 1972. Therefore, it is asserted that the State Governments are authorized to identify and thereby notify the areas as protected area including Conservation Reserves for regulation, conservation and management of elephant habitat and minimization of development activities in order to provide safe passage to elephants and other wildlife under the Wildlife (Protection) Act, 1972.
7. The answering Respondent requested to the State Governments to notify and declare the corridors, including the implementation of recommendations of Gajah Report of the Task Force. Reiterating the Order, while disposing of the **OA No. 246/2018 titled Pradeep Kumar Bhuyan v/s Union of India & Ors.**, this Tribunal passed the Order on **16.05.2019** considering the very fact that the **CPEMC**, as constituted, coordinates with the concerned elephant bearing States on issues relating to safety of elephants in elephant protection zones, any further surviving issue may be raised before the Committee and the Committee



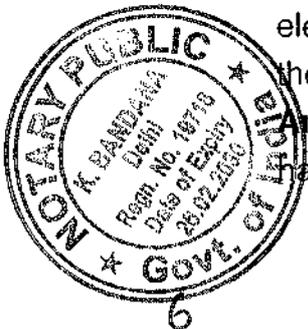
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may look into the same in accordance with law. The Order dated 16.05.2019 passed by Hon'ble NGT, Principal Bench in O.A. No. 246/2018 is annexed as Annexure III in **Annexure-R1** of this Reply-Affidavit.

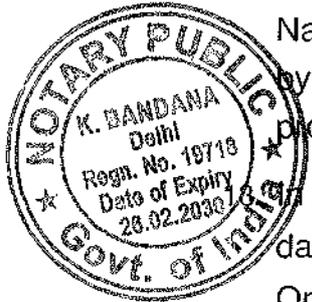
8. The answering Respondent issued various directions to all the elephant range States for taking up the matter of securing elephant corridors on top priority in conformity with the orders of Hon'ble Supreme Court in **Writ Petition (C) No. 275/2015 (Vidya Athreya v/s Union of India & Ors.)** regarding protection of endangered species that are facing threat of extinction. The communications of directions made by the answering Respondent to the State Forest Departments regarding protection of elephant corridors is annexed as Annexure-IV in **Annexure-R1** of this Reply-Affidavit.
9. It is submitted that in pursuance of the landmark judgment passed by the Hon'ble Supreme Court of India in **Civil Appeal No. 3438-3439/2020 (Hospitality Association of Mudumalai v/s In Defence of Environment and Animals & Ors.)**, recognizing the importance of elephants and protecting their habitat and corridors all over the country, a communication dated 14.12.2021 was forwarded to all elephant ranging States to take necessary action to implement the observations made by the Hon'ble Court in respect of securing the corridors. The true copy of the said letter dated 14.12.2021 is annexed as Annexure-V in **Annexure-R1** of this Reply-Affidavit.
10. It is submitted that the **MoEF&CC**, in coordination with the State Forest Departments, have identified 150 elephant corridors across 15 elephant range states including the State of Assam in the country. Afterwards, the identified corridors were presented before the Steering Committee and **150 elephant corridors** were ground-validated. In respect to this, Project Elephant, MoEF&CC vide letter dated 22.08.2023 circulated the Report titled "**Elephant Corridors in India (2023)**" to all the States & Union Territories to take necessary steps to protect and conserve the elephant corridors. A true copy of the letter dated 22.08.2023 along with the report of Elephant Corridors in India is annexed herewith as **Annexure-R3**. It is also submitted that the Bogapani and Golai corridors have been identified as Elephant Corridors in the said report.



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11. The answering respondent, in response to notifying the Elephant Reserves, hereby submits that Government of Assam, by notification dated 17.04.2003, had already declared Dihing- Patkai as Dihing-Patkai Elephant Reserve of area 937 sq.km divided into three blocks. However, the South Brahmaputra elephant areas have not been included in the Dihing-Patkai Elephant Reserve. There are four other notified Elephant Reserves in the State of Assam along with Dihing-Patkai Elephant Reserve. A copy of Notification dated 17.04.2003 is annexed herewith as **Annexure-R4**. Moreover, it is submitted that critical elephant habitats are notified as 'Elephant Reserve' for focus and synergy in elephant conservation and to reduce conflict. So far, 33 Elephant Reserves of about 80,777.778 Km² area have been established and notified in 14 major elephant States including the State of Assam. A true copy of the list of 33 notified Elephant Reserves is annexed herewith as **Annexure-R5**.

12. It is submitted that the management of wildlife habitats including elephant conservation is primarily the responsibility of State Governments/UT Administrations. Considerable part of the Elephant Reserves which overlaps with Tiger Reserves, Protected Areas, Reserved Forest and Protected Forest areas, are protected under Wildlife (Protection) Act, 1972, Indian Forest Act, 1927 and other State Acts. The activities related to infrastructure development projects are regulated as per the existing Acts, Rules and Guidelines. Significant and important elephant habitats are notified as National Parks, Sanctuaries, Reserve Forest and Elephant Reserves. Some of the elephant habitats have also been notified as Tiger Reserves. In addition, areas, including elephant habitats, around most of the national parks and sanctuaries are declared as eco-sensitive zones. Proposals for the use of area in National Parks, Sanctuaries, and Tiger Reserves are being considered by the Standing Committee of the National Board for Wild Life as per the provisions contained in the Wild Life (Protection) Act, 1972.



In view of the directions as laid down by the Hon'ble NGT in its order dated 08.12.2017 in **OA 19 of 2014** and the Hon'ble Supreme Court's Order dated 10.08.2022 passed in the **Civil Appeal No. 9710-9711 of 2018**, the MoEF&CC had formed a committee to inspect and conduct an inquiry after taking assistance of State Government and State Pollution

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Control Board. A copy of Order dated 10.08.2022 of Hon'ble Supreme Court passed in the **Civil Appeal No. 9710-9711 of 2018** is annexed herewith as **Annexure-R6**. The answering Respondent had also filed a compliance affidavit along with the Inquiry Report of the Committee constituted in pursuance of the Hon'ble Supreme Court's Order dated 10.08.2022 in the **Civil Appeal No. 9710- 9711 of 2018** before the Hon'ble Supreme Court of India on 08.02.2023. The findings of the Committee in respect of the directions passed by this Hon'ble Tribunal are elaborately mentioned in the Report itself. The committee concluded the Report with the view that *most of the directions passed by the Hon'ble Tribunal vide Judgment dated 08.12.2017 in OA No. 19/2014, Dr. Kashmira Kakati v/s Union of India & Ors. has not been complied with by the State Government of Assam. As the area adjacent to Dihing –Patkai Elephant Reserve is very critical for elephant and other wildlife, it is important to protect these habitats with priority for long term conservation. Restoring the Golai and Bogapani elephant corridors are very crucial for movement of elephants between the habitats. IOCL Petroleum Products Disposal Terminal, hotels and number of residential buildings are effectively blocking the movement of elephants especially in Golai corridor. The State Government needs to address these issues on the top priority.* A true copy of **Compliance Affidavit along with Committee Report** filed before the Hon'ble Supreme Court of India in **Civil Appeal No. 9710-9711 of 2018** is placed hereto and marked as **Annexure- R7**.

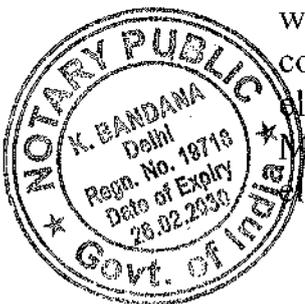
14. It is further respectfully submitted that as already mentioned in the report of the committee filed before the Hon'ble Supreme Court, the Ministry vide letter Nos. 6-15/2017-PE, dated 24.08.2017 and 17.11.2017 and letter No. 6-3/20210-PE(vol.I) dated 01.05.2018 had written to the State of Assam for the protection of high priority elephant corridors.

15. Further, as already stated above to comply with the directions as laid down by the Hon'ble NGT in its Judgment dated 08.12.2017 in OA 19 of 2014 and the Supreme Court's Order dated 10.08.2022 passed in the **Civil Appeal No. 9710-9711 of 2018**, the MoEF&CC had formed a committee to inspect and conduct an inquiry after taking assistance of State Government and State Pollution Control Board. The answering Respondent had also filed a compliance affidavit along with the Inquiry



Report of the Committee constituted in pursuance of the Supreme Court's Order dated 10.08.2022 in the Civil Appeal No. 9710- 9711 of 2018 before the Hon'ble Supreme Court of India on 08.02.2023.

16. It is further submitted that the action for the notification of areas as Conservation/Community Reserves/Wildlife Sanctuaries and National Park under Wildlife Protection Act, 1972 is within the purview of State Government. That accordingly, the Ministry vide letter dated 10.10.2025 has requested the State of Assam to take necessary measures for the protection of the elephant corridors at Golai and Bogapani and other areas as per the provisions of the Wildlife Protection Act, 1972. The true copy of the letter dated 10.10.2025 is placed hereto and marked as **Annexure-R8**.
17. It is further submitted that the Directions under Section 5 of the Environment (Protection) Act, 1986 can only be issued by the Ministry after a comprehensive environmental assessment. Accordingly, the Ministry vide letter dated 21.10.2025 has sought a detailed proposal from State Government covering various aspects including the details of boundaries, habitat connectivity, elephant movement patterns, legal status of land, conflict data, encroachments and industrial activity, impact assessment of infrastructure and measures taken for habitat restoration and human-elephant conflict mitigation etc. The true copy of the letter dated 21.10.2025 is placed hereto and marked as **Annexure-R9**.
18. It is further submitted that the area may either be accorded legal protection under Section 5 of the Environment (Protection) Act, 1986, or under the Wildlife (Protection) Act, 1972, but not under both frameworks simultaneously, to avoid overlap and duplication. Dual notification would lead to multiple regulatory regimes over the same area, resulting in administrative complexity and ambiguity in management.
19. It is humbly submitted that the MoEF&CC is taking all the necessary steps for the protection and conservation of elephants and their habitats & corridors by way of conducting capacity- building workshops, taking up matter with the appropriate authorities and concerned stakeholders. To reduce death of elephants by electrocution, train-hits, illegal poaching and other factors, the MoEF&CC provides technical & financial assistance to all the elephant range States & Union Territories in the country. Various



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other Centrally Sponsored Schemes including Integrated Development of Wildlife Habitat are being implemented by this Ministry to contribute to the improvement in the natural habitat of elephants by augmenting water sources, planting of fodder trees, regeneration of bamboo etc.

Date: 11.11.2025



Deponent

(डा. राजेन्द्र कुमार)
(Dr. RAJENDRA KUMAR)
वैज्ञानिक 'डी'/Scientist 'D'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

IDENTIFIED

VERIFICATION

I, Rajendra Kumar the answering Respondent do hereby verify at New Delhi on this 11 November, 2025 and declare that the contents of paragraphs from 1 to 19 of the above affidavit are true to the best of my knowledge derived from the office records maintained in the office. No part of it is false and nothing material has been concealed therefrom.

DATE: 11.11.2025

PLACE: New Delhi

11/11/2025



Deponent

(डा. राजेन्द्र कुमार)
(Dr. RAJENDRA KUMAR)
वैज्ञानिक 'डी'/Scientist 'D'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi



ATTESTED

Notary Public, Delhi
Govt. of India
Mob. No.: 9654768498

633573/2022/PE

IN THE HON'BLE SUPREME COURT OF INDIA
Civil Appellate Jurisdiction
Civil Appeal No. 9710-9711 of 2018

IN THE MATTER OF:

Coal India Limited

...Appellant

Versus

Dr. Kashmira Kakati & Ors.

...Respondent

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Date:

Place:

Counsel for Respondent

633573/2022/PE

IN THE HON'BLE SUPREME COURT OF INDIA
Civil Appellate Jurisdiction
Civil Appeal No. 9710-9711 of 2018

IN THE MATTER OF:

Coal India Limited

...Appellant

Versus

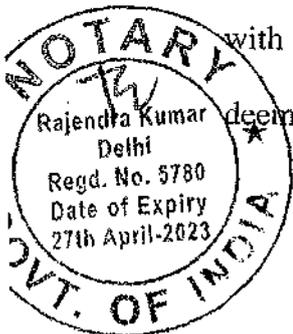
Dr. Kashmira Kakati & Ors.

...Respondent

REPLY AFFIDAVIT ON BEHALF OF MINISTRY OF
ENVIRONMENT, FOREST AND CLIMATE CHANGE

I, Dr. K. Muthamizh Selvan, son of M. Kanagaraj, aged about 36 years, resident of House no. 208, C Block, Pragati Vihar Hostel, Lodhi Road, New Delhi, do hereby solemnly affirm and state as under :-

1. That I am working as the Scientist D, Government of India, Ministry of Environment, Forest & Climate Change (Project Elephant Division).
2. That I am fully conversant with the facts and circumstances of the case from records maintained in the office. I have read and understood the contents of the petition thereof and as such authorized and competent to swear the present affidavit.
3. That I deny all the averments and contentions made by the Petitioner stated in the present petition so far as it is contrary to or inconsistent with anything that is stated by me hereafter and nothing shall be deemed to be admitted unless specifically admitted.



[Handwritten Signature]

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4. That the Petitioner, in the above- cited subject matter has challenged the validity of the judgment dated 08.12.2017 passed by Hon'ble National Green Tribunal, Principal Bench, New Delhi in *O.A. No. 19/2014, Dr. Kashmira Kakati Vs. Union of India & Ors.* In the judgment dated 08.12.2017, Hon'ble NGT, while disposing of the application, also held as follows:

"We direct registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines."

The Tribunal further held:

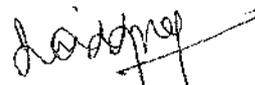
"We hereby direct Coal India Limited to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve."

The detailed directions given by the NGT vide impugned judgment dated 08.12.2017 has been referred to in the forthcoming para 6 of the

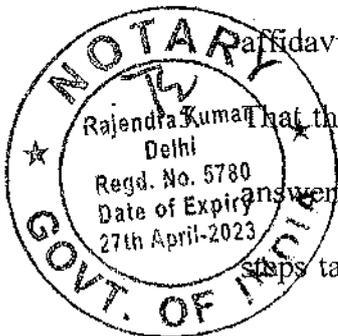
affidavit.

That this Hon'ble Court, vide Order dated 07.01.2022, has directed the answering Respondent to file the current status report regarding the steps taken in compliance of the directions of the Hon'ble NGT given

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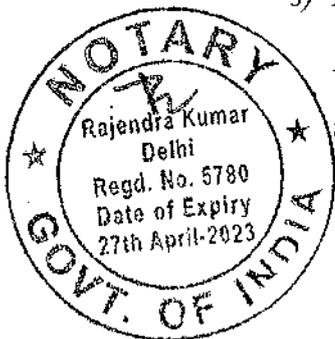


in the impugned judgment dated 08.12.2017. Copy of the order of Hon'ble Supreme Court dated 07.01.2022 in the present matter is herewith annexed and marked as **Annexure- I**.

6. That vide judgment dated 08.12.2017 in O.A. No. 19/2014, the Hon'ble NGT had prescribed certain directions to be followed by the Respondents for protection and conservation of elephant population and their corridors. The directions given are reproduced below:

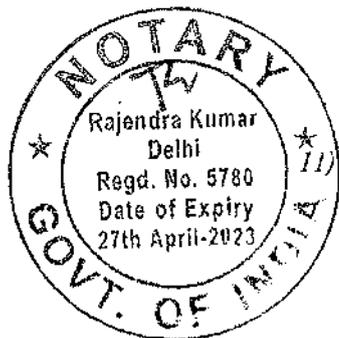
"50. For the aforesaid reasons discussed in the text of the Judgment we shall make the following direction to be complied by the Central Government and State Government with a view to protect the elephant population and other related issues:

- 1) *The Central Government shall in exercise of the power conferred by Section 5 of the Environment Protection Act, 1986 and read with the provisions of Wildlife (Protection) Act, 1972 declare the area inhabited or used by elephants as conservation reserves.*
- 2) *We direct registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines.*
- 3) *Declare Bogapani Corridor which connects upper Dehing via Bogapani tea estates as forming part of the elephant corridor and issue notification in this regard.*



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- 4) *Conduct a Survey of the elephant population in each state and consequently declare area surrounding thereto as eco-sensitive zone.*
- 5) *Declare south Bramhaputra elephant ranges known as Dihing-Patkai Elephant Reserve established on 17th April, 2003 by Project Elephant as the elephant reserve/elephant corridor.*
- 6) *We hereby restrain the Digboi Town Municipal Corporation from dumping municipal waste and garbage in Dihing-Patkai Elephant Reserve.*
- 7) *Respondent No. 7 i.e. Oil India Limited to forthwith stop releasing of untreated oil effluent in open sludge pits and seepage areas around oil rigs in the Digboi Oil field which falls within upper Dihing RF (East Block) and the Dihing-Patkai Elephant Reserve.*
- 8) *We hereby direct Coal India Limited to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve.*
- 9) *We direct Digboi Town Committee, Assam not to allow any construction activity in and around the Digboi reserve.*
- 10) *We direct the State of Assam to work out a viable solution for handing over of the abandoned Coal mine of the Coal India Limited to the Forest Department for its proper maintenance and to prevent harm to the flora and fauna.*
- 11) *We restrain permanent structure including residence in and around Golai Corridors by the Municipalities and Respondent Nos. 5, 6, 7 & 8 or private individuals.*

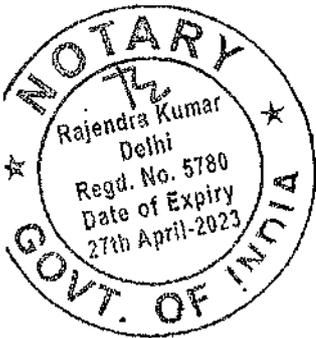


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- 12) We direct Central Government to exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals.
- 13) Respondent No. 1 to mandate before any proposed development within the established elephant habitat a prior wildlife clearance from standing committee of national board of wildlife is mandatory.
- 14) The Respondent No. 1 shall consult Project Elephant to specially assess the impact of development as part of EIA process and ensure such assessment under Section 36 (4) of the Bio Diversity Act.
- 15) We further direct the State Governments to constitute a State Level Committee comprising of Senior Officers headed by the Chief Conservator of Forest to conduct survey of elephant population in each district in the State and demarcate the area of their habitation.
- 16) In the first instance the committee shall complete survey within a period of one year and submit the report to the Core Committee.
- 17) The Core Committee shall be constituted by the Central Government through Ministry of Environment, Forest & Climate Change to be headed by officer not below the rank of Additional or Joint Secretary in the Ministry who shall examine the report received from each State and to recommend declaration of area inhabited by the elephants as elephant reserve or elephant corridors by the Central Government an elephant reserve.
- 18) The core committee shall recommend to the Central Government further action in the matter relating to protection of elephants,



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declaration of elephant corridors, elephant reserves and for such other direction as may be necessary to fulfil the recommendation as contained in the Gajah (Report of the Elephant Task Force).

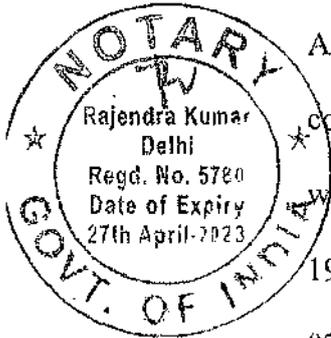
19) The State level Committee and Core Committee shall submit its report to the Tribunal within a period of one year from now and the Applicant will be entitled to approach this Tribunal for further direction as the circumstances may require."

7. Therefore, it is most respectfully submitted by the answering

Respondent that:-

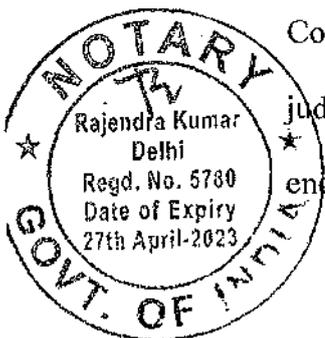
a. Under the Wildlife (Protection) Act, 1972 (hereinafter referred to as the "Act"), State Government has been authorized to identify and thereby notify the areas as Protected Area including Conservation Reserves for regulation, conservation and management of elephant habitat and minimization of development activities in order to provide safe passage to elephants and other wildlife.

b. In another *Original Application No. 246/2018, titled Pradeep Kumar Bhuyan Vs. Union of India & Ors.*, the grievance of the Applicant was that adequate steps have not been taken for conservation of free passage for elephants in Assam in accordance with the orders of NGT, Principal Bench dated 08.12.2017 in O.A. 19/2014 (*supra*). Hon'ble NGT, Principal Bench, vide Order dated 02.05.2018, directed the answering Respondent to file response as



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to the steps taken for compliance of directions issued by NGT in O.A. No. 19/2014 vide judgment dated 08.12.2017. Thereafter, the answering Respondent filed an affidavit before the Tribunal stating that the a **Central Project Elephant Monitoring Committee (CPEMC)** as well as the **Steering Committee** have been established by the Ministry and financial and technical support is being provided to elephant bearing States under the Project Elephant Scheme. The affidavit filed before NGT on behalf of the answering Respondent in this matter is placed hereto and marked as **Annexure- II**. As also iterated by the Tribunal vide judgment dated 16.05.2019, it was submitted by the answering Respondent that the State Governments have been requested to notify and declare the corridors, including the implementation of recommendations of Gajah Report of the Task Force. The NGT, while disposing of the application, further ordered that CPEMC has been constituted by the Ministry, which coordinates with the concerned elephant bearing States on issues relating to safety of elephants in elephant protection zones; therefore, any further surviving issue may be raised before the Committee and the Committee may look into the same in accordance with law. The judgment of NGT dated 16.05.2019 in O.A. No. 246/2018 is enclosed herewith as **Annexure- III**.



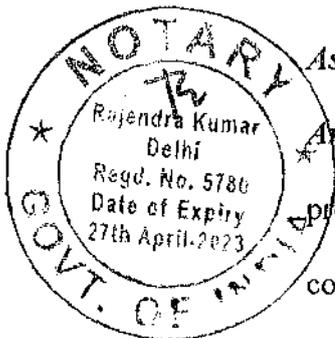
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- c. The mandate of the Scheme of Project Elephant is to support States for conservation, protection and management of elephants and their habitats and corridors and also provide scientific, technical and policy support to meet the objectives of the Scheme.
- d. As far as notifying and declaring area inhabited by elephants as elephant corridors/ reserves is concerned, the same has been empowered on the State Government under the Act. Therefore, in conformity with the orders of Hon'ble Supreme Court in *Writ Petition (C) No. 275/2015 (Vidya Athreya Vs. Union of India & Ors.)* regarding protection of endangered species which are facing threat of extinction, the Ministry issued various directions to all the elephant range States for taking up the matter of securing elephant corridors on top priority. Copy of the communications dated 24.08.2017 and 17.11.2017 and reminder dated 01.05.2018 issued to the State Forest Departments are annexed as **Annexure- IV**.
- e. Moreover, in pursuance of the landmark judgment passed by this Hon'ble Court in *Civil Appeal No. 3438-3439/2020 (Hospitality Association of Mudumalai Vs. In Defence of Environment and Animals & Ors.)*, recognizing the importance of elephants and protecting their habitat and corridors all over the country, a communication dated 14.12.2021 was forwarded to all elephant ranging States to take necessary action to implement the



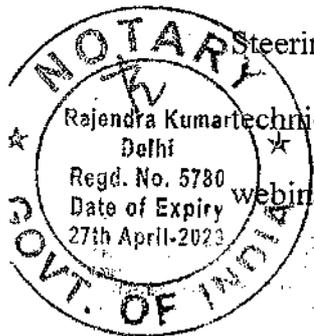
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observations made by the Hon'ble Court in respect of securing the corridors. True copy of the said letter dated 14.12.2021 is attached and marked as **Annexure- V**.

- f. Furthermore, the answering Respondent submits that in **O.A. 77(THC)/2017/EZ- Society for Protecting Ophiofauna and Animal Rights (OPORS) Vs. State of West Bengal & Ors.**, the Hon'ble NGT, Eastern Zone had directed the answering Respondent to file an affidavit showing the compliance of directions given by Hon'ble NGT vide judgment dated 08.12.2017 in O.A. No. 19/2014. While passing the judgment on 25.11.2021, NGT observed that the affidavit had been filed on behalf of the Ministry, bringing on record the compliances of the directions of NGT, Principal Bench, and therefore dismissed the O.A. No. 77(THC)/2017/EZ as having become infructuous. The copy of the judgment of NGT, Eastern Zone dated 25.11.2021 is enclosed and marked as **Annexure- VI**.

8. Therefore, in light of the submissions made hereinabove, it is respectfully submitted that the answering Respondent has, time and again been taking up policy related measures such as, constituting the Steering Committee as well as CPEMC and providing financial and technical aid to the States, including, conducting workshops and webinars, issuing letters regarding securing critical elephant corridors



Signature

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and assisting the States for better management and conservation of elephants in India. The State, however, has the primary authority to take action under the Acts and effectively execute the orders/ directions of the Hon'ble Courts and Guidelines and Operating Procedures issued by the Ministry from time to time.

- 9. The answering Respondent craves liberty to file additional information, if any, till pendente lite.
- 10. In view of the above, it is prayed that this Hon'ble Court may take on record and consider above submissions while passing an appropriate order, which the answering respondent shall duly comply with and thus render justice.

[Handwritten Signature]

DEPONENT
 Dr. K. MUTHAMIZH SELVAN
 वैज्ञानिक 'डी'/Scientist 'D'(Project Elephant)
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 Min. of Environment, Forest and Climate Change
 भारत सरकार, नई दिल्ली
 Govt. of India, New Delhi

VERIFICATION:

I, the answering Respondent herein do hereby verify at New Delhi on this
15 MAR 2022
 of February, 2022 and declare that the contents of the above affidavit are true to the best of my knowledge derived from the records maintained in the office and nothing material has been concealed therefrom.



CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT/ EXECUTANT WHO IS SEEMED PERFECT TO UNDERSTAND AND PROPOSED BEFORE ME AT DELHI ON **15 MAR 2022** IDENTIFIED BY **IDENTIFIED** IN MY PRESENCE.

[Handwritten Signature]
DEPONENT
 ATTESTED BY: **DR. K. MUTHAMIZH SELVAN**
 RAJENDRA KUMAR (Project Elephant)
 NOTARY PUBLIC
 GOVERNMENT OF INDIA
 SUPREME COURT BUILDING
 COMPOUND, NEW DELHI
 Register Pg./Sl. No.
 Mobile No.: 9899446209
15 MAR 2022

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Annexure - I

1

ITEM NO.35 Court 15 (Video Conferencing) SECTION XVII

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Civil Appeal No(s). 9710-9711/2018

COAL INDIA LIMITED

Appellant(s)

VERSUS

DR . KASHMIRA KAKATI & ORS.

Respondent(s)

(IA No. 107966/2018 - STAY APPLICATION)

Date : 07-01-2022 These matters were called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE SANJIV KHANNA
HON'BLE MS. JUSTICE BELA M. TRIVEDI

For Appellant(s) Mr. Vikramjit Banerjee, ASG
Mr. Neeraj K Gupta, AOR
Ms. Liliaan Dass, Adv.
Ms. Shruti Agrawal, Adv.
Mr. Ranjeet K Singh, Adv.

For Respondent(s) Mr. Aishwarya Bhati, ASG
Mr. Gurmeet Singh Makker, Adv.
Ms. Ruchi Kohli, Adv.
Mr. Shibashish Mishra, Adv.
Mr. Pashupati Razdan, Adv.
Ms. Archana Pathak Dave, Adv.

Mr. Sanjay Upadhyay, Adv.
Mrs. Mayuri Raghuvanshi, AOR
Mr. Vyom Raghuvanshi, Adv.
Ms. Eisha Krishna, Adv.

Ms. Mansi Bachani, Adv.
Ms. Purvat Wali, Adv.

Mr. Avijit Roy, AOR

Mr. Sridhar Potaraju, Adv.
Mr. Sudhir Mishra, Adv.
Ms. Petal Chandhok, Adv.
Mr. Gaichangpou Gangmei, Adv.
Ms. Rupali Gupta, Adv.
Ms. Simran Gupta, Adv.
Ms. Shiwani Tushir, Adv.
Mr. Aayush, Adv.
M/S. Trust Legal, AOR



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Mr. Shuvodeep Roy, AOR

UPON hearing the counsel the Court made the following
O R D E R

Union of India will within two weeks file current status report with regard to the steps taken in terms of the directions given by the National Green Tribunal. Response to the status report to be filed by the respondent no. 1 within two weeks after service.

List the matter for hearing on a non-miscellaneous day in the month of March, 2022.

(BABITA PANDEY)
COURT MASTER (SH)

(DIPTI KHURANA)
COURT MASTER (NSH)

Dipty Khurana
True copy.

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Annexure - II

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633573/2022/PE

IN THE NATIONAL GREEN TRIBUNAL, NEW DELHI

ORIGINAL APPLICATION NO.246 OF 2018

IN THE MATTER OF:

Pradip Kumar Bhuyan ... APPLICANT

Vs.

Union of India &Ors. ... RESPONDENTS

AFFIDAVIT ON BEHALF OF THE RESPONDENT NO.1

i.e. MINISTRY OF ENVIRONEMNT, FOREST AND CLIMATE
CHANGE

I, Dr. K. Muthamizh Selvan S/o M.Kanagaraj , aged about 34 years resident House no. 551, Saidualjab, New Delhi, do hereby solemnly affirm and state as under :-

1. That I am working as the Scientist D, Government of India, Ministry of Environment, Forests and Climate Change (Project Elephant Division) and as such well conversant with the facts of the case from records maintained in the office. I am competent and authorized to swear in this affidavit on behalf of the respondent no.

1.

2. That in compliance of the Hon'ble Tribunal judgement dated 08th December, 2017 in O.A. no. 19/2014 Dr. Kashmira Kakati Vs. UOI & Ors., the core committee in the form of steering committee for the project elephant is already established and taking the steps mentioned in foregoing paras for protection and conservation of elephants and their habitats.

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3. Before submitting the action taken as per recommendations of the core committee a brief background on the efforts of Govt. of India with respect to the conservation and protection of Elephants is given below:

A. That the elephant is a Schedule I species and also a National Heritage Animal. Therefore, highest degree of protection has been accorded under the provisions of the Wildlife (Protection) Act, 1972. Financial and technical support is being provided to major elephant bearing States in the country under a centrally sponsored scheme of Project Elephant. The objectives of the scheme are to protect elephants, their habitat & corridors, address issues of man-animal conflict and Welfare of captive elephants.

B. That the financial and technical support is being provided to major elephant bearing States in the country by the answering respondent. Under the Project Elephant Scheme, 90:10 (For Himalayan region) and 60:40 (for rest of India) financial assistance is provided to the concerned State Government for undertaking various activities for scientific management of elephant habitats. That Rs. 683.3308 lakhs have been released to the State Govt. of Assam in the last five years for protection and conservation of elephant habitats.

C. That in the last three censuses in Assam, the elephant population shows in increasing trend, in 2007 the population was 5281 and in 2012 and 2017 the population was 5620 and 5719 respectively. This shows the effectiveness of the conservation measures in the states.

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D. That as per the Wildlife Protection Act, 1972 the State Govt. of Assam is the authority on declaring and notifying the areas as under various Protected Area categories. The Ministry can only provide financial, technical support and helping them in legal issues.

E. That the Ministry of Environment, Forests and Climate Change (MOEF&CC for short) constituted Elephant Task Force in 2010 which have identified critical elephant corridors in the country. The elephant task force suggested the following points

- a. Creation of Community or Conservation Reserve,
- b. Declaring the corridor as high priority Ecologically Sensitive, Area under Environment Protection Act 1986 with maximum regulation of ecologically destructive activity,
- c. Declaring corridor land as Reserved Forest or Protected Forest under Indian Forest Act,
- d. Community forests under the Forest Rights Act,
- e. Increase boundary of existing Protected Area and make corridor part of the existing PA.

The State Govts. are at liberty to act upon these suggestions for conservation of elephant landscapes in their State. States only have to formulate their own rules and regulation as per their needs and necessity in tune with the central acts and rules.

4. That a Steering Committee of the Project Elephant was constituted in the year 1995 under the Chairmanship of Hon'ble Minister of Environment, Forests and Climate Change. The Chief



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Wildlife Wardens of elephant range states including Assam, Director of Wildlife Institute of India, Zoological Survey of India and Botanical Survey of India are the permanent members of the Committee along with select elephant experts who are nominated by the Chair for duration of 3 years. A true copy of the O.M. of the 1st Steering Committee constituted in 1995 are placed on record and annexed herewith as **Annexure-R/1**.

5. That the Steering Committee of the Project Elephant Division which also act as the Core Committee reviews the implementation of the Project Elephant Division and address all issues related to protection and conservation of elephants including declaration of elephant reserves, elephant corridors, human - elephant conflict, captive elephant welfare etc.

6. That the Steering Committee was reconstituted in 2014 by the Hon'ble Minister of Environment, Forests & Climate Change and its meeting was held on 17.12.2014, wherein the Committee recommended for constitution of two Working Groups for

(a) Study feasibility and implementation of the Recommendations of Elephant Task Force report, *Gajah*. and

(b) Strengthening of Elephant Corridors and Reserves. Accordingly, two Working Groups were constituted on 24.03.2015.

A true copy of the working groups are placed on record and annexed herewith as **Annexure-R/2**.

7. That working group to study feasibility and implementation of the Recommendations of Elephant Task Force report, *Gajah*. recommended for :-

(i) Strengthening the Project Elephant Division, in terms of funds, technical expertise and manpower in Elephant division for addressing these crucial issues.

(ii) Suggested to develop a Standard Operating Procedure (SOP) for dealing with the Human Wildlife Conflicts situations.

(iii) Recommended for requesting the State Governments to notify the Elephant Corridors

(iv) Preparing guidelines for consultation with local peoples for conservation of elephants and mitigation of Human -Elephant Conflicts.

(v) Evolving alternative measure to avoid wild elephants in the railway track and road, measures like animal detection system, construction of under passes and over passes, SMS based alerts for the safe passage of wild animals.

8. The Ministry is already taking action on recommendations of working groups mentioned in above para.

(i) Ministry in already working on establishment of the Elephant cell in the Ministry.

(ii) For developing Standard Operating Procedure (SOP), Ministry in coordination with GIZ (Govt. of Germany) is taking up an Indo - German technical cooperation project on Human Wildlife Conflicts mitigation strategy, where in, Standard Operating Procedure (SOP) for selected species will be developed in consultation with key stakeholders and experts

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(iii) The Ministry of Environment, Forest & Climate Change has already requested state Government to notify the Elephant corridors. Copies of the letter dated 24-08-2017, 17-11-2017 and 01-05-2018 issued to State Government in this regard are placed on records and marked as **Annexure R/3**.

(iv) Further guidelines for Human Elephant Conflicts has already been formulated and circulated on 6th October 2017. A true copy of the guideline are placed on record and annexed herewith as **Annexure-R/4**.

(v) As regarding the alternative measures to avoid train accidents following has been taken up by Ministry :-

(a) The Standing Committee of National Board for Wild Life has taken a decision that in future no proposal of linear infrastructure passing through Protected Areas will be accepted unless it is accompanied by the animal passage plan prepared on the basis of Wildlife Institute of India (WII) guidelines named "Eco Friendly Measures to Mitigate Impacts of Linear Infrastructure on Wildlife"

(b) Ministry have taken up a project on developing Seismic Sensor Project along with Utrakhand Forest Department and Wildlife Institute of India for early detection of elephant movement to avoid the Elephant collision with train.

(c) Ministry has already taken up this matter with Ministry of railway, Ministry of Road, transport and Ministry of Power for evolving comprehensive Man- Wildlife Conflicts mitigation plan for the Protected Area and Wildlife rich areas though which railway

tracks, roads highways and power transmission lines are passing and also to evolve a mechanism for funding such mitigation plans.

9. That working group for Strengthening of Elephant Reserves and Corridors recommended for

(i) Requesting the State Governments to issue the notifications of Elephant corridors.

(ii) Preparing the long term perspective plan for conservation and management of Elephant areas.

(iii) Initiating dialogues with Bhutan and Nepal in the line of dialogues between India and Bangladesh for trans-boundary movement of elephants.

10. That in compliance of the recommendation of the working groups mentioned at para 9 above.

(a) Ministry has already requested the State Governments to notify the elephant corridors as mentioned in the para 8(iii). The Ministry is still pursuing this matter with the respective States for an expeditious response. The letters have been issued on dated 24-08-2017, 17-11-2017 and 01-05-2018 to the States in this regard.

~~(b) Further, the Ministry is taking up matter with State~~
Government for preparing for the 10 years perspective plan for management of the Reserves. Ministry is giving financial support to 22 State Govt. to protect and conserve the Asian elephant population and its habitats.

11. That the Steering Committee also as its mandate evaluates the proposals submitted by elephant range states to declare Elephant Reserves. Based on the recommendations received from



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the Steering Committee members, Ministry accords approval of the Elephant Reserve. The State Governments thereby declares the Elephant Reserve through a Gazette notification. The proposal submitted by Karnataka Forest Department for declaration of Dandeli Elephant Reserve was evaluated by the Steering Committee in its 13th meeting held on 17/10/2014 and as a follow up it was declared as an Elephant reserve by the State Govt. on 26.03.2015.

12. That the steering committee in its 13th meeting held on 17/10/2014 also suggested constitution of expert committees in state and regional level to study human- elephant conflict and devise viable and practical site specific solutions to mitigate human- elephant conflict. Based on the suggestions, interstate committee's district level committees have been constituted to deal with human- elephant conflict and regular meetings are organized to deal with the issue.

13. That the steering committee in the aforesaid meeting had recommended that ex-gratia amount may be enhanced to Rs. 3 lakh. The Ministry now has increased the ex-gratia amount to Rs. 5 lakh (as per the notification dated 09.02.2018) as the conflict situation has aggravated in many states.

14. That recently the Steering Committee was again reconstituted in 04-09-2017. A true copy of the O.M. of the reconstitution of steering committee is placed on record and annexed herewith as Annexure-R/5.

15. That in its 14th Meeting held on 09.10.2017 the steering committee *inter-alia* recommended that

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(i) Elephant mortality data should be compiled year wise, sector wise to identify particular rail tracks where train accidents were likely. Ministry has been regularly collecting data on elephant mortality due to train hits from the states and providing information to all states as well as to Parliament. The sector wise data is being compiled.

(ii) It was recommended to constitute a committee to draft the Strategic Action plan to mitigate human - elephant conflict for the Eastern-Central landscape as the conflict is intense due to the migration of elephants from Dalma Wildlife Sanctuary to Odisha and South Bengal. The drafting committee has been constituted and the data has been collated by involving ANCF and WII.

(iii) It recommended the preparation of management plan of Elephant Reserves. It was suggested that states should revisit the notifications of Elephant Reserves and make notifications. Nagaland Forest Department requested for declaration of "Singphan Elephant Reserve". The matter was dealt in the Ministry and as per the evaluation report of the Steering Committee member this Ministry has approved the declaration of Singphan Elephant Reserve.

~~(iv) Steering Committee also recommended initiating dialogue~~
between India and Nepal on the issue of trans-boundary movement of elephants across borders. The matter is under process.

(v) Steering Committee suggested initiating dialogues with state forest departments to mitigate human - elephant conflict at a regional level. Accordingly, regional level meetings have been convened for Southern at Kerala from 10th to 11th January, 2018 at Thiruvananthapuram and for North -Eastern region from 20th to 21st

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April, 2018 at Darjeeling where intensive deliberation was held to devise ways to mitigate human-elephant conflict in the region involving other stakeholders such as line departments (National Highways, Railways, Power and Canal), civil societies group, elephant experts to find measures to protect the elephant corridors and methods to mitigate human – elephant conflict.

16. That it has been strongly advocated in these workshops that linear infrastructures project within elephant habitats in the Protected Areas should be avoided as they pose a major threat for survival of elephants. Wildlife Institute of India, Dehradun in collaboration with NTCA, NHAI and World Bank Group has come out with guidelines named "*Eco friendly measures to mitigate impacts of linear infrastructure on wildlife*" suggesting desired modifications in the designs of the linear infrastructures passing through wildlife rich areas. A mechanism for establishing a human wildlife management fund should be evolved to ensure that conflict mitigation plan is executed unhindered. The linear development line agencies are encouraged to redesign their existing linear infrastructures through Protected Areas and wildlife habitat as per these guidelines of WII on smart green infrastructure.

17. That in compliance of the directions of the Hon'ble Supreme Court in the matter of Vidya Athreya vs. UOI [W.P.(C) No.275 of 2015], this Ministry and the Standing Committee of National Board for Wild Life is examining the various issues related to human wildlife conflict including issues like Securing of elephant corridors to minimize human-elephant conflict, Mitigation measures for

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reducing animal deaths on roads/highways and Animal deaths due to electrocution etc.

18. It is submitted that the present reply may kindly be taken on record and into consideration and the Hon'ble Tribunal may pass appropriate Order(s)/Direction(s) as deemed fit and proper under the facts and circumstances of the present case which the answering Respondent shall duly comply with.

19. That other ancillary issues raised in the application under reply do not pertain to the answering respondent. The answering respondent seeks leave to make additional submissions, if required, during the course of the proceedings.

20. That the facts stated in this affidavit are true and correct to my knowledge based upon the record maintained by the office of the deponent.

DEPONENT

(डॉ. के. मुथमिज़ सेल्वन)
(DR.K.MUTHAMIZH SELVAN)
वैज्ञानिक 'डी'/Scientist 'D'(Project Elephant)
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Ministry of Environment, Forest and Climate Change
नए दिल्ली, भारत
Govt. of India, New Delhi

VERIFICATION

I, the deponent above named, do hereby verify that the contents of the above affidavit are true to my knowledge based on the official records maintained in daily course of business, no part of it is false and nothing material has been concealed therefrom.

Verified at New Delhi on this the _____ day of _____, 2018.

DEPONENT

(डॉ. के. मुथमिज़ सेल्वन)
(DR.K.MUTHAMIZH SELVAN)
वैज्ञानिक 'डी'/Scientist 'D'(Project Elephant)
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Ministry of Environment, Forest and Climate Change
नए दिल्ली, भारत
Govt. of India, New Delhi



तार : Annexure-R/12
 Telegram : PARYAVARAN,
 NEW DELHI

दूरभाष :
 Telephone :
 Telex : (bi-lingual) : W-66185 DOE IN
 FAX :

भारत सरकार
 पर्यावरण एवं वन मंत्रालय
 GOVERNMENT OF INDIA
 MINISTRY OF ENVIRONMENT & FORESTS
 पर्यावरण भवन, सी. जी. ओ. कॉम्प्लेक्स
 PARYAVARAN BHAVAN, C.G.O. COMPLEX
 लोदी रोड, नई दिल्ली-110003
 LODHI ROAD, NEW DELHI-110003

No.8-3/95 WL I

Dated 29.7.98

OFFICE MEMORANDUM

Sub: Constitution of the Steering Committee of Project Elephant.

In supersession of this Ministry's Office Memorandum of even number dated 24th July, 1995, the Government of India have decided to re-constitute the Steering Committee for Project Elephant as follows:

1.	Union Minister for Environment & Forests	Chairman
2.	Secretary (Environment and Forests)	Vice-Chairman
3.	Inspector General of Forests & Special Secretary	Member
4.	Addl. Inspector General Forests (WL)	Member
5.	Joint Secretary & FA	Member
6.	Director General, Tourism, G.O.I.	Member
7.	Shri D.K. Lahiri Chowdhury	Member
8.	Shri J.C. Daniel	Member
9.	Shri R. Sukumar	Member
10.	Shri S.C. Dey	Member
11.	Shri R.N. Hazarika	Member
12.	Dr. D.S. Srivastava	Member
13.	Dr. J.V. Cheeran	Member
14.	Director, Project Elephant	Member - Secretary

2. In addition, Director, Wildlife Institute of India, Director, Zoological Survey of India, Director, Botanical Survey of India, Director, Indian Veterinary Research Institute and Chief Wildlife Wardens of States having Project Elephant would be permanent invitees for the meetings.

3. The term of the Steering Committee of Project Elephant will be for a duration of three years with effect from the date of issue of this order.

4. The Committee will watch the implementation of Project Elephant and provide suitable guidance from time to time for which the Committee may meet as and when necessary.

5. Travelling allowances and Daily allowance will be payable to non-official members of the Committee as admissible to Grade I Officers of the Government of India.

(SARWESHWAR JHA)

JOINT SECRETARY TO THE GOVT. OF INDIA

Copy forwarded for information and necessary action to:

1. PS to Minister (E&F)
2. Secretary (E&F)
3. All members of the Steering Committee
4. All the State Governments/UTs Chief Secretaries and Forest Secretaries.
5. Planning Commission
6. P&AO, M/o Env. & Forests
7. Director of Republic Relations, Directorate of Public Relations, Ministry of Env. & Forests.
8. Pr. Chief Cons. of Forests of all the States/UTs.
9. Chief Wildlife Wardens of all States and UTs.

(SARWESHWAR JHA)

JOINT SECRETARY TO THE GOVT. OF INDIA

Annexure - R/2

F. No. 2-7/1998 - PE
Government of India
Ministry of Environment and Forests
Project Elephant Division

Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi-110003
Phone No. 24695292
Dated 24th March, 2015

OFFICE MEMORANDUM

Sub: Constitution of the Working Group to Study Feasibility and Implementation of Recommendation of Task Force Report- Gajah.

As per the decisions in the 13th Steering Committee Meeting held on 17th December, 2014, the "Working Group to Study Feasibility and Implementation of Recommendation of Task Force Report- Gajah" is reconstituted. The composition is as follows:

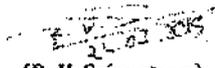
(i)	Additional Director General (Wildlife), MoEF&CC	-	Chairman
(ii)	Shri S. K. Pande, Ex DGF	-	Member
(iii)	Shri Rajesh Gopal, Global Tiger Forum	-	Member
(iv)	Shri M.D. Madhusudan, NCF	-	Member
(v)	Shri Jayant Kulkarni, Ex-IFS	-	Member
(vi)	Director, Wildlife Institute of India, Dehradun	-	Member
(vii)	IGF & Director (Project Elephant)	-	Member Secretary

1. The Working Group shall have the following Terms and Conditions:

- (i) To evaluate the Recommendations of the Elephant Task Force and prepare an action plan to implement its recommendations.
- (ii) To review wild elephant and population estimation methods.
- (iii) To propose site specific modern, traditional and unconventional methods to deal with incidents of human-elephant conflicts.

2. The Working Group will have a term of 1 (one) year

3. Chief Wildlife Wardens of Elephant Range States will be special invitees to the meeting of the Working Group.
4. TA/DA will be payable to Non-official Members of the Working Group as admissible to Grade 1 officer of Government of India. As per Government of India instruction Non-officials members will have to travel by Air India and book the tickets directly through Government approved travel agent or directly from Air India.
5. This issues with the approval of the Hon'ble Minister of Environment, Forests and Climate Change (Independent Charge).


(R. K. Srivastava)
Inspector General of Forests
(Project Elephant)

Distribution:

1. PS to Hon'ble MOS (I/C), EF & CC.
2. PPS to Secretary, EF & CC
3. PPS to DGF&SS, EF & CC
4. PPS to Addl. DGF (WL), EF & CC
5. PPS to IGF (WL), EF & CC
6. Principal Secretary (Forests), All Elephant Range States.
7. Chief Wildlife Warden, All Elephant Range States.
8. All Members of the Committee

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F. No. 2-7/1998-PE
Government of India
Ministry of Environment and Forests
Project Elephant Division

Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi-110003
Phone No. 24695292
Dated 24th March, 2015

OFFICE MEMORANDUM

Sub: Constitution of the Working Group for Strengthening of the Elephant Reserves/Elephant Corridors.

As per the decisions in the 13th Steering Committee Meeting held on 17th December, 2014, the "Working Group of the Strengthening of the Elephant Reserves/Elephant Corridors" is reconstituted. The composition is as follows:

(i)	Additional Director General (Wildlife), MoEF&CC	-	Chairman, Ex-officio
(ii)	Shri R. Sukumar, Scientist, HSC	-	Member
(iii)	Shri A. N. Prasad, Retd. PCCF (WL), Jharkhand	-	Member
(iv)	Shri N.C. Bahuguna, Retd. PCCF (WL), West Bengal	-	Member
(v)	Shri Suresh Chand, Retd. PCCF (WL), Assam	-	Member
(vi)	Shri S.S. Bisht, WII, Emeritus Scientist	-	Member
(vii)	Secretary General, WWF or his representative	-	Member
(viii)	IGF & Director (Project Elephant)	-	Member Secretary Ex-officio

1. The Working Group shall have the following Terms and Conditions:

- (i) The Working Group will have a term of two years including field visits to submit its report.
- (ii) The Working Group may co-opt any official/individual as its member as per its requirement.
- (iii) The Working Group can engage consultants/experts if it is not possible to engage consultants/experts for each state, the services of consultant/experts can be taken for a cluster of States.
- (iv) The Working Group can compile and correlate all reports restricting its field visits to a bare minimum.
- (v) The traveling allowance and daily allowance will be payable to Non-official Members of the Working Group and consultants/experts engaged under clause 1 (ii) as admissible to Grade I officers of Government of India. As per Government of India instruction Non-officials members will have to travel by Air India and book the tickets directly through Government approved travel agent or directly from Air India.

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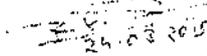
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(vi) Chief Wildlife Wardens of Elephant Range States will be special invitees to the meeting of the committee.

2. The Working Group shall have the following Terms of Reference:

- (i) To study the pattern of elephant dispersal and migration.
- (ii) To consider zonation of elephant corridors and its parameters and management principles.
- (iii) To suggest suitable methods/techniques for translocation of rogue problem elephants.
- (iv) To review system of elephant corridors in the country.
- (v) To examine the existing legal coverage available under various laws (including WLPA-1972, State Forest Acts and EPA-1986) for protection and management of existing and potential Elephant Reserve and Elephant Corridors in the country and suggest ways for extending and strengthening such legal coverage as recommended by the ETF report.
- (vi) To assess the impacts on communities living inside or utilizing the land inside the Elephant Reserves and Elephant Corridors on the protection and management of elephants and make suitable recommendations for mitigating the adverse impacts.
- (vii) To examine the status of Dalma elephants and other isolated elephants populations and suggest measures to be undertaken by Project Elephant to deal with problems of Human-Elephant Conflict and conservation of elephants.
- (viii) To examine the status and needs of Rescue/Rehabilitation Centers in the country and issue related to Captive Elephants in the country.

3. This issues with the approval of the Hon'ble Minister of Environment, Forests and Climate Change (Independent Charge).


 (R. K. Srivastava)
 Inspector General of Forests
 (Project Elephant)

Distribution:

- 1. PS to Hon'ble MOS (I/C), EF & CC
- 2. PPS to Secretary, EF & CC
- 3. PPS to DGF&SS, EF & CC
- 4. PPS to Addl. DGF (WL), EF & CC
- 5. PPS to IGF (WL), EF & CC
- 6. Principal Secretary (Forests), All Elephant Range States.
- 7. Chief Wildlife Warden, All Elephant Range States.
- 8. All Members of the Committee

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Annexure-R/3

SUPREME COURT MATTER
TIME BOUND

F.No.6-15/2017 PE
 Government of India
 Ministry of Environment, Forest and Climate Change
 Project Elephant Division

Indira Paryavaran Bhawan
 Vayu Wing, Jor Bagh Road, Aligarj
 New Delhi-110003

Date: 24 August, 2017

Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India Ors.

Sir,

Kindly find enclosed the order of the Hon'ble Supreme Court order dt. 04-08-2017 Writ Petition (C) no. 275 of 2015, wherein the Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, you are requested to assess the feasibility of protecting these corridors in your respective state and if any, land acquisition is to be done, make it expeditiously.

If any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is further requested to furnish an action taken report within 60 days for filing of the affidavit in Hon'ble Supreme Court.

Yours faithfully,

(R.K. Srivastava)

Inspector General of Forests &
 Director, Project Elephant
 Telephone: 011-24695292
 E-mail: igpc-me@nic.in

Encl: As above

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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**REMINDER
SUPREME COURT MATTER**

F.No.6-15/2017 PE
Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Allgarh
New Delhi-110003
Date: 17 November, 2017

Subj: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India & Ors.

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.



(Noyal Thomas)
Deputy Inspector General of Forests &
Director, Project Elephant
Tel: 011-24695323
E-mail: projectelephant.moef@gmail.com

Each Copy of the letter dated 24-08-2017

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAVAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website: moef.nic.in

E. No. 6-3/2010-PE (Vol. I)

Dated 1st May, 2018

Sub: Order of the Hon'ble Supreme Court dated 23.04.2018 in Writ Petition (c) no. 997 of 1996 titled A. Rangarajan & Ors. Vs. Union of India & Ors. filed in the Hon'ble Supreme Court .reg

Ref: Order of the Hon'ble Supreme Court dated 04.06.2017 in Writ petition (c) no.275 of 2015 titled Vidya Atherya & Anr. Vs Union of India.

Kind attention is invited to the subject. Please find enclosed the order of the Hon'ble Supreme Court dated 23.04.2018 in the matter for securing the critical high priority elephant corridors to minimise the human- elephant conflicts. It is requested to kindly provide the response of the states on critical elephant corridors as sought by this Ministry and furnish an action taken report of the same within three weeks to this ministry.

In this regard, attention is also invited to this Ministry vide letter mentioned under reference requesting the Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective states. In spite of the reminder on 17.11.2017, the response from the respective states to this Ministry is still awaited and the order of Hon'ble Supreme Court may also be perused in this context.

Hence, it is once again requested to send the responses immediately to this ministry for finalizing the view of this Ministry on the matter.

This may be treated on top priority.

Encls: as above.

Yours faithfully,

(Noyal Thomas)

IGF & Director (Project Elephant)

Telephone No. 011-24695249

Email: noyalts1963@gmail.com

Distribution for kind information and necessary action :

1. The Chief Wildlife Warden, Government of Uttarakhand.
2. The Chief Wildlife Warden, Government of Odisha.
3. The Chief Wildlife Warden, Government of West Bengal.
4. The Chief Wildlife Warden, Government of Assam.
5. The Chief Wildlife Warden, Government of Arunachal Pradesh.
6. The Chief Wildlife Warden, Government of Meghalaya.
7. The Chief Wildlife Warden, Government of Karnataka.
8. The Chief Wildlife Warden, Government of Tamil Nadu.
9. The Chief Wildlife Warden, Government of Kerala.



10. The Chief Wildlife Warden, Government of Andhra Pradesh.
11. The Chief Wildlife Warden, Government of Tripura.
12. The Chief Wildlife Warden, Government of Nagaland.
13. The Chief Wildlife Warden, Government of Uttar Pradesh.
14. The Chief Wildlife Warden, Government of Bihar,
15. The Chief Wildlife Warden, Government of Jharkhand.
16. The Chief Wildlife Warden, Government of Chhattisgarh.
17. The Chief Wildlife Warden, Government of Rajasthan.
18. The Chief Wildlife Warden, Government of Manipur.
19. The Chief Wildlife Warden, Government of Madhya Pradesh.
20. The Chief Wildlife Warden, Government of Haryana.
21. The Chief Wildlife Warden, Government of Gujarat.
22. The Chief Wildlife Warden, Government of Andaman and Nicobar.

Copy to: Shri A. N. S. Nadkarni, Senior Addl. Government Advocate, Supreme Court of India for kind information and necessary action



(Noyal Thomas)
IGF & Director (Project Elephant)
Telephone No. 011-24695249
Email: noyalifs1963@gmail.com



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Annexure-R/4

F. No. 14-1/2016-PE
Government of India
Ministry of Environment, Forests and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan,
Allgani, Jor Bagh Road, New Delhi-110003
Phone No. 24695292/84 (F)

Dated 6th October, 2017

To,

1. Principal Chief Conservator of Forests (HoFF) of all States and UTs.
2. Chief Wildlife Warden of all States and UTs.
3. Director, Wildlife Institute of India, Dehradun.
4. All Members of the Steering Committee (Non-official)

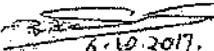
Sub: Guidelines for Management of Human Elephant Conflicts.

Sir,

As per decision taken in the 13th Meeting of the Steering Committee held on 17th December, 2014, Working Group to Study the "Feasibility and Implementation of Recommendation of Task Force Report, Gajah" was constituted. As mandate of the Working Group also include mitigation of Human Elephant Conflict, the Working Group proposed comprehensive "Guidelines for Management of Human-Elephant Conflict". The "Guidelines for Management of Human Elephant Conflicts" duly approved by the competent authority is enclosed for your information and needful action.

Yours faithfully,

Encls: As above.


6.10.2017.
(R.K. Srivastava)

Inspector General of Forests
(Project Elephant)
Email: igpe-mef@nic.in

Copy forwarded for information and necessary action to:

1. PS to Hon'ble Minister, EF&CC
2. PS to Hon'ble Minister of State, EF&CC.
3. PPS to Secretary, Ministry of Environment Forests & Climate Change.
4. PPS to DGF&SS, Ministry of Environment Forests & Climate Change.
5. PPS to Addl. DGF (WL)/PPS to ADGF (NTCA)/PPS to IGF (WL)/ PA to JD (WL/PE), EF&CC
6. The Chief Secretaries and Forest Secretaries of all the State Governments/UTs.

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Guidelines for Management of Human Elephant Conflicts

INTRODUCTION

1. Definitions

Human elephant conflict: The Elephant Task Force (ETF) defines human-elephant conflict (HEC) as the adverse impact people and elephants have on each other

Hard boundary: The Elephant Task Force (ETF) defines hard boundary as distinct boundaries between human use areas and elephant habitat areas

Diffused boundary: The ETF defines diffused boundary as where the boundary between human use and elephant habitat areas is not clear, especially under conditions of complex land use mosaics

Deterrent measure: These are measures used to prevent entry of elephant in human use areas such as villages, agricultural fields and urban areas etc.

Repellent measure: These are techniques used to drive away elephants when they have already entered human use area

Obligate crop raiding: The ETF defines obligate crop raiding as situation where elephants are forced to raid crops due to insufficient forage resources in their natural habitat.

Opportunistic crop raiding: The ETF defines opportunistic crop raiding as situation where elephants raid crops due to their availability and attractiveness rather than shortage of natural forage resources in forests.

Kunki: Captive trained elephants used for elephant drive and capture operations

Seasonal migration of elephants: Elephants are migratory species and generally follow the same migratory routes annually depending on ecological conditions. Asian elephants in deciduous forests of southern India, with numerous water sources, reported elephant migration to extend between 20 and 50 km.

2. Background

Human elephant conflict (HEC) has emerged as one of the most challenging problems for elephant management and conservation in recent times. It creates considerable economic hardships for the affected farmers. There are several regions that experience crop damage by elephant year after year. Human deaths due to encounters with elephants are also an issue of serious concern. It is estimated that every year approximately 400 persons are killed by elephants across the country and more than 100 elephants are also killed annually, mostly as retaliatory killings by people.

HEC has proved to be quite intractable and managing HEC is a big problem for forest officers and frontline staff, who have to deal with it, often on a regular basis. Often they have to face the ire of the affected farmers, especially when there is a human death or severe injury. There are innumerable incidents when frontline staffs have faced the ire of affected people due to HEC, sometimes at risk to their personal safety.

Considering these factors management of HEC is one of the most important issues that need to be addressed in planned way for conservation of elephants.

The main types of HEC are:

- i. Human injury or deaths in encounters with elephants
- ii. Damage to standing agricultural and plantation crops
- iii. Damage to harvested and stored agricultural crops, often accompanied by damage to the storage facility
- iv. Damage to property such as sheds, houses, pipelines and irrigation facilities.
- v. Death/ injury to cattle and other domestic animals.
- vi. Injury and death of elephants mostly due to retaliatory attacks by humans due to electrocution by power lines or poisoning
- vii. Death of elephants due to train collisions
- viii. The development activities and houses in movement path of elephants (especially labour lines in tea gardens) are also causes of encounter between human and elephants leading to HEC

The single most important reason, elephants enter human use areas are to feed on agricultural and plantation crops. The second reason is for water, with damage to property and human life arising as incidental damage, from trampling or some feeding on crops by the elephants.

The ETF defines describes obligate and opportunistic crop raiding. In many circumstances it is difficult to identify the type of crop raiding. Therefore in these guidelines the approach is taken of symptomatic treatment of HEC rather than trying to identify the cause of crop raiding. The issue of habitat improvement to meet the elephants forage and spatial needs within forest areas has been addressed in detail in the ETF report.

Retaliatory or accidental killing of elephants is the other face of HEC. The affected community or individuals sometimes retaliate against elephants, either in revenge, or to prevent further attacks by elephants. Practices adopted for retaliatory killings include shooting the elephant or electrocution (sometimes by accident as these are often meant to deter other wildlife such as wild pig). Therefore elephants are also the victims of HEC.

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Complete solutions to HEC probably do not exist. However, good HEC management and mitigation practices can go a long way to minimize the adverse impacts of HEC on societies.

3. Factors Influencing Intensity of HEC

HEC intensity is highly variable, ranging from very occasional to chronic. Density of elephant populations obviously plays an important role in HEC intensity. The nature of the interface between human areas and elephant habitat also determines conflict intensity, where an irregular and diffuse boundary with a long perimeter is thought to increase intensity of conflict. Highly fragmented elephant habitat interspersed with human use areas is also likely to increase conflict frequency and intensity. In some cases dispersing herds wander into extensive agricultural habitats with hardly any forest and cause high intensity of conflict, at least in the initial years. In some regions the agricultural damage is lower and the conflict is mainly due to loss of human life. Train-elephant collisions occur frequently in Bengal, Assam, Odisha, Kerala and Tamilnadu, where railway tracks pass through forests with sizeable elephant populations. The HEC management strategy also needs to be adjusted to suit the particular situation and both short and long term measures should be adopted based on the field situation to mitigate HEC.

4. Organization of these guidelines

These guidelines are written in three parts - an introduction, an overview of current HEC management practices, and prescribed guidelines to minimize and mitigate conflict.

OVERVIEW OF CURRENT HEC MANAGEMENT PRACTICES

5. Installation of Barriers

Barriers are used for preventing elephant exit outside reserve forest areas or entry into cultivated fields or human inhabited areas. Barriers may be used to guide elephants through funneling to over-bridges or under-passes set up for them to negotiate railway lines, highways or canals safely. The principal types of barriers used against elephants:

- Elephant proof trenches (EPT)
- Solar-powered high voltage electric fences
- Rubble walls
- Other types of fences made from railway tracks, steel channels and bars etc.

There are different strategies to install barriers.

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- i. Construction of barriers **around forest areas** to keep elephant inside the forest.
- ii. Sometimes barriers are constructed **across the landscape**, between two states, two districts and even between two countries.
- iii. Barriers can be constructed **around the settlement** to be protected such as a village or an enclave

Given below is a review of effectiveness of barriers for managing HEC.

Barriers achieve only partial success at best. Elephants often find their way around barriers, over or through barriers and gain entry into the desired area.

Though it is commonly used, Strategy (i) is not useful or advisable around small forest blocks because such forests cannot provide all the space and food requirements of elephant clans or even bulls. It may be moderately useful around large forest blocks that are capable of providing the resource requirements of elephant clans. They may be effective in protecting adjacent inhabitations. However it is nearly impossible to completely encircle forest blocks. Hence, barriers at the edge of forest blocks can at best be installed as a local protection measure. Barriers are more likely to be effective in case of hard boundaries where there is a clear boundary between elephant habitat and human use landscape.

If inappropriately placed, barriers have the disadvantage that they can block or alter traditional migration routes of elephants and prevent genetic interchange between populations. They may therefore, at times, be contrary to the scientific principles of wildlife management. Therefore, large scale barriers need careful study before implementation. They need to be planned at a landscape level taking into account the presence and seasonal movement patterns of elephant clans.

Strategy (ii) is practically useless because it is impossible to create effective barriers at landscape level. It is also futile to put up barriers between States/ Countries (or other political/administrative boundaries) because elephants need to move across ecological landscapes and not be confined to administrative units.

Strategy (iii) is most effective for protection of crops from elephants, but it can be used only in specific situations wherever there is a compact area that needs to be protected. Barriers are moderately effective if used to protect small enclaves. They are not so effective if used around large enclaves. In a largely agricultural landscape it becomes difficult to create effective barriers.

Involvement of the local community or the stakeholder is most important for effectiveness of barriers. The stakeholders must be actively involved in installation and the maintenance of the barrier. The process needs to be inclusive, and *Gram-*

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sabha may be consulted in such discussions. Otherwise the barriers, exposed as they are to the elements, soon deteriorate and become ineffective. This is true for all types of barriers. In many states stakeholder involvement has proved ineffective because of poor interaction between the community and Forest Department.

Of the various barrier types, elephant proof trenches (EPT) require high investment and are difficult to maintain. They are prone to soil erosion, especially along slopes in high rainfall regions. The recommended design of EPTs consists of segments separated by walls - known as septa - to prevent water flow. This precaution is sometimes overlooked causing severe soil erosion. EPTs should be strongly discouraged in regions with rainfall higher than about 1500-2000 mm per annum.

Solar electric fences require lower investment than EPTs. However maintenance of solar fences by the community is generally poor. Solar fences work best when installed by institutions and individuals. Elephants are known to cross solar fences by breaking those using tusks or branches of trees.

Nowadays strong barriers are being created using steel channels, railway tracks and concrete walls. Such barriers may be successful in stopping elephants but they need high investment. They may be useful over small distances at critical locations. At a larger scale it is difficult to justify the cost.

Spikes are also being installed on the barriers as an additional deterrent measure. In one design a concrete strip is erected at ground level all around the area to be protected and metal spikes are inserted in the barrier. If an elephant steps on it, its feet pads will be seriously injured. In another design spikes are created on concrete walls or strong concrete walls. Such spikes are dangerous and may seriously injure elephants, wild animals, livestock and humans.

6. Anti Depredation Squads (ADS)

Anti-depredation squads are commonly used in North Bengal, Assam, Odisha and Chhattisgarh where large groups of elephants raid agricultural crops. ADS are equipped with a vehicle, torch, siren, fire crackers and sometimes even double barrel guns, especially in Sukhna - Mahananda region of North Bengal. The presence of ADS gives the community a sense of reassurance that the government is protecting them and their property. ADS is effective if it is managed by technically competent persons, trained mahouts and kunki elephants. It requires high level of coordination between divisions. However, the manner in which it is often implemented operations of ADS is not systematic and there is a lack of standard operating procedures. There is lot of chaos in activities of ADS, with participation of local mobs which reduces their effectiveness. Shots are sometimes fired in the

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ground near the elephants to keep them moving towards the forests. Elephants, including calves, are also poked with iron spears to drive them.

7. Elephant Drives

Elephant drives are often carried out by the Forest Department. Often the aim is to drive the elephant herd out of their range so that it becomes someone else's problem. Another objective is to drive it towards the forest. Sometimes cruel scaring tactics are used to drive the elephants. In one recent case a young calf got permanently separated from the mother, and later died of stress and starvation.

In some states elephant drives are the mainstay of conflict mitigation. Herds of over 100 elephants are regularly driven towards the forests. The elephants take shelter in the forests and return to feed on crops when people go away. This to and fro movement causes stress for the elephants. They become agitated when surrounded by people. In such cases they often charge at people and the conflict aggravates.

8. Kunki Elephants

Kunki elephants are used in Assam, West Bengal, Karnataka and Tamil Nadu. Odisha FD is also building up a kunki squad. They are found to be fairly effective in driving away elephants from villages, for monitoring/capturing/ tranquilising/ translocating/ training/ hunting of problem elephants. Kunkis are generally used in unmanageable situations as a last resort. However there is high cost involved of hiring kunkis and feeding them. Sometimes, kunki elephants may not be able to reach the conflict site quickly. Moreover there are few, well-trained kunki elephants available nowadays. However, training should be imparted to elephants and mahouts to develop their skills for use during HEC situations.

9. Commonly used repellent methods

A variety of local repellent methods are used by farmers.

Loud noises and crackers

This is the most common technique used because it is simple and can be used by everyone. Typically these consist of drum beating, shouting, and bursting crackers. These measures are sometimes effective and at other times ineffective, depending on the habituation of the elephants. Male elephants are generally more resistant to such measures. Sometimes presence of a large crowd is most effective in driving away elephants. However, in certain case e.g. in urban settings and congested places crowd management becomes biggest challenge and may lead to injury to people.

Other repellent methods

Other repellent methods such as electric torch, kerosene torch (mashāl) and swinging fireball are used. These are all moderately effective if done systematically.

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10. New repellent methods

Bee sound

Elephants are known to be afraid of bees. Bee sound played has been used as a repellent method in Africa and found to be very effective, especially if it is backed by beehive fences.

Carnivore sounds

Playback calls of predators such the tiger or even smaller carnivores such as leopards may evoke negative responses in elephants and keep them from entering agricultural areas.

Drones

Drones have been recently used in Africa to drive away elephants over long distances, and found to be very effective. Elephants are scared of drones and quickly run away from the site when buzzed by a drone.

Drones use the same principal as the bee fences where the sound of the drone is perceived as swarm of bees and elephants beat a hasty retreat. It is a good option to implement if the resources for drones are available. However drones are difficult to fly at night due to limited visibility. Permission from various authorities is also required to use drones, particularly near international borders. Also drones may be less useful in heavily populated areas because of the risk of trampling of crops and people by elephants.

11. Deterrent Methods

Trip alarm

Trip alarm consists of a string stretched across entry points of elephants and connected to a switch of a battery-operated electric bell. The alarm bell rings when elephants cross the trip. This gives sufficient warning to the community to come to the point and drive away elephants. Trip alarms are very effective in situations when entry points of elephants are known.

Sensor based alarm system

Sensor based alarm system could be tried to detect animals in or near village/agriculture land or even to detect elephant near railway tracks. These are solar powered infra rayed system and could be even fitted with camera and can alert villagers/ driving squad when elephants are detected close to human settlement or agriculture land through SMS/lights/sound, etc. The PRT and RRT could then come in action to drive the elephant. This will help from physically guarding the agriculture field by villagers.

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Night Guarding

Night guarding is a traditional way of protecting crops against wild animals but it is falling into disuse because of disintegration of the traditional joint family system in rural India and increasing labour costs. Use of old and physically challenged persons for night guarding is known to be a major cause of human mortalities and injuries by elephants

Therefore, community guarding is one of the most effective ways of protecting crops. Farmers should sleep on watch towers created in their fields or on machans (platforms constructed on trees). This should be a community activity. It needs to be done only when elephants are known to be active in the area for crop raiding. It is more effective when combined with trip alarms.

Chilli-based methods

Chilli is known to have an irritating effect on olfactory nerves of elephants. Hence chilli-based methods are found to be effective against elephants. It may also act as a psychological barrier. Chilly as a repellent can be used in the form of chilli smoke, chilli rope, chilli curtain and chilli bricks. Chilli ropes were found to be more effective against elephant family groups than bulls, and in drier regions as compared to high rainfall regions (Chelliah et al. 2010, Current Science); thus it is more appropriate to use this deterrent for only a few weeks prior to harvest of cereal crops to minimize the chances of elephants being conditioned to recognize this as harmless.

Chilli smoke is one of the effective methods as elephants are known to sneeze and cough while inhaling the smoke. Elephants change their paths if they come across chilli smoke. Chilli smoke can be generated in many ways, limited only by human ingenuity. It can be generated by incorporating chilli in slow burning grass bundles or dung cake, sprinkling on slow burning embers and camp fires.

Beehive fences

Elephants are known to be afraid of bees. In Africa bee hive fences have been found to be effective in deterring elephants. A series of bee hives is created at short intervals along fences at the boundary of the enclave. The bee hives are connected to the fence. The bee hive model commonly used is the top bar model. When elephants try to enter the bees get disturbed and start buzzing around the elephant thus driving away the elephants. It is also said that if elephants encounter bees, they will alert other members of their herd through low frequency sounds (inaudible to humans). Farmers get additional benefit of income from honey and better pollination.

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VHF pairing and setting up direct hotline: For avoiding rail collisions, VHF pairing with railway authorities, round the clock deployment of forest staff in control rooms of DRMs of Railways and erection watch tower and temporary sheds has to be done in strategic locations. Measures should be taken to set up direct hotlines to contact with railway authorities, where passage of elephants across railway tracks is regular.

Alternate cropping:

Alternate cropping with non-edible crops like chilli, citrus not consumed by elephants could be grown in forest fringes as well as areas near settlements in forest fringes may deter elephants from reaching and raiding the crop fields. Some forms of vegetative barriers may be effective.

Other methods

Elephants are known to be afraid of any unfamiliar sight, sound or smell. Therefore various inventive methods can be used that create unfamiliar visual, aural and olfactory effects can be effective in repelling and deterring elephants. The key is to keep altering the methods to prevent familiarization by the elephant.

12. Community Based Conflict Management (CBCM)

The main concept is that the community should take responsibility for crop protection with emphasis on low cost deterrent methods such as trip alarms and chilli based methods such as chilli-smoke and chilli-rope. There is strong emphasis on night guarding. In case elephants enter they are driven away by some of the repellent methods described above. In Africa studies have shown that there is an 80% reduction in crop damage where crops are protected by the community. The strategy has been found to be effective where it is implemented in Africa and India. Sometimes individual farmers proactively protect their crops but CBCM works best at the community level when all farmers come together to protect their crops. The challenge is to get communities to implement it because it needs additional work from their side and they prefer to let the Forest Department handle it. Some traditional communities are not afraid of elephants and drive away elephants effectively. When they encounter such communities, elephants prefer to change their path and go to other areas.

A large extent of elephant habitat in the north-eastern India is managed directly by the communities and CBCM in such areas is not a matter of choice but an imperative. Capacity building of the autonomous councils and Local Bodies in these areas should be carried out in the same way as that of the SFDs.

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There is a lot of scope for involving communities in planning, constructing and maintaining barriers; recruiting night guards and labour for ADS / Rapid Response Teams; and verification of claims for *ex-gratia* relief. Insurance cover should be provided to the community members involved in HEC management. Selected community leaders can be recognized as Honorary Wildlife Wardens and some limited powers under Section 11 of the WPA-1972 (e.g. capturing of macaques, hunting of wild boars and blue bulls) can be delegated to them.

Logic of CBCM

The Forest Department has limited number of staff that can participate in HEC management. If an elephant enters a village the manpower available in the village is far more than the Forest Department can provide. By empowering the community and capacity building it is possible to have a much stronger manpower force for protection of crops from elephants. In many states shortage of staff is a major hurdle in HEC management and for working in cooperation with the community.

Due to natural inertia, acceptance of CBCM by the community is slow. Acceptance and implementation of CBCM is better when it is supported by the Forest Department. CBCM should be implemented through JFM committees because this is the accepted institutional mechanism for cooperation between the community and the Forest Department. An active and vigorous JFM movement is a prerequisite for effective cooperation between the community and Forest Department for CBCM.

13. Ex-gratia payment

In recent years *ex-gratia* for damage to crops compensation has become an important mechanism to redress grievance and assuage feelings of community affected by human elephant conflict.

Ex-gratia is paid in case of crop damage and, in some states, property damage. The damage is reviewed by an authorized officer from the Forest Department or a committee consisting of representatives of Revenue, Agriculture and Animal Husbandry Departments and Gram Panchayat members. A compensation case is prepared and submitted to higher authorities for sanctioning *ex-gratia* according to rates prescribed by State Government GRs or GOs.

In case of injuries to human beings the affected person is provided treatment by the Forest Department free of charge and may be given an additional *ex-gratia*. In case of human deaths the Forest Department provides *ex gratia* payment to next of kin of the deceased at State Government approved rates.

This system of *ex-gratia* has helped to assuage the feelings of the persons affected in the case.

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The main criticisms of these schemes, especially by the farmers, have been as follows:

- i. The ex-gratia rates provided in case of crop damage are insufficient
- ii. The ex-gratia process is too lengthy and time consuming so many affected persons prefer not to file complaints
- iii. The ex-gratia is disbursed too late

There is some merit in all these points. Ex-gratia rates are indeed low in many states. In some states, because of shortage of funds, only some farmers are given ex-gratia. On the other hand, studies have shown that farmers often perceive the crop damage to be higher than actual, so their expectations are also higher. In some states the excessively high ex-gratia rate can give rise to fraud claims.

In some states ex-gratia is paid very late while it is very efficient in other states. In Karnataka, in some divisions, the ex-gratia is given within two weeks. Karnataka is in process of incorporating crop damage ex-gratia in its HULI software/ app that will enable much faster resolution of ex-gratia cases.

A novel method of community-assessed ex-gratia for crop damage that is resistant to cheating is worth trying on a pilot scale in some regions (Watve et al. 2016, Global Ecology and Conservation).

The ex-gratia rate for human deaths due to elephants varies from state to state. The rate provided by Government of India is Rs. 2 lakhs. The maximum ex-gratia, in Maharashtra State, is Rs. 8 lakhs. The Gajah (Elephant Task Force) report has recommended that ex-gratia in case of human death should be at least Rs. 5 lakhs.

As ex-gratia support for crop loss by elephants, the farmers could be provided with "grain for grain". This is aimed at providing grain as a replacement for the crops lost by the farmers due to elephant depredation as an alternative to the scheme of providing monetary relief as ex-gratia support to the farmers. The scheme also helps to promote food security (money not being used for other purpose) to the affected people with the idea of providing grain to compensate for lost grain aiming to prevent retaliatory attacks.

PROPOSED STRATEGY

The HEC management practices often have a short term objective of crisis management. However for effective management of HEC one needs to have a long term strategy. The guidelines presented herein are presented specifically for managing human elephant conflict. It needs to be dovetailed with other strategies, such as landscape habitat planning, protection of corridors, habitat management,

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consolidating elephant habitat, managing elephant population through reproductive control* measures as well as limited capture where essential for a more comprehensive solution.

14. Community Involvement and Empowerment in HEC management

14.1 Advantages of community involvement in managing HEC

The Forest Department frontline staff is often burdened with several responsibilities. They are unable to devote sufficient time and attention to managing HEC. Neither do they have sufficient manpower to counter HEC on their own. Involvement of the community in HEC management is known as community based forest management (CBCM). CBCM is a means of empowering the community to share responsibility of HEC management with the Forest Department. The advantages of CBCM are:

- The community members are already present at the site so they are capable of more rapid response
- They have a vital stake in protecting the crops and property
- The community has far more manpower than does the Forest Department
- They often have detailed knowledge of the village layout compared to Forest Department

In the beginning it may be difficult to involve the community in HEC management. There is commonly reluctance on part of the community to participate in HEC mitigation activities. This stems from the community attitude that HEC management is the Government's responsibility. At the outset this attitude needs to be changed in order to gain participation of the community in HEC mitigation. The community needs to be told that HEC management is a partnership between the community and the Forest Department, and the community stands to benefit considerably from protecting their own crops. Building confidence and capacity of the community is the next step to achieve success in CBCM.

In some states communities are already involved informally in HEC mitigation. However in most states it is the Forest Department that manages HEC. It is suggested that a CBCM program should be implemented through JFM/ EDC committees, wherever they exist, or through the Gram Sabhas, where there are no JFM committees. The Forest Department should play a strong role in hand holding and capacity building. Good relations between the Forest Department and the Community are essential for promoting CBCM.

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Other stakeholders should also be involved in HEC management according to the local situation. Some of these are tea estate owners, coffee estate owners and local institutions.

* At present the Hon'ble Supreme Court of India has barred State Forest Departments to take up control of elephant population through immuno-contraception methods under WP (C) 107 of 2013 Shakti Prasad Naik Vs Government of India and others. The Ministry of Environment Forests and Climate Change and West Bengal Forest Department have filed affidavit in the Supreme Court of India to permit elephant population through immuno-contraception methods. The case has not come up for hearing till date.

14.2 Hierarchy of HEC mitigation measures

The commonly accepted hierarchy of mitigating any kind of impact is:

Avoid > Minimize > Restore

Analogous to this strategy, in case of HEC mitigation, the recommended hierarchy of mitigation measures is:

Deterrent measures > Early warning systems > Repellent measures > Compensation

The first priority should be to prevent elephants from entering agricultural fields. To achieve this, deterrent measures should be adopted. If deterrent measures fail, early warning systems will give alarm of elephant presence and enable the community to drive away the elephants. In spite of this if elephants enter agricultural fields, then repellent measures should be used as a last resort to drive away elephants. If the measures are not successful and elephants damage crops, compensation should be paid to the affected farmers.

14.3 Strengthening capacity of communities

Capacity of communities should be strengthened by providing them required support in terms of equipment and material. Within each JFM committee crop guarding squads should be set up for crop guarding and elephant scaring. The crop guarding squads should function as a unit.

The most basic equipment for community guarding of crops is an electric torch. Powerful LED torches are available cheaply nowadays. All communities should be provided such LED torches for anti-depredation work. For this purpose yardsticks should be decided such as one torch for a certain number of households.

Other material may be provided for crop protection such as firecrackers.

14.4 CBCM techniques

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Deterrent techniques

Communities should be trained in deterrent techniques for protection of crops from elephants and preventing elephants from entering crop fields. Chilli-based deterrent techniques such as chilli rope and chilli smoke have been found to be very useful in certain situations. Techniques based on sound of humming bees and beehive fences have been found to be useful in Africa and need to be tried in India.

Early warning techniques

Night guarding on watch towers, *machāns*, or any tall structure is one of the most effective early warning and deterrent techniques. Trip alarm has been found to be effective to give early warning of elephant arrival. Night guarding supported by trip alarms is very effective in deterring elephants.

Bulk SMS alerts

In Valparai Plateau in Tamilnadu SMS alerts have been found to be useful in informing people of elephant presence in the area. This system has helped to reduce accidental encounters between elephants and people and has reduced mortalities of people in the area (The SMS alert system is useful in specific locations where there is a problem of regular encounters with elephants). In areas where there is crop damage the farmers require support in preventing elephant entry in their crop field. Also SMS alert requires investment in technology therefore the farmers is dependent on either the Forest Department or an NGO.

SMS alerts have also been used successfully in west Bengal to alert railway authorities about presence of elephants on railway tracks to minimise death of elephants due to train hits.

Repellant techniques

Crackers and drum beating are the most common repellent measures but their effectiveness is low in most situations because elephants have become habituated to them. Some innovative local repellent techniques, such as swinging fireball, have been found to be moderately effective for driving away elephants.

Communities are resistant to adopting new methods. NGOs should be involved in motivating and training the community in different crop protection techniques.

A manual should be created for deterrent techniques and repellent techniques of crop guarding by community. This manual, translated into local language, should be widely distributed in the Forest Department and to other stakeholders.

Community crop guarding techniques are to be situation specific. All techniques may not be applicable to each situation. Techniques should be identified that are useful

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for specific situations. Simplified booklets in local language that are useful for the local situation should be distributed to the community.

14.5 Dissemination

Training workshops should be conducted for Forest Department frontline staff in community crop guarding techniques. The frontline staff in turn should train the community in these crop guarding techniques. Literature and training manuals should be made available in community crop guarding techniques to the frontline staff and community.

15. Implementation of Barriers

15.1 General guidelines on barriers

Barriers should not be created across the landscape or along administrative boundaries. Such barriers are useless because they invariably have gaps such as roads, streams and rivers that elephants can use to pass through.

It is found that barriers are most effective when they are used to keep elephants out of small blocks of land such as a small hamlet or an institution. They are less effective when used around large blocks of land, such as large villages.

15.2 Barriers on forest boundary

Barriers should not be created around small forest blocks of a few square kilometers in size because they are not very effective.

Barriers may be created on larger forest boundary if there is severe human elephant conflict. In such cases barriers should be created only if the following conditions are satisfied:

- The boundary is "hard", i.e. there is a clear and sharp demarcation between forest and human landscape.
- The boundary is fairly straight without much convolution.
- The boundary should not be broken by roads, river or large stream because such openings will leave gaps for elephants to move in and out, thereby defeating the purpose of creating the barrier.
- The local community should not have an interest in entering the forest for grazing their cattle or collecting firewood because they will create openings or crossings that will defeat the purpose of creating the barrier. In some cases appropriate gates may be tried.

Barriers on forest boundary, if created, should be used only as a local measure for controlling local HEC. Barriers should never be created around the entire forest

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block if this is small, because this will confine the elephant population and compromise their long term genetic viability.

If barriers are to be created a map should be prepared showing location of elephant groups, seasonal migration patterns of elephants and locations of elephant corridors. The map should show location of proposed elephant barriers. A proposal should be prepared with all information and submitted to the Project Elephant Director of the state. Who will take a decision about it after reviewing the entire information and take the advice of elephant experts when needed.

15.3 Types of barriers

Elephant proof trenches should be installed with discretion only where the situation demands. They should not be constructed in sloping or hilly terrain or in regions with high rainfall (1500-2000 mm per annum and above). Technical specifications of EPTs recommend internal walls, known as *septa*, of 10-20 cm width, at intervals of 10 to 20 metres, to divide it into segments so that water does not flow along the EPT and cause soil erosion. These specifications should be adhered to.

Solar (high voltage) electric fences should be installed only under specific situations such as to protect small enclaves, institutions and individual farms. Community involvement is essential for maintenance of solar fences. Written agreement should be made with the community that they will take responsibility for its maintenance. Communities should be given monetary support for maintenance of fences provided they take responsibility of maintenance.

Barriers with sharp spikes that have potential to injure elephants, wildlife, livestock and humans should be strongly discouraged.

16. Anti-depredation squads (ADS)

Anti-depredation squads (ADS) are an essential component of HEC management in some states such as West Bengal and Assam. In these states groups of elephants congregate and enter human use areas in large numbers. In such situations the local community needs the support of the ADS to protect their crops and property.

ADS should be well equipped and the State Government should provide sufficient funds to ensure this. Each ADS should be supported by at least two kunki elephants. However, the use of guns by ADS needs to be strictly controlled. ADS should also not be allowed to use spears and sharp instruments.

ADS should be composed of trained staff with technical knowledge of elephant behaviour and elephant management techniques. ADS should work in a planned manner. At the beginning of every season training sessions should be conducted for

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ADS. Trial runs and mock operations should be carried out before the main HEC season. Senior forest officers should take interest in operation of ADS and should participate in some ADS operations. Coordination between territorial and wildlife divisions supervised by a senior forest officer is very important for effective functioning of ADS.

ADS should use humane techniques to drive away elephants. They should not fire at elephants, poke them with sharp instruments or beat them with sticks. ADS staff should be sensitized to humane management of elephants.

When the elephant herd splits into smaller groups it becomes difficult for the ADS to manage the group. ADS should work in partnership with the community so that the community can manage the situation, where ADS cannot reach. This requires empowerment of the community with equipment, material and training. Such operations should be monitored to ensure that the community does not misuse the capacity delegated to it.

17. Compensation (Ex-Gratia Payment)

The rates for crop compensation should be commensurate to the crop damage. It is recommended that compensation for crop damage should be about 60% of the estimated crop damage. If the compensation is close to 100% of the crop value there will be no incentive for the farmer to protect his crops.

Adequate financial provision should be made for compensation for HEC by the states with support from Project Elephant.

The process of spot inspection, preparation of case papers, forwarding to higher authorities and award of compensation and payment should be expedited. Procedural changes should be made by the states wherever necessary. Ready to fill formats should be circulated so that the inspecting staff does not have to write long descriptions. Cases should be received by the Range Officer, or even the Beat Officer, so that the affected farmers do not have to travel long distances to file the case or receive compensation. The entire process should be time bound. It is recommended that farmers should receive compensation within 15 days from date of the incident.

False compensation claims should be detected and rejected. Above a certain value, revenue authorities should be involved. If the amount is high, a gazetted officer should do the inspection. If the value is exaggerated, there should be penalty for false claims.

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Computerization of cases of crop and property damage by elephants should be initiated by all states to hasten the process of compensation. A database should be prepared so that the data may be used in future use and manipulations are reduced.

In case of human injury the victims are sometimes seriously injured and lose their jobs and livelihood. Provisions should be made for free treatment in Government hospitals. If medicines are not available, the hospitals authorities should make the arrangement or send the patient to better hospital at their cost. The costs should be reimbursed to them directly by the Forest Department without involving the patient. Medical treatment continues long after discharge from hospital and considerable expenses are incurred. The Government should pay these expenses as long as the treatment continues, even if it takes a year or two. The affected person should be suitably rehabilitated. NGOs with appropriate expertise should be involved so that they can do the necessary hand holding for rehabilitation of the person.

In case of human death the compensation should be minimum Rs. 5 lakhs. In such cases also an NGO with requisite expertise should be involved to rehabilitate the next of kin.

18. Crop Insurance

The Pradhan Mantri Fasal Bima Yojana (PMFBY), which was introduced in 2016, provides insurance to a wide variety of crops at a very low premium. The MoEFCC has requested for inclusion of crop damage by wild animals in the scheme. As and when this feature is incorporated in the scheme the State Governments and the Forest Departments should promote this scheme vigorously in regions where there is crop damage by elephants and wild herbivores.

19. Elephant Drives

Elephant drives with the objective to push elephants from one administrative area to another should be avoided. In no situation elephants should be driven for long distances. This causes stress to the young calves in the group and they may die. Elephant drives, if at all they are carried out should be solely with the intention of herding elephants away from a human populated zone. In some situations elephants may be herded away from hazardous situations such as at international boundaries where they may be endangered. Once they are outside the human use zone or the danger zone they should be left alone. Care should be taken to ensure that the driving operation does not split the herd. This increases the conflict and also disturbs the social structure of elephant groups.

20. Early warning SMS alert systems/WhatsApp Group

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Systems based on laser beams have been used on Valparai Plateau in Nilgiri Hills, Tamil Nadu to provide early warning of elephant arrival. A system of sending SMS alerts of elephant presence has been developed to warn of elephant presence. A system of pulsating warning lights on towers that warns of elephant presence in the area has been developed. These methods are useful in reducing incidents of human mortality due to encounter with elephants. These methods are useful in situations where encounters with elephants are high. Warning about elephant presence may also be advertised through local/ cable TV channels. They should be implemented in other areas where similar situation exists.

Early warning system through WHATS APP and regular broadcasting of herd locations every day and their possible route may also be followed.

21. Primary Response Teams & Rapid Response Teams

In some areas elephants are prone to enter high population density areas in large numbers. In such situations quick response by the Forest Department is important for preventing loss of human life or damage to property.

ADS have worked reasonably good in North Bengal but ADS cannot reach out to all places. We need to develop primary response team (PRT) in each village who could work as first level of defense to drive the elephant and keep crowd away till the time the Rapid Response team (RRT) reaches. The RRT should ideally consist of a biologist, veterinarian and a biologist to address all aspect of the conflict. Both the teams have to be adequately trained and equipped in HEC mitigation. The PRT and RRT should also be insured to take care of their families in cases of accidents/deaths during HEC mitigation and continuous medical facilities be provided in case of severe injury till the person recovers.

These teams should work in a planned manner and carry out the operations quickly and effectively. Their main job should be to herd the elephants away from human inhabited areas. They should be well equipped and disciplined. A 24 hour control centre should be formed in critical areas and the toll free telephone number of the control centre should be given wide publicity. Such a strategy has been used effectively by the Tamil Nadu Forest Department in Valparai Plateau and by Chhattisgarh Forest Department.

22. Minimizing Human Encounters with Elephants

Human injury and deaths are the result of human encounter with elephants. The key to minimizing loss of human lives is minimizing unexpected encounters with elephants.

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In some regions for e.g. Valparai encounters with elephants often take place in low light conditions when people bump into elephants accidentally when returning from work in the evening or going for work in early morning. A large number of cases of human deaths / injuries in the country involve people who trespass into elephant habitats or indulge in collection of timber, firewood, fodder, tendu leaves, mahua and other NTFPs. The villagers visiting forests for attending nature's call often fall victims to elephants. Elephants are also known to be attracted by country liquor stored in houses. The possibility of fatal encounters is higher when the person is alone. Knowledge of these factors can help to prevent such encounters.

At the beginning of each HEC season the Forest Department should launch an awareness campaign about important Dos and Don'ts for avoiding chance encounters with elephants.

In regions where possibility of such encounters is high public alerts should be sent about presence of elephants. The SMS alert system implemented at Valparai is a good example of the effectiveness of this system.

23. Capture and relocation of elephants

In regions where elephants have moved out of the more intact forest areas, especially protected areas or large reserve forests, into human-dominated landscapes primarily for crop raiding, the levels of chronic conflicts are usually unacceptably high. These elephants may either be solitary bulls or bull groups, as well as family groups. Usually these elephants become virtually resident in commercial plantations such as coffee estates, orchards or small plantations that offer excellent canopy cover, or use smaller patches of forest (such as those regenerated under Joint Forest Management programmes) to take shelter during the day and raid the surrounding crop fields at night. Examples of these situations include districts in Karnataka such as Hassan and Kodagu with extensive coffee plantations, and southern Bengal with regenerated forests under JFM.

There may be no other option but to capture these elephants. The question then arises as to what should be the course of action after capture; should the elephants be released back into a forest or should they be retained in captivity. The first option is obviously the more desirable one when this is feasible. If a state has forests suitable for relocation, the option of releasing the elephants there should be first examined. There are indications that subadult or young adult bull elephants of the age of emigrating from their natal families are likely to settle down in another forest area through such "assisted dispersal". However, it should be emphasized that there is no foolproof guarantee of success in relocating elephants that have been in conflict with people. This is a learning process in elephant management. In the past, most experiments in capturing and relocating adult male elephants have failed with

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the bulls going back to their original place of capture. Relocated elephants should be fitted with GPS-based collars to monitor their movement with the option of recapturing them in case they again come into conflict. The site of release should be at sufficient distance (typically of the order of 200-300 km or greater) such that it is unlikely that the elephant would be familiar with the new site and attempt to go back to the place of capture. "Soft release" options can also be experimented with; this would involve keeping the animal in a stockade for some limited time period at the proposed site of release before letting it free.

In some instances the best option or the only option may be to retain the captured elephant or elephants in captivity, especially if the animal has killed people on multiple occasions and the risks of release into the wild are too great. In recent times, Karnataka and Tamil Nadu have exercised this option after seeking expert opinion. Only some states have the skills to capture and train large bull elephants, and other states should build their own capacities with the assistance of the former. If elephants are retained in captivity it is essential to consider their use and their welfare.

The availability of immobilization drugs and competent veterinarians during capture operation are important issues and these should be made available to SFDs all the time.

24. Reducing Retaliatory Killing of Elephants

Communities affected by HEC sometimes resort to retaliation against elephants that can result in their death. Electrocuting is one of the common methods used for killing elephants. There are cases where the electric wire was set for other animals like wild pig or gaur and resulted in death of elephant. There is a need to introduce people to the safer option of using power fences to protect crops rather than using unguarded electric wires (power lines). Poisoning due to retaliation is also a major cause of killing of elephants. In other cases people have been known to shoot elephants. The animals are either buried (a herculean task) or the death is faked as accidental death. Sometimes bullet wounds don't kill the animal immediately but it dies a slow death later due to infection of wounds.

At the beginning of each season the Forest Department should hold meetings in all villages and warn people against using practices such as electrocution or shooting. They should be informed about the seriousness of the offence and option of legal action against the culprits in case deliberate killing of elephants.

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The various measures outlined in these guidelines will help to reduce retaliatory killings. Generation of sympathy towards the animal can play a major role in reducing such killings.

25. Seasonal Planning for HEC Management

There should be effective planning at the forest division level and range level for management of HEC at the beginning of each season. This local knowledge should be tapped and used for planning HEC management for the season. Responsibilities should be allocated and strategy for HEC management should be decided.

Similar planning workshop should be held at forest range level for all the frontline staff of the range to plan HEC management for the entire season.

26. Documentation of local knowledge

In each region there is considerable local knowledge about seasonal elephant migration routes, elephant groups and their sizes, entry points and crop raiding patterns. This information is available with the field staff but generally not documented. This knowledge should be documented for use of elephant conservation and elephant management in future years. The documentation should be done in a simple format circulated by the Chief Wildlife Wardens. These documents will provide valuable information that will help in HEC management. It can also form basis of elephant conservation in the state.

27. Mob Control

Often presence of mobs makes management of HEC situations very difficult. Sometimes human deaths take place when people get in the way of fleeing elephants. In such circumstances mob control becomes an important part of HEC management. An effective mob/crowd control plan should be chalked out in areas where such situations are frequent. Help of District Administration particularly Police Department should be taken for mob control. For this communication and planning with the Police Department is necessary at the start of the HEC season. Police officers should be educated and trained about management of elephant groups so that they take prompt and effective action in such situations.

28. Managing Private and Temple Elephants

There are several instances of private elephants and temple elephants getting scared and going out of control, often during processions, due to loud music, crackers and presence of large crowd, etc. As far as possible, elephants should be kept away from congested places and large crowds. Assembly of elephants in temples or other public places should not be permitted unless the organizers have taken adequate measures to deal with any emergency. It should be ensured that the elephants, particularly bulls, participating in public functions are manned only by trained and experienced

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mahouts. A dossier should be maintained of all elephants which have the history of being ill-tempered. Standard operating Procedures (SoPs) should be drafted for tackling such situations. Rapid response teams should be formed by the Forest Department in big cities to tackle such situations.

Captive elephant welfare committees should be constituted at State and District levels to ensure welfare and humane treatment of captive elephants, particularly in private custody. Chief Wildlife Wardens should periodically monitor ownership certificates/ microchips of elephants. The implementation of the guidelines for welfare and management of captive elephants, issued by the Ministry on 8.01.2008, should be enforced in letter and spirit. The Ministry has also issued on 29.09.2017 standards/ norms for giving recognition to elephant housing facilities for captive elephants, including temple elephants.

29. Managing Transboundary Elephant Movement

Some elephant populations are known to regularly cross international and state boundaries. In India this occurs regularly on the international boundary with Nepal, Bangladesh, Bhutan and Myanmar. Elephant populations regularly cross interstate boundaries in many elephant states. There is a tendency to push the elephant populations back to the home state/country using harsh methods, resulting in much hardship to elephants, especially young calves. Elephants are even shot with 12 bore shotguns. The gun shots cause injury and death of elephants due to festering wounds. Such injured elephants are extremely dangerous. All efforts should be made to avoid such practices.

Interstate coordination committees should be formed at the local level and at the level of Chief Wildlife Wardens. They should meet regularly, share information and plan for management of elephants. The practice of coordination committees should be followed even within the state between neighbouring divisions and between territorial and wildlife divisions. The Central Government has signed a MoU with the Government of Bangladesh for transboundary conservation of elephants in India Bangladesh elephant landscape on 27.7.2017 at Shillong. The Joint Working Group has been constituted by two countries to develop standard operating procedures and protocol for conservation of elephants. Similar arrangements should be established with other neighbouring countries e.g. Nepal, Bhutan and Burma.

Sympathy is needed by forest officers and people on both sides of the boundary. Strong communication should be established between forest officers on both sides to ensure that no harm comes to elephants. Elephants should be allowed to follow their natural migratory paths. Preparations should be carried out to ensure that there is minimum damage and hardship to people during their stay on the other side

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of the boundary. The recommended strategy in such cases should be to prevent the movement of elephants to undesirable areas with the help of suitable barriers and to translocate / capture the straying elephants. The more experienced and knowledgeable partner should share their knowledge of elephant management and, if necessary, conduct training session for the partner on the other side of the boundary to help in managing HEC. Such dialogue should continue throughout the HEC season.

Elephants are known to be expanding their range to non-elephant districts of Northern Andhra Pradesh, Chhattisgarh, Bihar, MP, Maharashtra and Goa. Similarly, suitable elephant habitats no longer exist in parts of Nepal adjoining North Bengal and parts of Bangladesh adjoining Garo Hills (Meghalaya). The recommended strategy in such cases should be to check the movement of elephants to undesirable areas with the help of suitable barriers and to translocate / capture the straying elephants.

30. Rescue and Rehabilitation Centers

A number of elephant rescue and rehabilitation centers have been formed in the states, with support from Project Elephant. Some of these centers do not have requisite approval of the Central Zoo Authority (CZA). All elephant rescue and rehabilitation centers should get approval of CZA and follow CZA guidelines for their management. Other states that have presence of elephants should also set up at least one elephant rescue and rehabilitation centre. Elephant rescue and rehabilitation centers should be well managed and should be provided adequate funding.

Chief Wildlife Wardens should ensure that Rescue and Rehabilitation Centers for elephants as well as housing facilities for captive elephants are maintained properly to avoid complaints about cruelty/ ill treatment of elephants, received from various quarters.

31. Training of Mahouts and Kawadis

India has a long history of keeping elephants in captivity. The relationship between elephant and mahout is very complex. It is essential that mahouts and kawadis are imparted training regularly in proper handling of elephants. Registration of mahout/kawadis as trained and licensed handler of elephants with the forest department also needs to be considered.

32. Humane Treatment of Elephants

Though elephants have to be kept away from human use areas the techniques used should be humane and should not cause harm or suffering to elephants. This is especially true in case of some harsh techniques used by anti-depredation squads

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and frontline staff during elephant drives. Communities also need to be educated about humane treatment of elephants.

33. Attitudinal Change

A campaign for creating awareness of elephant needs to be instituted. The Elephant Task Force has also recommended a campaign named *Hathi Mere Sathi* for this purpose. Communities also need to be educated to take responsibility in managing HEC. The community should be educated about habitat fragmentation due to encroachments and its role in increasing HEC. There is also a need to extend educational and awareness programmes for the development agencies, railways, power, irrigation, highways, mining companies, tourism industry, district administration, etc.

34. Communication

Effective communication is an important aspect of managing HEC. The recommended communication flow is given in Figure 1. The flow chart is indicative only and not meant to imply that communication flow is one way.

The Chief Wildlife Warden and PA Managers/ DFOs should decide the policy and strategy for managing HEC for the entire state. They should decide the publicity literature and training material for the frontline staff and the community. This information should be communicated to the field officers.

Figure 1: Chart for Flow of Communication of HEC Management Strategy & Literature



Figure 1

The Field officers will communicate the HEC management strategy to the frontline staff along with detailed planning for their forest divisions. They will provide the communication literature to the frontline staff. They will conduct trainings for the frontline staff for implementation of HEC management in the field.

The frontline staff will communicate the HEC management techniques to the community along with the publicity and awareness literature. They will train the community in HEC management techniques.

Communication channels between the community and Forest Department should remain open at all times to ensure good management of HEC. The community should be informed contact numbers of the local member of frontline staff in case of arrival

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of elephants or crop damage. SFDs also need to set up a grievance redressal system for communities and the frontline staff.

35. Training of frontline staff and farmers

Training goes hand in hand with communication. Frontline staff as well as community should be trained in techniques for management of HEC. At present the most commonly used techniques are noise making techniques followed by drives. The stakeholders should be educated in alternative techniques for deterrent measures, early warning systems and effective repellent techniques. The training program should be coordinated by the State Director, Project Elephant.

36. Research and Development

Elephants are highly intelligent animals. They soon learn about HEC mitigation measures and become habituated to them or learn to circumvent them. Therefore many HEC mitigation measures gradually become ineffective. New techniques should be constantly introduced to keep elephants away from human use areas. Methods should be constantly altered and modified to avoid habituation by elephants. The Forest Departments, research institutes and NGOs involved in elephant conservation should carry out experiments to develop novel techniques for mitigation of HEC. The PE Division should play a nodal role in disseminating this information to the states by conducting workshops and circulating reports and publications.

We should also upfront ask for a comprehensive policy framework for elephant-human conflict mitigation. Guidelines can only be framed to help implement a policy.

Research should be carried out on a number of repellants and deterrents that need to be tried and tested in the Indian conditions before applying on a large scale to mitigate HEC.

Climate change is likely to be a major factor in near future influencing elephant behavior and habitat thereby leading to escalation of HEC. Research is required to understand the possible impacts of climate change on elephants and their habitats and develop plans for mitigating adverse impacts.

Research and Development is also required for developing reproductive control measures (using immuno-contraceptives or any suitable alternative) and protocol for dealing with local abundance of wild elephants leading to high levels of HEC and regulating captive elephant populations in camps.

There is lot of data being maintained by SFD on conflict but not effectively used except for ex-gratia support. There is no systematic analysis of the data at landscape

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level to understand the pattern and level of conflict and to predict the overall trend and places of conflict hotspots based on which mitigation measures could be planned and adapted. The information could also be analyzed based on LULC the landscape to understand the main drivers of conflict and plan accordingly.

37. Assessment of HEC zone

A data base has to be maintained by each state for effective assessment of damage and compensation. But the data has to be also analyzed extensively to understand the pattern of conflict, trends and identify conflict hotspots to predict the trend and places of conflict based on which mitigation measures could be planned and adapted.

The HEC zone should be assessed and mapped for deciding on the type of intervention to be taken for conflict mitigation. The vulnerable areas should be identified and the damage to crops and human deaths should be assessed across landscape.

38. Implementers of guideline/Involvement of Stakeholders

Multiple stakeholders like MoEFCC; Ministry of Agriculture (including Department of Animal Husbandry), Ministry of External Affairs (MEA); Research Institutes; State Departments of Finance, Agriculture, Animal Husbandry and Health; District Administration; Local Bodies; Police; linear developmental agencies (Railways, NHAI, power, etc), Ministry of Homes, District Administration and Civil Societies should be involved along with the State Forest department and local communities for effective planning and implementation of mitigation measures. With so many agencies being responsible for executing the guidelines, a coordinating mechanism must be put in place.

39. Enrichment of deemed forest:

There are some good patches of 'deemed forests' or forests not under the forest department, though classified as forest according to the judgment of the Hon'ble Supreme Court. Some of them are degraded, but can be improved as good elephant habitats. They need be enriched to serve as elephant habitats.

F. No. 2-7/1998-PE (Vol.I)
 Government of India
 Ministry of Environment, Forests and Climate Change
 Project Elephant Division

Annexure-R15
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Paryavaran Bhawan, CGO Complex,
 Allganj, Jor Bagh Road, New Delhi-110003
 Phone No. 24695292/84 (F)

Dated 4th September, 2017

OFFICE MEMORANDUM

Sub: Constitution of the Steering Committee of Project Elephant.

In supersession of this Ministry's Office Memorandum No. 2-7/98-PE dated 5th November, 2012, the Steering Committee of Project Elephant is reconstituted as under:

- | | | |
|--|---|------------------|
| 1. Minister in charge of Environment, Forests & Climate Change | : | Chairperson |
| 2. Secretary, Environment, Forests & Climate Change | : | Vice Chairperson |
| 3. Director General of Forests & Special Secretary | : | Member |
| 4. Additional Director General of Forests (Wildlife) | : | Member |
| 5. Additional Secretary & Financial Advisor | : | Member |
| 6. Shri R.P. Agarwalla, IFS (Retd.) ✓ | : | Member |
| 7. Shri Vinod Rishi, Ex ADG (WL), MoEF&CC ✓ | : | Member |
| 8. Ms. Parbati Barua, Gauripur, Assam | : | Member |
| 9. Dr. Mahesh Rangarajan, Wildlife Conservationist ✓ | : | Member |
| 10. Dr. V. Gopinath, IFS (Retd.), Ex-PCCF, Kerala ✓ | : | Member |
| 11. Dr. K. K. Sharma, Veterinary Doctor ✓ | : | Member |
| 12. Shri Soumyadeep Datta, Assam (Ashoka Fellow) | : | Member |
| 13. Inspector General of Forests & Director (Project Elephant) | : | Member Secretary |

2. In addition, Director, Wildlife Institute of India, Director, Zoological Survey of India, Director, Botanical Survey of India, Commissioner, Animal Husbandry, Ministry of Agriculture and Chief Wildlife Wardens of States having Project Elephant scheme would be permanent invitees for meeting.

3. The term of the Steering Committee of the Project Elephant will be for duration of three years from the date of issue of this Office Memorandum.

4. The committee will review the implementation of Project Elephant and provide suitable guidance from time to time for which the committee may meet as and when necessary.

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5. Travelling Allowance and Daily Allowance will be payable to non-official members of the Committee as admissible to Grade I officers of the Government of India.

~~4.9.2017~~
 (R.K. Srivastava)
 Inspector General of Forests
 (Project Elephant)
 Email: igpe-mef@nic.in

Copy forwarded for information and necessary action to:

1. PS to Hon'ble MOS (I/C), EF&CC
2. PPS to Secretary, Ministry of Environment Forests & Climate Change.
3. PPS to DGF&SS, Ministry of Environment Forests & Climate Change.
4. PPS to Addl. DGF (WL)/PPS to IGF (WL)/ PA to JD (WL/PE), EF&CC
5. All Members of the Steering Committee (Non-official)
6. The Chief Secretaries and Forest Secretaries of all the State Governments/UT's.
7. The Advisor, Forest and Wildlife, Planning Commission.
3. PAO, Ministry of Environment Forests & Climate Change.
9. Director, Public Relations, Ministry of Environment Forests & Climate Change.
10. Principal Chief Conservator of Forests (HoFF) of all States and UTs.
12. Chief Wildlife Warden of all the concerned States.

~~4.9.2017~~
 (R.K. Srivastava)
 Inspector General of Forests
 (Project Elephant)
 Email: igpe-mef@nic.in

-2 of 2-

Long

True copy

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Item No.07

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 246/2018

Pradip Kumar Bhuyan & Ors.

Applicant(s)

Versus

Union of India & Ors.

Respondent(s)

Date of hearing: 16.05.2019

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s): Mr. Sanjay Upadhyay along with Ms. Trisha
Krishnan, Advocate

For Respondent(s):

ORDER

Grievance in this application is that adequate steps are not being taken for conservation of free passage for the elephants in the State of Assam in accordance with the orders of this Tribunal dated 08.12.2017 in *Original Application No. 19 of 2014, Dr. Kashmira Kakati v. Union of India & Ors.*, requiring notification of 'Elephant Reserves' under the Environment (Protection) Act, 1986. According to the applicant, railway tracks, national and state highways and transmission lines should be declared as elephant protection zones in the nature of ecological sensitive areas. Elephant deaths are

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taking place due to train accidents, electrocution and other human interventions which result in degradation of forest habitats. The Central Government launched the 'Project Elephant' in 1992 but the elephant reserves have not been brought under a protected area regime. The areas have been identified as elephant reserves, still such areas have not been notified as such. There are nine elephant ranges overlapping with the railway tracks but in absence of safeguards, several tragic deaths of elephants have taken place. Apart from railway accidents, deaths are also taking place on account of electrocution.

2. Vide order dated 03.07.2018, the Tribunal noted that in view of the order passed in *Original Application No. 19/2014, Dr. Kashmira Kakati v. Union of India & Ors.*, recording the statement on behalf of State of Assam that proper action will be taken in the matter no separate order was required. Vide order dated 14.11.2018, Ministry of Environment, Forest and Climate Change (MoEF&CC) was directed to look into the matter and find a solution. An affidavit was required to be filed by the ADG, Wildlife, MoEF&CC.

3. Accordingly, an affidavit dated 14.12.2018 has been filed by the ADG, MoEF&CC. It is stated that in pursuance of the order of the Hon'ble Supreme Court dated 04.08.2017 in *Writ Petition (C) No. 275 of 2015, Vidya Athreya & Anr v. Union of India & Ors*, the Ministry has requested the States to notify the corridors. A meeting with the Project Elephant States was held on 29.05.2018 and it was decided

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that suggestions given in Gajah Report be implemented by the State Governments. The Ministry issued letter dated 13.06.2018 to all the States. Again, in the light of the order of the Hon'ble Supreme Court dated 22.10.2018 in *W.P (C) No. 489 of 2018, Prerna Singh Bindra & Ors v. Union of India & Ors.*, a Central Monitoring Committee has been constituted. Financial and technical support is being provided to elephant bearing States under the Project Elephant Scheme.

4. An affidavit has also been filed on behalf of the State of Assam on 12.07.2018 indicating that five elephant reserves have been notified in the State of Assam and nine elephant corridors have also been identified. Ameliorating measures have been taken to improve the habitat of the elephants including constitution of Coordination Committee regulating the speed of the railways, awareness programs, joint patrolling, signage, construction of over/under passes for safe passage of elephants. Steps have also been taken to safeguard the electrocution deaths.

5. In view of the fact that the Central Monitoring Committee has been constituted by the MoEF&CC which coordinates with the concerned elephant bearing States on issues relating to safety of elephants in elephant protection zones, any further surviving issue may be raised before the Committee and the Committee may look into the same in accordance with law.

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The application stands disposed of.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM



Handwritten signature

True copy

633573/2022/PE

**SUPREME COURT MATTER
TIME BOUND**

F.No.6-15/2017 PE
Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003

Date: 24 August, 2017

Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India Ors.

Sir,

Kindly find enclosed the order of the Hon'ble Supreme Court order dt. 04-08-2017 Writ Petition (C) no. 275 of 2015, wherein the Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, you are requested to assess the feasibility of protecting these corridors in your respective state and if any, land acquisition is to be done, make it expeditiously.

If any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is further requested to furnish an action taken report within 60 days for filing of the affidavit in Hon'ble Supreme Court.

Yours faithfully,


24.8.17

(R.K. Srivastava)
Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695292
E-mail: igpc-mef@nic.in

Encl: As above

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

WP(C) No. 275/15

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ITEM NO.6

COURT NO.1

SECTION PIL-W

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Writ Petition(s) (Civil) No(s) 275/2015

VIDYA ATHREYA & ANR. Petitioner(s)

VERSUS

UNION OF INDIA . & ORS. Respondent(s)

Date : 04-08-2017 This petition was called on for hearing today.

CORAM :

HON'BLE THE CHIEF JUSTICE
HON'BLE DR. JUSTICE D.Y. CHANDRACHUD

For Petitioner(s) Mr. Shyam Divan, Sr. Adv.
Mr. P. K. Manohar, AOR

For Respondent(s) Ms. Pinky Anand, ASG
Mr. Wasim Qadri, Adv.
Mr. Deepak Goel, Adv.
Ms. Somya Rathore, Adv.
Mr. Gurmeet Singh Makker, AOR

Mr. S. K. Mishra, Adv. Genl.
Mr. Pawan Upadhyay, Adv.
Mr. Sarvjit Pratap Singh, Adv.
Ms. Sharmila Upadhyay, AOR

Mr. Amit Sharma, Adv.
Mr. P. K. Mullick, Adv.
Mr. A. C. Pradhan, Adv.
Mrs. Neha Nagpal, Adv.
Mr. Raj Bahadur, Adv.

Mr. Joseph Aristotle S., Adv.
Mrs. Priya Aristotle, Adv.
Mr. Ashish Yadav, Adv.
Ms. Romsha Raj, Adv.

Mr. Debojit Borkakati, Adv.
Ms. Diksha Rai, AOR

Mr. Deepak Goel, Adv.
Mr. Milind Kumar, Adv.

Mr. S. Udaya Kumar Sagar, Adv.
Mr. Mrityunjai Singh, Adv.

Ms. Hemantika Wahi, Adv.
Ms. Jesal Wahi, Adv.



633573/2022/PE

WE(C)No.275/15

2

Ms.Puja Singh, Adv.
Ms.Shodhika Sharma, Adv.

Mr.G.Prakash, Adv.
Mr.Jishnu M.L., Adv.
Mrs.Priyanka Prakash, Adv.
Mrs.Beena Prakash, Adv.

Mr.Mahaling Pandarge, Adv.
Mr.Nishant Katneshwarkar, Adv.

UPON hearing the counsel the Court made the following
O R D E R

1. Even though this Court, by its motion bench order dated 31.03.2017, required respondent Nos.1 and 3 to file counter affidavits, the same are not forthcoming. Ms.Pinky Anand, learned Additional Solicitor General, seeks a short adjournment, so as to enable her instructing counsel, to file counter affidavits on behalf of respondent Nos.1 and 3.
2. Mr.Shyam Divan, learned senior counsel appearing on behalf of the petitioner has handed over to us in Court today, some suggestions on behalf of the petitioner. The suggestions are taken on record, and marked as 'Annexure-A'. A copy thereof has been handed over to the learned Additional Solicitor General.
3. The learned Additional Solicitor General undertakes to take into consideration the suggestions of the petitioner, while filing the counter affidavits on behalf of respondent Nos.1 and 3.
4. Prayer is allowed.
5. Counter affidavits on behalf of respondent Nos.1 and 3 be positively filed within three months.
6. List on 21.11.2017.

(SATISH KUMAR YADAV)
AR-CUM-PS

(RENUKA SADANA)
ASST.REGISTRAR

633573/2022/PE

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WP (C) No. 275/15

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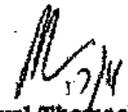
**REMINDER
SUPREME COURT MATTER****F.No.6-15/2017 FE
Government of India****Ministry of Environment, Forest and Climate Change
Project Elephant Division****Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003****Date: 17th November, 2017****Subj: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ
Petition (C) no. 275 of 2015 titled Vidya Athraya & Anr. Vs.
Union of India & Ors.**

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.

**(Noyal Thomas)****Deputy Inspector General of Forests &
Director, Project Elephant**

Telefax: 011-24695323

E-mail: projectelephant.moef@gmail.com

Each Copy of the letter dated 24-08-2017**Copy for kind information and necessary action to :**

1. The Chief Wild Life Warden, Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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ITEM NO.3

COURT NO.4

SECTION PIL-W

SUPREME COURT OF INDIA
RECORD OF PROCEEDINGS

Writ Petition(s)(Civil) No(s).897/1996

A. RANGARAJAN & ORS.

Petitioner(s)

VERSUS

UNION OF INDIA
MINISTRY OF ENVIRONMENT AND FOREST & ORS.

Respondent(s)

WITH

SLP(C) No. 5176/2012 (XII)
SLP(C) No. 2666/2012 (XII)
SLP(C) No. 7619/2012 (XII)
S.L.P.(C)...CC No. 5161/2012 (XII)
SLP(C) No. 20154/2011 (XII)
SLP(C) No. 37332/2013 (XII)
S.L.P.(C)...CC No. 9201/2012 (XII)
SLP(C) No. 21460/2011 (XII)
SLP(C) No. 17313-17314/2011 (XII)
SLP(C) No. 21463-21464/2011 (XII)
SLP(C) No. 21461/2011 (XII)
SLP(C) No. 16669/2011 (XII)
SLP(C) No. 17180/2011 (XII)
SLP(C) No. 17155-17156/2011 (XII)
SLP(C) No. 17150-17151/2011 (XII)
SLP(C) No. 21480/2011 (XII)
SLP(C) No. 21487/2011 (XII)
SLP(C) No. 21472/2011 (XII)
SLP(C) No. 21477/2011 (XII)
SLP(C) No. 21478/2011 (XII)
SLP(C) No. 21470/2011 (XII)
SLP(C) No. 21468/2011 (XII)
SLP(C) No. 21469/2011 (XII)
SLP(C) No. 24826/2011 (XII)
SLP(C) No. 19112/2011 (XII)
SLP(C) No. 25910/2011 (XII)
SLP(C) No. 31581/2011 (XII)
SLP(C) No. 38559/2013 (XII)
SLP(C) No. 30535/2011 (XII)
SLP(C) No. 35044/2013 (XII)
SLP(C) No. 30536/2011 (XII)
SLP(C) No. 9305/2012 (XII)
S.L.P.(C)...CC No. 5278/2012 (XII)
S.L.P.(C)...CC No. 5312/2012 (XII)
Diary No(s). 16319/2017 (XII)

Date : 23-04-2018 These matters were called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE DEEPAK GUPTA

Mr. Harish N. Salve, Sr. Adv. (A.C.) (NP)

Ms. Aparajita Singh, Adv. (A.C.)

Mr. A.D.N. Rao, Adv. (A.C.)

Mr. Sudipto Sircar, Adv.

Ms. Tulika Chikker, Adv.

Mr. Siddhartha Chowdhury, Adv. (A.C.)

For Petitioner(s)

Mr. Salman Khurshid, Sr. Adv.

Ms. Madhavi Divan, Adv.

Mr. Manan Verma, Adv.

Ms. Palak Mahajan, Adv.

Ms. Kanika Saran, Adv.

Ms. Diksha Rai, AOR

Mr. Rahul Shyam Bhandari, Adv.

Mr. Vinodh Kanna B., AOR

Mr. Sudarsh Menon, AOR

Mr. K. V. Mohan, AOR

Mr. K.V. Balakrishnan, Adv.

Mr. Nikhil Nayyar, AOR

Mr. S. Ravi Shankar, AOR

Yamunah Nachiar, Adv.

Ms. Priyanka Das, Adv.

Mr. Avishkar Singhvi, Adv.

Mr. Abhimanyu Bhandari, Adv.

Ms. Roohina Dua, Adv.

Mr. Naveen Kumar, AOR

Mr. Sridhar Potaraju, AOR

Mr. Prabhat Kumar, Adv.

Mr. Uday Khanna, Adv.

Ms. Ankita Sharma, Adv.

Mrs. Lalita Kaushik, AOR

Mr. Sanjay Upadhyay, Adv.

Ms. S. Shukla, Adv.

Ms. Eisha Krishen, Adv.

Mr. Shakil Ahmed Syed, AOR

Mohd. Parvez Dabas, Adv.

3

Mr. Uzmi Jameel Husain, Adv.
Mr. Pulkit Chandra, Adv.

Mr. R. Anand Padmanabhan, Adv.
Ananya Mukherjee, Adv.
Mr. Romil Pathak, Adv.
Mr. Shashi Bhushan Kumar, AOR

Mr. Kaustabh Shukla, AOR
Mr. Ankur Kashyap, Adv.

Mr. V. Balachandran, AOR
Mr. Siddharth Naidu, Adv.

Mr. Vikas Mehta, AOR
Ms. Anushree Menon, Adv.

Mr. K.N. Balgopal, Sr. Adv.
Mr. L. C. Agrawala, AOR
Mr. A.P. Mukundan, Adv.
Ms. Nitya Nambiar, Adv.

Ms. Rukhsana Choudhury, AOR

Mr. Gopal Shankara Narayanan, Adv.
Mr. Senthil Jagadeesan, AOR
Ms. Shruti Iyer, Adv.
Ms. Sonakshi Malhan, Adv.
Ms. Suriti Chowdhary, Adv.
Mr. Shrutanjaya Bhardwaj, Adv.

Mr. P. K. Manohar, AOR

Mr. Manoj V. George, Adv.
Mr. Zulfiker Ali P. S, AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

For Respondent(s)/
applicant(s)

Mr. Atmaram N.S. Nadkarni, ASG
Mr. S. Wasim A. Qadri, Adv.
Mr. D.L. Chidanand, Adv.
Mr. Ritesh Kumar, Adv.
Mr. Gurmeet Singh Makker, AOR
Mr. B. Krishna Prasad, AOR

Tamil Nadu

Mr. Subramonium Prasad, Sr. Adv.
Mr. M. Yogesh Kanna, AOR
Ms. Sujatha Bagadhi, Adv.
Ms. Maha Lakshmi, Adv.
Ms. Nithya, Adv.

Kerala

Mr. G. Prakash, Adv.

Ms. Aparna Bhat, AOR
Ms. Joshita Pai, Adv.

Ms. Anitha Shenoy, AOR

Mr. Sridhar Potaraju, AOR

Caveator-in-person

Mr. K. V. Vijayakumar, AOR

Mr. Vinodh Kanna B., AOR
Mr. A. Srilam, Adv.
Mr. Manikandan, Adv.

Mr. B. Krishna Prasad, AOR

Mr. Manoj V. George, Adv.
Mr. Zulfiker Ali P. S., AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

Mr. B. Balaji, AOR

Mr. Annam D. N. Rao, AOR

Mr. P. A. Noor Muhamed, AOR
Ms. Giffara S., Adv.

Mr. Parijat Sinha, AOR

Mr. M. A. Krishna Moorthy, AOR

Assam

Mr. Shuvodeep Roy, AOR
Mr. Sayooj Mohandas N., Adv.
Mr. Naman Kamboj, Adv.

Tripura

Mr. Shuvodeep Roy, AOR
Mr. Rituraj Biswas, Adv.

Mr. Anil Shrivastav, AOR

Bihar

Mr. Gopal Singh, AOR

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Meghalaya

Mr. Manish Kumar, Adv.

Mr. R. N. Keswani, AOR

Mr. Ranjan Mukherjee, AOR

Mr. S. Bhowmick, Adv.

Mr. Daniel Stone Lyngdoh, Adv.

Mr. Edward Belho, AAG

Ms. K. Enatoli Sema, Adv.

Mr. Amit Kumar Singh, Adv.

Mr. K. Luikang Michael, Adv.

UPON hearing the counsel the Court made the following
O R D E R

Learned Additional Solicitor General has submitted that the Project Elephant Scheme is being implemented in 22 States.

Letters have been written to all these 22 States on 24th August, 2017 and 17th November, 2017. In the letter dated 24th August, 2017, an Action Taken Report within 60 days had been sought. While in the letter dated 17th November, 2017 the States have been informed to take up the matter on top priority.

In spite of the aforesaid letters and time bound requirements given by the Union of India, only three States, i.e., Kerala, Meghalaya and West Bengal have responded. The following States have not given any response to the Union of India:

1. Andhra Pradesh
2. Arunachal Pradesh
3. Assam
4. Chhattisgarh
5. Jharkhand

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6. Karnataka
7. Maharashtra
8. Nagaland
9. Odisha
10. Tamil Nadu
11. Uttar Pradesh
12. Uttarakhand
13. Tripura
14. Rajasthan
15. Andaman & Nicobar Islands
16. Bihar
17. Punjab
18. Gujarat
19. Haryana (where an elephant rescue centre has been set up supported by Project Elephant)

Response should be given by the aforesaid States within four weeks from today positively.

Learned counsel appearing in Writ Petition (C) No.275 of 2015 (Vidya Athreya & Anr. Vs. Union of India & Ors.) says that he will not press the issue of elephant corridor in the aforesaid case.

List the matter on 12th July, 2018.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
COURT MASTER

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633573/2022/PE



भारत सरकार
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 GOVERNMENT OF INDIA
 MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
 इंदिरा पर्यावरण भवन, जोर बाग रोड,
 नई दिल्ली-110 003
 INDIRA PARYAVARAN BHAVAN, JOR BAGH ROAD,
 NEW DELHI-110 003
 Website: moef.nic.in

F. No. 6-3/2010-PE (Vol. I)

Dated 1st May, 2018

Sub: Order of the Hon'ble Supreme Court dated 23.04.2018 in Writ Petition (c) no. 897 of 1996 titled A. Rangarajan & Ors. Vs. Union of India & Ors. filed in the Hon'ble Supreme Court _reg

Ref: Order of the Hon'ble Supreme Court dated 04.08.2017 in Writ petition (c) no.275 of 2015 titled Vidya Atherya & Anr. Vs Union of India.

Kind attention is invited to the subject. Please find enclosed the order of the Hon'ble Supreme Court dated 23.04.2018 in the matter for securing the critical high priority elephant corridors to minimise the human- elephant conflicts. It is requested to kindly provide the response of the states on critical elephant corridors as sought by this Ministry and furnish an action taken report of the same within three weeks to this ministry.

In this regard, attention is also invited to this Ministry vide letter mentioned under reference requesting the Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective states. In spite of the reminder on 17.11.2017, the response from the respective states to this Ministry is still awaited and the order of Hon'ble Supreme Court may also be perused in this context.

Hence, it is once again requested to send the responses immediately to this ministry for finalizing the view of this Ministry on the matter.

This may be treated on top priority.

Encls. as above.

Yours faithfully,

(Noyal Thomas)
 IGF & Director (Project Elephant)
 Telephone No. 011-24695249
 Email: noyalifs1963@gmail.com

Distribution for kind information and necessary action :

1. The Chief Wildlife Warden, Government of Uttarakhand.
2. The Chief Wildlife Warden, Government of Odisha.
3. The Chief Wildlife Warden, Government of West Bengal.
4. The Chief Wildlife Warden, Government of Assam.
5. The Chief Wildlife Warden, Government of Arunachal Pradesh.
6. The Chief Wildlife Warden, Government of Meghalaya.
7. The Chief Wildlife Warden, Government of Karnataka.
8. The Chief Wildlife Warden, Government of Tamil Nadu.
9. The Chief Wildlife Warden, Government of Kerala.

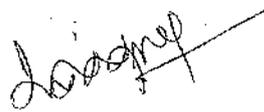


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10. The Chief Wildlife Warden, Government of Andhra Pradesh.
11. The Chief Wildlife Warden, Government of Tripura.
12. The Chief Wildlife Warden, Government of Nagaland.
13. The Chief Wildlife Warden, Government of Uttar Pradesh.
14. The Chief Wildlife Warden, Government of Bihar.
15. The Chief Wildlife Warden, Government of Jharkhand.
16. The Chief Wildlife Warden, Government of Chhattisgarh.
17. The Chief Wildlife Warden, Government of Rajasthan.
18. The Chief Wildlife Warden, Government of Manipur.
19. The Chief Wildlife Warden, Government of Madhya Pradesh.
20. The Chief Wildlife Warden, Government of Haryana.
21. The Chief Wildlife Warden, Government of Gujarat.
22. The Chief Wildlife Warden, Government of Andaman and Nicobar.

Copy to: Shri A. N. S. Nadkarni, Senior Addl. Government Advocate, Supreme Court of India for kind information and necessary action


(Noyal Thomas)
IGF & Director (Project Elephant)
Telephone No. 011-24695249
Email: noyalts1963@gmail.com



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633573/2022/PE

File No.6-3/2010-PE(Vol.I)

Annexure - V

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F. No. 6-3/2010-PE
Government of India
Ministry of Environment, Forest & Climate Change
(Project Elephant Division)

Indira Paryavan Bhawan,
Jor Bagh Road, Allganj
New Delhi- 110003
Date: 14.12.2021

To,

Principal Chief Conservator of Forests &
Chief Wildlife Warden
All PE range States/UTs

Sub: Civil Appeal No. 3438-3439/2020, in the matter of Hospitality Association of
Mudumalai Vs. In Defence of Environment and Animals & Ors.- reg.

Sir,

The undersigned is hereby directed to bring to your notice that the Petitioners, in the above-cited subject matter had challenged the judgment of the Hon'ble High Court of Madras for upholding the validity of the Tamil Nadu Government Notification G.O.(Ms.) No. 125, dated 31.08.2010 (Annexure- I), which had notified an 'Elephant Corridor' in the Sigur Plateau of Nilgiris District. Following the passing of said Notification, the resort owners and other private land owners were directed to vacate the lands falling within the notified elephant corridor to the District Collector, Nilgiris within three months from the date of the judgment.

Hon'ble Supreme Court, vide its judgment dated 14.10.2020, while upholding the order of the Hon'ble High Court of Madras, recognized the importance of elephant corridors for protection and preservation of elephant species and stated:

"... As forest lands continue to be lost, these relatively narrow and linear patches of vegetation form vital natural habitat linkages between larger forest patches. They allow elephants to move between secure habitat freely, without being

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disturbed by humans."

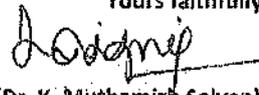
The Hon'ble Supreme Court further observed the following:-

"Elephant corridors allow elephants to continue their nomadic mode of survival, despite shrinking forest cover, by facilitating travel between distinct forest habitats. Corridors are narrow and linear patches of forest which establish and facilitate connectivity across habitats. In the context of today's world, where habitat fragmentation has become increasingly common, these corridors play a crucial role in sustaining wildlife by reducing the impact of habitat isolations. In their absence, elephants would be unable to move freely, which would in turn affect many other animal species and the ecosystem balance of several wild habitats would be unalterably upset. It would also eventually lead to the local extinction of elephants, a species which is wildly revered in our country and across the world. To secure wild elephants' future, it is essential that we ensure their uninterrupted movement between different forest habitats. For this, elephant corridors must be protected."

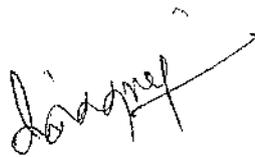
In view of the above stated observations iterated by the Hon'ble Supreme Court of India, the copy of the judgment is herewith attached (Annexure- II) along with this communication and submitted for your information and needful please.

Encl: As above

Yours faithfully



(Dr. K. Muthamizh Selvan)
Scientist 'D' (Project Elephant)
Email id: km.selvan@gov.in
Telephone No.- 011-24695067



True copy

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH,
KOLKATA**

.....
ORIGINAL APPLICATION No. 77(THC)/2017/EZ

IN THE MATTER OF:

**1. Society for Protecting Ophiofauna and Animal Rights
(SPOAR)
Having its registered office at Sen Para, Jalpaiguri 735101**

**2. Shri Shyama Prasad Pandey,
Secretary of Society for Protecting Ophiofauna and Animal
Rights (SPOAR),
Having its registered office at Sen Para, Jalpaiguri 735101**

.....Applicant(s)

Versus

**1. State of West Bengal
Service through the Chief Secretary,
Government of West Bengal
Having its office at "Nabanna", Howrah 325,
Sarat Chatterjee Road, Shibpur, Howrah 711102**

**2. State of West Bengal
Service through the Principal Secretary,
Department of Forest having its office at Aranya Bhawan,
LA-10A, Block III, West Bengal, Kolkata 700098**

**3. Jalpaiguri Forest Corporation Division
Government of West Bengal, service through the Divisional
Manager, having its office at SJDA Composite Complex, P.O.
Denguajhar, District Jalpaiguri-735121**

**4. West Bengal Forest Department Corporation Limited
Wholly owned by Government of West Bengal, Service through
the General Manager (North), having its office at KB19, Sector-
III, Salt Lake, Kolkata 700098**

5. State of West Bengal service through the Divisional Forest Officer, Jalpaiguri District, Forest Department, Govt. of West Bengal having its office at Aranya Bhawan, P.O. & Dist. Jalpaiguri-735101

6. State of West Bengal Service through the Principal Chief Conservator of Forest, Head of Forest Force, Forest Department, having its office at Aranya Bhawan, 10A, Block LA, Sector III, Salt Lake City, Kolkata 700098

7. District Magistrate, Jalpaiguri
Jalpaiguri District, State of West Bengal,
Collectorate Building Jalpaiguri-735101

8. Secretary, Ministry of Environment Forest and Climate Change
Indira Paryavaran Bhawan, Jorbag, New Delhi-110003

9. Ministry of Road Transport & Highways
Through its Secretary, Transport Bhawan,
1, Parliament Street, New Delhi-110001

10. Ministry of Railways
Notice through the Chairman Railway Board,
Rail Bhawan, 1, Raisinha Road, New Delhi-110001

....Respondent(s)

With

ORIGINAL APPLICATION No. 124/2017/EZ

IN THE MATTER OF:

1. Sri Biswajit Mukherjee
Son of late Ajit Kumar Mukherjee, residing at Burrabazar,
Chandannagar, District Hooghly-712136

2. Paribesh Premi Joutha Mancha

A organization, working for protection of environment, having their office at Gorumara, Post and P.S. Lataguri, District Jalpaiguri, West Bengal being represented by its convenor Anirban Majumdar, a resident of Gorumara, Post and P.S. Lataguri, District Jalpaiguri, West Bengal-735219

....Applicant(s)

Versus

1. Union of India

Service through the Principal Secretary,
Ministry of Environment, Forest & Climate Change,
Having its head office at Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi-110003

2. Principal Secretary, Ministry of Road, Transport & Highways,
Having its head office Parivahan Bhawan, 1, Parliament Street,
New Delhi-110001

3. Principal Secretary, Ministry of Railways,
Having his office at Rail Bhawan, 1, Raisina Road, New Delhi-
110001

4. State of West Bengal
Service through the Chief Secretary, having office at NABANNA,
325, Sarat Chatterjee Road, Shibpur, Howrah-711102

5. The Chairman, West Bengal Pollution Control Board
Having office at Paribesh Bhavan, 10-A, Block LA, Sector-III,
Salt Lake City, Kolkata-700098

6. The Principal Secretary,
Department of Environment, Govt. of West Bengal,
Pranisanpad Bhawan, LB-2, Sector-III, Bidhannagar, Kolkata-
700106

7. The Principal Secretary,
Department of Public Works Department, Govt. of West Bengal,
Having its office at NABANNA, 325, Sarat Chatterjee Road,
Howrah-711102

8. The District Magistrate

Jaalpaiguri District, Govt. of West Bengal,

Having his office at Jalpaiguri, Post Jalpaiguri, District
Jalpaiguri-735219

9. The Principal Secretary Chief Conservator of Forests & World

Life and Chief Wild Life Warden, Govt. of West Bengal

Having his office at Bikash Bhawan, North Block, 3rd Floor, Salt
Lake City, Kolkata-700091

....Respondent(s)

COUNSEL FOR APPLICANT: (O.A. No. 77THC/2017/EZ)

Mr. Rahul Ganguly, Advocate

COUNSEL FOR RESPONDENTS: (O.A. No. 77THC/2017/EZ)

Mr. Amitesh Banerjee, Sr. Advocate a/w Mr. Sibojyoti
Chakraborty, Advocate for R-1 & PWD,
Mr. Rajib Ray, Advocate for R-2 to 7,
Mr. Gora Chand Roy Choudhury, Advocate for R-8,
Mr. Kalyan Sarkar, Advocate for R-10

COUNSEL FOR RESPONDENTS: (O.A. No. 124/2017/EZ)

Mr. Gora Chand Roy Choudhury, Advocate for R-8,
Mr. Amitesh Banerjee, Sr. Advocate a/w Mr. Sibojyoti
Chakraborty, Advocate for R-4, 6, 7 & 8,
Mr. Sibojyoti Chakraborty, Advocate for R-5,
Mr. Rajib Ray, Advocate for R-9,
Mr. Kaiyan Sarkar, Advocate for R-10

JUDGMENT**PRESENT:**

HON'BLE MR. JUSTICE B. AMIT STHALEKAR (JUDICIAL MEMBER)

HON'BLE MR. SAIBAL DASGUPTA (EXPERT MEMBER)

Reserved On:- 12th November, 2021
Pronounce On:- 25th November, 2021

1. Whether the Judgment is allowed to be published on
the net? Yes
2. Whether the Judgment is allowed to be published in the
NGT Reporter? Yes

JUSTICE B. AMIT STHALEKAR (JUDICIAL MEMBER)

Heard learned Counsel for the Applicant as well as the learned Counsel for the Respondents and perused the documents on record.

2. These two cases are being disposed of by a common order as identical questions of law and facts are involved.

3. The original application has been filed by the applicant No.1 which is a society for protection of Ophiofauna and Animal Rights. The allegation in the original application is that there has been indiscriminate and large scale felling of trees near the Gorumara National Park.

4. It is also alleged that felling of trees is being carried out for the purpose of construction of an over-bridge on National Highway No.717 (previously known as NH 31) in the forest area of Bichabhangra.

5. It is also stated that over-bridges are purportedly constructed over existing railway tracks in order to facilitate traffic movement.

6. It is stated that two trains use the railway line in question throughout the day, i.e., train from New Coochbehar to Siliguri Junction via Changrabandha, New Mal Junction and the other train is from Siliguri Junction to Coochbehar via Changrabandha and therefore it is, contended, that there is no urgency for increasing infrastructural development in the form of further over-bridges since the traffic on the particular National Highway is not heavily affected by the railway traffic.

7. The applicant's contention is that about 551 trees have been earmarked by the Respondent No.5 for felling and that several trees which have already been felled had a circumference of about 60 centimeters or more. The trees earmarked for felling are located within 800 meters of the boundary of Gorumara National Park. It is stated that the entire activity of felling of trees is in violation of the Forest (Conservation) Act, 1980, since these trees fall within 'forest' land as defined in Section 2 of the Forest (Conservation) Act, 1980 and no forest clearance has been granted for felling of such trees.

8. This original application was originally filed as W.P. No. 11096 (W) of 2017 in the High Court of Calcutta and at the time of admission the Division Bench of the High Court had directed that there shall be no felling of trees till the next date of listing i.e. till 10.04.2017.

9. Thereafter, the case was taken up by the Division Bench of the High Court of Calcutta on a mention being made by the counsel for the petitioners that about 3000 trees were to be felled for a rail bridge which would be crossing the railway line near Lataguri. The Division Bench of the High Court by an order dated 10.04.2017 directed the petitioners to file an appropriate petition in the High Court since the National Green Tribunal, Eastern Zone Bench, Kolkata was not functioning and it was directed that the writ petition would be transferred to the National Green Tribunal, Eastern Zone Bench, Kolkata.

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10. Upon transfer the National Green Tribunal, Eastern Zone Bench, Kolkata directed notices to be issued. In the meantime an application was filed before the MoEF&CC for grant of Forest Clearance as required under Section 2 of the Forest (Conservation) Act, 1980 in respect of the area in question and the MoEF&CC by its letter dated 28.09.2017 also accorded approval in principle for Stage-I Clearance with certain conditions. The letter stipulated that the State Government may allow the user agency to commence with the work as per Ministry's Guidelines contained in their letter dated 28.08.2015.

11. On 15.07.2021, Mr. Rahul Ganguli, learned Counsel for the Applicant submitted that the original application had become infructuous in view of the judgment passed by the National Green Tribunal, Principal Bench, New Delhi in *Original Application No. 19 of 2014, Dr. Kashmira Kakati Vs. Union of India & Ors.* dated 08.12.2017 which was followed by the National Green Tribunal, Principal Bench, New Delhi in *Original Application No. 443 of 2018, Society for Protecting Ophiofauna and Animal Rights (SPOAR) Vs. State of West Bengal & Ors.*

12. Directions were given by the Principal Bench of the Tribunal in Paragraph 50 and its sub-paragraphs of the judgment dated 18.12.2017 which read as under:

"50. For the aforesaid reasons discussed in the text of the Judgment we shall make the following direction to be complied by the Central Government and State Government with a view to protect the elephant population and other related issues:

- 1) The Central Government shall in exercise of the power conferred by Section 5 of the Environment Protection Act, 1986 and read with the provisions of Wildlife (Protection) Act 1972 declare the area inhabited or used by elephants as conservation reserves.
- 2) We direct registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines.
- 3) Declare Bogapani Corridor which connects upper Dehing via Bogapani tea estates as forming part of the elephant corridor and issue notification in this regard.
- 4) Conduct a Survey of the elephant population in each state and consequently declare the area surrounding thereto as eco-sensitive zone.
- 5) Declare south Brahmaputra elephant ranges known as Dihing-Patkai Elephant reserve established on 17th April, 2003 by project elephant as the elephant reserve/elephant corridor.
- 6) We hereby restrain the Digboi Town Municipal Corporation from dumping municipal waste and garbage in Dihing-Patkai Elephant Reserve.
- 7) Respondent No. 7 i.e. Oil India Limited to forthwith stop releasing of untreated oil effluent in open sludge pits and seepage areas around oil rigs in the Digboi Oil field which falls within upper Dihing RF (East Block) and the Dihing-Patkai Elephant Reserve.
- 8) We hereby direct Coal India Limited to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve.
- 9) We direct Digboi Town Committee, Assam not to allow any construction activity in and around the Digboi reserve.
- 10) We direct the State of Assam to work out a viable solution for handing over of the abandoned Coal mine of the Coal India Limited to the Forest Department for its proper maintenance and to prevent harm to the flora and fauna.
- 11) We restrain permanent structure including residence in and around Golai Corridors by the Municipalities and Respondent Nos. 5, 6, 7 & 8 or private individuals.

12) We direct Central Government to exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals.

13) Respondent No. 1 to mandate before any proposed development within the established elephant habitat a prior wildlife clearance from the standing committee of the national board of wildlife is mandatory.

14) The Respondent No. 1 shall consult project elephant to specially assess the impact of development as part of EIA process and ensure such assessment under Section 36 (4) of the Bio Diversity Act.

15) We further direct the State Governments to constitute a State Level Committee comprising of Senior Officers headed by the Chief Conservator of Forest to conduct survey of the elephant population in each district in the State and demarcate the area of their habitation.

16) In the first instance the committee shall complete survey within a period of one year and submit the report to the Core Committee.

17) The Core Committee shall be constituted by the Central Government through Ministry of Environment, Forest & Climate Change to be headed by officer not below the rank of Additional or Joint Secretary in the Ministry who shall examine the report received from each State and to recommend declaration of area inhabited by the elephants as elephant reserve or elephant corridors by the Central Government an elephant reserve.

18) The core committee shall recommend to the Central Government further action in the matter relating to protection of elephants, declaration of elephant corridors, elephant reserves and for such other direction as may be necessary to fulfill the recommendation as contained in the Gajah (The Report of the Elephant Task Force).

19) The State level Committee and Core Committee shall submit its report to the Tribunal within a period of one year from now and the Applicant will be entitled to approach this Tribunal for further direction as the circumstances may require."

13. Thereafter, the Respondent No.1, MoEF&CC was directed to file an affidavit showing compliance of the directions given by the National Green Tribunal, Principal Bench, New Delhi as well as the

matter relating to felling of trees in the forest area of Bichabhanga at the periphery of Gorumara National Park for construction of over-bridge.

14. An order was passed on 12.08.2021 observing therein that the MoEF&CC had been directed to file their response with regard to Stage-II Forest Clearance in favour of Public Works Department (Roads) of Govt. of West Bengal for construction of twin 2 lane Road over Bridge (ROB) and its approaches in replacement of level crossing at kms 652.00 of National Highway (NH) 31 between Neora and Lathaguri under Jalpaiguri Forest Division, West Bengal.

15. In pursuance of the directions of the Tribunal dated 15.07.2021 and 12.08.2021, affidavit has been filed by the MoEF&CC bringing on record the compliances of the directions of the Principal Bench of National Green Tribunal and also bringing on record the notification dated 21.12.2018 granting Stage-II Forest Clearance in favour of the Public Works Department (Roads) Directorate and for diversion of 4.031 ha of forest land in its favour for construction of twin 2 lane Road over Bridge (ROB) and its approaches in replacement of level-crossing of kms 652.00 on NH-31 between Neora and Lataguri under Jalpaiguri Forest Division.

16. A copy of the notification has been filed as Annexure-R-1/1 to the affidavit dated 09.08.2021. It is also mentioned therein that the compensatory afforestation shall be raised over 8.062 ha of degraded forest land identified in Range: Diana, Beat: Carron of Jalpaiguri Forest Division against the area of forest land being

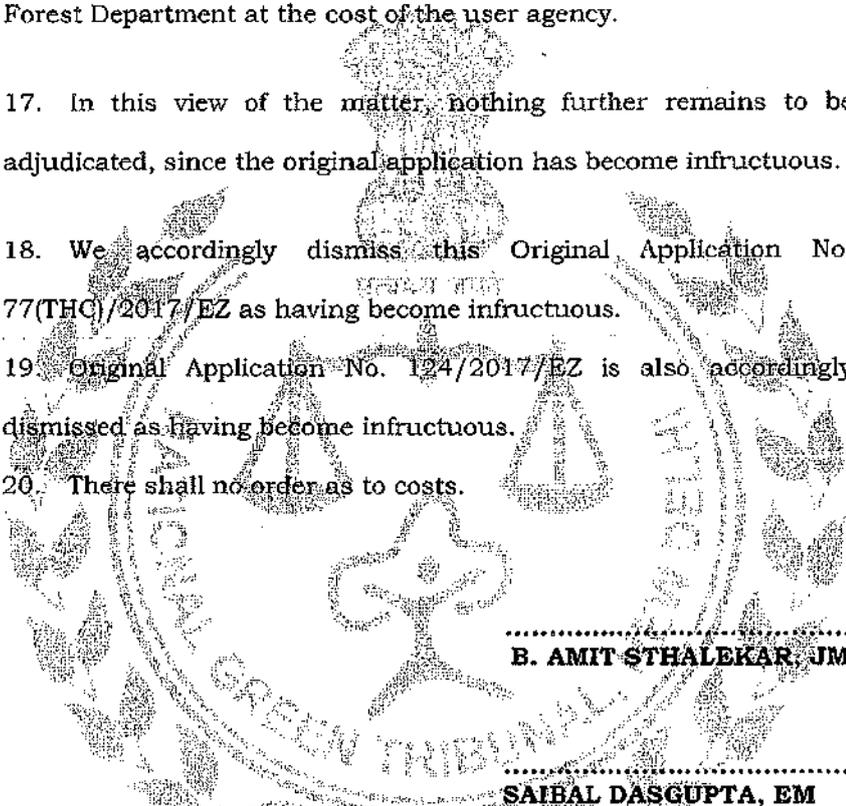
diverted within a period of three years with effect from the date of issuance of Stage-II clearance and maintained thereafter in accordance with the approved plan in consultation with the State Forest Department at the cost of the user agency.

17. In this view of the matter, nothing further remains to be adjudicated, since the original application has become infructuous.

18. We accordingly dismiss this Original Application No. 77(THC)/2017/EZ as having become infructuous.

19. Original Application No. 124/2017/EZ is also accordingly dismissed as having become infructuous.

20. There shall no order as to costs.



.....
B. AMIT STHALEKAR, JM

.....
SAIBAL DASGUPTA, EM

Kolkata
November 25, 2021
Original Application No. 77(THC)/2017/EZ
With
Original Application No. 124/2017/EZ
MN

NOT

Signature

True copy.

True copy

Signature

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F. No. 2-7/98-PE (Vol.II)
Government of India
Ministry of Environment, Forests and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan,
Aliganj, Jor Bagh Road, New Delhi-110003
Dated 22nd August, 2019

OFFICE MEMORANDUM

Sub: Constitution of the Captive Elephant Healthcare and Welfare Committee (CEHWC), Project Elephant, Ministry of Environment Forest & Climate Change (MoEF&CC).

In compliance of the decision taken during the 15th Steering Committee meeting of Project Elephant, a Captive Elephant Healthcare and Welfare Committee Captive is constituted to look into the issues related to healthcare, welfare and management of captive elephants in the country. The composition of the committee is as follows:

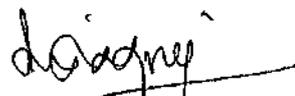
- | | |
|--|-------------------|
| (i) Shri. Noyal Thomas, IGF & Director, Project Elephant | - Chairman |
| (ii) Dr. K. K. Sharma, Member, Steering Committee,
Project Elephant | - Member |
| (iii) Dr. Easwaran E.K., Sr. Forest Veterinarian, Kerala Forest
Department, Kerala | - Member |
| (iv) Dr. Rajeev, Professor Kerala Veterinary University, Kerala | - Member |
| (v) Dr. N. S Manoharan, Addl. Director, Department of Animal
Husbandry, Government of Tamil Nadu | - Member |
| (vi) Dr. Bhaskar Choudhary, Coordinator & Head Veterinarian,
Wildlife Trust of India, Manas Tiger Reserve | -Member |
| (vii) Dr. Prajna Panda, Consultant, Elephant Cell, MoEF&CC | -Special Invitee |
| (viii) Dr. K. Muthamizh Selvan, Scientist D, Project Elephant | - Member Convener |

2. The Committee shall have the following Terms of References:

- (i) To suggest the detailed veterinary care plan for management of the captive elephants to be implemented by the Government and private agencies
- (ii) To suggest the various activities for which the captive elephants could be utilized while fully ensuring welfare and wellness of the captive elephants.
- (iii) To review the functioning of the existing state level captive elephant welfare committees.
- (iv) Verification of health status of captive elephants as and when referred by the Ministry of Environment Forest & Climate Change.
- (v) Any other issues related to captive elephants management to be decided by the Ministry.

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3. (i) The committee will be at liberty to constitute a inspection team/sub committee of veterinary experts for fulfilling the mandate assigned to it or may also visit the captive elephant sites for the verification of the health status of the captive elephant/s for discharging its duties.
- (ii) The travelling allowance, daily allowance and sitting fees etc. will be payable to Non-official members of the Committee through RTGS as per SR-190 after submission of original bills of Airlines, Taxi etc. whereas official members will get TA/DA from their respective organizations.
4. The term of the Captive Elephant Healthcare and Welfare Committee (CEHWC) shall be for two years from the date of issue of this Office Memorandum and extendable depending on the completion of the tasks assigned.
5. This issues with the approval of the Hon'ble Minister, Environment, Forests & Climate Change.



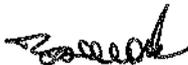
(Dr. K. Muthamizh Selvan)
Scientist 'D' (Project Elephant)
Email id: km.selvan@gov.in
Telephone No. 011-24695067

Distribution:

- All the members of the Committee.
- The Principal Chief Conservator of Forests & Chief Wildlife Wardens, All Elephant Range States.

Copy to:

- PS to Hon'ble Minister, EF&CC
- PS to Hon'ble MoS, EF&CC
- PPS to Secretary, MoEF&CC
- PPS to DGF&SS, MoEF&CC
- PPS to Addl. DGF (WL), MoEF&CC
- PPS to IGF (WL), MoEF&CC
- PPS to Joint Director, PE/WL, MoEF&CC.
- Shri Surender Gugloth, Scientist 'D', MoEF&CC.
- Shri R.K. Srivastava, Consultant, PE, MoEF&CC.



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Annexure R.3

F.No. 7-1/2021-PE

Government of India/ भारत सरकार

Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
(Project Tiger & Elephant Division / व्याघ्र एवं हाथी परियोजना प्रभाग)

6th Floor, Jal Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003
Dated 22nd August, 2023

To

The Principal Chief Conservator of Forests (WL) &
Chief Wildlife Warden,
All States/UTs.

Sub: Report on Elephant Corridors of India -reg.

Madam/Sir,

Elephant is long ranging landscape species which moves from one habitat to another through corridors. Long- term conservation of elephants can be ensured only by maintaining viable population within suitable habitats, which could be well connected, with other habitats by protecting and strengthening the existing corridors.

The Elephant Task Force Report, 2010 'Gajah' had listed 88 elephant corridors in the country. The Ministry had been communicating to the States/UTs to assess the feasibility of protecting and conserving these corridors and take appropriate measures.

In continuation of the efforts being made by the States/UTs, the Ministry along with the support of State Forest Departments initiated the ground validation of elephant corridors across the country in August 2021 and completed the task in July, 2023.

As a result, 150 elephant corridors have been identified with their significance and conservation needs. A report titled "Elephant Corridors of India (2023)" comprising information pertaining to all the identified elephant corridors was released by the Hon'ble Minister, EFCC during the World Elephant Day 2023 held on 12th August, 2023 at Bhubaneswar, Odisha (copy enclosed). The report was deliberated in the 19th Steering Committee meeting of Project Elephant wherein Chief Wildlife Wardens or their representatives were present.

As reiterated in the report, the number of elephant corridors presented is best considered minimum, and can be subject to modification based on the field data and inputs. The States/UTs are requested to take necessary steps to protect and conserve the elephant corridors and keep updating the Ministry with their field inputs and actions taken for further updating the report in future.

A copy of the report is enclosed herewith for consideration and necessary actions.

Yours faithfully,

Encls: As above

 22.8.23

(Ramesh Kumar Pandey)

Inspector General of Forests (PT&E) & Director (PE)

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ELEPHANT CORRIDORS

of India



2023

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भारतीय वन्यजीव संस्थान
Wildlife Institute of India

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*Design Layout & Map: Shri. Virendar Sharma & Shri. Udhayaraj A D.
Photo Credits: Dr. Lakshminarayanan N.*

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ELEPHANT CORRIDORS

of India

2023



सत्यमेव जयते



Ministry of Environment,
Forest and Climate Change,
Government of India



PROJECT ELEPHANT
GOVT. OF INDIA

Acknowledgement

Ministry of Environment, Forests & Climate Change

Shri. Bhupender Yadav, Hon'ble Minister, EF&CC
 Shri. Ashwini Kumar Choubey, Hon'ble MoS, EF&CC
 Ms. Leena Nandan, Secretary, EF&CC
 Shri. Chandra Prakash Goyal, DGF & SS, MoEF&CC

State Forest Departments

Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Karnataka,
 Kerala, Maharashtra, Meghalaya, Nagaland, Odisha, Tamil Nadu, Uttar Pradesh,
 Uttarakhand and West Bengal

Advisors

Dr. Satya Prakash Yadav, ADG (PT&E) & MS (NTCA)
 Shri. Virendara Tiwari, Director, WII
 Shri. Ramesh Kumar Pandey, IGF (PT&E) & Director, Project Elephant

Contributors

Dr. Parag Nigam, Scientist G & Nodal Officer, Elephant Cell, WII
 Dr. Bilal Habib, Scientist F & Associate Nodal Officer, Elephant Cell, WII
 Dr. K.M. Selvan, Scientist E, Project Elephant, EF&CC
 Dr. N. Lakshminarayanan, Project Scientist, Elephant Cell, WII
 Shri. Udhayaraj A.D., GIS Specialist, Elephant Cell, WII

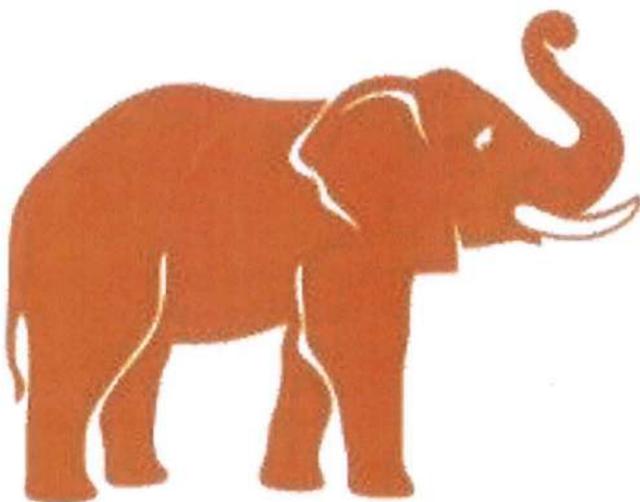
Additional Inputs

Shri. Aditya Bisht, Consultant-B, Project Elephant, MoEF&CC
 Dr. Anil Singh, Landscape Coordinator, Terai Arc Landscape, WWF-India
 Dr. Bibhuti Iahkar, Scientist, Aranyak
 Dr. Prajna Panda, (former) National Coordinator, Elephant Cell, WII
 Dr. D. Bhoominathan, Landscape Coordinator, Nilgiri – Eastern Ghats, WWF-India
 Shri. Rakesh Kalva, Consultant, Andhra Pradesh Forest Department
 Shri. R. Raghuram, Himagiri Wildlife Trust, Chamrajnagar, Karnataka
 Shri. Imnawapang Jamir, PhD scholar, Mizoram University
 Ms. Aakriti Singh, Senior Research Fellow, Elephant Cell, WII

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Preface

Asian elephants (*Elephas maximus*) are among the most endangered species in the world. Currently, elephants occur in highly fragmented populations across 13 range countries in Asia. Among these countries, India holds the largest (> 60%) and one of the most stable elephant populations within its political boundary. India's population of wild elephants has been holding steady in the range of 28,000 to 30,000 during the past decade. This population occurs in 1,00,000 to 1,20,000 km² of diverse habitats across four major elephant-bearing regions in the country. Being a highly mobile species with relatively large home ranges spanning 100 to 3000 km² as recorded in India, integrity of elephant habitats rests on maintaining contiguity between habitat patches.

Wildlife corridors can be envisioned as strips of habitat or movement pathways that connect otherwise disconnected habitat patches. Wildlife corridors facilitate animal movement between habitat patches; and in the process maintain the long-term demographic and genetic viability of elephant populations. It is amply recognized that demographic isolation and lack of genetic viability could threaten elephant populations with extinction risks. Considering this, securing elephant corridors remains a central strategy for elephant conservation in the country. The Indian Government's Elephant Task Force report of 2010 (known as the Gajah report) listed 88 corridors across the country. In India, the elephant corridors have not only been identified, but efforts were invested towards restoration. Due to concerted collaborative efforts involving the state Forest Departments, MoEFCC, and with due support from non-governmental institutions, few of the critical corridors across India have been successfully restored during the last few decades. This include: (1) Kaniyanpura – Moyar corridor in Bandipur landscape of Karnataka (2) Chilla – Motichur corridor in the Rajaji landscape of Uttarakhand (3) Thirunelli – Kudarakote corridor in the Wayanad landscape of Kerala (4) Segur elephant corridor in Mudumalai landscape of Tamil Nadu (5) Kuldiha – Hadgarh corridor in the Similipal landscape of Odisha (6) Edayarahalli – Doddasampige corridor in MM Hills and BR Hills landscape of Karnataka (7) Mudahalli – Talavadi corridor in the BR Hills and Sathyamangalam landscape in Tamil Nadu and Karnataka and a few others that are in the process of being restored.

Drawing from the aforementioned examples across India, it is certain that timely identification and continuous monitoring of elephant corridors often serve as precursors towards successful restoration of elephant corridors. Therefore, institutionalizing management of elephant corridors assumes greater importance in the country. Apropos this standpoint, the Project Elephant, during its 16th Steering Committee meeting held during 2022 under the chairmanship of the Hon'ble Minister of Environment, Forests, and Climate Change, Government of India informed that the task of ground-validating the elephant corridors listed in the Gajah report has been embarked upon in collaboration with the state Forest Departments of the elephant range states. The ground-validation of elephant corridors listed

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in the Gajah report was deemed to be pertinent as the report is over 10 years old and tracking the changes to the corridors would be timely.

The Gajah report listed 88 corridors, which was used as the basis in the current endeavor of ground-validating elephant corridors. Additionally, the elephant range states were also sought to provide the list of identified elephant corridors in their respective states so that those corridors can also be ground-validated for inclusion in the report.

For a long-lived, wide ranging mega-herbivore like elephants that occur in a mosaic landscape comprising of forests interspersed with human-use areas, and often involving two or more states, identifying corridors is challenging. It would require long-term elephant movement data to accurately delineate the boundaries of the elephant corridors. The objective of this report is to just indicate the location of the identified elephant corridors in a map. The exact bounds of the corridor are not provided although some of the states have already demarcated the exact outline of the elephant corridors including that of the land-use within each of the corridor. Some of the states like Odisha for instance have even ground-marked the elephant corridors with demarcation pillars.

The Project Elephant reiterates that the first step towards safeguarding an elephant corridor is to identify it on time. After identification, it would be important to delineate the boundaries both in a map as well as in the ground, and assess the land-use within the corridor. Project Elephant envisions that the exact boundary of all the elephant corridors listed in the report can be delineated following a data-driven approach through the collective efforts of the state Forest Departments, Project Elephant, Research Institutions, and other stakeholders in the future.

A word of caution pertinent to note is that the list of corridors presented in the report is best considered as the minimum number of elephant corridors occurring in the country. Further, the number of elephant corridors presented in the report is subject to modification based on field data and inputs from the State Governments, particularly in light of the observed fluxes in elephant movement range use patterns possibly triggered by complex underlying processes. This is particularly true in case of elephant populations, which are often dispersing across landscapes with fluid home ranges as observed in the east-central region.

Given the strategic importance of maintaining habitat connectivity through a network of elephant corridors, it would be pertinent to start periodically monitoring the elephant corridors in line with the periodic population estimation of elephants. Such focused monitoring could not only be helpful in the timely securing of the corridors, but also aid in understanding elephant movement patterns, predicting human-elephant conflict so as to devise proactive conflict mitigation strategies.

**Ramesh Kumar Pandey, IFS
IGF (PT&E) & Director, Project Elephant**

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Synopsis

1. Background:

Securing elephant corridors has long been considered an important strategy to conserve elephants and minimize human-elephant conflict in the Indian context. The Elephant Task Force report of the Government of India (known as the Gajah report) pertaining to the year 2010 listed 88 elephant corridors. During the 16th Project Elephant Steering Committee meeting in April 2022, it was reflected that the Gajah report was published 13 years prior, and thus, it would be pertinent to ground-validate the status of the elephant corridors in India in the present.

2. Definition of corridor:

- The parsimonious definition of the elephant corridor is that it is a strip of land that facilitates the movement of elephants between two or more viable habitat patches. Movement of elephants away from forest habitats into the human domain without connecting to viable habitat patches may not be considered elephant corridors.
- In this report, the elephant corridors were classified as “active” if effectively used by elephants, as reported by the State Forest Department during ground-validation surveys. The elephant corridors where elephant use was perceived to be virtually nonexistent by the Forest Department were graded as “impaired”. For elephant corridors that were reportedly active, different categories of current use of corridors by elephants have also been mentioned.

3. Approach followed for ground-validation and mapping:

- The Forest Departments have provided the list of elephant corridors for the respective states for ground validation. Such lists also included the interstate elephant corridors. For states that did not provide the list, the corridors listed in the Gajah report of 2010 were used for ground validation. Subsequent to ground validation, the duly filled-in data forms elucidating the attributes of elephant corridors were obtained from the state Forest Departments to prepare the maps and tables presented in the report.
- All the elephant corridors listed in the Gajah report and additionally provided by the state Forest Departments were validated in the field by a joint team of Forest Department personnel from the respective Forest Divisions and personnel nominated by the Project Elephant, often involving experts with local knowledge.
- In maps presented in the report, only the indicative direction of the elephant corridor has been shown. The forest cover map has been used as the base layer. The exact boundaries of the elephant corridor have not been demarcated.

4. Summary:

- A total of 150 elephant corridors were reported from 15 elephant range states across the four elephant-bearing regions of India. For Uttarakhand and Karnataka, both the list of corridors, and the filled-in data forms were not received. Therefore, the list of corridors provided in the Gajah report was used for ground validation.

- West Bengal has the highest number (n = 26) of identified elephant corridors in India, accounting for over 17% of all the reported elephant corridors in the country.
- Among the four elephant-bearing regions, nearly 35% (n = 52) of the elephant corridors were in the East-central region, followed by 32% (n = 48) in the North-east region. The Southern region, which harbors the largest elephant population in India accounts for 21% (n = 32) of the elephant corridors in India. The Northern region that harbours the smallest of the four regional elephant populations, has the least number of elephant corridors, accounting for 12% (n = 18) of all the reported elephant corridors in the country.
- About 84% (n = 126) of the identified elephant corridors occur within the state boundaries. About 13% (n = 19) are interstate elephant corridors that extend into two or more states. There were 6 transnational corridors between India and Nepal.
- In 40% (n = 59) of the elephant corridors, the intensity of use by elephants has reportedly increased. In about 19% (n = 29) of the elephant corridors, the intensity of use by elephants has been observed to be stable with minimal changes during the last few years. However, in another 19% (n = 29) of the elephant corridors, the intensity of use, as observed during the last few years, was perceived to be decreasing. Fifteen (10%) elephant corridors have been impaired over time and would require restoration to facilitate elephant movement.
- Of the 88 elephant corridors that were listed in the Gajah report, 74 were found to be presently active with respect to elephant use.
- To protect and further augment elephant corridors so as to improve the resilience of elephant habitats, continuous monitoring of the elephant corridors would be critical. The priority of the states would be to delineate the boundaries of the elephant corridors and include them in their respective working plans and management plans.

Disclaimer

This report is an outcome of the collective efforts of Project Elephant of the MoEFCC and the State Forest Departments with technical support from the Wildlife Institute of India, and involved the ground validation of 150 elephant corridors across 15 States, which took nearly two years to complete. Being a large mammal with high mobility, elephants are landscape species with dynamic range needs that often span state boundaries. Therefore, the number of corridors presented in the report is best considered a minimum. As and when additional information is obtained from the States, the report will be modified suitably. There are landscapes in which elephant ranges have expanded recently and even extending into States where elephant presence was not reported earlier. In such States, after assessing the long-term prospects of harboring viable elephant populations, a data-driven approach to identifying elephant corridors needs to be prioritized. It is envisaged that the elephant range State Forest Departments continue to monitor elephant corridors in their respective landscapes and furnish information to Project Elephant so that the report can remain updated.

GENERAL INTRODUCTION

Wildlife Corridors in Landscapes Fast Changing

Globally, the natural environment is undergoing rapid changes in the face of human advancement, resulting in fragmentation, shrinkage, and degradation of wildlife habitats. These landscape changes can have profound and widespread implications for biodiversity conservation. In particular, habitat fragmentation can have long-term negative consequences for the persistence of endangered wildlife populations. The rate of fragmentation of natural habitats has been unprecedented in the known history of the planet. Given this, the long-term persistence of several species of wildlife would depend on their ability to survive in human-dominated fragmented landscapes. In such human-dominated landscapes, wildlife movement is often facilitated by the network of corridors.

Wildlife corridors are referred to in different terms, like 'conduits', 'landscape linkages', 'stepping stones', 'green belts', 'green ways', and myriad others (Bennet, 2003). All these different terms tacitly imply that wildlife corridors are essentially landscape linkages that facilitate wildlife movement between habitat patches in fragmented landscapes. As corridors are directly beneficial in buffering wildlife populations from the perils of habitat fragmentation, they have become a cornerstone for wildlife conservation across the globe. Wildlife corridors help retain permeability between habitat patches and enable animal movement. Vital functions of wildlife corridors include facilitation of wildlife dispersal; seasonal migrations, and gene flow within and across populations. For large herbivores like elephants with voluminous range needs, corridors are also essential in mitigating human-wildlife conflict in human-dominated landscapes. Loss and degradation of corridors can exacerbate threats of population isolation, such as inbreeding within a small group of animals, that compromise the long-term viability of wildlife populations.

There are three extant species of Proboscideans in the world. Among them, two species, namely *Loxodonta Africana* and *Loxodonta cyclotis* occur in Africa. The third species, *Elephas maximus* occurs in Asia, where it is distributed in 13 range countries in the wild. The Asian elephant range has suffered major contraction and fragmentation (Leimgruber et al 2003). The remnant populations occur as "metapopulations", whereby, otherwise geographically isolated elephant populations are connected through the dispersal of a few individual elephants. Such dispersals are often facilitated by the network of wildlife corridors. Since elephant habitats in India are distributed over human-dominated areas, maintaining connectivity among populations is achieved through a network of corridors. In the Indian context, an elephant corridor is usually a linear strip of vegetation that provides a pathway between two or more forest patches.

Distribution and Population of Elephants in India

The global population of the *Elephas maximus* is around 50,000 (Williams et al. 2020). In that c. 30,000 (>60%) elephants occur within the political boundary of India. The distributional range of elephants in India is around 1,00,000 to 1,20,000 km². Within India, elephants occur in four broad geographic regions namely the Northern, North-east, East-central and Southern with discrete regional metapopulations.

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Additionally, there is a small population of feral elephants in the Andaman & Nicobar Islands. The region-specific elephant population is provided in Table-1.

Table-1: Population Estimates of Elephants as per the Synchronized Elephant Census, 2017

S.No	Region	State	Estimate*	
1	Northern	Uttarakhand	1839	
2		Uttar Pradesh	232	
3		Bihar	Not reported. Sporadic	
4		Haryana	7 (sporadic)	
5		Himachal	7 (sporadic)	
6	North-east	Assam	5719	
5		Arunachal Pradesh	1614	
6		Meghalaya	1754	
7		Nagaland	446	
8		Manipur	9	
9		Northern West Bengal	488	
10		Mizoram	7	
11		Tripura	102	
12		East-central	Odisha	1976
13			Jharkhand	679
14			Southern West Bengal	194
15	Chhattisgarh		247	
16	Madhya Pradesh		7	
18	Southern	Karnataka	6049	
19		Kerala	5706	
20		Tamil Nadu	2761	
21		Andhra Pradesh (southern)	65	
22		Maharashtra (southern)	6	
23	Island	Andaman & Nicobar	Not available	

* The population status of elephants in many states have changed since the 2017 synchronized elephant census. The all-India population estimation is currently being carried out and the country-wide estimates are expected to be available by end of 2023.

An Overview of Elephant Corridors in India

In India, the importance of corridors in maintaining integrity of elephant habitats is long recognized. Pioneering scientific studies on elephant ecology across different landscapes of the country using field intensive methods like the radio-telemetry and other approaches have indicated elephant home ranges to be large spanning 100 to 3,000 km² of diverse habitats (Sukumar, 2003). These home ranges often encompass forest patches connected through a network of elephant corridors.

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As a Pan-India effort, with support from the Project Elephant, the Wildlife Trust of India (WTI) came up with "Right of Passage: Elephant Corridors of India" during the year 2005. The Right of Passage provided a comprehensive insight into elephant corridors across the four regional landscapes. Subsequent to this, the Elephant Task Force of the Government of India listed 88 corridors in to the Gajah report published during 2010.

In addition to these published reports on elephant corridors, numerous State Forest Departments of the elephant range states have also taken cognizance of the importance of corridors and started objectively identifying them by closely monitoring elephants. The States have also included the corridors in the working plans of the territorial divisions and the management plans of the protected areas.

Scope of the Report

- In the report, elephant corridor is defined as the pathway/s that elephants use to move between habitat patches to fulfill basic life history requirements, including within home range habitat-use, seasonal migrations, and dispersal. The occasional movement of elephants into new areas that do not have viable habitats to support elephant populations is not considered a corridor.
- In the report, elephant corridors are depicted as indicative pathways connecting habitat patches. The length and width of the elephant corridor provided in the report are indicative. The exact dimension of the corridor is not provided, as very few States have delineated the boundaries of the elephant corridor. Based on the indicative location of the elephant corridors, it is desired that the State Governments demarcate the boundaries of the corridors using data on forest cover, elephant movement, land-use, and human–elephant conflict around the corridors.
- The current status of elephant use of the corridors was ascertained based on the information provided by the State Forest Departments during the ground validation surveys carried out by the teams nominated by Project Elephant. For ground validation, a structured questionnaire was provided to the field officers of the Forest Department (Annexure-3). All the elephant-range States in the country, with the exception of Uttarakhand, Karnataka and Chhattisgarh have sent the duly filled-in questionnaires from which the basic details were collated. For Chhattisgarh, the elephant corridors were identified by the Wildlife Institute of India in consultation with the Chhattisgarh Forest Department. For Uttarakhand and Karnataka, details of the elephant corridors were obtained from the Gajah report and Right of Passage (2017 version)
- It is important to note that unlike the seasonal intensity of habitat-use, important functions of the corridors like gene flow and dispersal are difficult to assess in the field, even if elephants are regularly monitored. Therefore, the current status of corridors elucidated in the report is to be considered indicative.
- Elephant corridors are dynamic landscape elements that can be potentially influenced by myriad factors like elephant distribution, abundance, habitat configuration, and other landscape characteristics. Therefore, the corridors listed for each region and the state therein are best

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considered minimum. In regions where elephant distribution is fluid, such as in the states of the east-central region, delineating corridors can be challenging as elephants keep shifting their ranges constantly. Similarly, in highly fragmented landscapes where the forests and human-use areas are highly interspersed and thus the boundaries are diffuse, delineating corridors is challenging.

Approach Followed in the Report

1. Ground Validation

For every elephant range State in India, a committee comprising members from Project Elephant and experts from other institutions was constituted. The committee's mandate was to visit the elephant corridors along with Forest Department officials and fill out the questionnaire provided by Project Elephant, which gauges whether the corridor is active or not. The committee worked under the direct supervision of the Director, Project Elephant and the Chief Wildlife Wardens of the respective States. The duly filled-in datasheets were forwarded to the Project Elephant Division by the respective States.

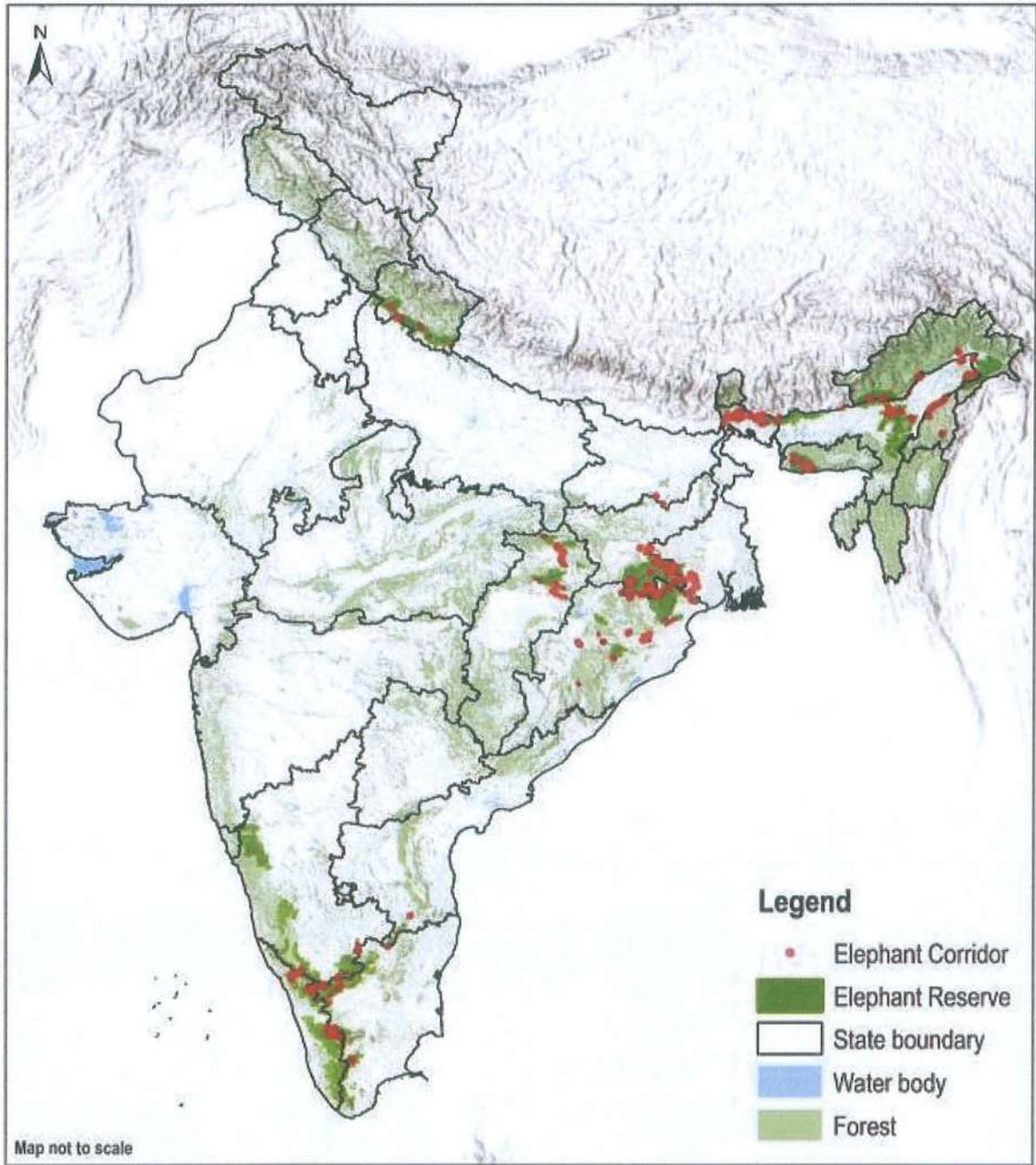
2. Mapping

Mapping elephant corridors entailed indicating the location of the corridor (through a series of arrows) on a forest cover raster layer overlaid with administrative boundaries like forest beats, forest divisions, and protected areas. The outline boundaries of the corridors were not provided.

3. Organization of the Report

The elephant corridors detailed in the report have been organized based on the four regional elephant populations. Corridor-specific maps, along with baseline information related to dimensions, administrative details, intensity of use by elephants, and the current status of use, were provided in a table. Wherever appropriate, recommendations provided by the Forest Department staff to improve the status of the corridors were included.

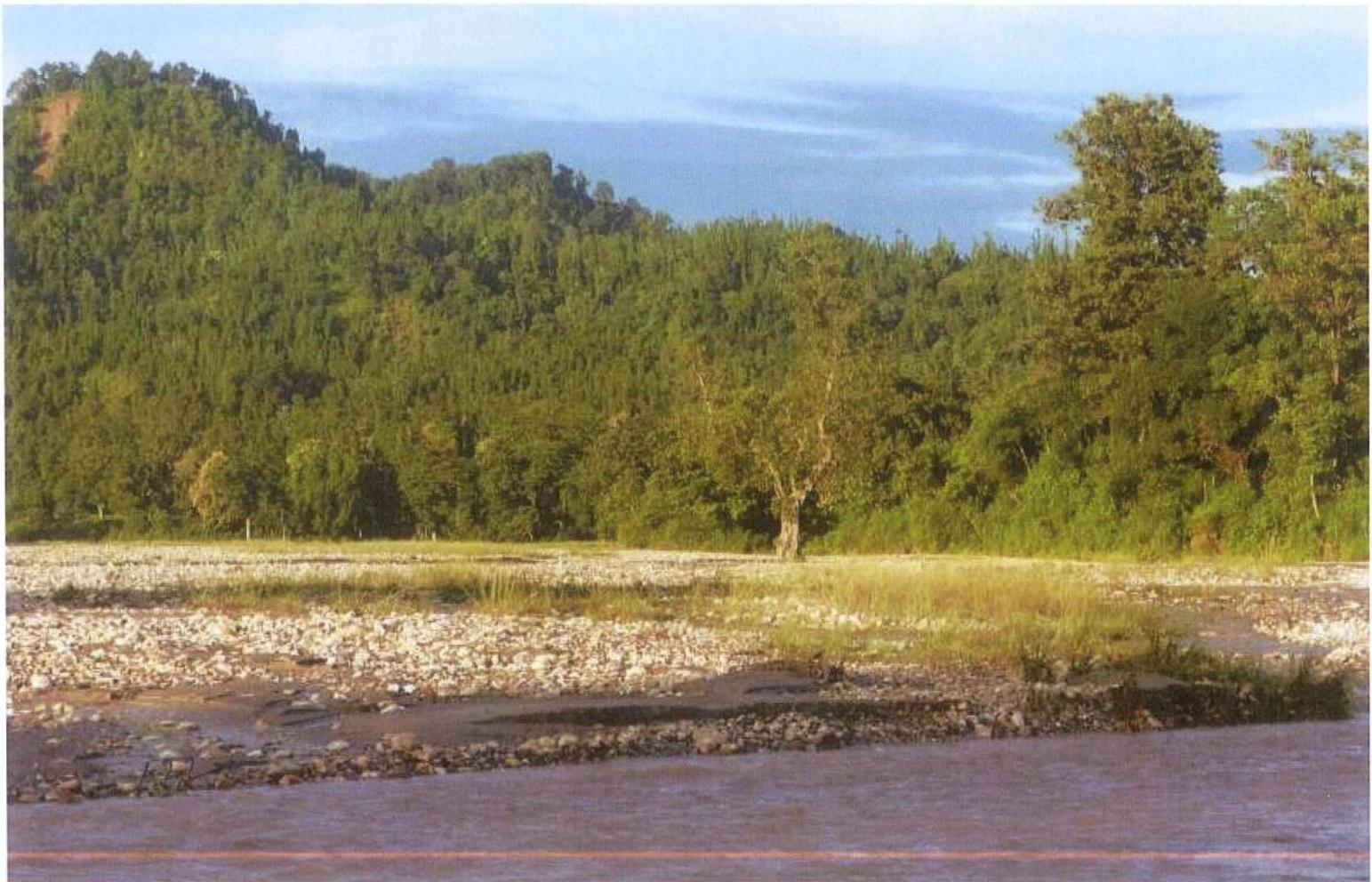
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Elephant corridors of India as on 2023

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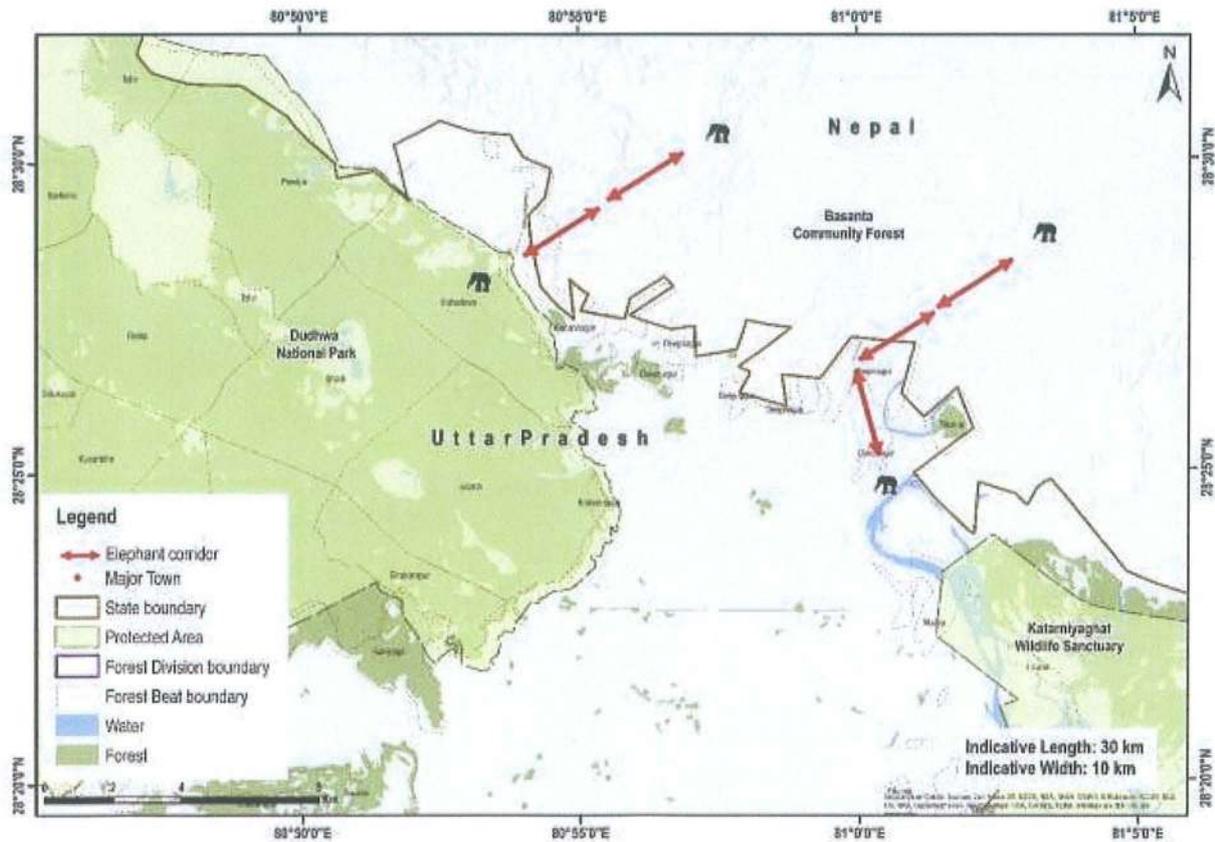
Elephant Corridors **Northern Region**



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1. Basanta Corridor (transnational corridor)

Connectivity	This corridor connects the Dudhwa National Park, India to Bardia National Park, Nepal. This is a transboundary corridor with majority of its portion in Nepal, and a very narrow connectivity exists with Dudhwa National Park. There are two different routes used by elephants pertaining to this corridor.
State	Uttar Pradesh (and Nepal)
Indicative length and width	Length = 30 km, Width = 10 km
Geo Coordinates	28.464199°, 80.908027°
Forest ranges falling within corridor	North Nighasan and Belrayan range
Revenue villages falling within corridor	5
Ecological importance	Basanta corridor is used by elephants for movement between Dudhwa NP, India and Bardia NP, Nepal
Habitat type	Sal and Mixed forest
Major land use	River, Forest, Agricultural land and Settlements
Elephant movement status	Seasonal
No. of elephants using the corridor	13
Major bottleneck	Near Raghunagar in Indian side and along Mohana river in Nepal side
Linear infrastructure in the corridor	Proposed Indo-Nepal Border road
Recommendations by the forest department to improve the corridor	1) Trans-boundary co-operation with Nepal to jointly restore Basanta corridor. 2) Build flyover along Indo-Nepal Border Road 3) Regular and intensive monitoring of elephants jointly with Nepal 4) Radio-collaring of elephants to understand habitat use and migratory routes
Current status of the corridor	Active. Intensity of use by elephants stable.

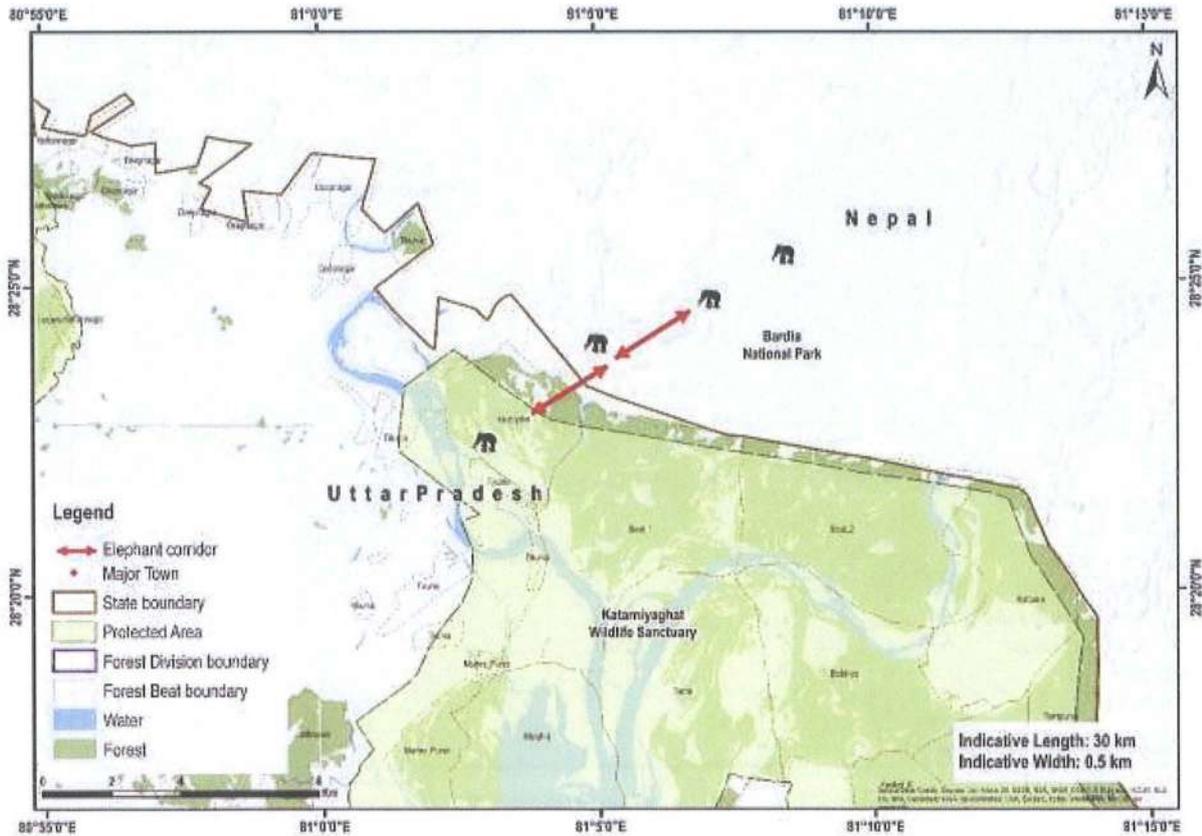


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3206

2. Chhedia Corridor (transnational corridor)

Connectivity	This corridor connects the Katerniaghat Wildlife Sanctuary, Bahraich in the Indian side with Bardia National Park, Bardia district in Nepal. This is a transboundary corridor with majority of its portion in Nepal, and with a very narrow connectivity existing with Katerniaghat Wildlife Sanctuary
State	Uttar Pradesh (and Nepal)
Indicative length and width	Length = 30 km, Width = 0.5 km
Geo Coordinates	28.399743°, 81.063869°
Forest ranges falling within corridor	Katerniaghat range
Revenue villages falling within corridor	2
Ecological importance	Chhedia corridor is used by elephants to move between Katerniaghat WLS, India and Bardia NP, Nepal. Tigers and rhinos also move between Katerniaghat WLS and Bardia NP via this corridor
Habitat type	Sal and Mixed forest with interspersing riverine tracts
Major land use	River, Forest, Agricultural land and Settlements
Elephant movement status	Seasonal
No. of elephants using the corridor	56
Major bottleneck	Rapid expansion of human habitation in Nepal side, dependency of people on forest corridor
Linear infrastructure in the corridor	Proposed Indo-Nepal Border road
Recommendations by the forest department to improve the corridor	1) Trans-boundary co-operation with Nepal to jointly restore Basanta corridor. 2) Build flyover along Indo-Nepal Border Road 3) Regular and intensive monitoring of elephants jointly with Nepal 4) Radio-collaring of elephants to understand habitat use and migratory routes
Current status of the corridor	Active. Intensity of use by elephants stable.



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3. Dudhwa-Katerniaghat Corridor

Connectivity	This corridor connects the Katerniaghat Wildlife Sanctuary with Dudhwa National Park.
State	Uttar Pradesh
Indicative length and width	Length = 13 km (along Mohana river in north and 20 km along Suheli river in south), width = 10 km
Geo Coordinates	28.352212°, 80.967671°
Forest ranges falling within corridor	Belrayan and Katerniaghat range
Revenue villages falling within corridor	60
Ecological importance	Dudhwa-Katerniaghat corridor is used by elephants to move between Dudhwa NP and Katerniaghat WLS through buffer zone of Dudhwa TR
Habitat type	Northern tropical semi-evergreen forest, northern Indian moist deciduous forest, tropical seasonal swamp forest and northern tropical dry deciduous forest.
Major land use	Predominantly agricultural
Elephant movement status	Occasional
No. of elephants using the corridor	13 elephants in Belrayan range of Dudhwa NP 66 elephants in Katerniaghat range of Katerniaghat WLS
Major bottleneck	Mohana river and Suheli river are critical areas whereas human habitations act as bottleneck
Linear infrastructure in the corridor	1) Proposed Indo-Nepal Border road 2) Meter gauge from Mailani to Nanpara
Recommendations by the forest department	1) Regular and intensive monitoring of elephants 2) Developing participatory conservation approach to allow safe passage for elephants through farmlands 3) Radio-collaring of elephants to understand habitat use and migratory routes
Status of the corridor	Active. Intensity of use by elephants stable.

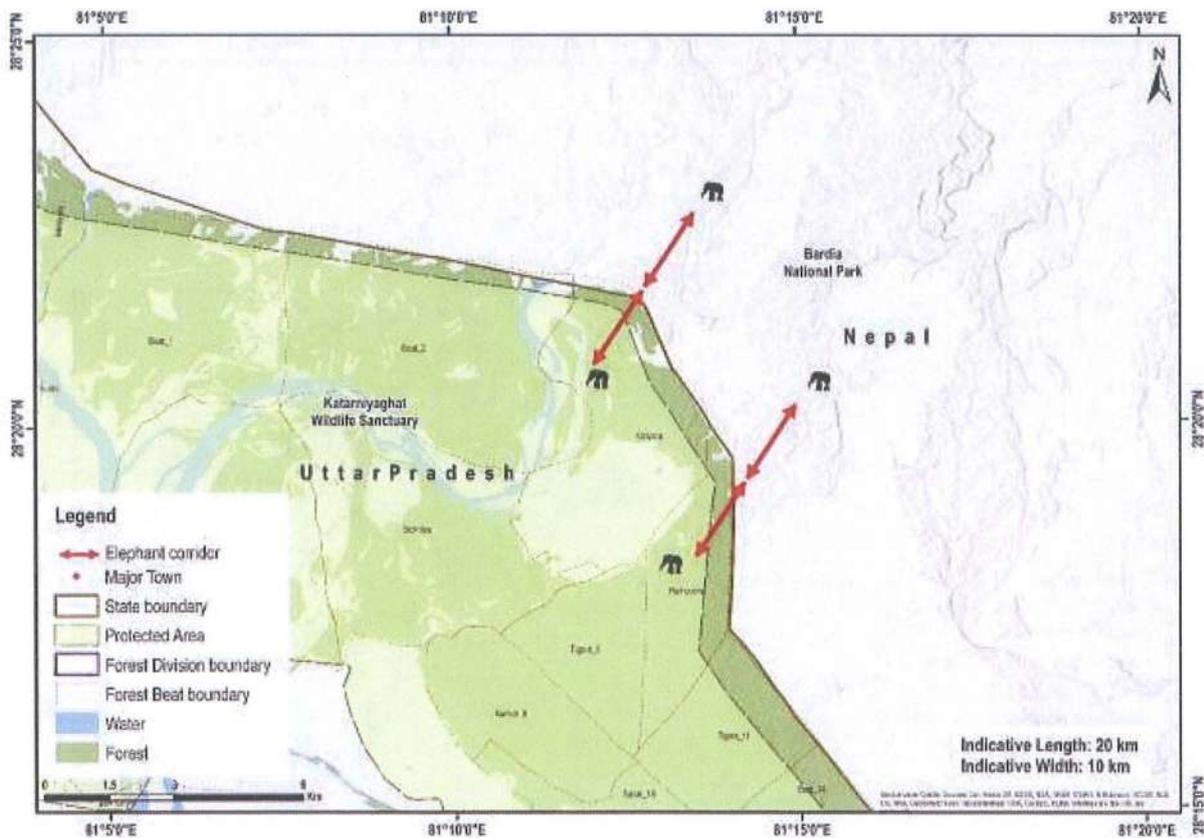


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3208

4. Khata Corridor (transnational corridor)

Connectivity	This corridor connects the Katerniaghat Wildlife Sanctuary, India and Bardia National Park, Nepal. This is a transboundary corridor.
State	Uttar Pradesh (and Nepal)
Indicative length and width	Length = 20 km, Width = 10 km
Geo Coordinates	28.357627°, 81.213294°
Forest ranges falling within corridor	Katerniaghat and Nishangara Ranges
Revenue villages falling within corridor	5
Ecological importance	Khata corridor is used by elephants to move between Katerniaghat WLS, India and Bardia NP, Nepal. Tigers (<i>Panthera tigris</i>) and rhinos (<i>Rhinoceros unicornis</i>) also move between Katerniaghat WLS and Bardia NP via Khata corridor
Habitat type	Sal and Mixed forest
Major land use	River, Forest, Agricultural land and Settlements
Elephant movement status	Regular
No. of elephants using the corridor	56 elephants in Katerniaghat range
Major bottleneck	Near Katiyara and Rampurwa beats in Indian side and Khata area in Nepal side
Linear infrastructure in the corridor	1) Proposed Indo-Nepal Border road 2) About 10 km of high-tension power line
Recommendations by the forest department to improve the corridor	1) Trans-boundary co-operation with Nepal to jointly restore Khata corridor 2) Deploying sufficient mitigation measures like flyover along Indo-Nepal border road 3) Regular and intensive monitoring of elephants jointly with Nepal 4) Radio-collaring of elephants to understand habitat use and migratory routes
Current status of the corridor	Active. Intensity of use by elephants stable.



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3209

5. Laggabagga-Tatarganj-Shukhlaphanta Corridor (transnational corridor)

Connectivity	This corridor connects the Pilibhit Tiger Reserve and Buffer Zone Division (North Kheri), Dudhwa Tiger Reserve, India to Shukhlaphanta National Park, Nepal
State	Uttar Pradesh (and Nepal)
Indicative length and width	Length = 25 km, width = 10 km
Geo Coordinates	28.765669° 80.199006°
Forest ranges falling within corridor	Barahi and Sampuranagar ranges
Revenue villages falling within corridor	25
Ecological importance	Lagga-bagga corridor is used by elephants and other mammals viz. tiger (<i>Panthera tigris</i>), leopard (<i>Panthera pardus</i>), rhinos (<i>Rhinoceros unicornis</i>) and swamp deer (<i>Rucervus duvaucelli</i>) to move between Pilibhit TR in India and Shukhlaphanta NP, Nepal.
Habitat type	Sal-dominated mixed forest and grasslands
Major land use	River, Forest, Agricultural land and Settlements
Elephant movement status	Seasonal
No. of elephants using the corridor	22
Major bottleneck	Near Tharupatti, Gunhan, Tatarjang in Indian side
Linear infrastructure in the corridor	Proposed Indo-Nepal Border road
Recommendations by the forest department to improve the corridor	1) Trans-boundary co-operation with Nepal to jointly restore Lagga-Bagga corridor 2) Deploying sufficient mitigation measures like flyover along Indo-Nepal border road 3) Regular and intensive monitoring of elephants jointly with Nepal 4) Radio-collaring of elephants to understand habitat use and migratory routes
Current status of the corridor	Active. Intensity of use by elephants increased.

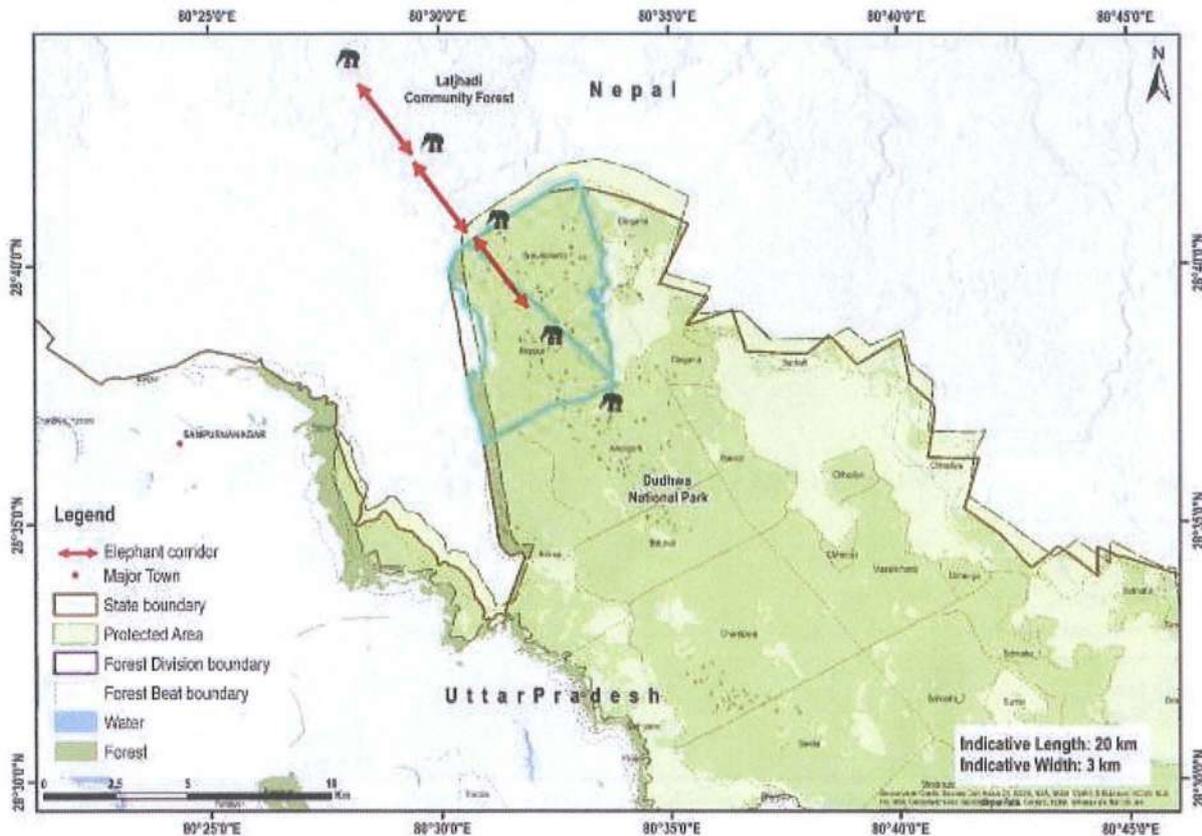


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3210

6. Laljhadi Corridor (transnational corridor)

Connectivity	This corridor connects Dudhwa Tiger Reserve, India to Shukhphanta National Park, Nepal. This is a transboundary corridor with majority of its portion in Nepal side and a very narrow connectivity along Dudhwa NP
State	Uttar Pradesh (and Nepal)
Indicative length and width	Length = 20 km, width = 3 km
Geo Coordinates	28.669241°, 80.502309°
Forest ranges falling within corridor	Gauriphanta range
Revenue villages falling within corridor	1
Ecological importance	Laljhadi corridor serves as a migratory route for elephants for movement between Dudhwa NP, India and Shukhphanta NP, Nepal
Habitat type	Sal and Mixed forest
Major land use	River, Forest, Agricultural land and Settlements
Elephant movement status	Seasonal
No. of elephants using the corridor	79
Major bottleneck	Rapid expansion of human habitations in Nepal side
Linear infrastructure in the corridor	1) State Highway 90 (Palia to Gauriphanta road) 2) Proposed Indo-Nepal border road 3) Trench for 2 km
Recommendations by the forest department to improve the corridor	1) Transboundary co-operation with Nepal to jointly restore Laljhadi corridor. 2) Afforestation along Donda river on Nepal side to develop cover for wildlife 3) Deploying sufficient mitigation measures like flyover along Indo-Nepal border road 4) Regular and intensive monitoring of elephants jointly with Nepal 5) Radio-collaring of elephants to understand habitat use and migratory routes
Current status of the corridor	Active. Intensity of use by elephants stable.

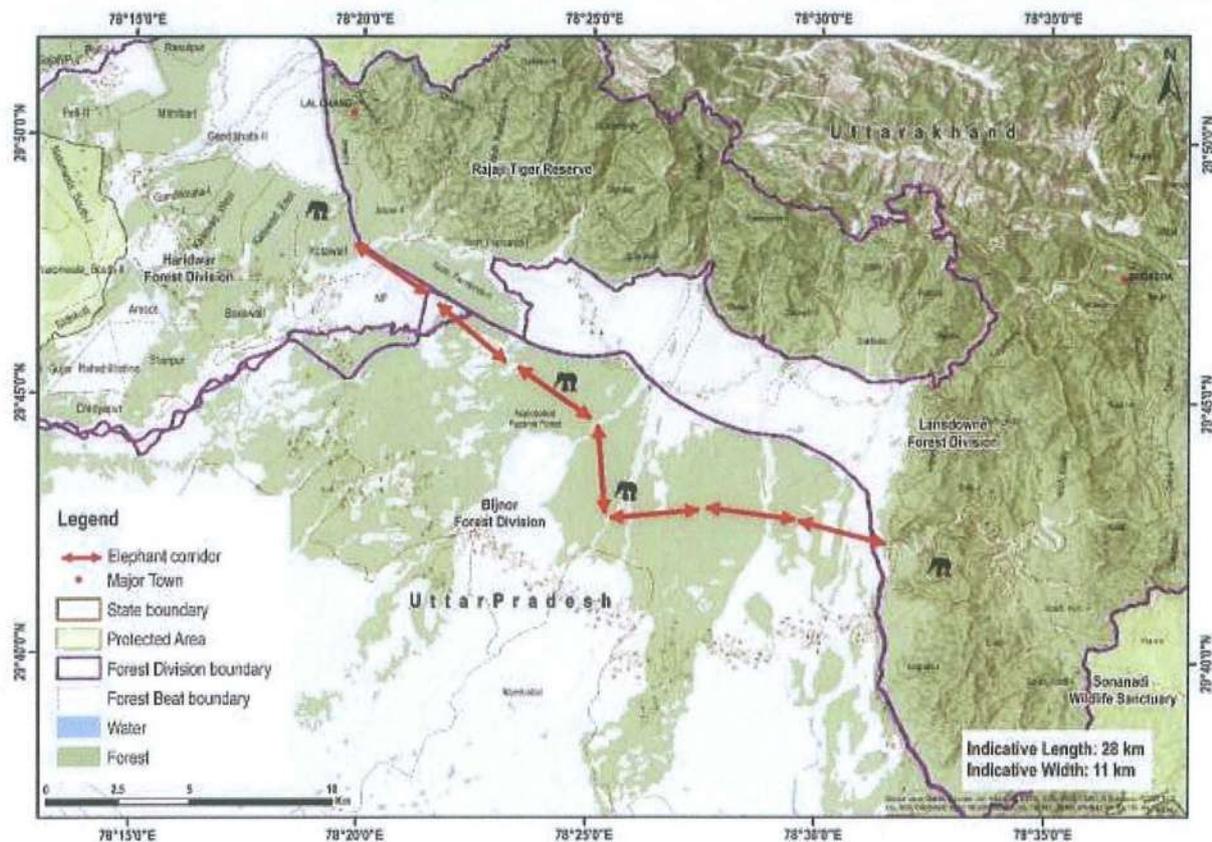


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3211

7. Rawasan- Sonanadi (Rajaji - Corbett) Corridor (interstate corridor)

Connectivity	This corridor connects Sonanadi Wildlife Sanctuary to Rajaji Tiger Reserve through the Bijnor Plantation Forest Division close to Najibabad
State	Uttar Pradesh and Uttarakhand
Indicative length and width	Length = 22 km, Width = 11 km
Geo Coordinates	29° 40' 46" - 29° 48' 9" N 78° 19' 31" - 78° 31' 38" E
Forest ranges falling within corridor	Bahrhapur, Kauraya, Sahanpur and Rajgarh Ranges
Revenue villages falling within corridor	5 villages and 12 settlements
Ecological importance	This is an important corridor used by elephants and tigers moving between Corbett and Rajaji Tiger Reserves.
Habitat type	Tropical dry deciduous forest and forest plantations.
Major land use	Forests, settlements
Elephant movement status	Regular
No. of elephants using the corridor	103
Major bottleneck	1) Farm lands and settlements along the Najibabad – Kotdwar road (NH-119) and railway line 2) Boulder mining in the Malain river 3) Numerous settlements of Van Gujjars
Linear infrastructure in the corridor	1) Meerut- Pauri National highway- 119 with heavy traffic 2) Broad gauge, single track and electrified railway line - 10 km
Recommendations by the forest department to improve the corridor	1) Elevated bridge for Meerut- Pauri Highway 2) Reduced train speed in Najibabad- Kotdwar section 3) Demarcation of the forest boundary and increasing the Protected area on Terai Arc Landscape 4) Purchasing of specific tracts of land in Shankurpur Farm area 5) Reducing the forest dependency of Gujjars.
Current status of the corridor	Active. Intensity of use by elephants increased.

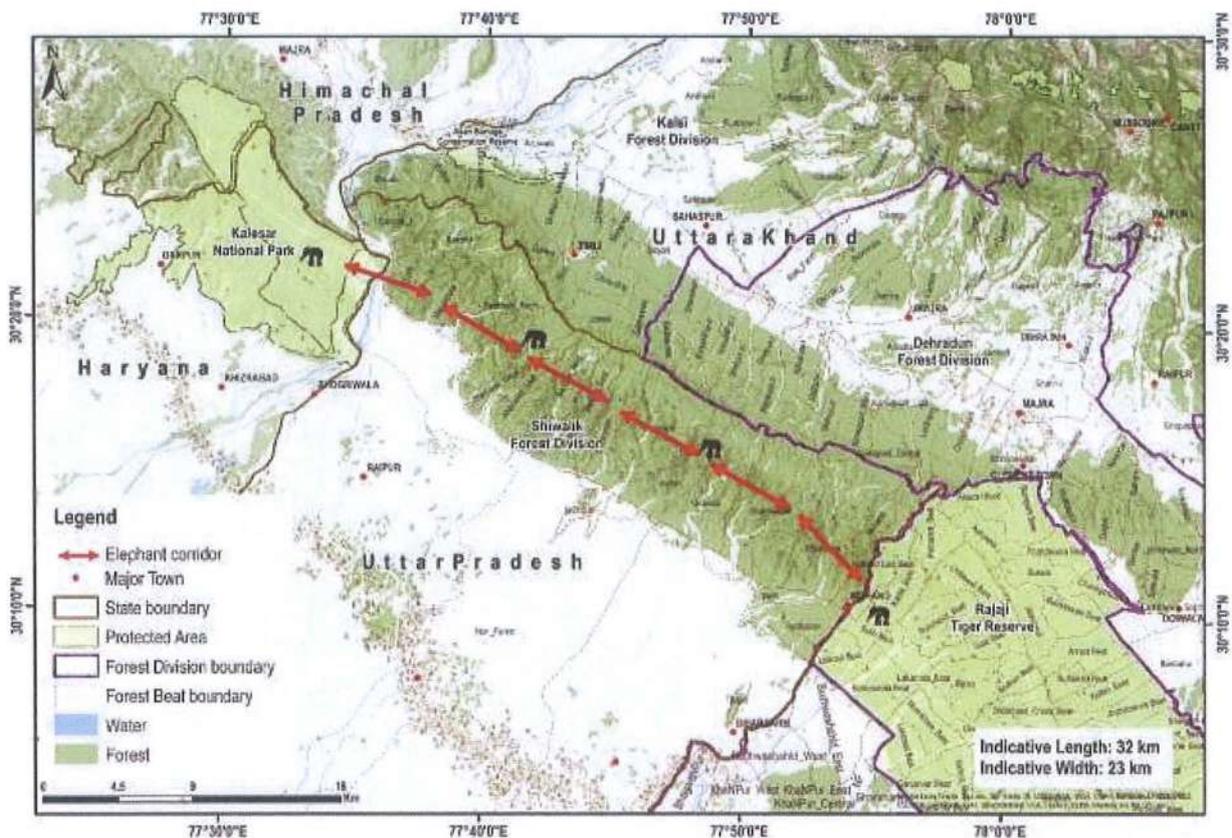


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3212

8. Shivalik Corridor (interstate)

Connectivity	This corridor connects Rajaji Tiger Reserve to Mohand Range to Shakumbri Range to Barkala Range to Kalesar National Park
State	Uttar Pradesh and Uttarakhand
Indicative length and width	Length = 32 km, width = 23 km
Geo Coordinates	30° 0', 30° 25' N 77° 32', 78° 1' E
Forest ranges falling within corridor	Mohand, Shakumbri and Barkala Ranges
Revenue villages falling within corridor	19
Ecological importance	It is one of the major stretches connecting Rajaji NP and Kalesar NP.
Habitat type	Tropical dry deciduous forest
Major land use	Forests and settlements Forest = 33229.46 ha
Elephant movement status	Occasional
No. of elephants using the corridor	18
Major bottleneck	National Highway- 72A (307), Heavy human pressure (by Gujjars)
Linear infrastructure in the corridor	1) National Highway- 72A (307), 18 km 2) Irrigation and power (Eastern Yamuna Canal) - 6 km 3) 400 Kv Dehradun- Abdullapur transmission line in Barkala Range and 400 Kv Dehradun- Baghpatt transmission line in Mohand Range
Recommendations by the forest department to improve the corridor	1) Elevated bridges along canals. 2) Relocation of Gujjars from the corridor area & reducing their dependency on forests. 3) Water holes and habitat improvement work is needed inside the corridor. 4) Eradication of Lantana and other invasive plants. 5) Increase in the number of forest staff and watch towers.
Current status of the corridor	Active. Intensity of use by elephants increased.

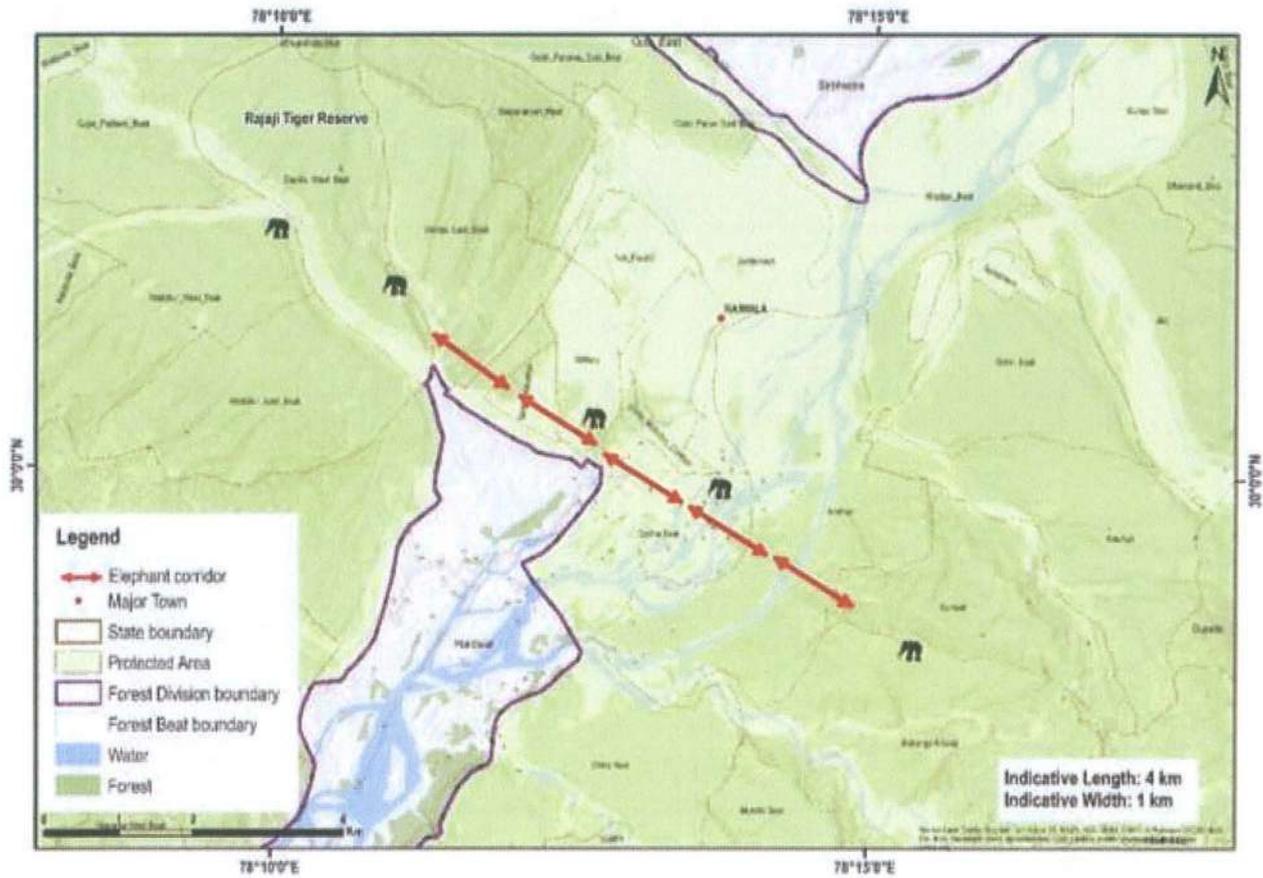


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3213

9. Chilla- Motichur Corridor

Connectivity	This corridor connects Motichur Range with Chilla Range of Rajaji Tiger Reserve across river Ganga through the Motichur river and strip of forests around the river.
State	Uttarakhand
Indicative length and width	Length = 4 km, width = 1 km
Geo Coordinates	30°01'12.8", 78°12'8.1" 30°00'33.9", 78°11'30.6" 30°00'18.2", 78°13'14.2" 30°00'00.2", 78°12'38.2"
Forest ranges falling within corridor	Motichur and Chilla Ranges
Revenue villages falling within corridor	2
Ecological importance	This is a very critical corridor that connects the western Rajaji with eastern Rajaji across river Ganga. The corridor is used by elephants, tigers and other wildlife.
Habitat type	Tropical dry deciduous sal forest and teak plantation
Major land use	Forests and Settlements
Elephant movement status	Regular
Major bottleneck	Khand gaon, Army ammunition dump, settlement area
Linear infrastructure in the corridor	1) National Highway 34 2) 2 km of Haridwar-Raiwala Railway track 3) Canal powerhouse canal in Chilla Range 4) HT power lines, 220 KV & length approx. 500 M, 132 KV, length approx.500 M.
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

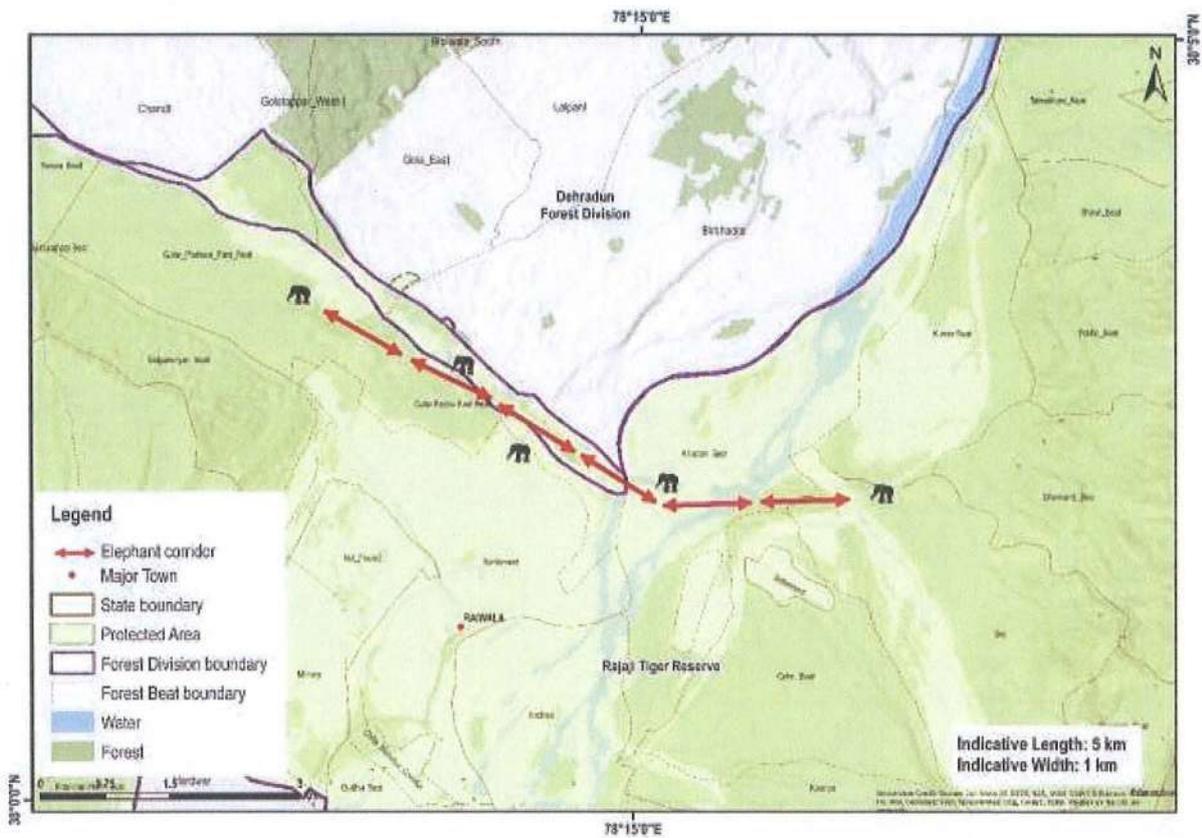


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3214

10. Motichur - Gohri Corridor

Connectivity	This corridor connects the Motichur and Gohri Ranges of Rajaji Tiger Reserve across river Ganga and along the River Song.
State	Uttarakhand
Indicative length and width	Length = 5 km, width = 1 km
Geo Coordinates	30°03'11.42", 78°13' 8.57" 30°03' 8.65", 78°13' 5.68" 30°03' 3.60", 78°13' 1.42"
Forest ranges falling within corridor	Motichur and Gohri Ranges
Revenue villages falling within corridor	2
Ecological importance	This is a very important corridor that connects the Gohri range and Motichur ranges of Rajaji Tiger Reserve across river Ganga and through the river Song.
Habitat type	Tropical dry deciduous sal forest and teak plantation
Major land use	Song River, plantations and forest
Elephant movement status	Seasonal
Major bottleneck	Gaurimafi, Thakurpur, settlement area
Linear infrastructure in the corridor	1) National Highway 34 2) 500m of Raiwala - Rishikesh Railway track
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants decreased.

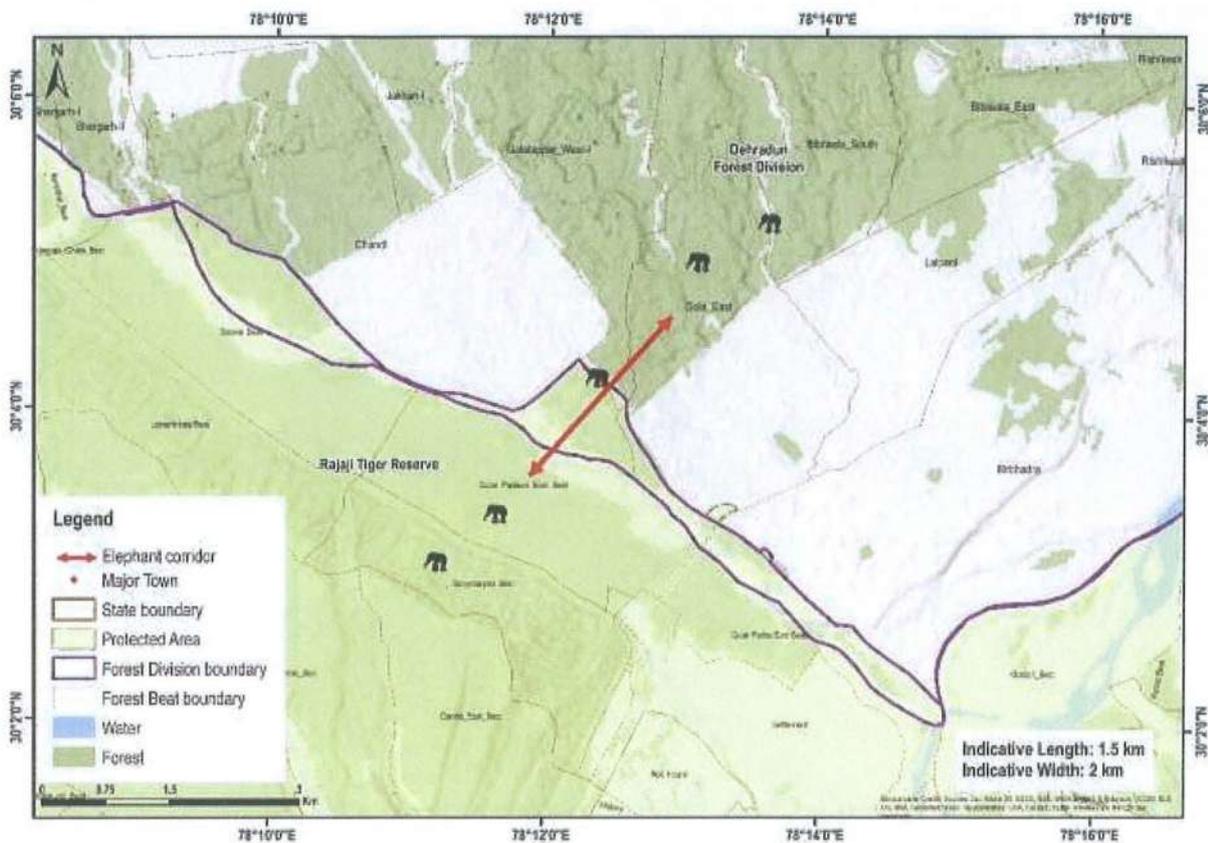


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3215

11. Teenpani Corridor

Connectivity	This corridor connects the Motichur Range of Rajaji Tiger Reserve with the Barkot and Rishikesh Ranges of Dehradun Forest Division.
State	Uttarakhand
Indicative length and width	Length = 1.5 km, width = 2 km
Geo Coordinates	30°04'13.14", 78°12'18.52" 30°04'50", 78°12'24.55" 30°04'16", 78°12'29.95"
Forest ranges falling within corridor	Motichur, Barkot and Rishikesh Ranges
Revenue villages falling within corridor	2
Habitat type	Sal-dominated tropical dry deciduous forest and teak plantation
Major land use	Forests, Agricultural land, River and Settlements
Elephant movement status	Seasonal
Major bottleneck	Sahabnagar, Chidderwala settlement area
Linear infrastructure in the corridor	1) 700m of National Highway 7 2) 400m of irrigation canal 3) 500m of 220 kv high-tension power line 4) 300m of electric fencing
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

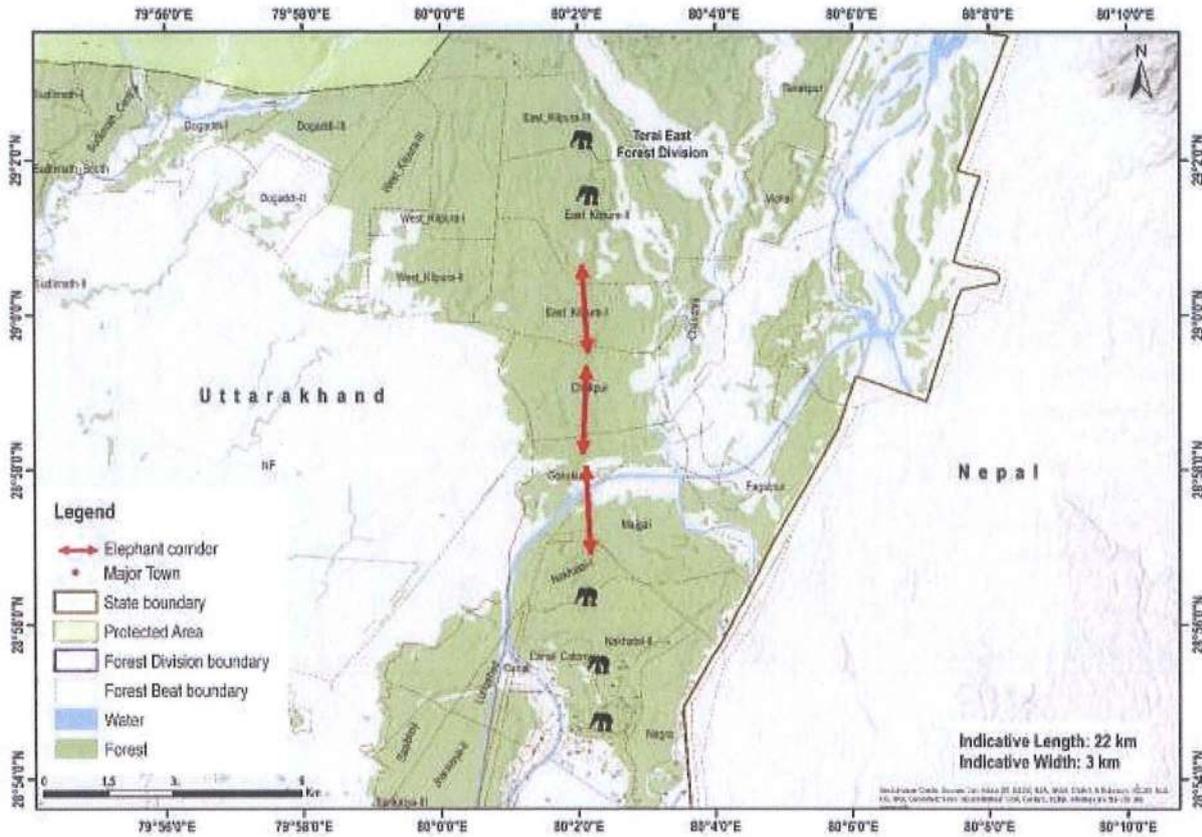


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3216

12. Kilpura-Khatima-Surai Corridor (interstate and transnational corridor)

Connectivity	This corridor connects Haldwani Forest Division and Nandhaur Wildlife Sanctuary of Uttarakhand with Pilibhit Tiger Reserve of Uttar Pradesh and Shuklaphanta National Park of Nepal
State	Uttarakhand and Uttar Pradesh. Also into Nepal
Indicative length and width	Length = 22 km, Width = 3 km
Geo Coordinates	29° 05 17.6, 80° 01 09.6 28° 42 41.9, 79° 57 05.6 28° 46 43.9, 80° 03 10.4 28° 49 31.4, 79° 55 09.7
Forest ranges falling within corridor	Kilpura, Khatima, Surai and Sarada Ranges.
Revenue villages falling within corridor	13
Ecological importance	Only connectivity between Nandhaur WLS and Pilibhit TR.
Habitat type	Moist deciduous forest
Major land use	Forest, Agricultural land and Settlements
Elephant movement status	Regular
Major bottleneck	Chakarpur-Jagbura River, Lalkothi bridge-Lohia head
Linear infrastructure in the corridor	1) National Highway 125, 3.5 km 2) Broad gauge and electrified railway line, 4 km 3) Sharda Canal with gentle earthen slope, 15 km 4) Solar fence, 3 km
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

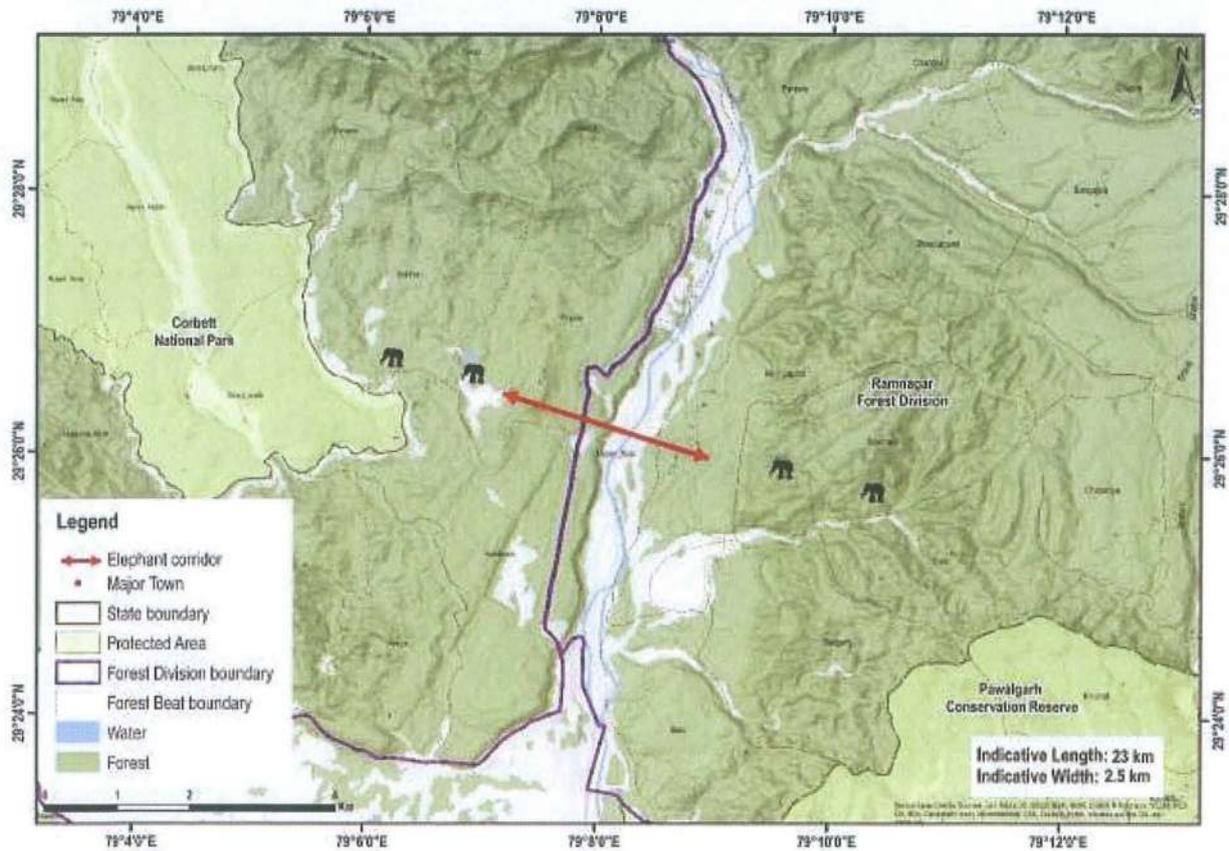


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3217

13. Kosi River Corridor

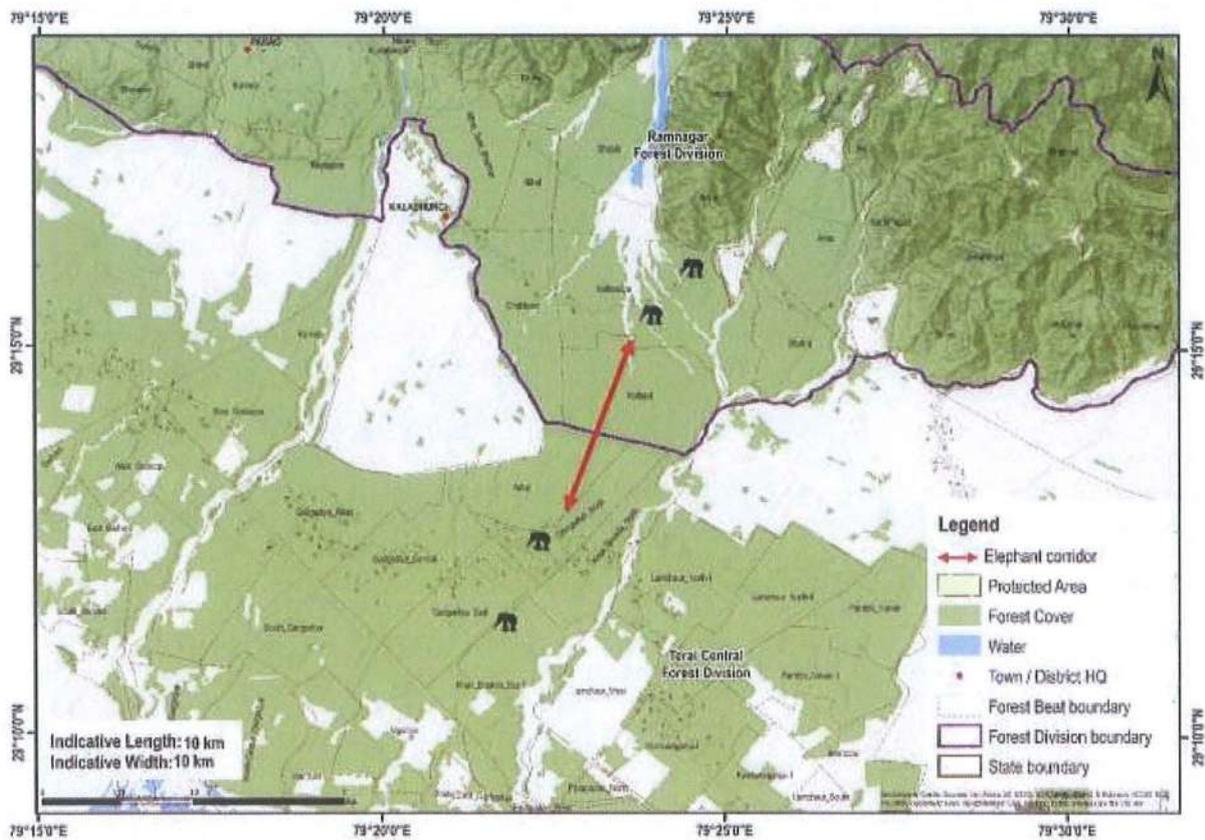
Connectivity	This corridor connects Corbett Tiger Reserve to Ramnagar Forest Department across River Kosi in multiple locations.
State	Uttarakhand
Indicative length and width	Length = 23 km, width = 2.5 km
Geo Coordinates	29° 25' 15"-29° 27' 8" N 79° 7' 18"-79° 9' 4" E
Forest ranges falling within corridor	Bijrani (Corbett TR) and Kosi (Ramnagar) Ranges
Revenue villages falling within corridor	2
Ecological importance	Connectivity between Corbett TR and Ramnagar FD
Habitat type	Sal dominated Tropical dry deciduous forest
Major land use	Forest, Riverbed, human settlements, IMPCL (Indian Medicines Pharmaceutical Corporation Limited)
Elephant movement status	Regular
Major bottleneck	Ladua chaur to Garjia chowki, Garjia temple to Sunderkhal, Dhangadi to Mohaan
Linear infrastructure in the corridor	1) 23 km of National Highway 121 2) High-tension power line near ladua chaur 3) IMPCL industry
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.



3218

14. Nihal- Bhakra (Fatehpur- Gadgadga) Corridor

Connectivity	This corridor connects the Fatehpur Range of Ramnagar Forest Division with the Gadgadga Range of Terai Central Forest Division.
State	Uttarakhand
Indicative length and width	Length = 10 km, width = 10 km
Geo Coordinates	29° 13' 1"-29° 15' 0" N 79° 21' 36"-79° 25' 0" E
Forest ranges falling within corridor	Fatehpur and Gadgadga Ranges
Revenue villages falling within corridor	4
Ecological importance	Used to be connectivity for Terai East FD via Terai Central FD
Habitat type	Tropical moist deciduous
Major land use	Forests and settlements
Elephant movement status	Regular
Major bottleneck	Kaladhungi-Haldwani highway
Linear infrastructure in the corridor	5 km of Kaladhungi-Haldwani highway
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

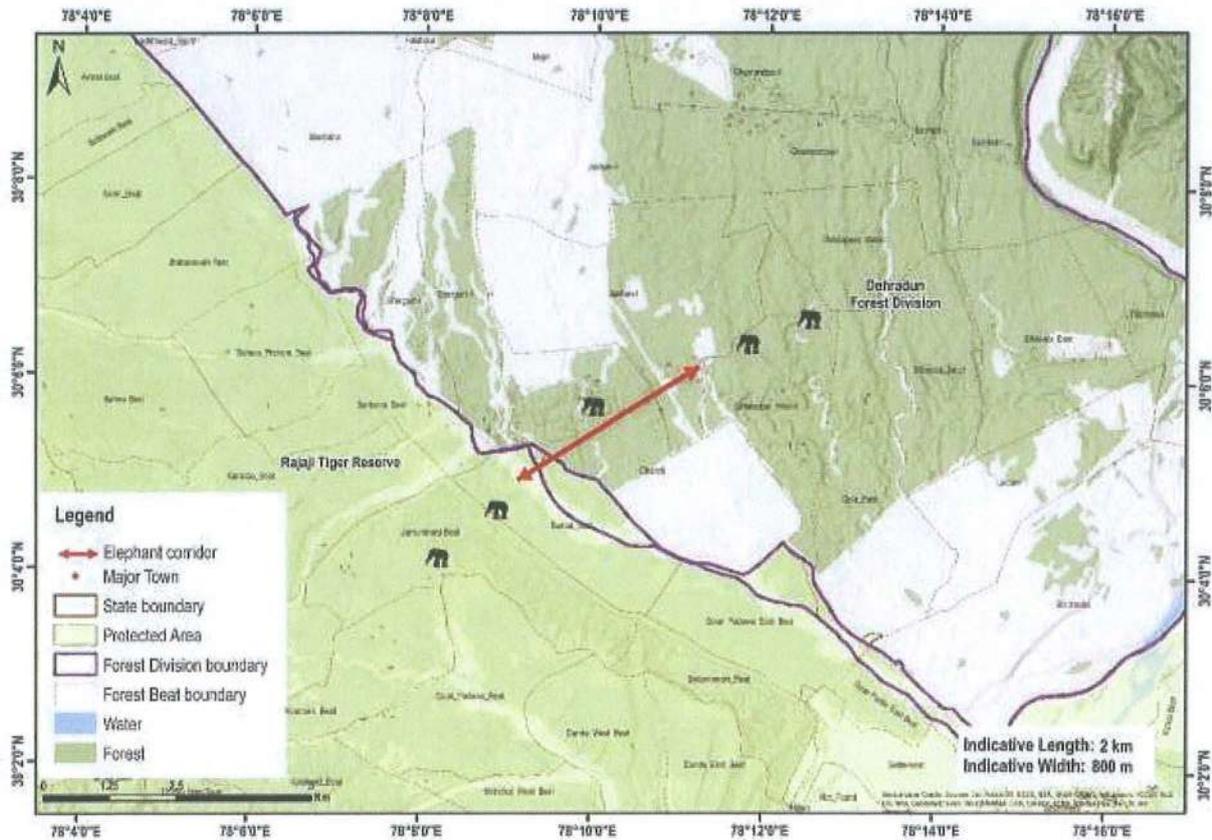


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3219

15. Kansrau - Barkot Corridor (Lal Tappar corridor)

Connectivity	This corridor connects the Kansrau Range of Rajaji Tiger Reserve and the Barkot and Rishikesh Ranges of Dehradun Forest Division
State	Uttarakhand
Indicative length and width	Length = 2 km, width = 800 m
Geo Coordinates	30°04'55.0" 78°09'00" 30°04'48.0" 78°09'11.0" 30°05'50.0" 78°10'47.0" 30°05'57.0" 78°10'42.0"
Forest ranges falling within corridor	Kansrau (Rajaji TR), Barkot and Rishikesh Ranges (Dehradun FD)
Revenue villages falling within corridor	Information NA
Ecological importance	It is an important corridor that connects the elephant populations of Rajaji Tiger Reserve with Dehradun Forest Division.
Habitat type	Tropical dry deciduous
Major land use	Forests and Settlements
Elephant movement status	Regular
Major bottleneck	Near Lal Tappar Industrial Area
Linear infrastructure in the corridor	1) National Highway 7 2) High-tension power line (132 KV)
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

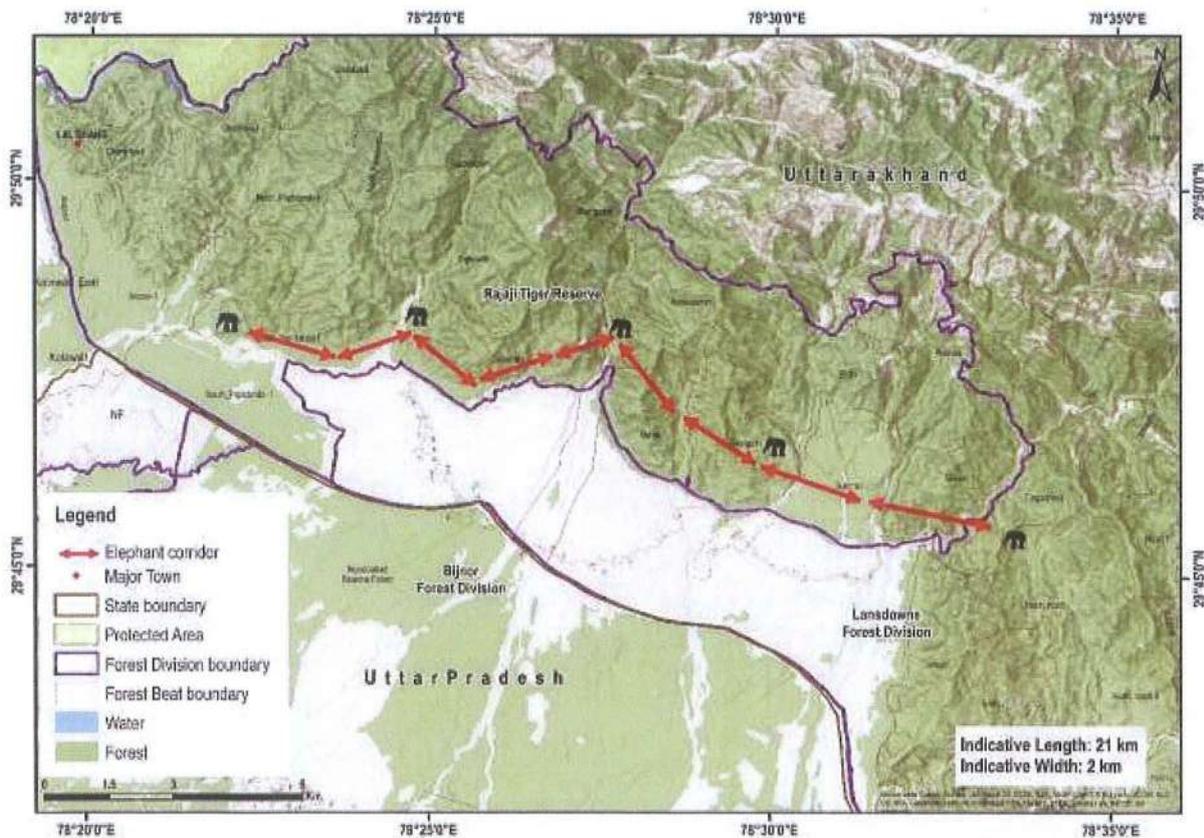


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3220

16. Rawasan-Sonanadi (Via Lansdowne FD) Corridor

Connectivity	This corridor connects Rajaji and Corbett Tiger Reserves. Elephants use the foothills between Rawasan (at the eastern end of Rajaji Tiger Reserve) and the Khoh River (western end of Corbett Tiger Reserve).
State	Uttarakhand
Indicative length and width	Length = 21 km, width = 2 km
Geo Coordinates	29° 45' 25", 29° 48' 32" N 78° 22' 46", 78° 33' 27" E
Forest ranges falling within corridor	Najibabad Reserve Forest
Revenue villages falling within corridor	35
Ecological importance	This is a very crucial corridor that connects the elephant and tiger populations between Corbett and Rajaji Tiger Reserves.
Habitat type	Tropical dry deciduous and riparian forests
Major land use	Forest
Elephant movement status	Regular
Major bottleneck	Not provided by forest department
Linear infrastructure in the corridor	1) National Highway 119, and associated high traffic
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

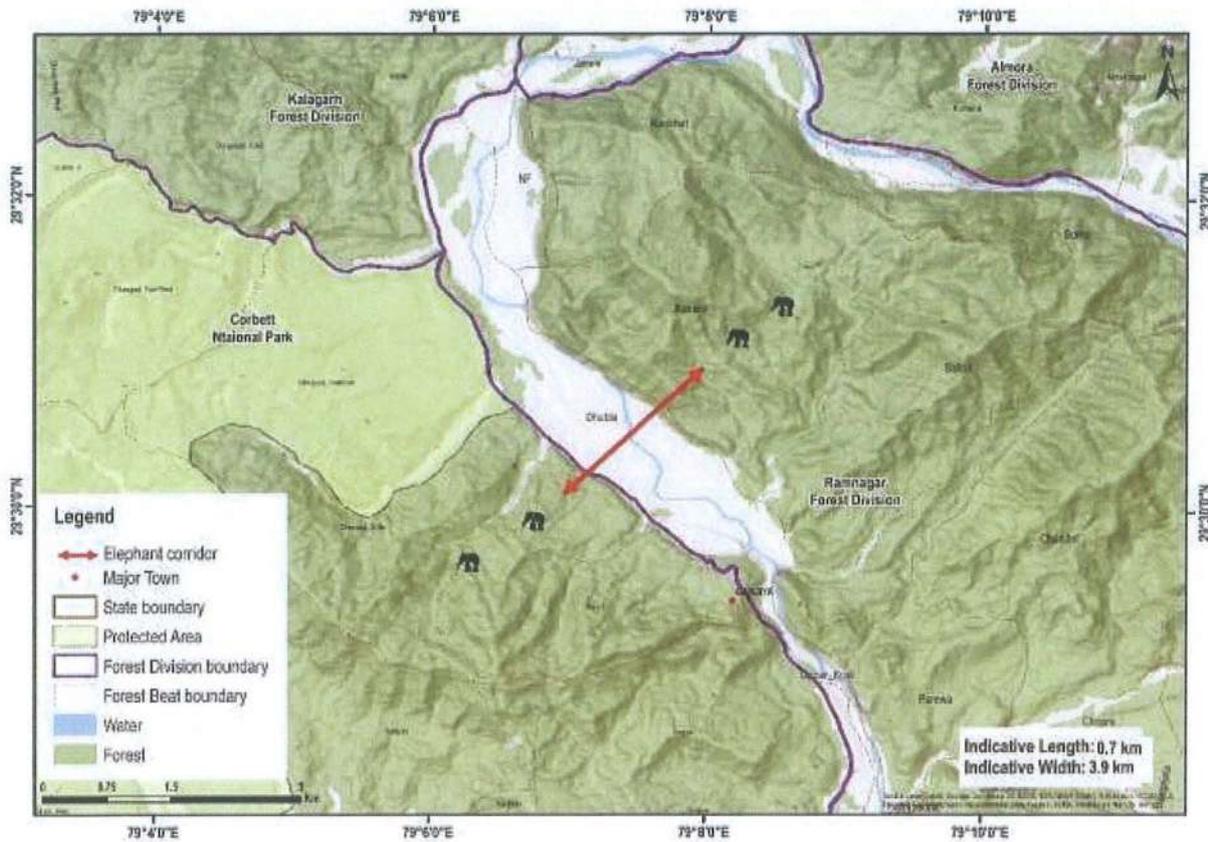


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3221

17. Chilkiya- Kota Corridor

Connectivity	This corridor connects Chilkiya Reserve Forest of Corbett Tiger Reserve and Kota RF of Ramnagar Division.
State	Uttarakhand
Indicative length and width	Length = 0.7 km, width = 3.9 km
Geo Coordinates	29° 29' 36", 29° 31' 30" N 79° 5' 58", 79° 8' 37" E
Forest ranges falling within corridor	Sarpduli, and Kosi Range
Revenue villages falling within corridor	35
Habitat type	Tropical dry deciduous
Major land use	Forests , Agricultural land and Settlements
Elephant movement status	Regular
Major bottleneck	Information NA
Linear infrastructure in the corridor	1) National Highway 121, and associated high traffic 2) A high-tension line passes through the Kosi Range 3) Garjiya temple
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants not available.

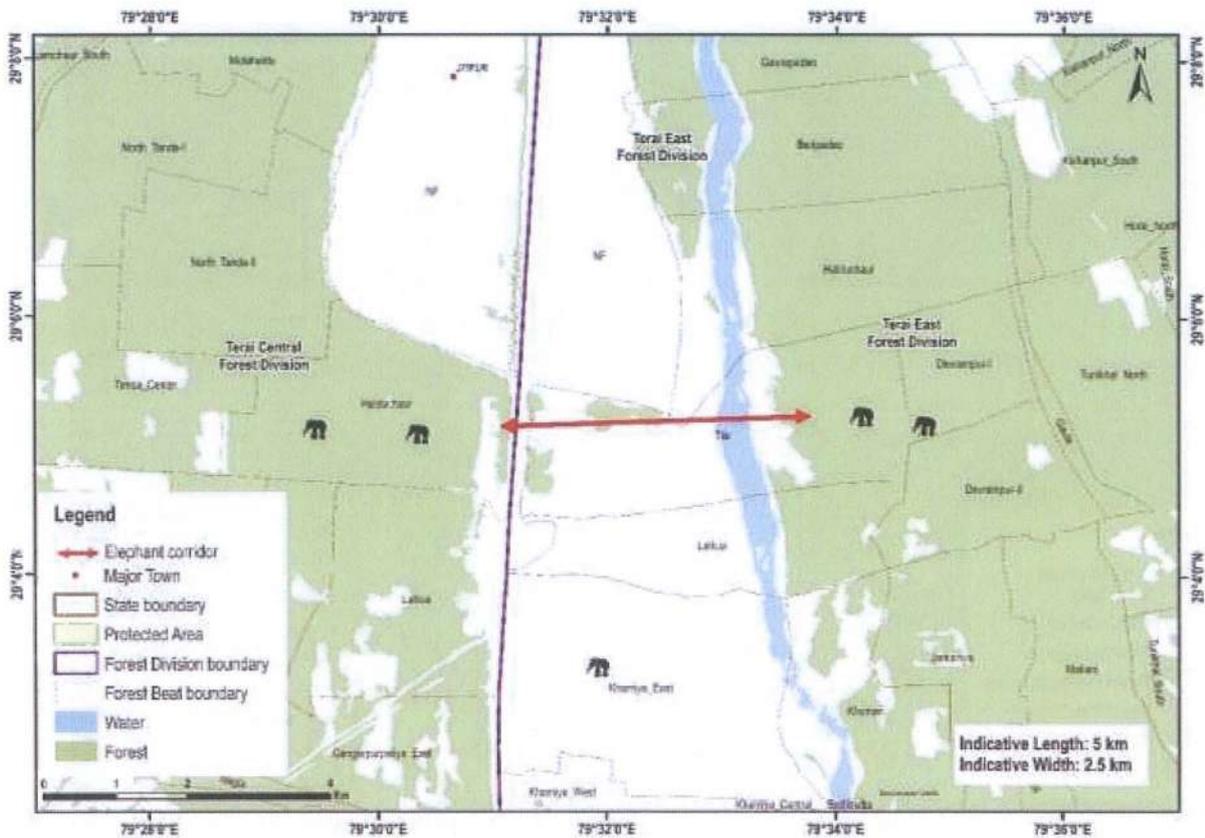


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3222

19. Gola Corridor

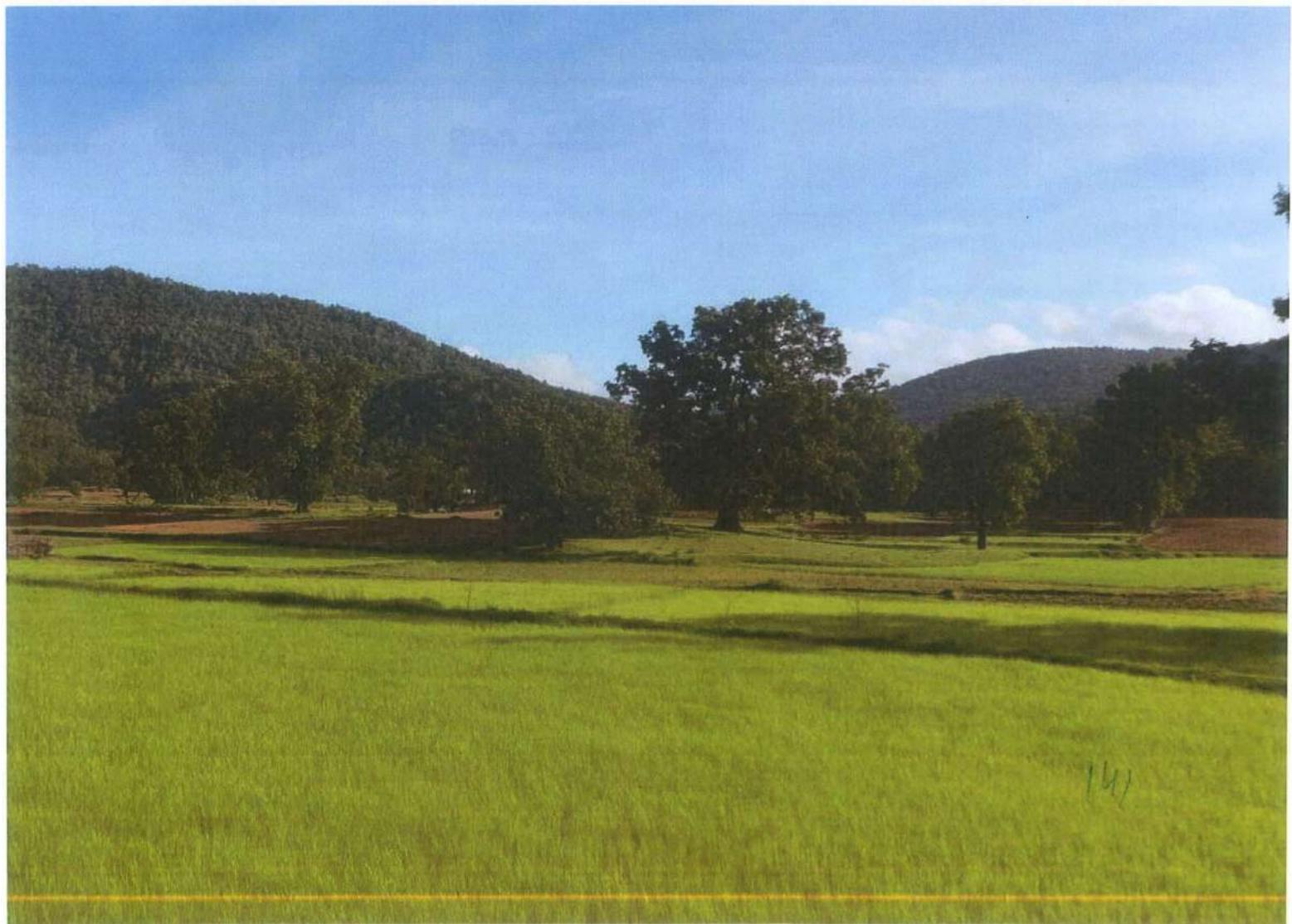
Connectivity	This corridor connects Gola Rankhu and Gorai Reserve Forest of Terai East Forest Division and the Tanda Protected Forest of Terai Central Forest Division.
State	Uttarakhand
Indicative length and width	Length = 5 km, width = 2.5 km
Geo Coordinates	29°05'10"– 29°05'37" N 79°31'02"– 79°31'04" E
Forest ranges falling within corridor	Haldwani
Revenue villages falling within corridor	8
Ecological importance	Important for the population continuity between forests of Gola Rankhu, Gorai and the Tanda Protected Forest.
Habitat type	Dry deciduous forest
Major land use	Forest and settlements
Elephant movement status	No Movement
Major bottleneck	Haldwani and Lal Kuan towns
Linear infrastructure in the corridor	1) Expansion of Haldwani township and setting up of Lal Kuan industrial complex 2) Heavy traffic on Haldwani-Lal Kuan road 3) Boulder mining in the Gola River area
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Impaired.



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3223

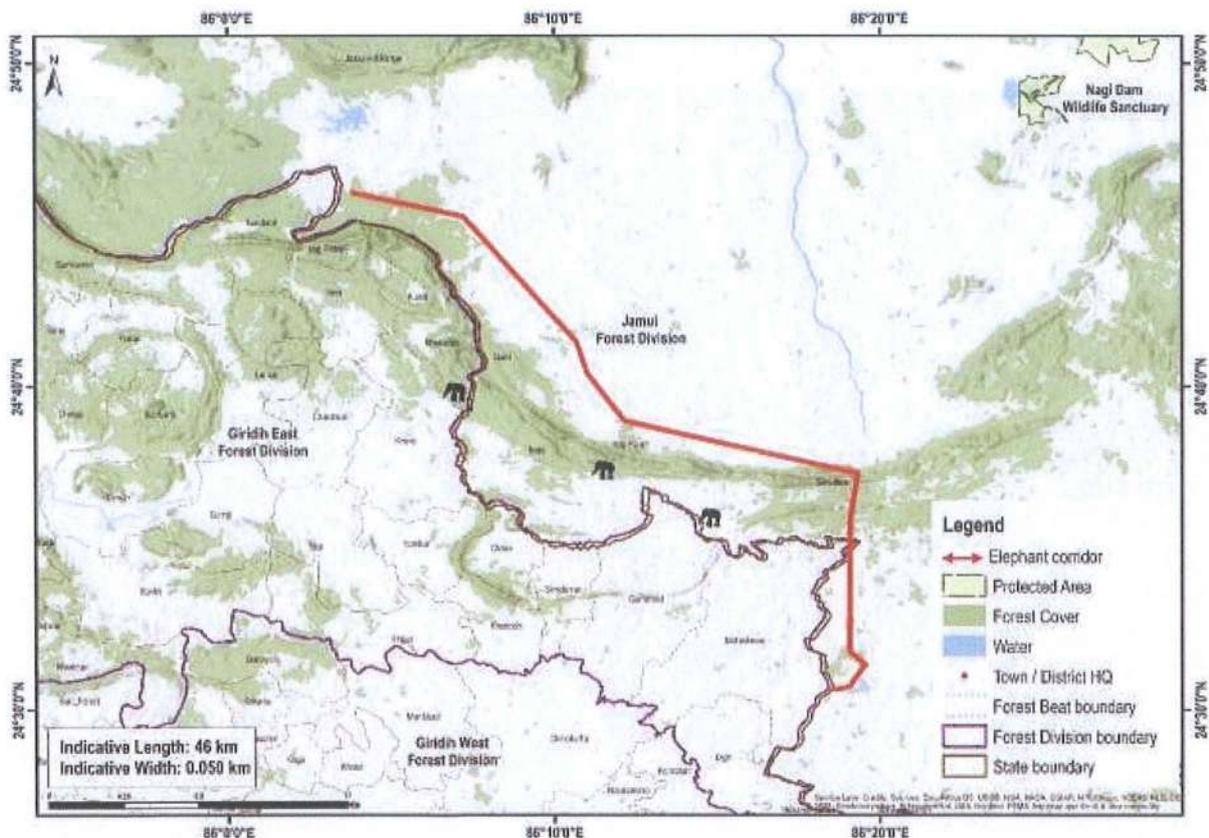
Elephant Corridors
East Central Region



3224

1. Jamui- Jhajha- Chakayi Corridor

Connectivity	Elephant movement is between the Garhi beat of Jamui range, Charkapatthar and Batia beats of Jhaja range and Madhwa sub-beat of Chakayi range.
State	Bihar
Geo coordinates	24.747494, 86.126023 to 24.523028, 86.326086
Indicative length and width	Length = 46 km, width = 30 - 50 m
Beats falling within corridor	Garhi, Charkapatthar and Batia Beat, and Madhuwa Sub- Beat
Forest ranges falling within corridor	Jamui, Jhajha and Chakayi Ranges
Revenue villages falling within corridor	Three
Habitat type	Moist deciduous Sal Forests, Tropical deciduous Sal Forests, Dry deciduous mixed Forests, Boswellia Forests, Aegle Forests, Scrub Forests and Euphorbia Forests
Major land use	Forest = 80 ha Agriculture = 34 ha Habitation = 10 ha
Elephant movement status	Occasional.
Number of elephants using this corridor	9
Linear infrastructure in the corridor	Information not provided
Bottlenecks in the corridor	Near Garhi, Batia and Simultala there are breaks in the corridor.
Recommendations by the forest department	1) Data-driven proper identification of corridor is required. 2) Habitat management enrichment along the elephant corridor/migration. 2) Awareness programs for local people.
Status of the corridor	Active. Intensity of use by elephants not available

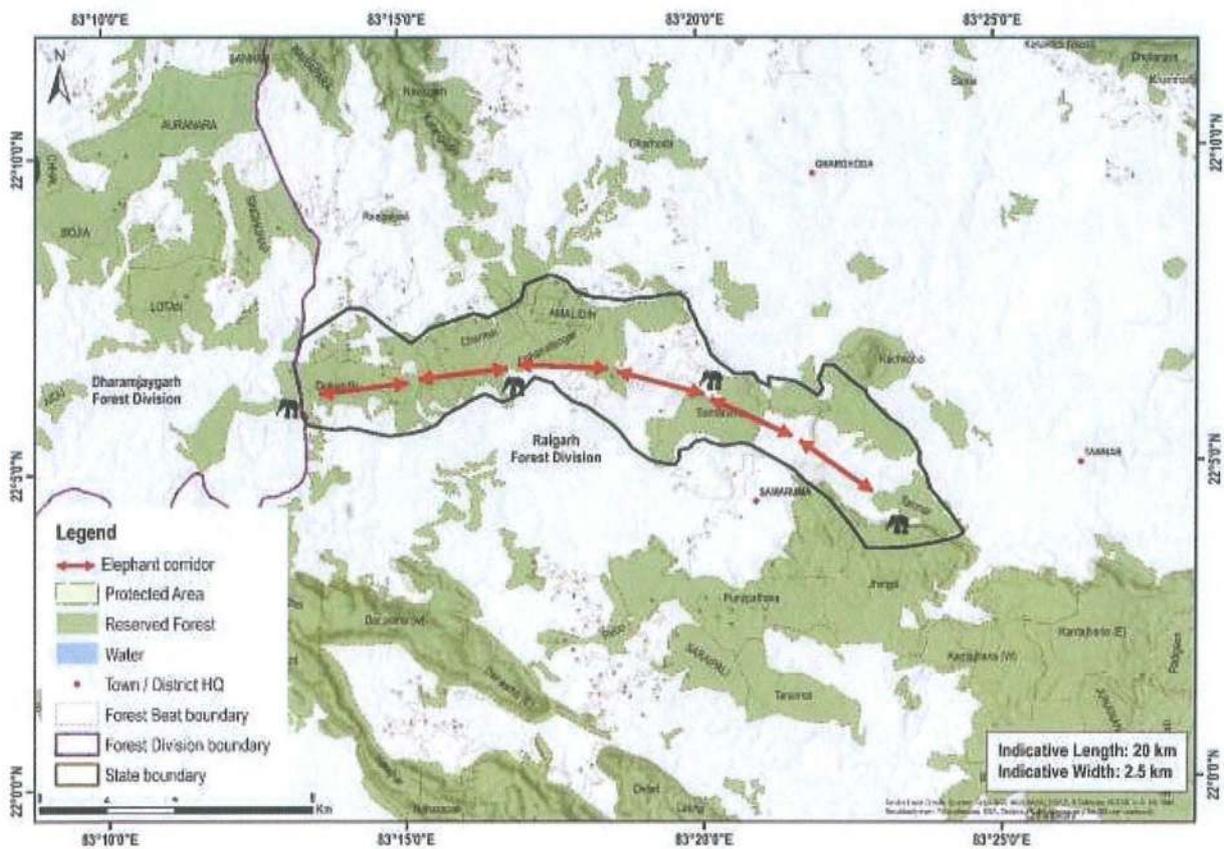


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3225

2. Charmar – Jingol corridor

Connectivity	Connects Dharamjaigarh to Raigarh Forest Division and then on to Odisha towards the east
State	Chhattisgarh
Indicative length and width	Length = 20 km, width = 2.5 km
Geo coordinates	22.134361, 83.219990 22.061002, 83.406998
Compartments falling within corridor	1264P, 1267, 1263P, 1253P, 1268, 1269, 1252P, 1270, 1273, 1272, 1244P, 1276, 846, 847, 848, 849, 850P, 842P, 838
Beats falling within corridor	Dehradihi, Charmar, Chharratangar, Amalidh, Samaruma, Kachkoba, Tamnar
Forest ranges falling within corridor	Chargoda and Tamnar
Ecological importance	Important corridor for elephant moving from Odisha to interiors of Chhattisgarh.
Habitat type	Tropical Dry Deciduous
Major land use	Forest, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	80- 100
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

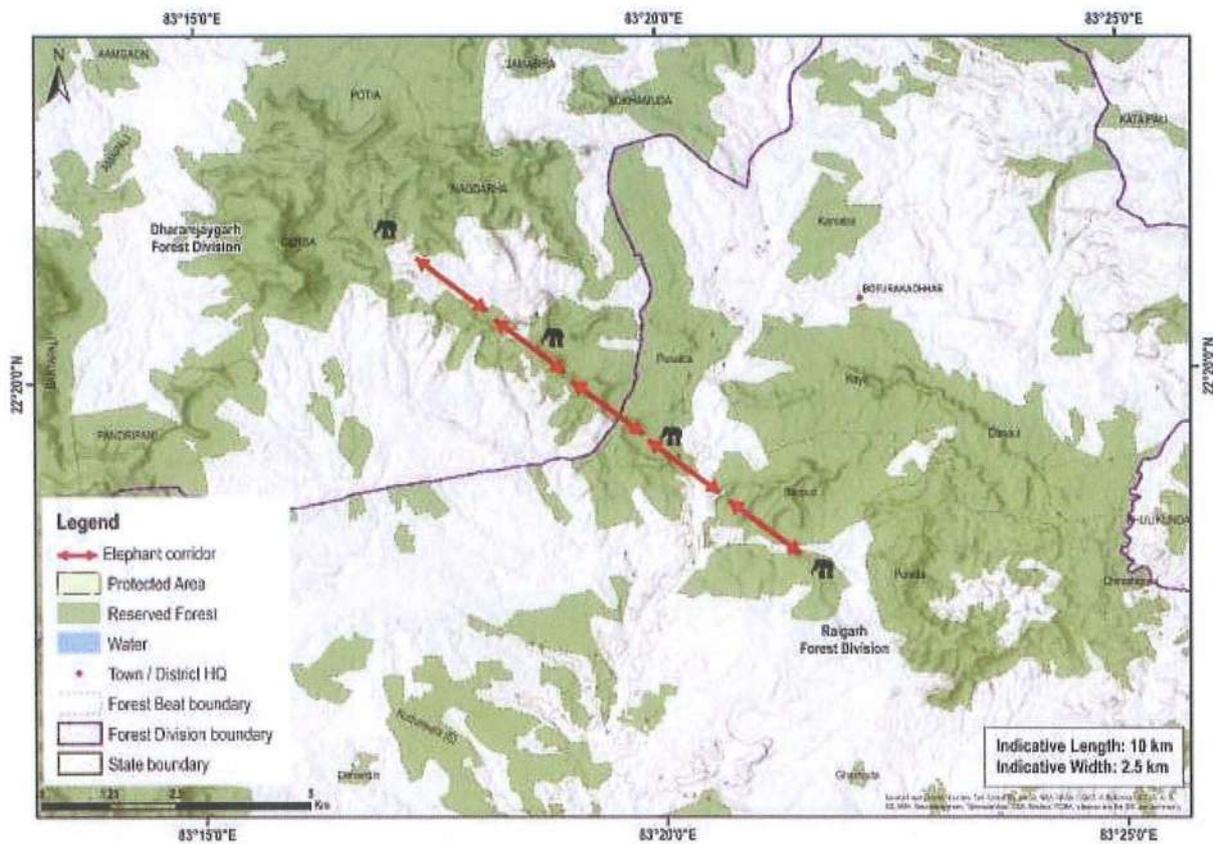


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3226

3. Nagdhara- Baraud corridor

Connectivity	Connects habitats in Raigarh and Dharamjaigarh Forest Divisions
State	Chhattisgarh
Indicative length and width	Length =10 km, width = 2.5 km
Geo coordinates	22.355827 83.283188 22.297178 83.364202
Compartments falling within corridor	1286P, 1287, 1312, 1288OA, 1291P, 1289P, 1293, 1292P, 413, 414
Beats falling within corridor	Nagdhara, Pusalda and Baraud
Forest ranges falling within corridor	Ghargoda (Raigarh FD) and Dharamjaigarh (Dharamjaigarh FD)
Revenue villages falling within corridor	Information NA
Ecological importance	Important corridor that is used by elephants moving from Odisha to interiors of Chhattisgarh.
Habitat type	Sal-dominated tropical dry deciduous
Major land use	Forest, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	80- 100
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

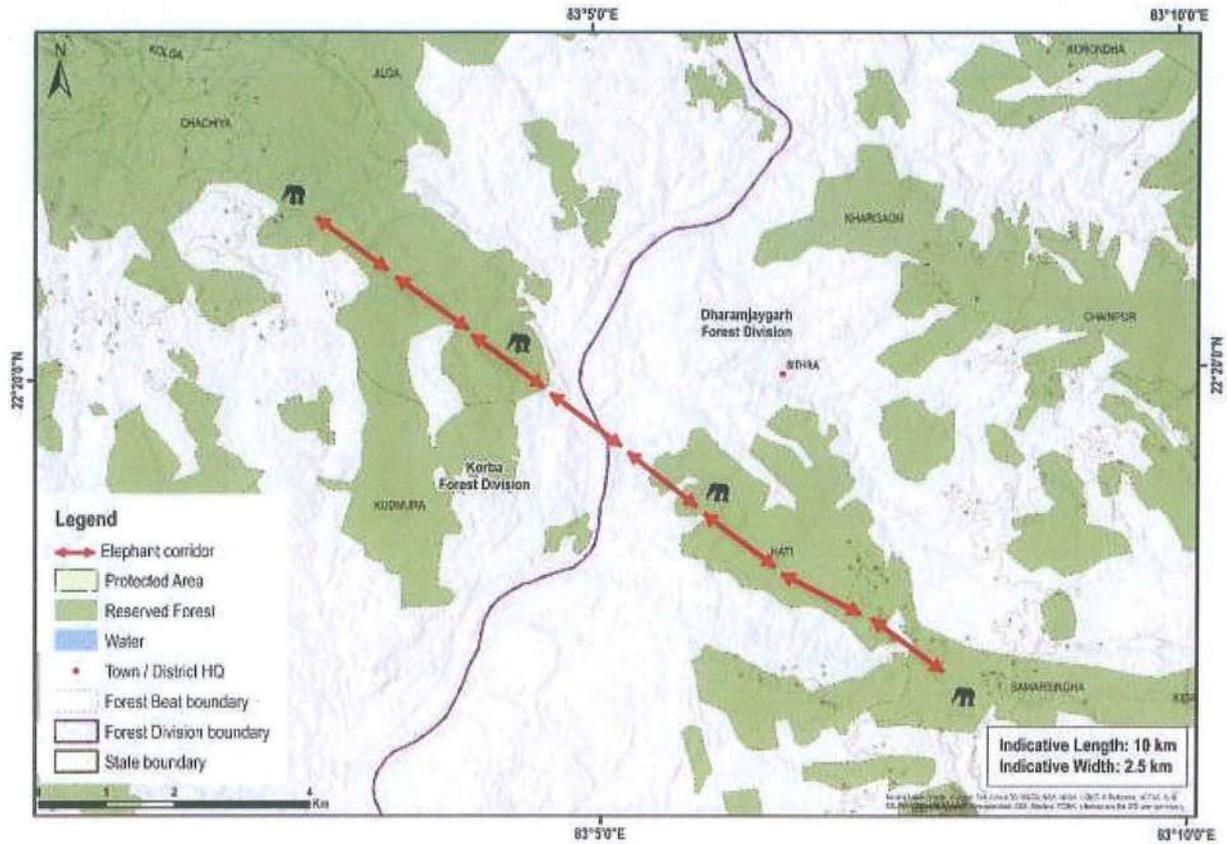


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4. Hati-Kudmura corridor

Connectivity	Korba and Dharamjaigarh FD
State	Chhattisgarh
Indicative length and width	Length = 10 km, width = 3.2 km
Geo coordinates	22.35684, 83.04527 22.29613, 83.12690
Compartments falling within corridor	555P, 562, 554, OA 1425, OA 1424, P1139, OA 1423
Beats falling within corridor	Kudmura (Korba FD), Chachiya (Korba FD), Hati (Dharamjaigarh FD), Samarsingha (Dharamjaigarh FD)
Forest ranges falling within corridor	Chaal and Kudmura ranges
Ecological importance	This is the main corridor used by elephants to move between Korba and Dharamjaigarh Forest Divisions across River Maand.
Habitat type	Sal-dominated tropical dry deciduous forest
Major land use	Forests, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	80
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

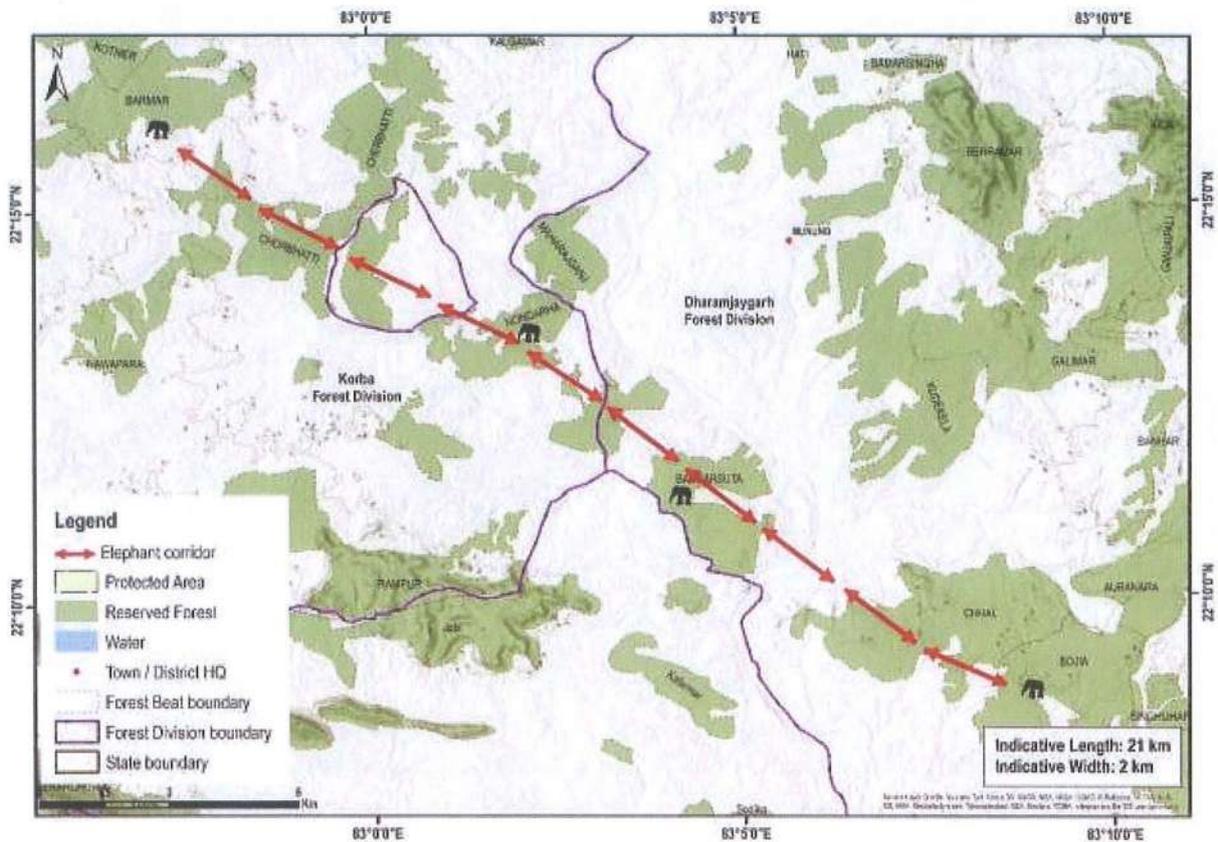


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3228

5. Chaal- Kartala corridor

Connectivity	Korba and Dharamjaigarh FD
State	Chhattisgarh
Indicative length and width	Length = 21 km, width = 2 km
Geo coordinates	22.263807, 82.960300 22.143325, 83.148465
Compartments falling within corridor	512, 513, 506P, 511, 507P, 510, 509P, 508, 541, 542, 543, P1156, OA 1468, OA 1467, P1154, P1155, P1153, OA 1466, 1180, P1149, OA 1462, P1150
Beats falling within corridor	Chaal, Bangarsuta (in Dharamjaigarh FD) and Nondarha, Chaal part, and Chorbhatti (in Korba FD)
Forest ranges falling within corridor	Chaal and Kartala ranges
Ecological importance	Some of the peripheral herds (that moves primarily along the boundary areas) in Dharamjaigarh and Korba Forest Division use this corridor by crossing across River Maand
Habitat type	Tropical Dry Deciduous
Major land use	Forests, agriculture and settlements
Elephant movement status	Regular
Linear infrastructure in the corridor	Information NA
No. of elephants using the corridor	Not recorded by forest department
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

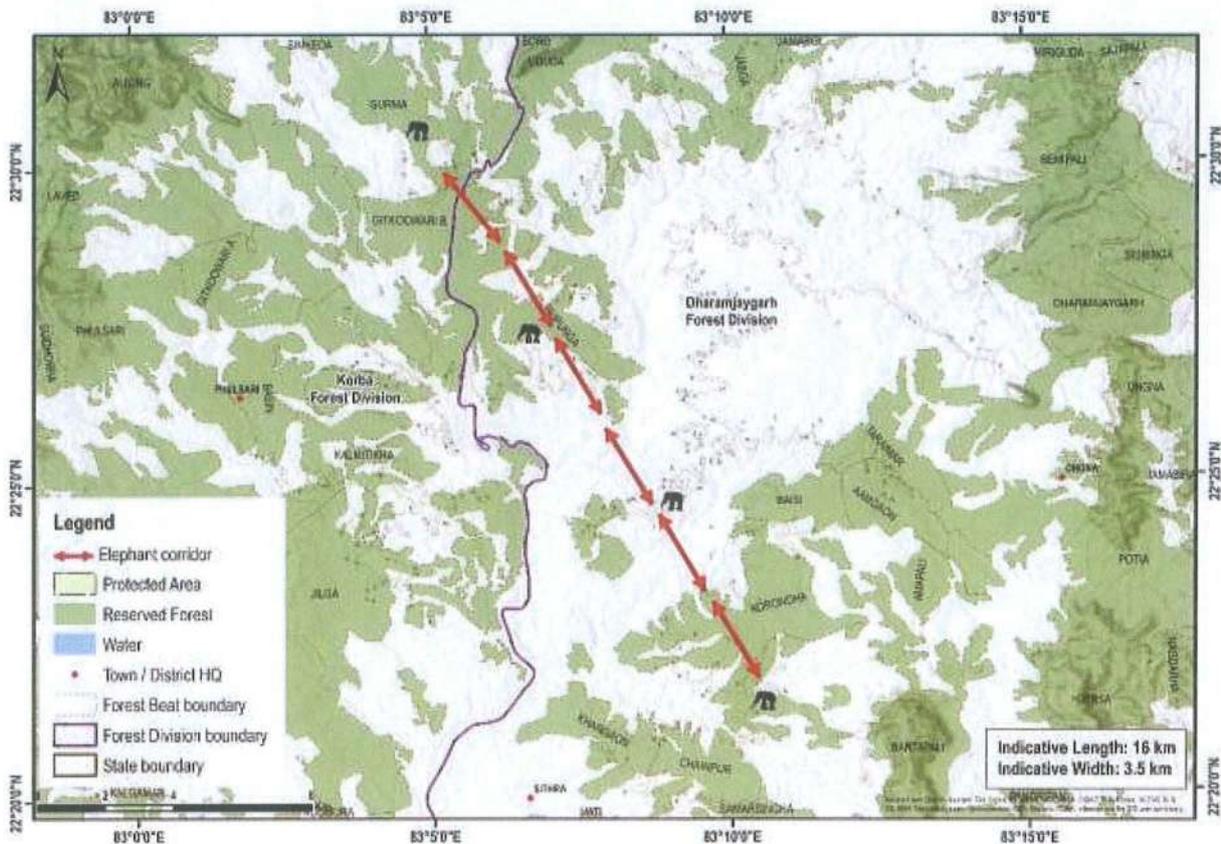


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6. Korondha - Rupunga corridor

Connectivity	Elephant movement with Dharamjaigarh Range, which is disjunct and connected only by this corridor
State	Chhattisgarh
Indicative length and width	Length = 16 km, width = 3.5 km
Geo coordinates	22.49530, 83.08785 22.36575, 83.19266
Compartments falling within corridor	450, 377, 452, 454, 453P, 451P, 476P, 455P, 456P, 457P, 458P, 461P, 462P, 463, 464P, 460P
Beats falling within corridor	Korondha and Rupunga
Forest ranges falling within corridor	Dharamjaigarh
Ecological importance	This corridor is frequently used by elephants, but the connectivity can be broken by ongoing infrastructure development.
Habitat type	Sal-dominated tropical dry deciduous forests
Major land use	Forests, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

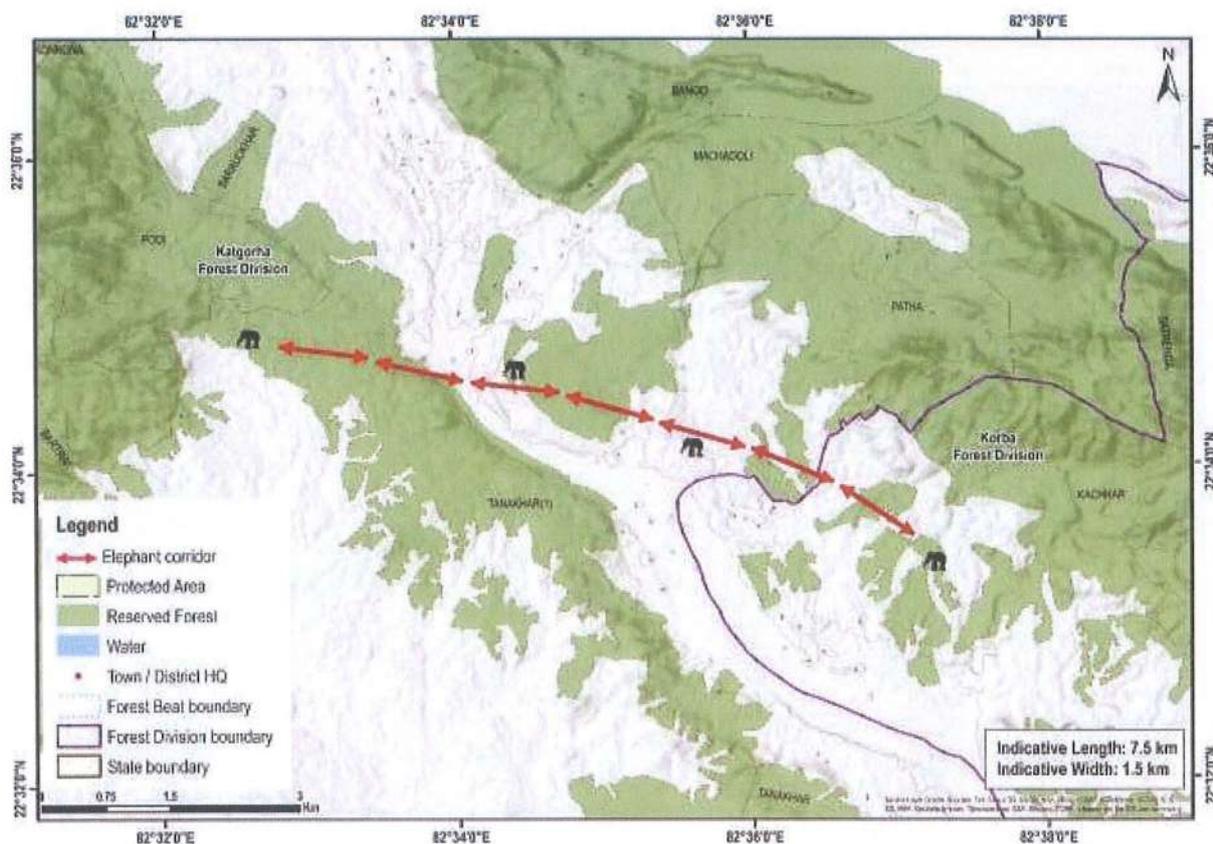


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3230

7. Balco - Etma Nagar corridor

Connectivity	Korba and Katghora Forest Divisions across River Hasdeo
State	Chhattisgarh
Indicative length and width	Length = 7.5 km, width = 1.5 km
Geo coordinates	22.58413, 82.54890 22.55741, 82.62051
Compartments falling within corridor	OA 736, P529, OA 763, OA 762, OA 1223
Beats falling within corridor	Tanakhar, Patha, Kachar
Forest ranges falling within corridor	Etma Nagar (Katghora) and Balco (Korba)
Ecological importance	This is the main corridor used by elephants to move between Korba and Katghora Forest Divisions.
Habitat type	Sal-dominated dry deciduous forests
Major land use	Forests, agriculture and settlements.
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

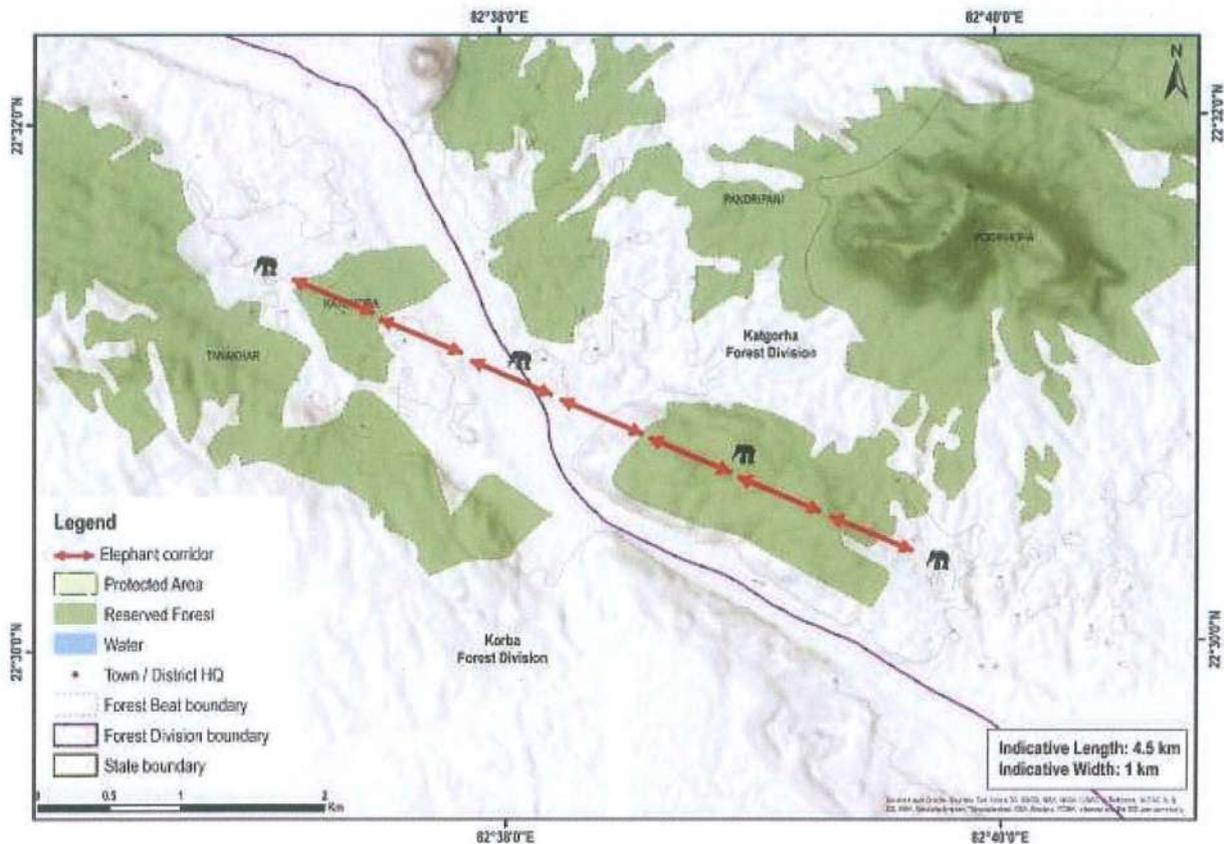


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8. Balco- Katghora corridor

Connectivity	Korba and Katghora Forest Divisions across River Hasdeo
State	Chhattisgarh
Indicative length and width	Length = 4.5km, width = 1 km
Geo coordinates	22.52544, 82.62007 22.50223, 82.66176
Compartments falling within corridor	OA 1229, OA 766
Beats falling within corridor	Podikhoha, Katghora
Forest ranges falling within corridor	Katghora (Katghora) and Balco (Korba)
Habitat type	Tropical Dry Deciduous
Major land use	Forests, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

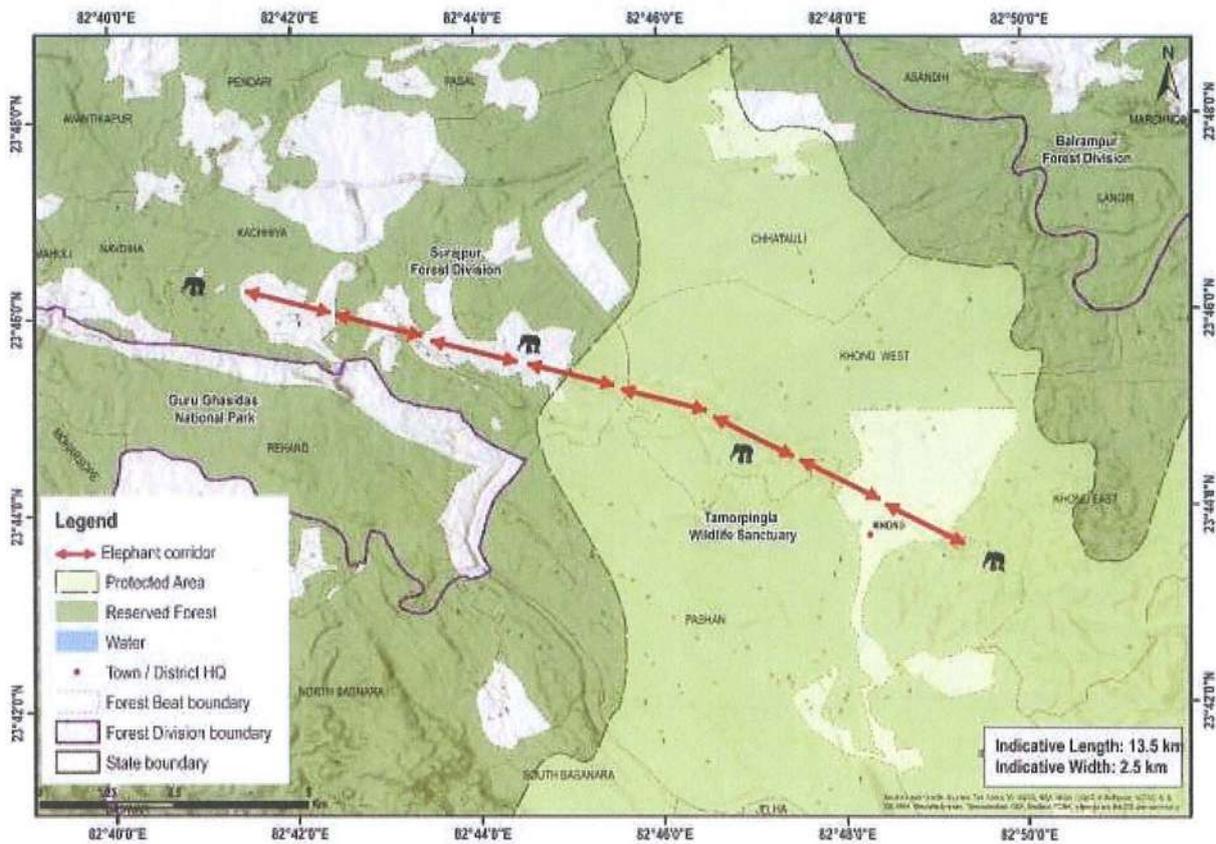


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9. Khod-Rihand corridor

Connectivity	Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary across River Rihand
State	Chhattisgarh
Indicative length and width	Length = 13.5 km, width = 2.5 km
Geo coordinates	23.774510, 82.693394 23.720701, 82.822966
Compartments falling within corridor	914, 896, 897, 899, 900, 898, P 561, P 588, P 557
Beats falling within corridor	Khod, Khod (W), Kachiya
Forest ranges falling within corridor	Khod (Tamor Pingla WLS), Biharpur and Rihand
Ecological importance	This is an important corridor that connects elephant populations between Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary across Surajpur Forest Division
Habitat type	Sal-dominated dry deciduous forests
Major land use	Forests, agriculture and settlements
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

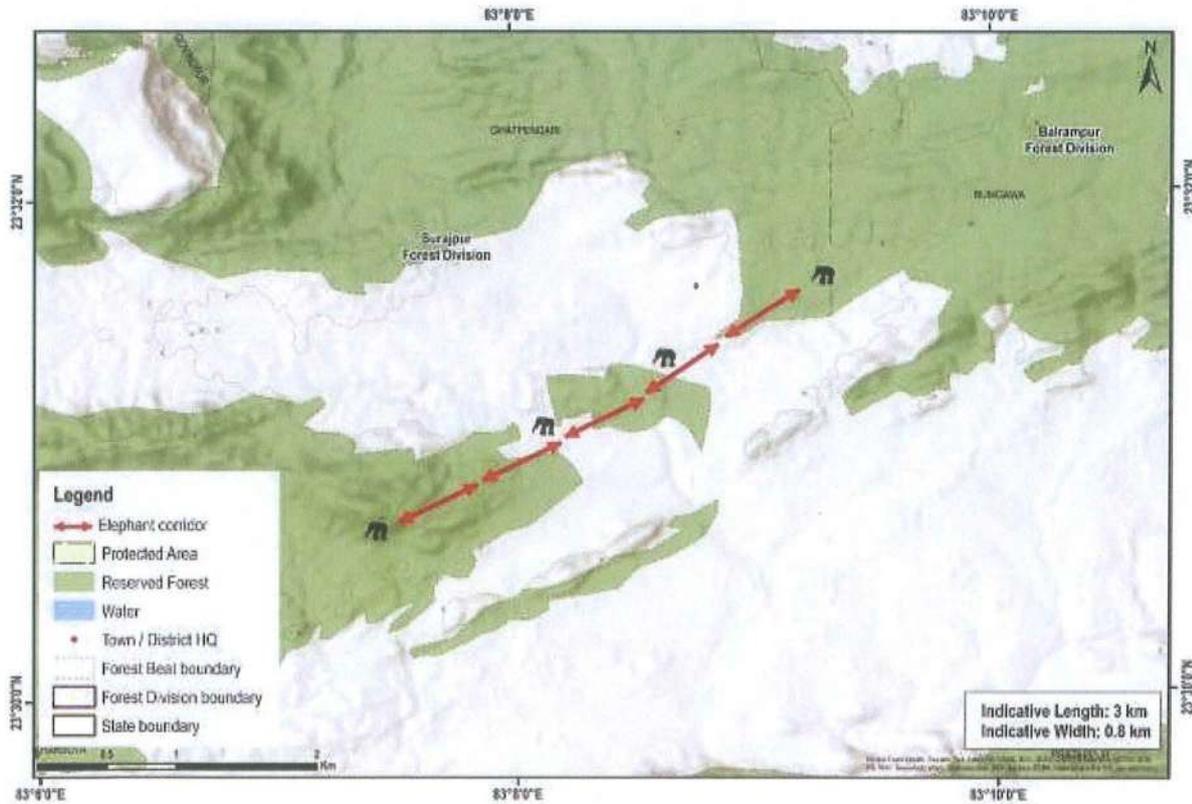


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10. Ghat Pendari-Pakni corridor

Connectivity	Surajpur to Tamor Pingla Wildlife Sanctuary
State	Chhattisgarh
Indicative length and width	Length = 3 km, width = 0.8 km
Geo coordinates	23.52804, 83.12699 23.51064, 83.15176
Compartments falling within corridor	P 112, P 111, P 109
Beats falling within corridor	Ghat Pendari and Pakni
Forest ranges falling within corridor	Pratappur
Ecological importance	This is an important corridor connecting elephant populations of Surajpur and Tamor Pingla Wildlife Sanctuary.
Habitat type	Sal-dominated dry deciduous forests
Major land use	Forests
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants stable.

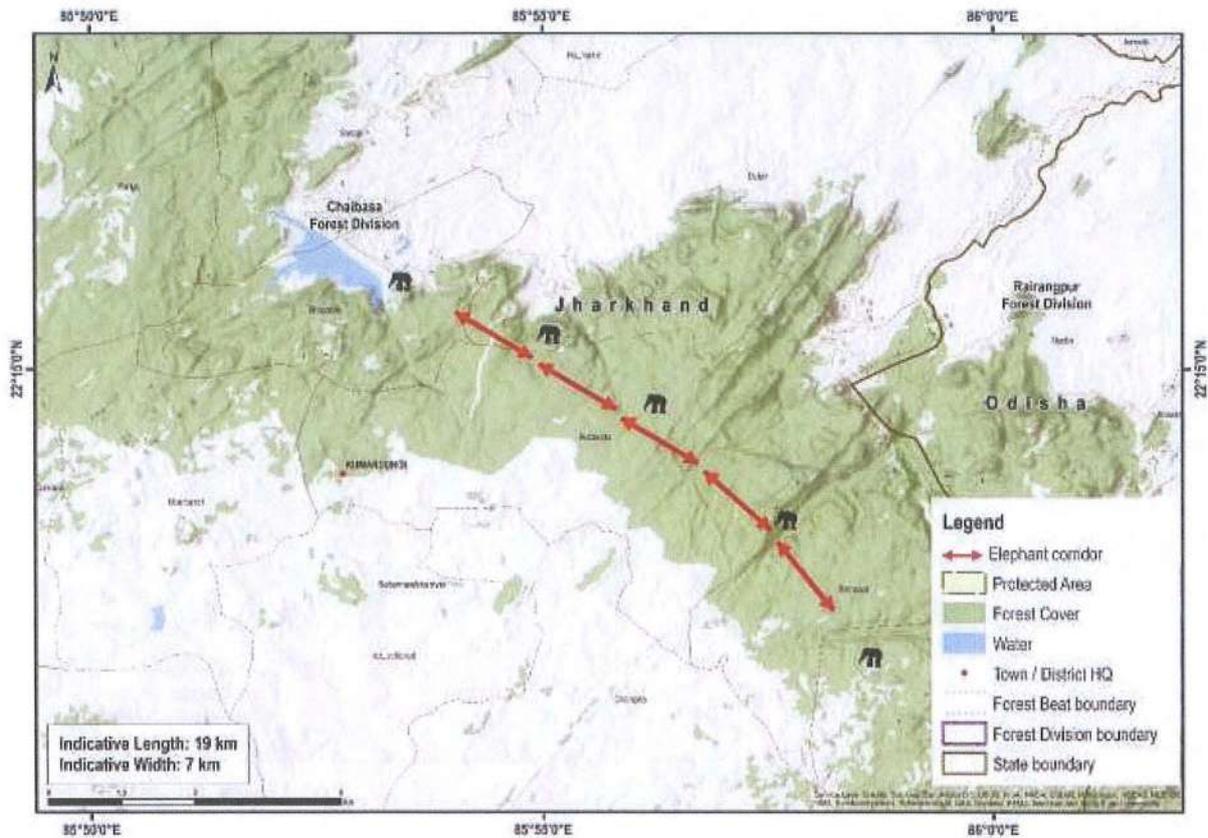


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11. Bhagabilla- Ratnasai Corridor

Connectivity	Hatgamharia Range of Chaibasa Forest Division to Rairangpur Forest division in Odisha
State	Jharkhand
Indicative length and width	Length = 19 km; width = 2 to 7 km
Geo coordinates	N 22°15'44.9", 22°12'2"/ E 85° 53'54", 85° 58'27.38"
Forest ranges falling within corridor	Hatgamharia Range
Revenue villages falling within corridor	39
Ecological importance	The area is an important migratory corridor with increasing number of elephants this corridor on a regular basis.
Habitat type	Dry deciduous, Sal-dominated forests
Major land use	Forest = 3,224 ha Agricultural land = 12,000 ha
Elephant movement status	Regular, more frequent from October to February
Number of elephants using the corridor	26
Linear infrastructure in the corridor	High tension power line (11,000 V)
Recommendations by the forest department to improve the corridor	Habitat improvement activities in the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available

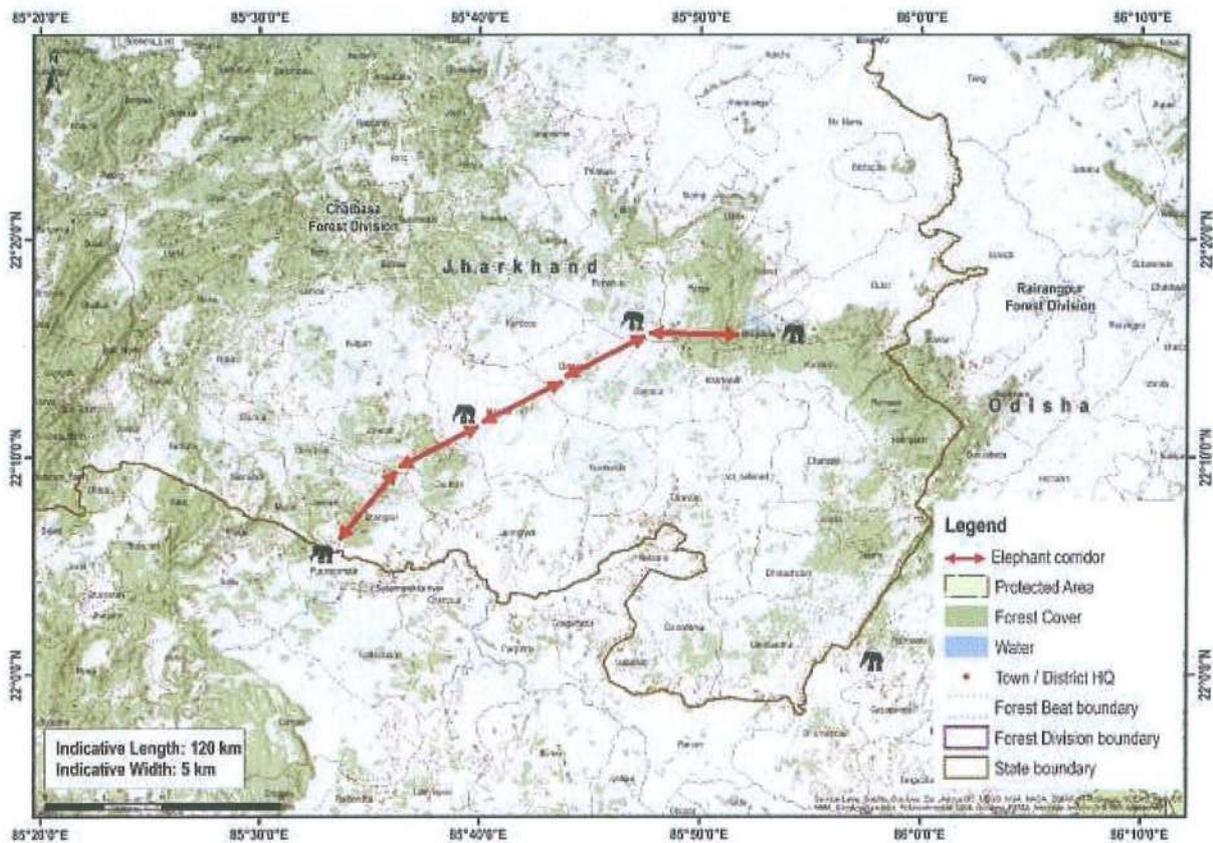


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12. Jampani- Bhagabilla Corridor

Connectivity	Elephant movement is from Noamundi Range to Hatgamharia Range of Chaibasa Forest Division in Jharkhand to Keonjhar Forest Division in Odisha
State	Jharkhand
Indicative length and width	Length = 120 km; Width = 2 to 5 km
Geo coordinates	N 22°5'41.98", 22°15'44.98"/ E 85° 33'19.79", 86° 53'54"
Forest ranges falling within corridor	Hatgamharia and Noamundi Ranges in Chaibasa Forest Division
Revenue villages falling within corridor	44
Ecological importance	The corridor is important in sustaining seasonal elephant migration between Odisha and Jharkhand. The number of elephants using the corridor has been increasing.
Habitat type	Dry deciduous Sal dominated forest
Major land use	Forest = 1551.9 ha Agriculture + human-use = 12,000 ha
Elephant movement status	Regular, more frequent from October to February
Number of elephants using the corridor	20 - 25
Linear infrastructure in the corridor	High tension power line (11,000 V)
Recommendations by the forest department to improve the corridor	Habitat improvement in the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available

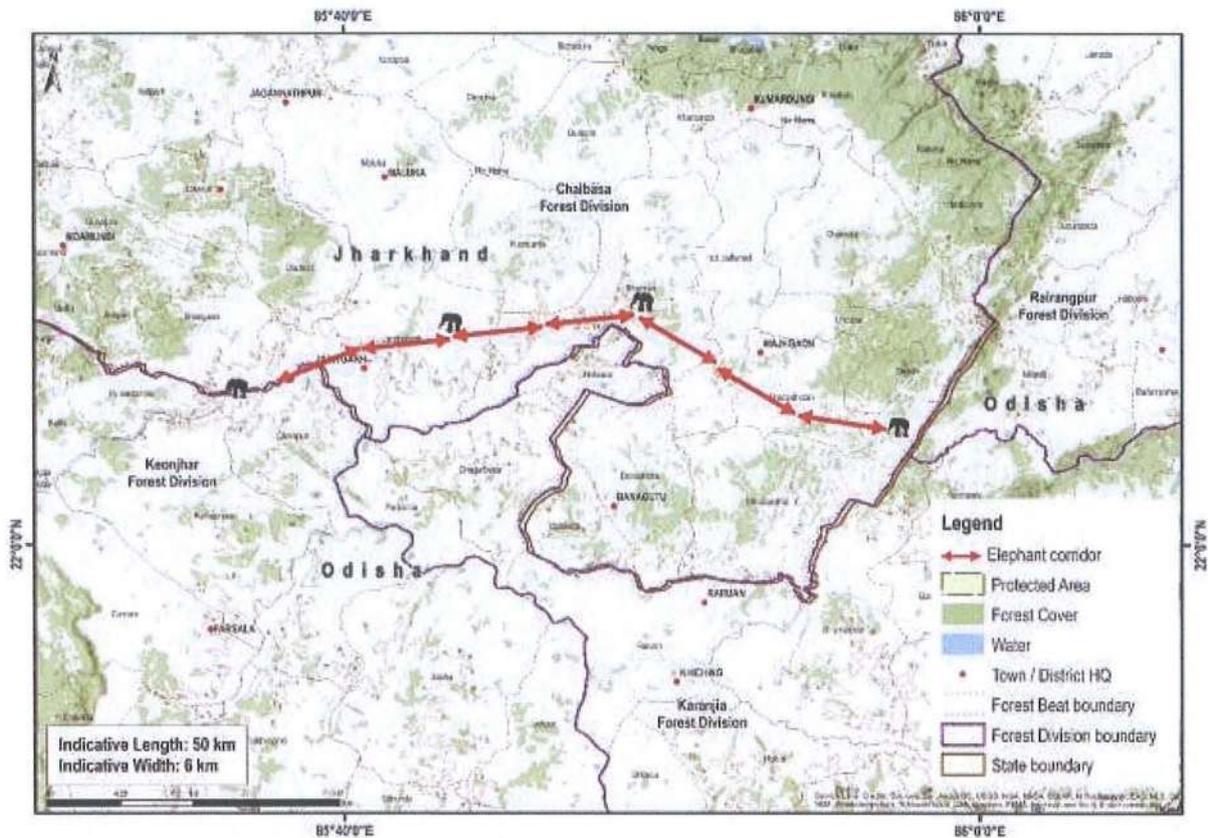


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13. Siyaljora- Dhubadhobin Corridor

Connectivity	This corridor is used by elephants for moving from Keonjhar Forest Division in Odisha to Sayiljora RF of Noamundi Range towards Dhubadhobin RF of Hatgamharia Range in Chaibasa Forest Division and eventually into Rairangpur Forest Division of Odisha.
State	Jharkhand
Indicative length and width	Length = 50 km, Width = 2 - 6 km
Geo coordinates	N 22° 5' 5.15", 22° 3' 36.40" / E 85° 37' 48.49", 86° 56' 44.59"
Forest ranges falling within corridor	Siyaljora, Noamundi, Dhubadhobin and Hatgamharia Forest Ranges of Chaibasa Forest Division
Revenue villages falling within corridor	33
Habitat type	Sal-dominated dry deciduous forests
Major land use	Forest land = 667.7 ha Agricultural lands + human-use areas = 9200 ha
Elephant movement status	Regular, more frequent from October to February
Number of elephants using the corridor	26
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Habitat improvement in the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available

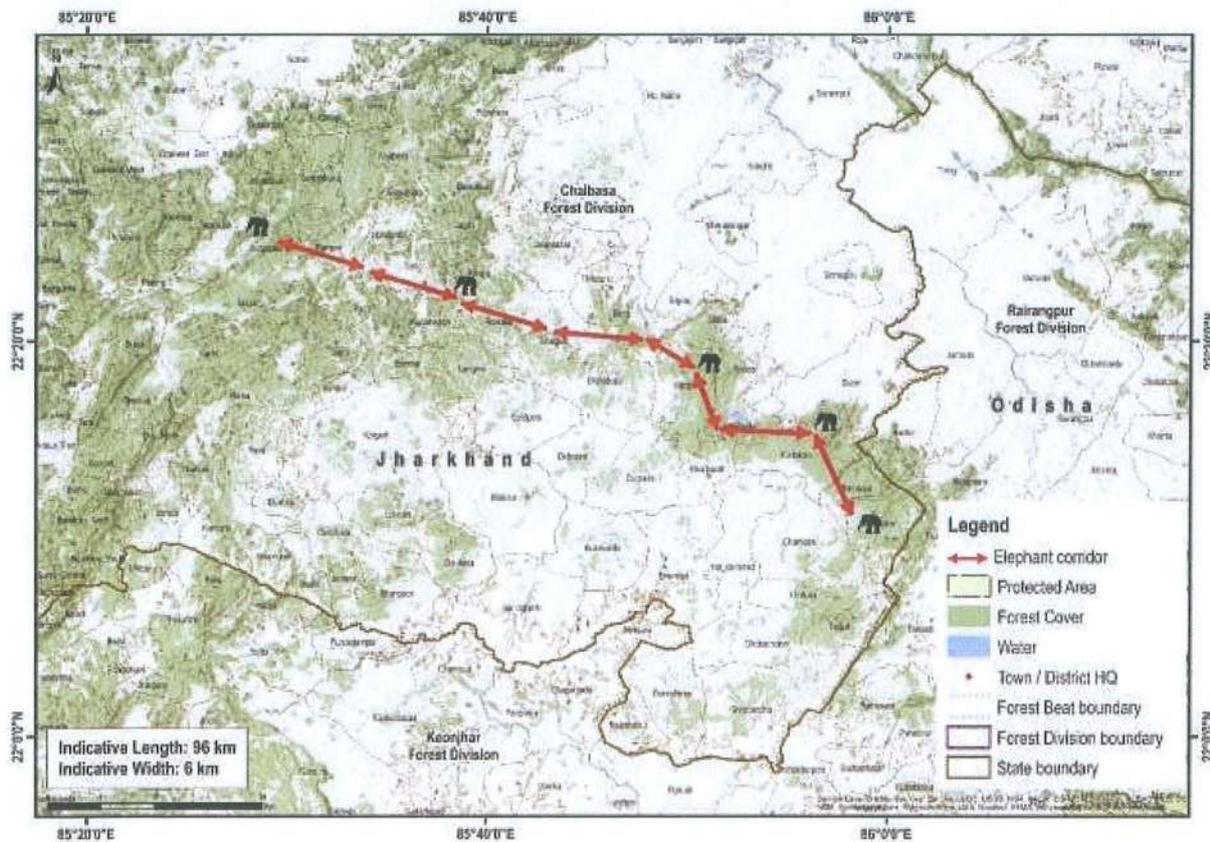


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14. Sangajata- Haldipokhar Corridor

Connectivity	Elephants use this corridor to move from Saraikela Forest Division in Jharkhand to Haldipokhar Range in Chaibasa Forest Division. Some elephants also go up to Rairangpur Forest Division in Odisha.
State	Jharkhand
Indicative length and width	Length = 96 km, width = 2 to 6 km
Geo coordinates	N 22° 40'25.83", 22° 9'45.06"/ E 85° 51'55.15", 85° 0'55.65"
Forest ranges falling within corridor	Haldipokhar Range in Chaibasa Forest Division
Revenue villages falling within corridor	74
Habitat type	Sal-dominated dry deciduous forest
Major land use	Forest = 3226.7 ha Agriculture + human-use = ~21,500 ha
Elephant movement status	Regular, more frequent from October to February
Number of elephants using the corridor	26
Linear infrastructure in the corridor	Two High tension power lines (11,000 V)
Recommendations by the Forest Department to improve the corridor	Habitat improvement in the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available

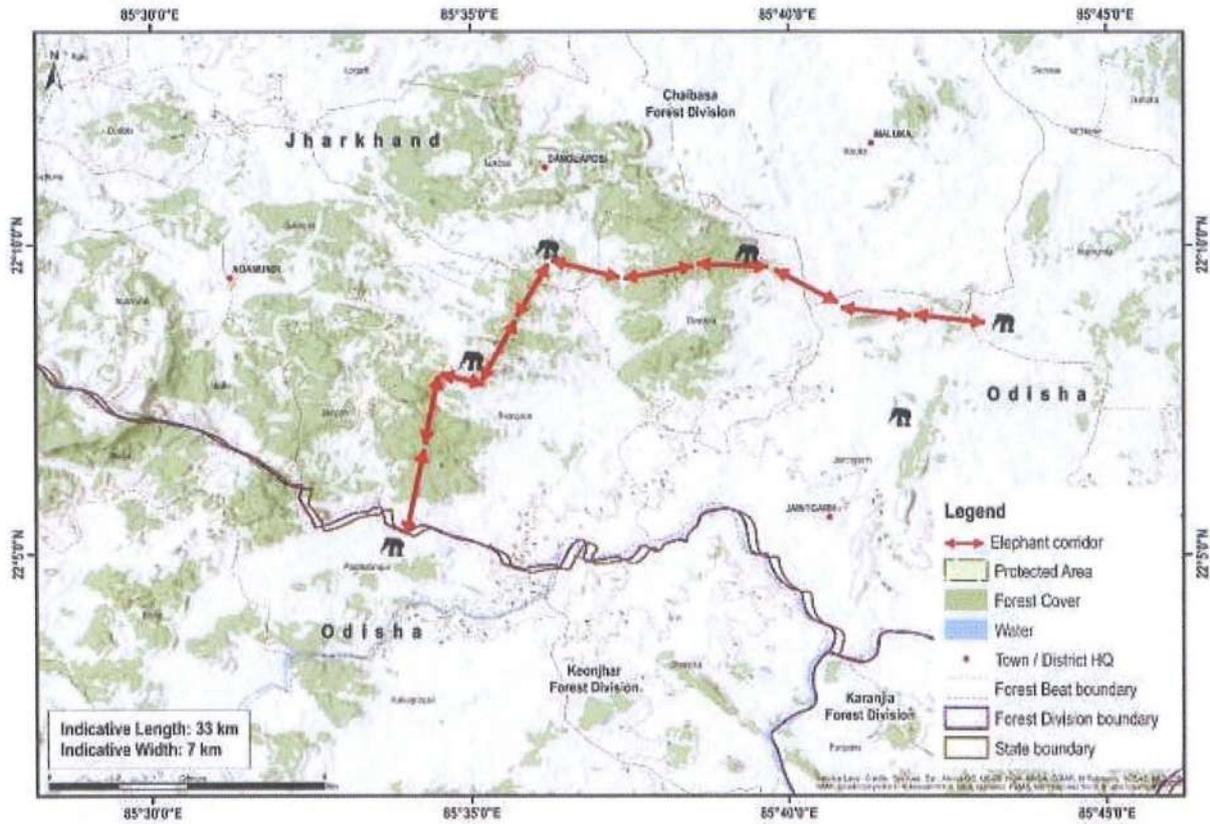


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3239

15. Leping- Dumuria Corridor

Connectivity	Elephants use this corridor to move from Leping RF of Noamundi Range in Chaibasa Forest Division to Keonjhar Forest Division in Odisha
State	Jharkhand
Indicative length and width	Length = 33 km, width = 2 - 7 km
Geo coordinates	N 22° 5'8.55", 22° 8' 44.96"/ E 85° 35' 7.03", 85° 42' 57.14"
Forest ranges falling within corridor	Noamundi Forest Range
Revenue villages falling within corridor	18
Administrative details of the corridor	The corridor connects the Haldipokhar Reserve Forest to the Sangajata Reserve Forest and maintains the connectivity with Simlipal Tiger Reserve in Odisha.
Habitat type	Sal-dominated dry deciduous forest
Major land use	Forest = 540.5 ha Agriculture + habitation = 5200 ha
Elephant movement status	Regular, more frequent from October to February
Number of elephants using this corridor	26
Linear infrastructure in the corridor	High tension power line (11,000 V)
Recommendations by the Forest Department to improve the corridor	Increasing the green cover in the corridor
Current status of the corridor	Active. Information on intensity of use not available.

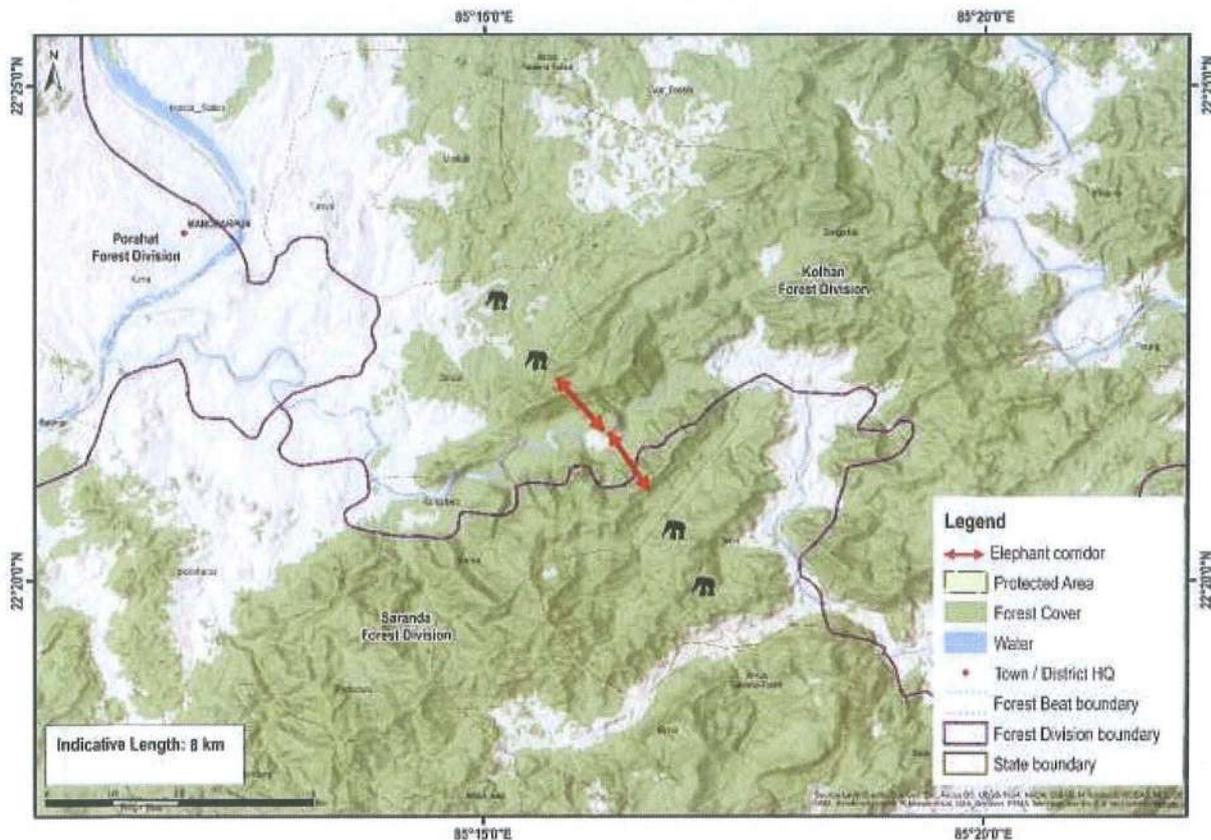


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16. Ankua- Ambia Corridor

Connectivity	The corridor links that Ambia- 11,12 Reserve Forest in Saranda Forest Division to Dimbuli Reserve Forest in Kolhan Range, Kolhan Forest Division
State	Jharkhand
Indicative length and width	Length = 8 km
Geo coordinates	N 22° 20'53", 22° 29'34"/ E 85° 14'41", 85° 14'46"
Forest ranges falling within corridor	Kolhan Forest Range
Revenue villages falling within corridor	18
Ecological importance	In addition to elephants, several other wildlife uses this very important corridor
Habitat type	Sal-dominated dry deciduous forest
Major land use	Forest = 1908 ha Agriculture = 343 ha
Elephant movement status	Elephant movement has decreased over years. Elephants mainly use this corridor from August to March
Number of elephants using this corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) High tension power line (11,000 V) 2) State Highway, around 3 km of the road passes through the corridor, with frequent heavy vehicle movement
Recommendations by the forest department to improve the corridor	Overpass for the elephants to cross the State Highway (Gua – Salai) passing through the corridor.
Current status of the corridor	Active. Intensity of use by elephants decreased.

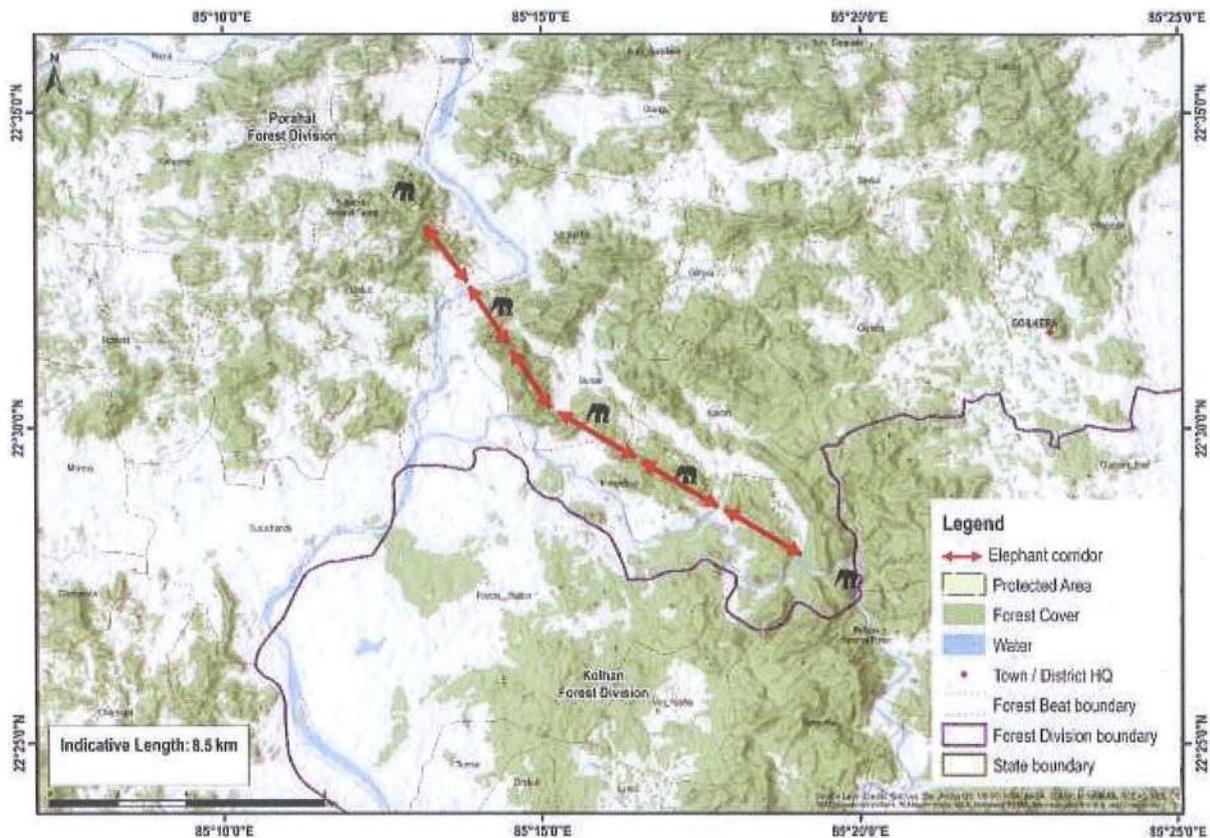


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17. Raibera- Pulbaburu Corridor

Connectivity	Elephants move between Raibera of Kolhan Forest Division to Pulbaburu of Porahat Forest Division along Raibera PF, Derwan PF, Panta PF, Anandpur (PF 13 & 14) and Ambia RF
State	Jharkhand
Indicative length and width	Length = 8.5 km
Geo coordinates	N 22°28'42", 22°29'36" / E 85° 17'52", 85° 17'56"
Forest ranges falling within corridor	Kolhan Range of Kolhan Forest Division
Revenue villages falling within corridor	4
Ecological importance	In addition to elephants, several other wildlife in the area uses this corridor
Habitat type	Dry deciduous Sal dominated forest
Major land use	Agricultural land and Sal dominated forest
Elephant movement status	Seasonal, mainly from August to March
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) Triple Railway lines of S.E.R connecting Goikera and Manoharpur Station of Chakradharpur division, around 3 km of railway track falls under the Kolhan Forest Division 2) Railway Bridge on Karo River 3) 3 km of High-tension power line (11,000 V)
Recommendations by the forest department to improve the corridor	1) Overpass for the elephants is required in the state highway passing through the corridor. 2) Monitoring Railway lines and imposing speed restriction very important
Current status of the corridor	Active. Intensity of use by elephants decreased.



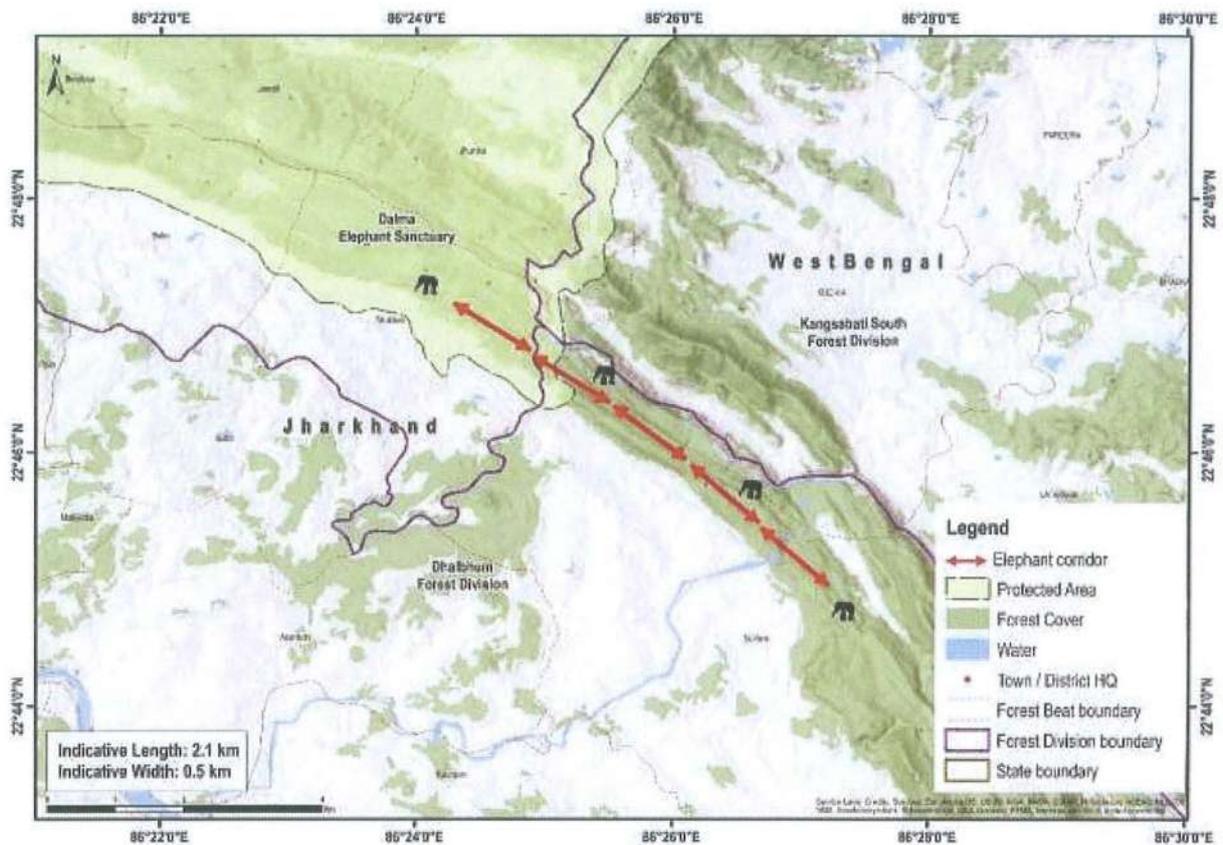
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18. Dalapani - Suklara Corridor

Connectivity	This corridor connects Dalma Wildlife Sanctuary to Kankrajhor Reserve Forest/ Dalapani Reserve Forest of Jamshedpur Forest Division of Jharkhand to Kankrajhor Reserve Forest, West Bengal.
State	Jharkhand
Indicative length and width	Length = 2.10 km, Width = 0.05 km
Geo coordinates	N 22°47'14.932", 22°45'8.375" E 86° 24'12.399", 86° 26'50.412"
Forest ranges falling within corridor	Ghatshila Range
Revenue villages falling within corridor	No village within the corridor
Habitat type	Tropical dry deciduous forest
Major land use	Forest = 9.75 ha Agriculture = 0.5 ha Habitation = 0.25 ha
Elephant movement status	Regular
Linear infrastructure in the corridor	Information NA
Number of elephants using this corridor	28
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the elephant corridor/migration. 2) Creation of water bodies inside corridors
Current status of the corridor	Active. Intensity of use by elephants increased.

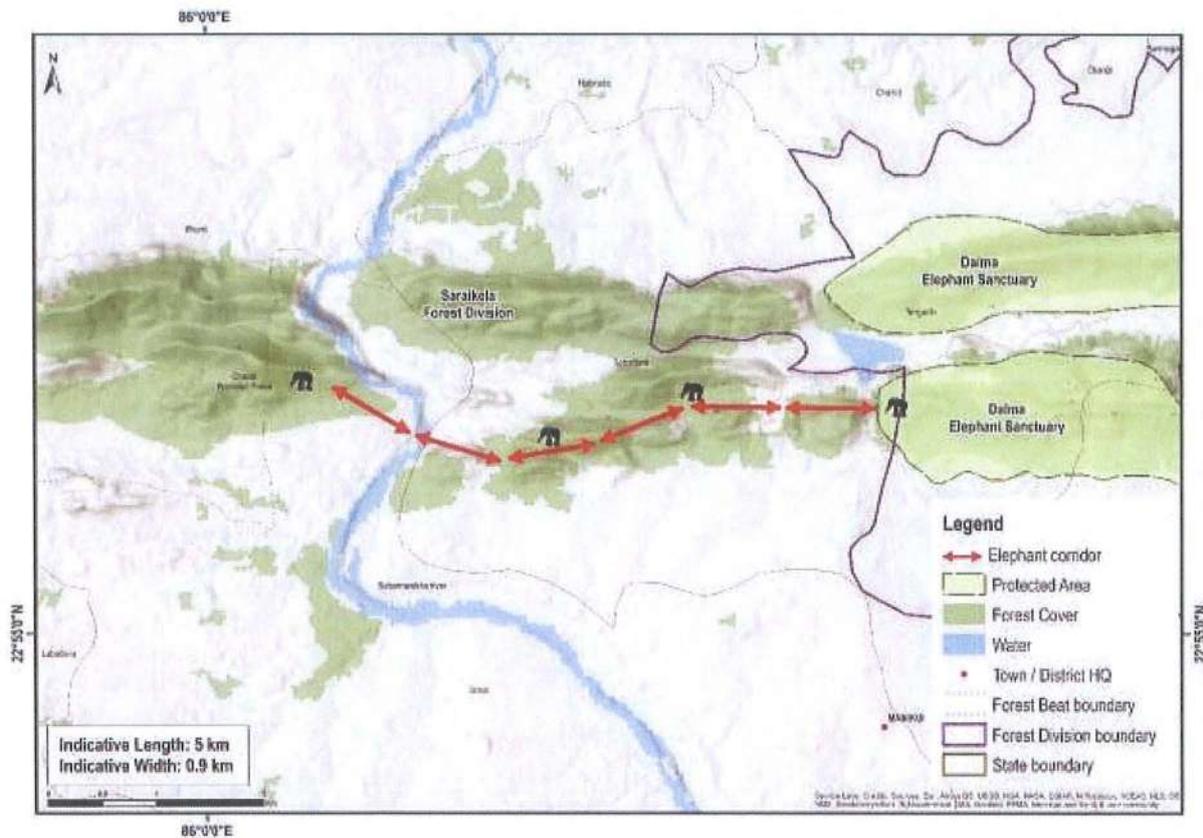


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19. Dalma – Chandil Corridor

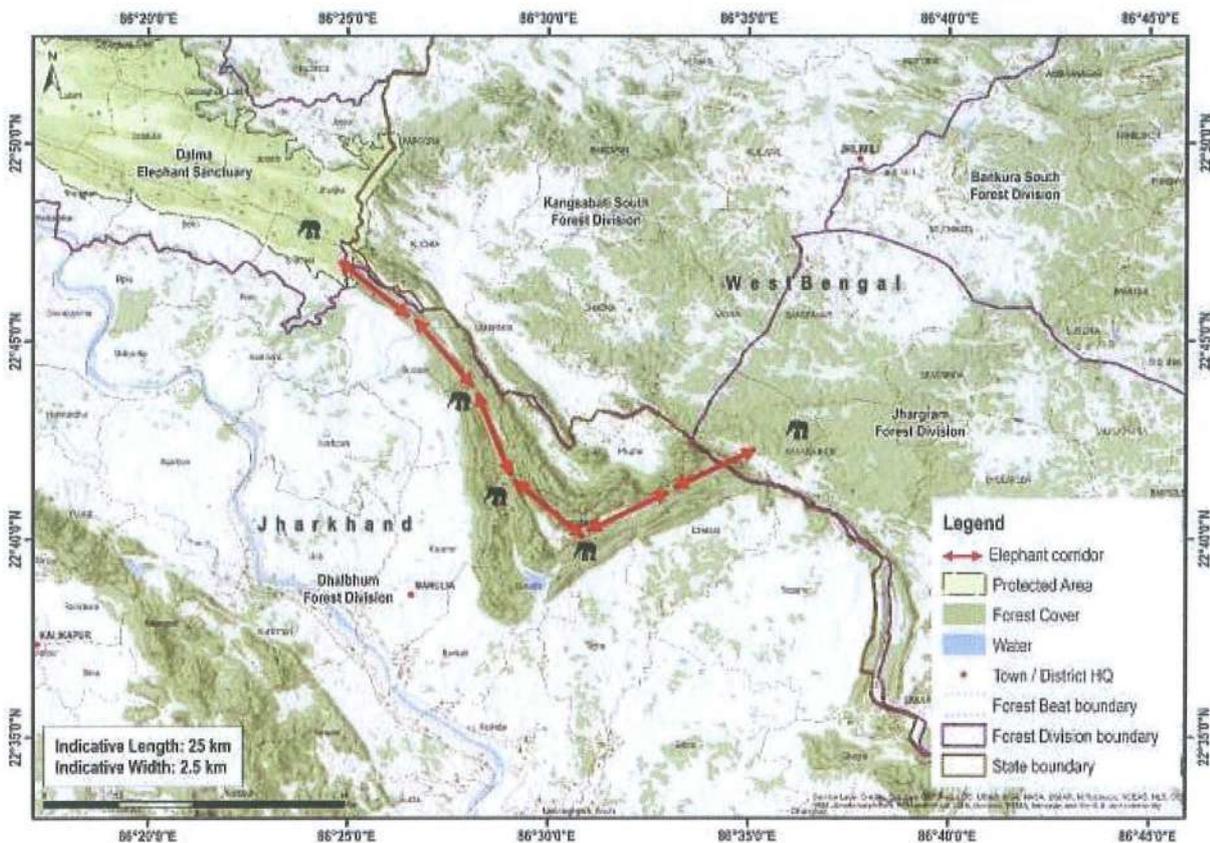
Connectivity	This corridor connects Chandil, Dalma Wildlife West Range, to Chandil Territorial Range, Saraikela Forest Division
State	Jharkhand
Indicative length and width	Length = 5 km, width = 0.9 km
Geo coordinates	N 22°56'7.077", 22°56'3.106" / E 86°03'24.923", 86°0'47.038"
Forest ranges falling within corridor	Chandil Range
Revenue villages falling within corridor	Six
Habitat type	Sal-dominated tropical dry deciduous forest
Major land use	Forest = 180 ha Agriculture = 90 ha Habitation = 30 ha
Elephant movement status	Occasional
Number of elephants using this corridor	4 – 5
Linear infrastructure in the corridor	1) National Highway 33 and associated high traffic volume in the road 2) Broad gauge railway line 3) 200 m of Subarnarekha irrigation canal with cemented embankment 4) 2 km of High tension power line
Recommendations by the forest department to improve the corridor	1) Corridor use by elephants decreased due to Subarnarekha canal, habitat degradation, Railway line and human habitation expansion. These factors to be looked into for corridor restoration. 2) Habitat enrichment along the elephant corridor/migration. 3) Creation of water bodies inside corridors 4) Over pass on Railway track passing through the corridor.
Current status of the corridor	Active. Intensity of use by elephants decreased.



3244

20. Dalapani - Kakrajhor Corridor (Interstate corridor)

Connectivity	This corridor connects Dalapani Reserve Forest of the Jamshedpur Forest Division, Jharkhand to Kakrajhor Protected Forest to West Midnapur Forest Division in West Bengal.
State	Jharkhand and West Bengal
Indicative length and width	Length = 25 km, Width = 2.5 km
Geo coordinates	N 22°38'60", 22°47'32" / E 86° 23'54", 86° 36'05"
Forest ranges falling within corridor	Ghatshila, East Singhbhum and Kankrajhor Ranges
Revenue villages falling within corridor	10
Habitat type	Tropical dry deciduous forest
Major land use	Forest, agriculture lands, settlements and revenue lands
Elephant movement status	Regular
Number of elephants using the corridor	Around 45
Linear infrastructure in the corridor	1) State Highway connecting Galudih to Bandhuan (1 km) and associated high traffic 2) 200m of Chandil canal with cemented embankment 3) 12 km of High tension power line
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the elephant corridor/migration. 2) Creation of water bodies inside corridors 3) Forest fire protection measures 4) Creation of Quick Response Teams for any elephant related issue. 5) The West Bengal FD has dug up a trench along the inter-state boundary. This has to be reviewed.
Current status of the corridor	Active. Intensity of use by elephants increased.

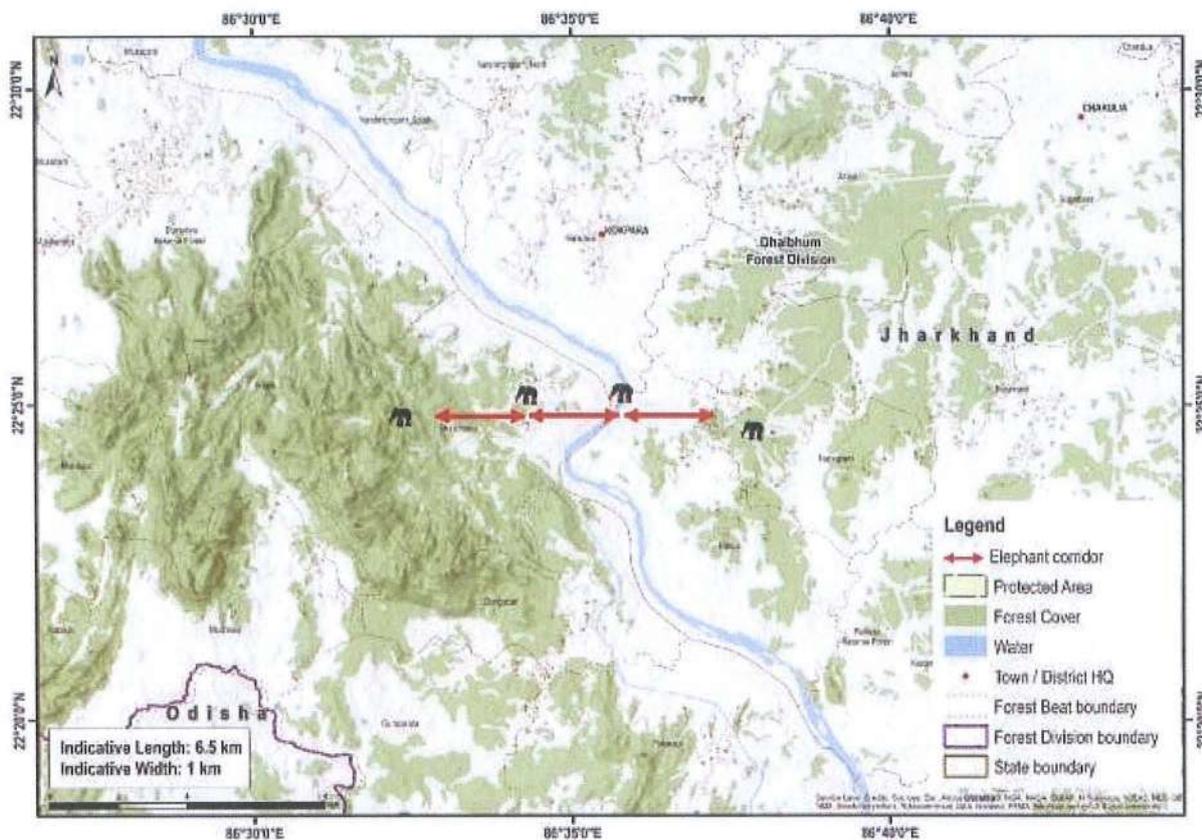


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21. Dumariya - Nayagram Corridor

Connectivity	The corridor connects the Dumriya Reserve Forest of Musabani Range with the Nayagram Reserve Forest of Chakuliya Range under Jamshedpur Forest Division.
State	Jharkhand
Indicative length and width	Length = 6.5 km, Width = 1 km
Geo coordinates	N 22°23'34", 22°25'46"/ E 86° 32'52", 86° 38'24"
Forest ranges falling within corridor	Chakulia and Musabani Range
Revenue villages falling within corridor	11
Habitat type	Tropical Dry deciduous forest
Major land use	Forest, Agriculture land, settlements
Elephant movement status	Regular
Number of elephants using the corridor	70 - 80
Linear infrastructure in the corridor	1) National Highway- 33 and associated high traffic 2) Subarnarekha irrigation canal with cemented embankment, 15 km 3) High tension power line, 5 km
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the elephant corridor/migration. 2) Creation of water bodies inside corridors 3) Forest fire protection measures 4) Creation of Quick Response Teams for any elephant related issue. 5) The West Bengal FD has dug up a trench along the inter-state boundary. This has to be reviewed.
Current status of the corridor	Active. Intensity of use by elephants increased.

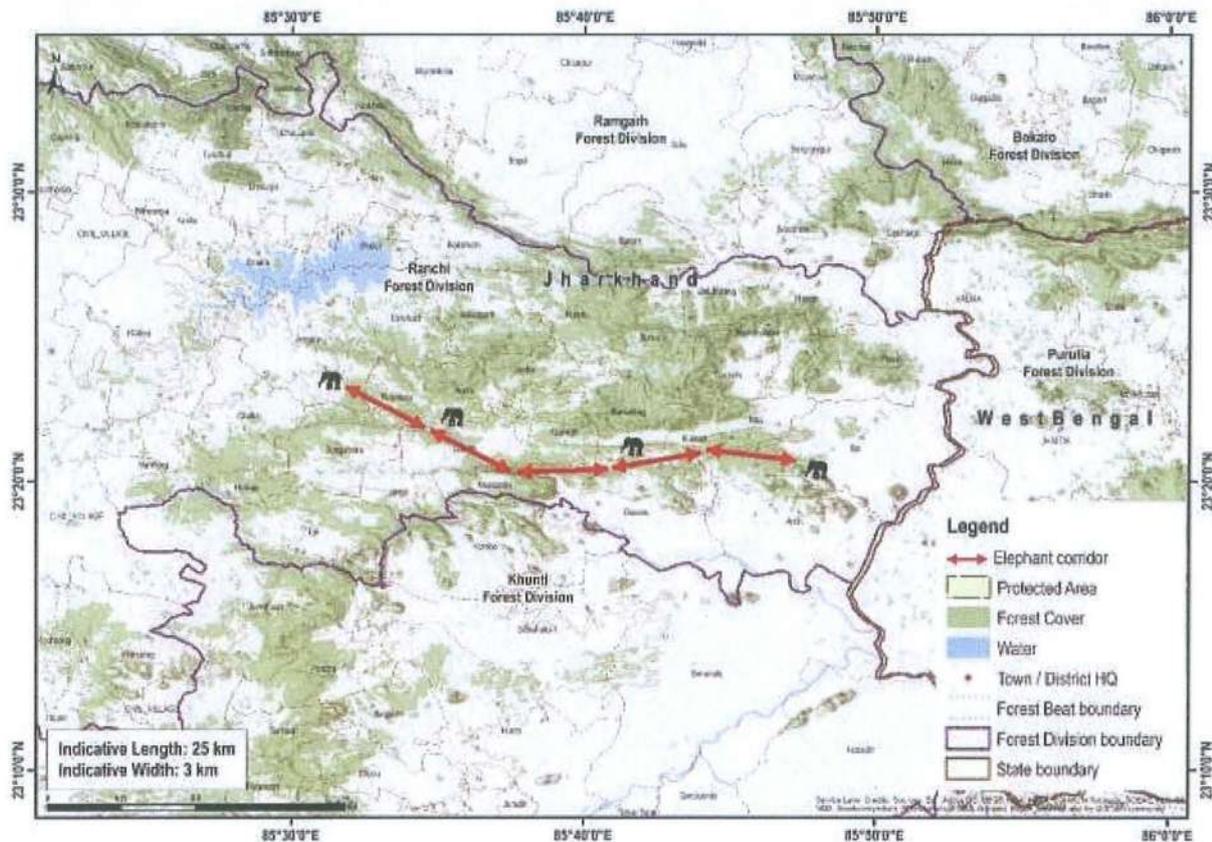


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22. Silli – Angara

Connectivity	The connectivity is between Mahilong in Ranchi East Forest Range of Ranchi Forest Division to Tamar Range of Khunti Forest Division.
State	Jharkhand
Indicative length and width	Length = 25 km, Width = 0-3 km
Geo coordinates	23.353216° N, 85.600742° E
Forest ranges falling within corridor	Mahilong Range
Revenue villages falling within corridor	16
Habitat type	Sal-dominated dry deciduous forest
Major land use	Forest = 2582.5 ha Agriculture = 1231.6 ha Habitation = 578.7 ha
Elephant movement status	Regular
Number of elephants using the corridor	24
Linear infrastructure in the corridor	1) National Highway-33 and associated high traffic 2) 15km of Subarnarekha irrigation canal with cemented embankment 3) 5 km of High tension power line
Bottleneck in the corridor	Trench along the West Bengal border
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the elephant corridor/migration. 2) Forest fire protection measures. More funds required in FFPM, CSS for this region, especially and firefighting squad. 3) Dedicated rapid response teams.
Current status of the corridor	Active. Intensity of use by elephants increased.

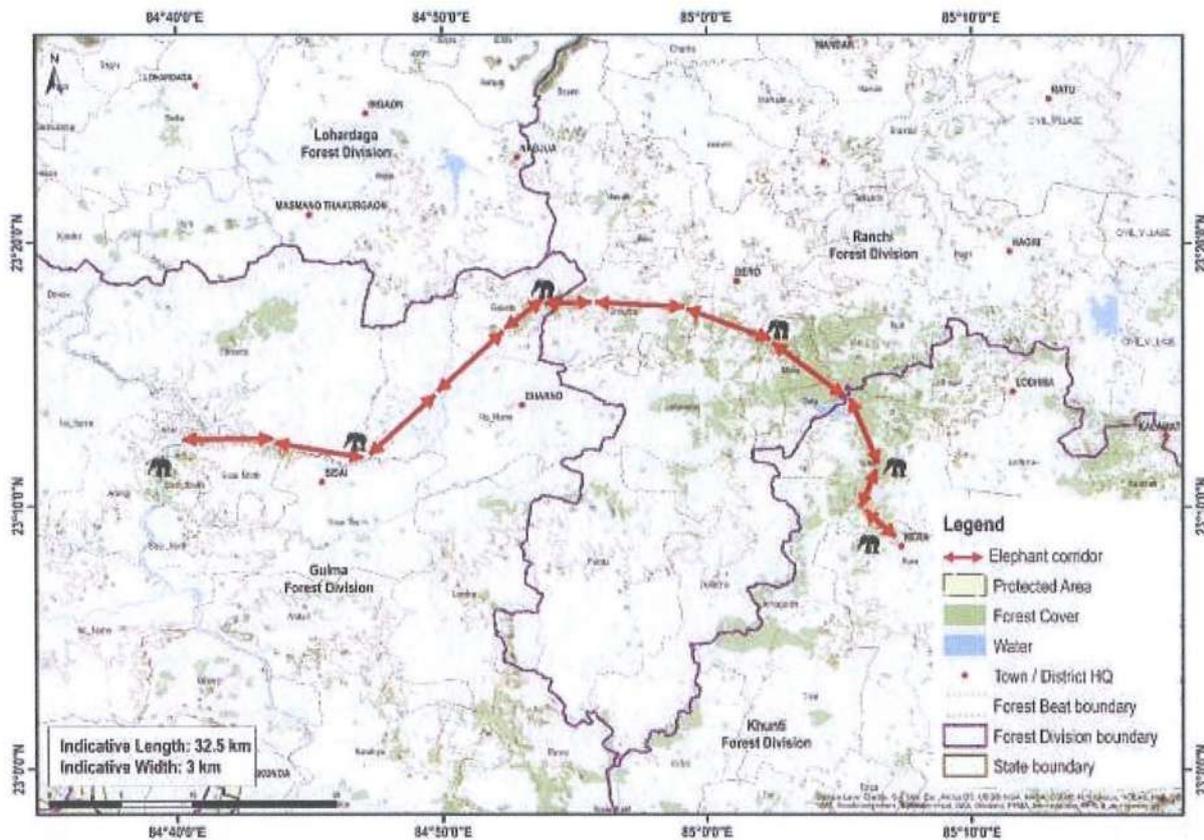


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23. Bharno - Bero - Kara

Connectivity	The connectivity is between Mahilong in Ranchi East Forest Range of Ranchi Forest Division to Tamar Range of Khunti Forest Division.
State	Jharkhand
Indicative length and width	Length = 35 km, width = 0-3 km
Geo coordinates	23.29095° N, 84.988069° E
Forest ranges falling within corridor	Mahilong Range
Revenue villages falling within corridor	16
Habitat type	Sal-dominated dry deciduous forest
Major land use	Forest = 1714.5 ha Agriculture = 1285.8 ha Habitation = 1143.0 ha
Elephant movement status	Regular
Number of elephants using the corridor	24
Linear infrastructure in the corridor	1) National Highway- 33 and associated high traffic 2) Subamarekha irrigation canal with cemented embankment, 15 km 3) High tension power line, 5 km
Bottleneck in the corridor	Lamkana, Khirda, Hathu areas
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the corridor 2) Fire protection measures to be taken up 3) Dedicated Rapid Response Teams
Current status of the corridor	Active. Intensity of use by elephants increased.

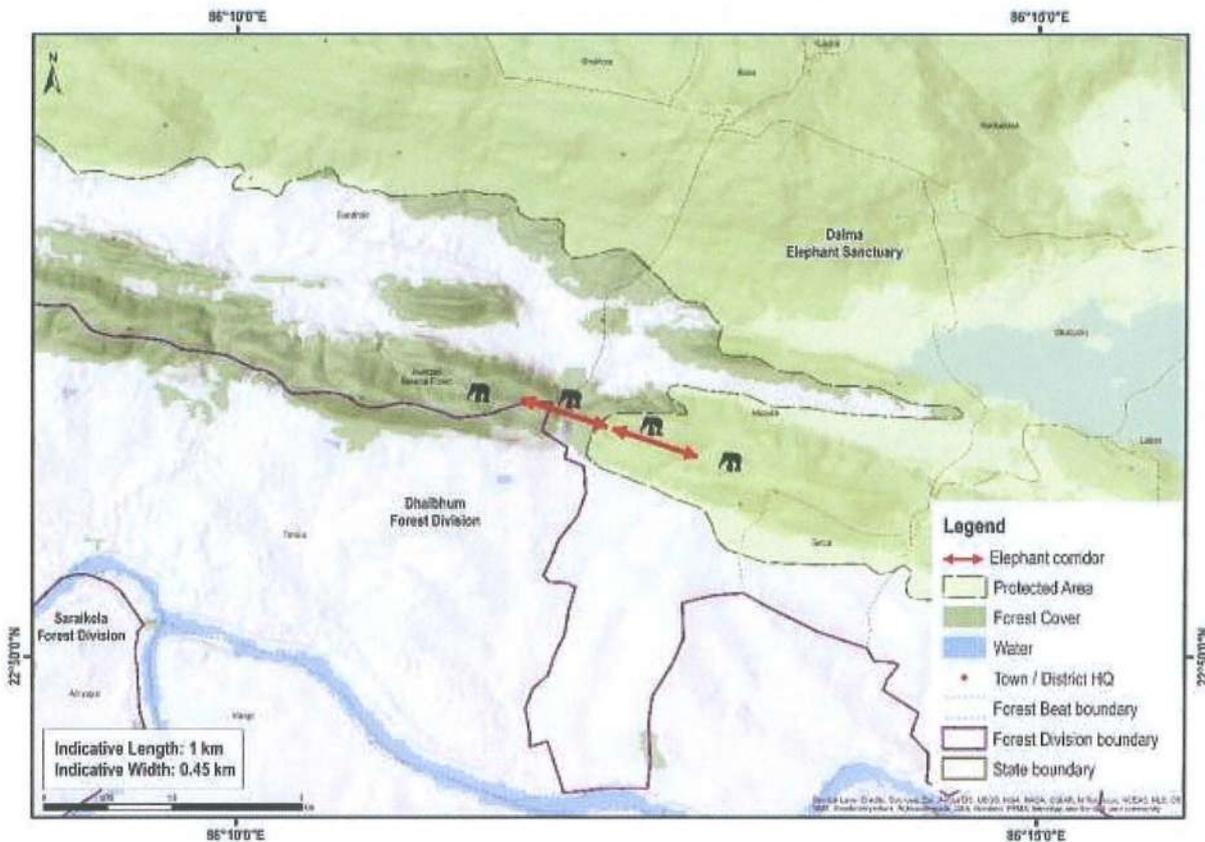


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24. Dalma- Asanbani

Connectivity	The connectivity is between Dalma Wildlife West Range, Chandil to Chandil Territorial Range, Chandil.
State	Jharkhand
Indicative length and width	Length = 1 km, Width = 0.28- 0.45 km
Geo coordinates	N 22° 51' 25.618" , 22° 51' 46.484" to E 86° 12' 29.242" to 86° 11' 50.127"
Forest ranges falling within corridor	Dalma Wildlife West Range and Chandil Range
Revenue villages falling within corridor	Information NA
Habitat type	Tropical dry deciduous forest
Major land use	Forests
Elephant movement status	Regular
Number of elephants using the corridor	8-10
Linear infrastructure in the corridor	1) National Highway- 33 and associated high traffic 2) High-tension power line, 0.5 km
Bottleneck in the corridor	National Highway- 33
Recommendations by the forest department to improve the corridor	1) Habitat enrichment along the elephant corridor/migration. 2) Overpass construction for vehicles for unhindered movement of elephants.
Current status of the corridor	Active. Intensity of use by elephants decreased.

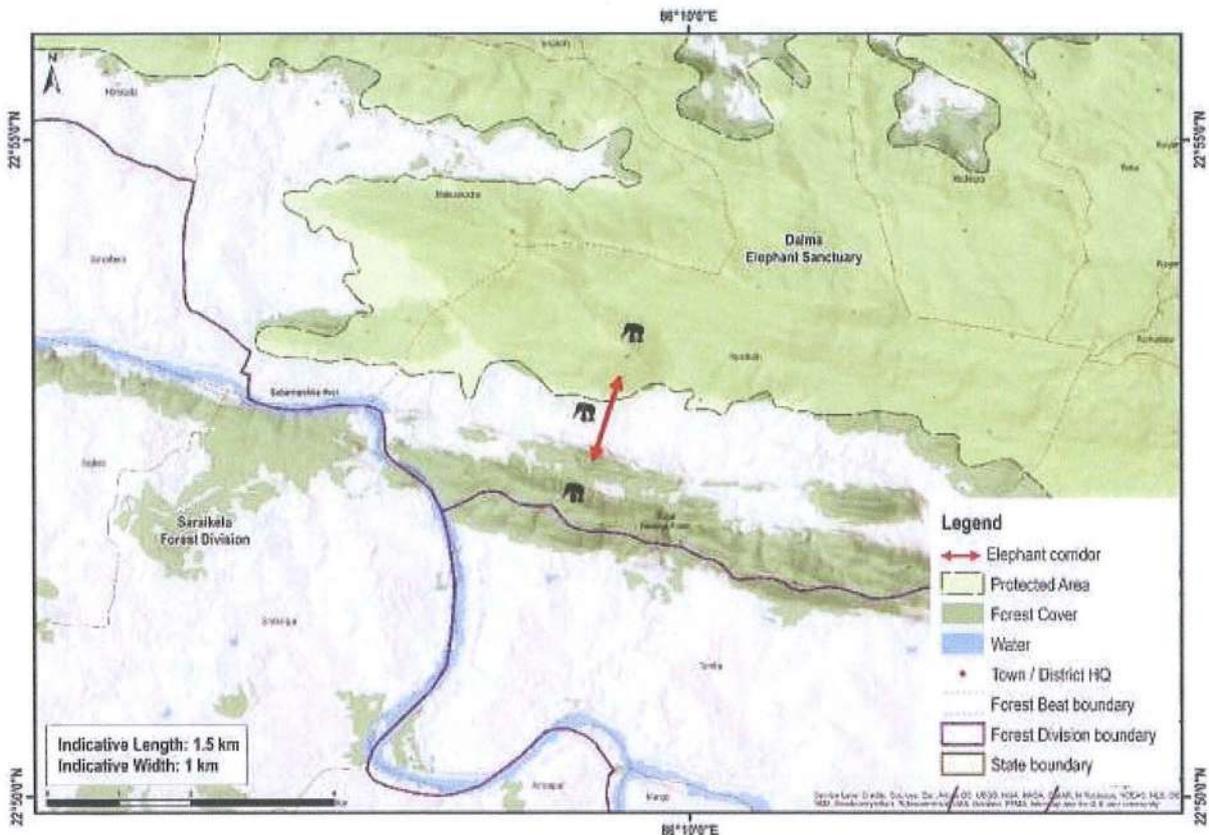


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25. Dalma - Rugai

Connectivity	The connectivity is between Dalma Wildlife West Range, Chandil to Chandil Territorial Range, Chandil.
State	Jharkhand
Indicative length and width	Length = 1.5 km, Width = 1 km
Geo coordinates	:N 22° 52' 56.978" , 22° 52' 29.049" to E 86° 09' 57.16" to 86° 9' 47.303"
Forest ranges falling within corridor	Dalma Wildlife West Range and Chandil Range
Revenue villages falling within corridor	1
Habitat type	Tropical Dry deciduous forest
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	Regular
Number of elephants using the corridor	8-10
Linear infrastructure in the corridor	1) National Highway- 33 and associated high traffic 2) High-tension power line, 0.5 km 3) Subamarekha irrigation canal, cement embankment, 1 km
Bottleneck in the corridor	Ramgarh
Recommendations by the forest department to improve the corridor	Habitat enrichment along the elephant corridor/migration
Current status of the corridor	Active. Intensity of use by elephants decreased.

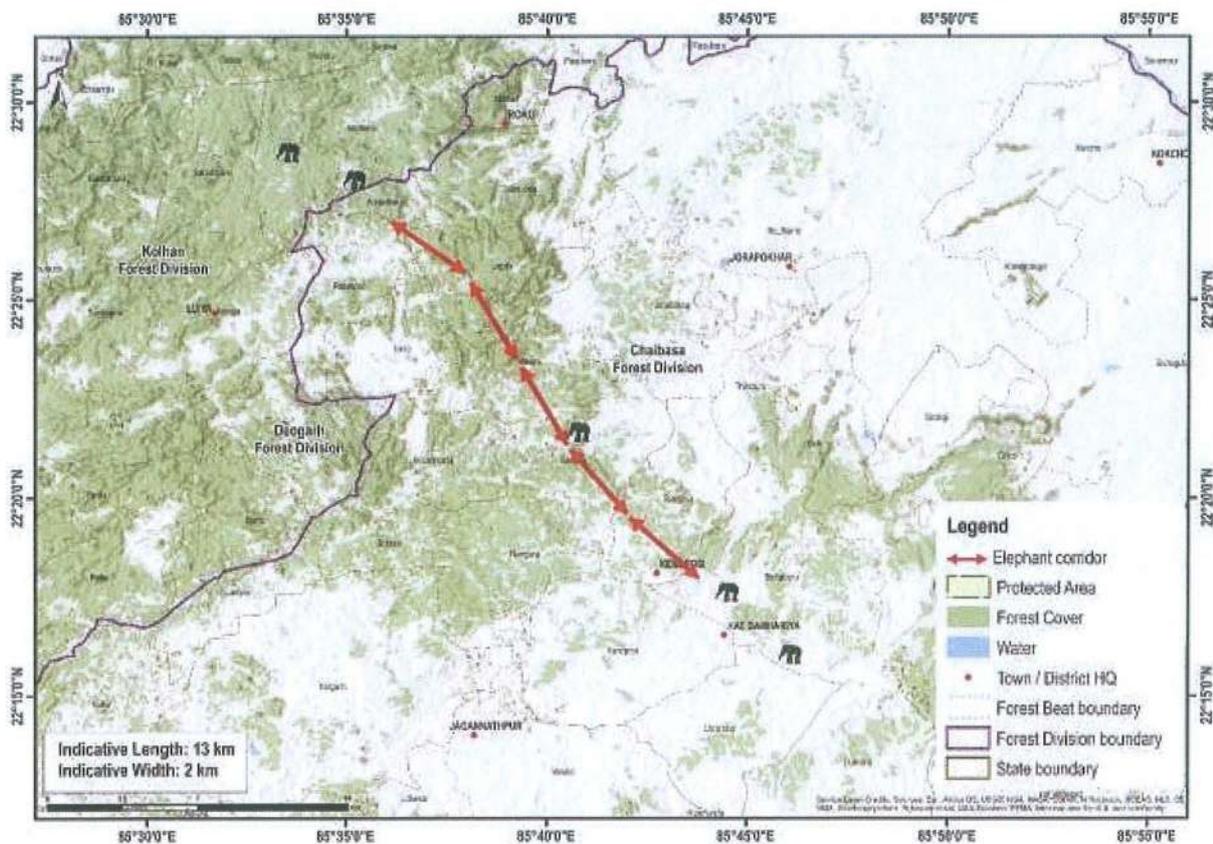


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26. Anjadbera - Bichaburu Corridor

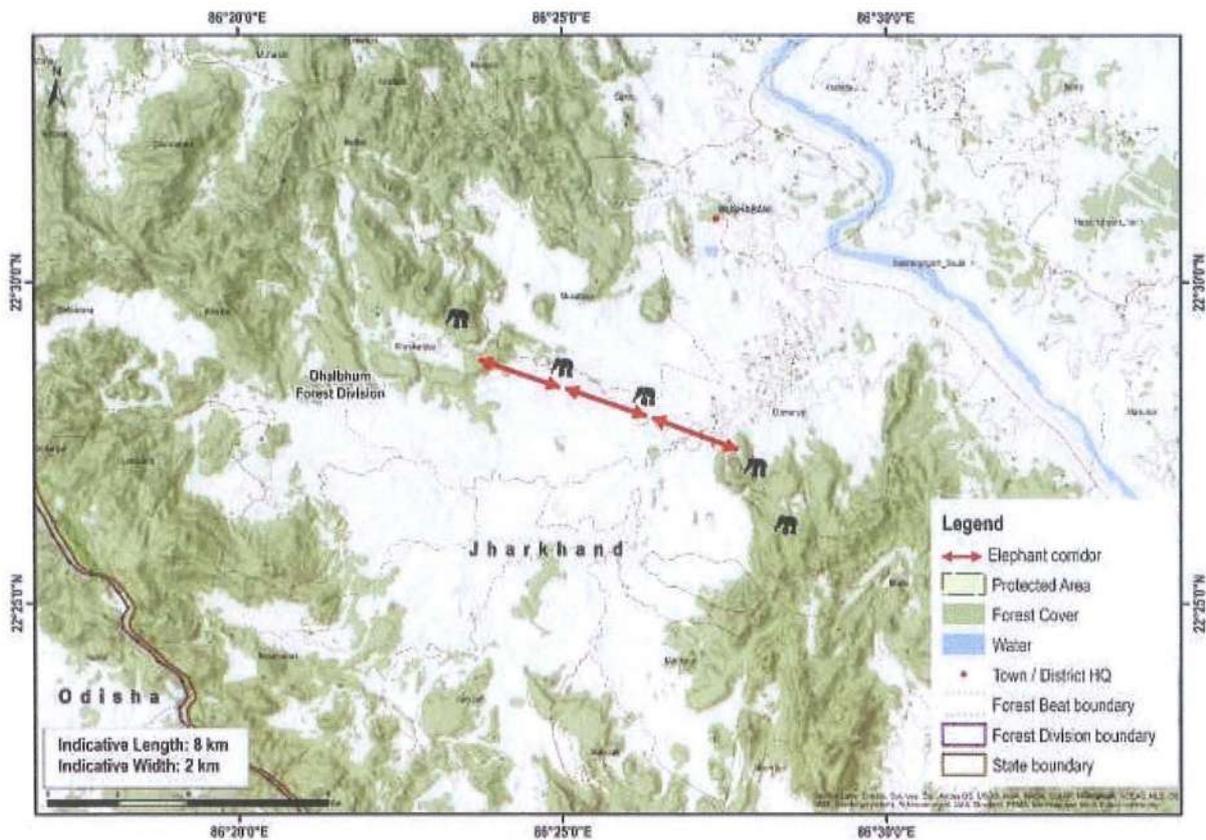
Connectivity	Bichaburu Protected Forest with Anjadbera Protected Forest leading to Kolhan and Saranda Forest areas.
State	Jharkhand
Indicative length and width	Length = 13 km, Width = 2 km
Geo coordinates	22°20' N 85°45' E
Forest ranges falling within corridor	Chaibasa and Hatgmaria Ranges
Revenue villages falling within corridor	5
Habitat type	Tropical Dry deciduous forest
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	None
Number of elephants using the corridor	None
Linear infrastructure in the corridor	1) Railway track (Noamuni-Chaibasa) 2) Road (Chaibasa-Champua)
Bottleneck in the corridor	Rangarh
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the state 2) Regulate road and rail traffic 3) Habitat improvement of the degraded connecting forest
Current status of the corridor	Impaired



3251

27. Dumria-Kundaluka and Murakanjia Corridor

Connectivity	Mosabani Range with Rakhamines Range in Dhalbhum
State	Jharkhand
Indicative length and width	Length = 8 km, Width = 2 km
Geo coordinates	22°27'–22°29' N 86°24'–86°28' E
Forest ranges falling within corridor	Musabani Range
Revenue villages falling within corridor	10
Habitat type	Tropical Dry deciduous forest
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	None
Number of elephants using the corridor	None
Linear infrastructure in the corridor	Road (Ghatsila-Dumuriya-Hata)
Bottleneck in the corridor	Road (Ghatsila-Dumuriya-Hata)
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the State 2) Monitoring the land-use pattern of the corridor area to ensure no further constructions take place 3) Seek alternatives for settlements in the corridor, especially in Palasbani and Murakanjia. 4) Improvement of forest cover by natural regeneration
Current status of the corridor	Impaired

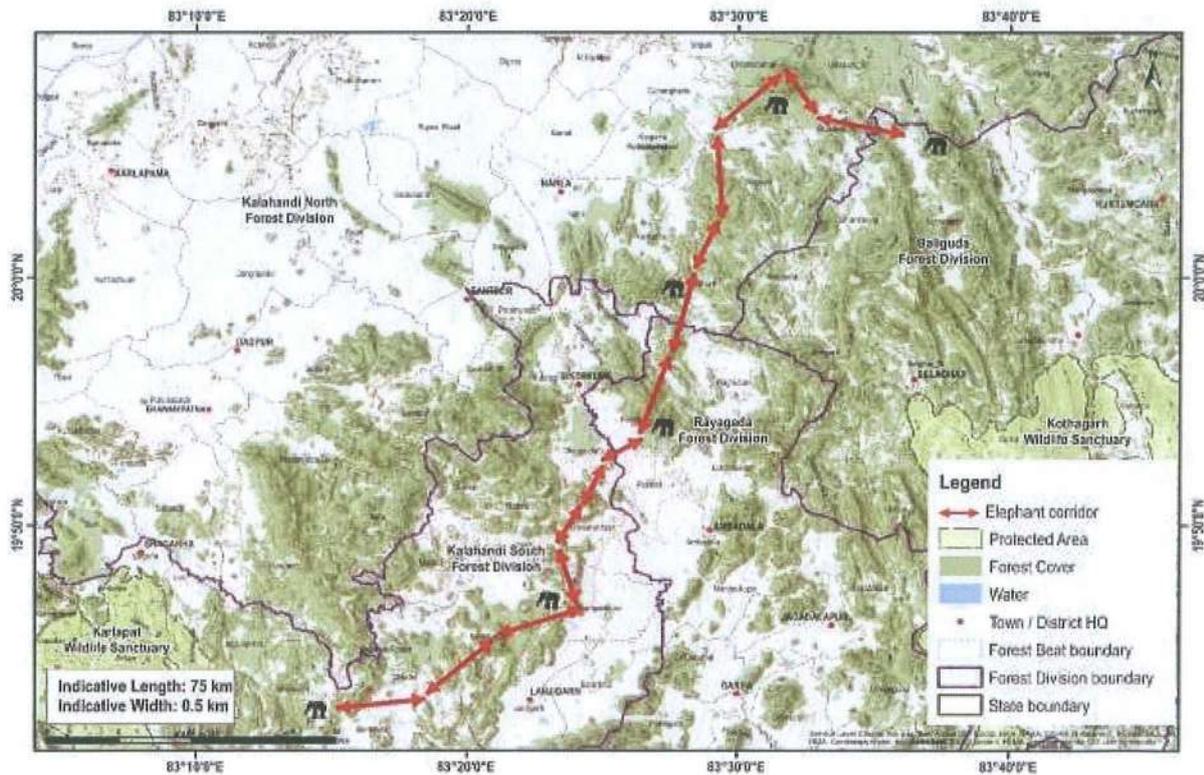


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28. Karlapat-Uraladani Corridor

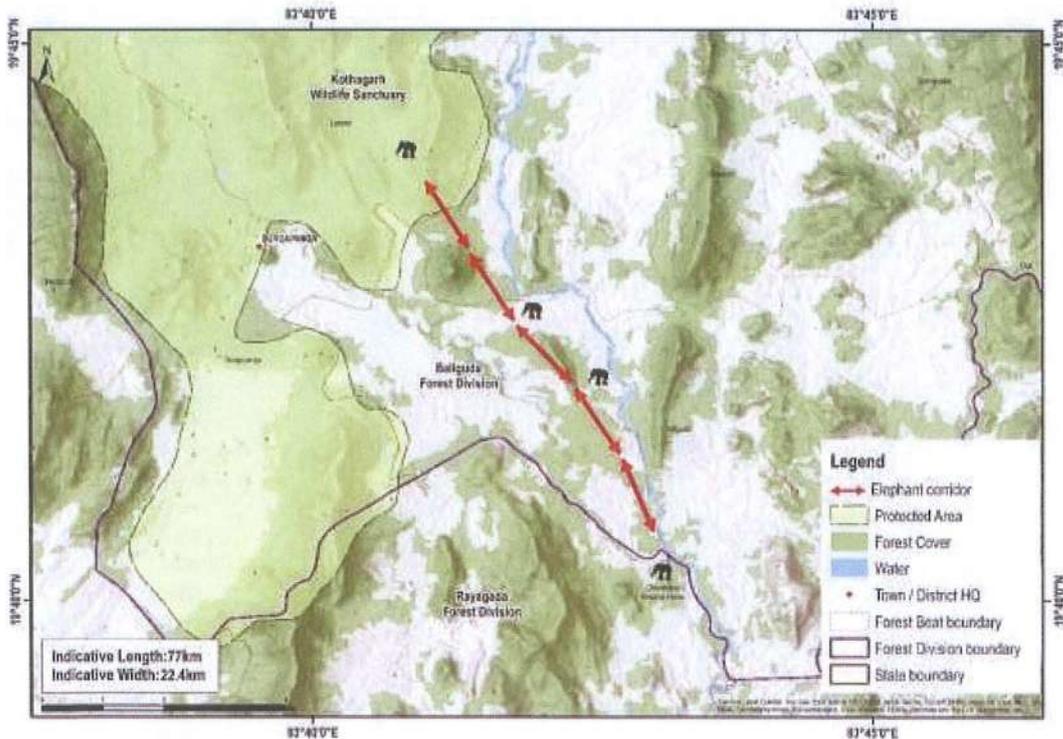
Connectivity	This corridor connects Karlapat reserve forest in Kalahandi North Forest Division and Kalahandi South Reserve forest via Rayagada Division
State	Odisha
Indicative length and width	Length = 75 km, width = 0.5 km
Geo Coordinates	N 20.142841 E 83.241914 N 19.703743 E. 83.596708
Forest ranges falling within corridor	Munguda, Biswanthpur and Karlapat Sanctuary Range
Revenue villages falling within corridor	17 – Rayagada Division
Habitat type	Tropical Dry Deciduous Forest
Major land use	Forest and Agricultural land
Elephant movement status	Not recorded by forest department
No. of elephants using the corridor	6 in Rayagada Division
Major bottleneck	Agricultural field found between Forest Blocks
Linear infrastructure in the corridor	Rayagada Division 1) 3 km of State Highway 6 passes through the corridor 2) 6km of Double track electrified Broad gauge railway line 3) 8 km of High-tension power line (11 KV)
Recommendations by the forest department to improve the corridor	1) Habitat shall be developed with active cooperation of local people using sound silvicultural techniques and taking up mix plantation with Fruit and Fodder species. 2) Elephant proof trench to be dug out to protect the agricultural crop and prevent human animal conflict. 3) Waterholes in more number to be created in the forest area. Renovation of old water holes inside forest is to be done periodically. 4) Salt licks to be developed near to water body and nallahs found in foothills of the forest in elephant movement area.
Current status of the corridor	Active. Intensity of use by elephants not available



3253

29. Kotagarh- Chandrapur Corridor

Connectivity	This corridor connects Kotagarh Wildlife Sanctuary with Pankhagudi Reserve Forest under the Muniguda Range of Rayagada Forest Division.
State	Odisha
Indicative length and width	Length = 77 km, width = 22.4 km
Geo Coordinates	N 19.96592 E 83.48061 N 19.42070 E 83.94061 N 19.97575 E 83.51303 N 19.51982 E 83.93684 N 19.71410 E 83.63915 N 19.73760 E 83.72767
Forest ranges falling within corridor	Muniguda, Tumudibandha, Belghar, and Chandragiri ranges
Revenue villages falling within corridor	214
Habitat type	Tropical Dry deciduous Forest
Major land use	Forest, Agricultural land and settlements Forest = 42489.2 Ha Agriculture = 9000 Ha Habitation = 3900 Ha
Elephant movement status	Regular
No. of elephants using the corridor	28
Major bottleneck	Agricultural field found between Forest Blocks
Linear infrastructure in the corridor	1) 7 km of State Highway 5 2) 18 km of High-tension power line (11 kv)
Recommendations by the forest department to improve the corridor	1) Habitat shall be improved with active cooperation of local people using sound Silvicultural techniques and mix plantation with raising of Fruit and Fodder species in the denuded land" (b) Elephant proof trench is to be dug out to protect the agricultural crop and prevent Human Animal Conflict at a large. (c) WHS in more number is to be dug out in the forest area to augment water during pinch Summer. (d) Salt licks to be developed in the forest close to /river bank inside the dense forest. e) Watch tower and other protection infrastructure to be strengthened.
Current status of the corridor	Active. Intensity of use by elephants increased.

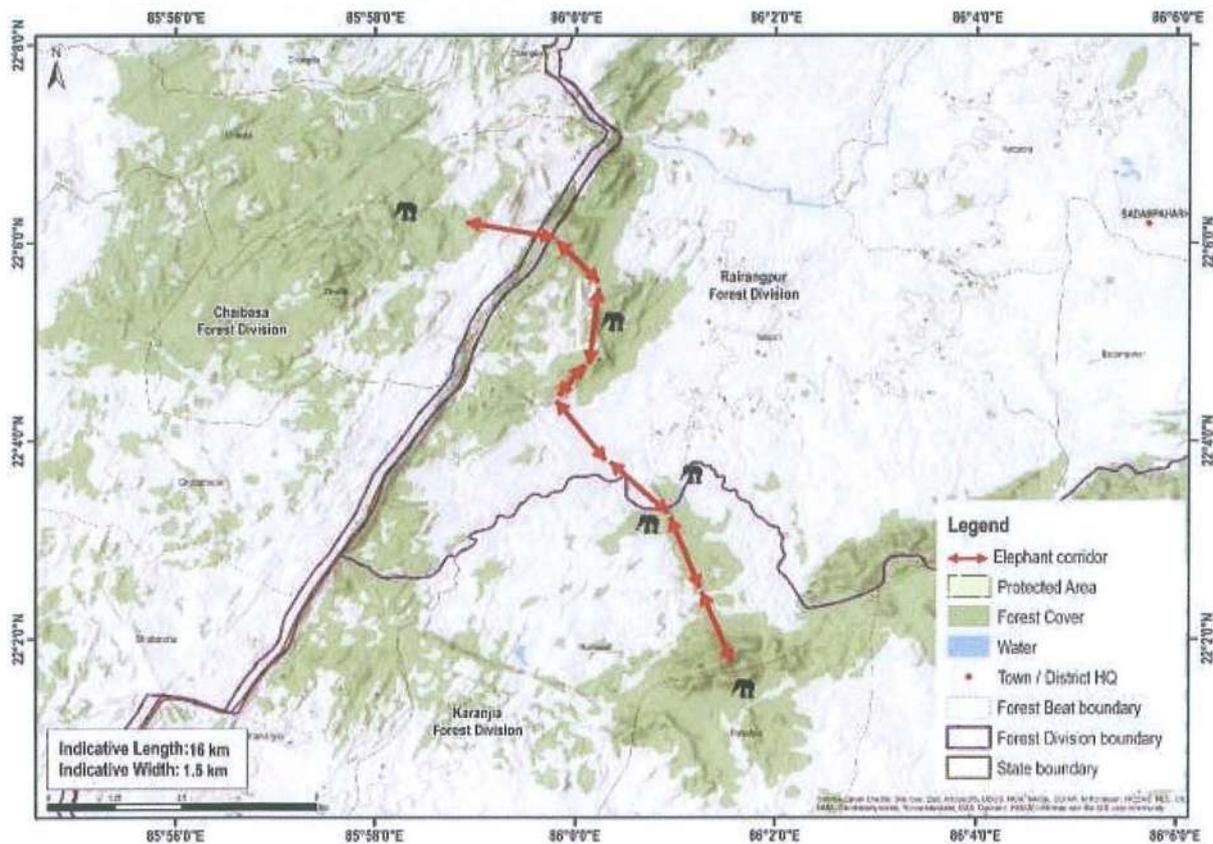


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30. Badampahar - Dhobadhobin Corridor (Interstate corridor)

Connectivity	This corridor connects the Badampahar Reserve Forest to Dhobadhobin Reserve Forest.
State	Odisha and Jharkhand
Indicative length and width	Length = 16 km, width = 1.5 km
Geo Coordinates	N 22.02019 E 86.003795 N 22.33106 E 86.43209 N 22.08617 E 86.16170 N 22.33087 E 86.43185
Forest ranges falling within corridor	Dudhiani, Karanjia, Bisnoi, Rairangpur and Badampahar Range
Revenue villages falling within corridor	15
Habitat type	Sal-dominated forest
Major land use	Forest, Agricultural land and settlements Forest= 2000 ha. appx. Agriculture= 1580 appx. Habitation= 120 appx
Elephant movement status	Seasonal
No. of elephants using the corridor	03
Major bottleneck	Villages, National Highway 220
Linear infrastructure in the corridor	1) 1 km of National Highway-220 2) 3 km of High-tension power line
Recommendations by the forest department to improve the corridor	1) Prevent forest fire with the help of VSS/Public 2) Make public aware about ill effect of loss of bio diversity and of threatened flora crimes. 3) Enforce provisions of the wildlife (Protection) Act 1972 4) Detail study of animal behavior & public participation in management 5) Creation of public awareness & public participation in management.
Current status of the corridor	Active. Intensity of use by elephants decreased

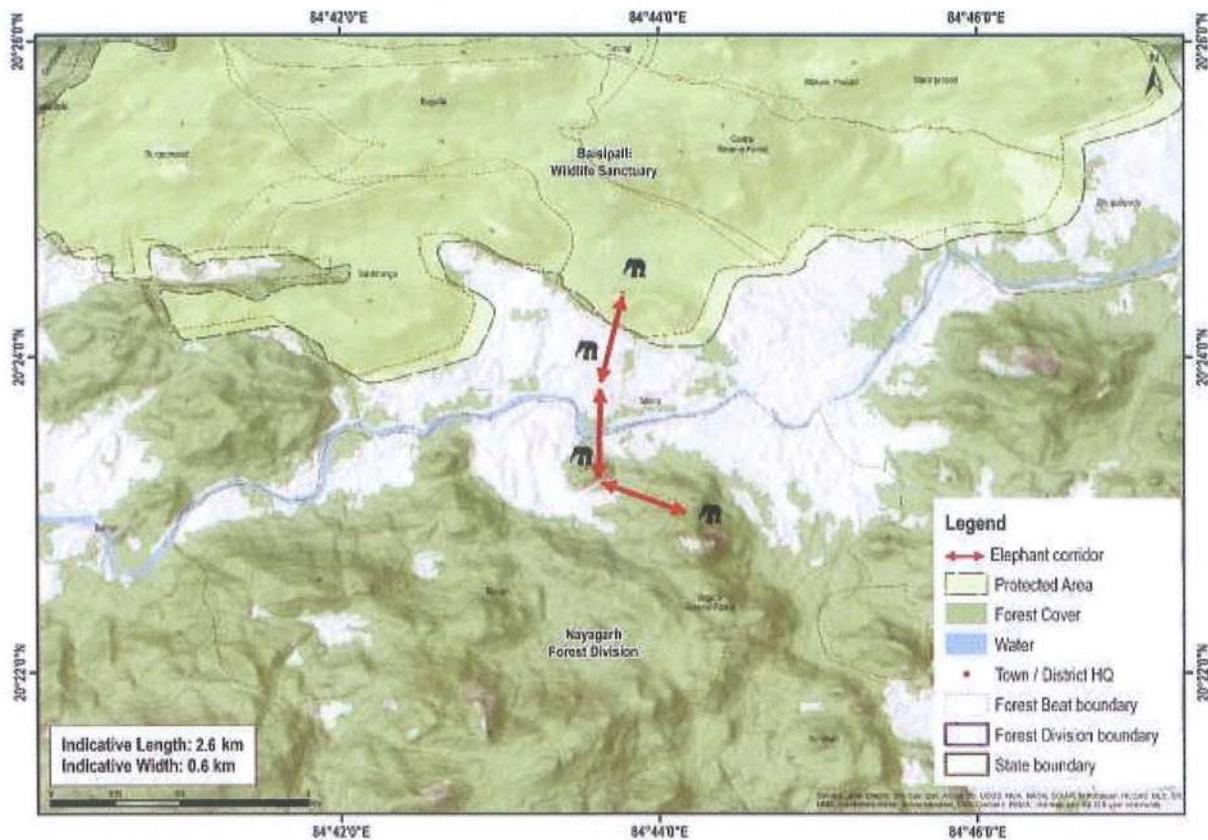


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3255

31. Buguda- Central Corridor

Connectivity	This corridor connects Central Reserve Forest of Daspalla Range to Baisipalli Reserve Forest of Banigochha West Range of Mahanadi Wildlife Division Links Simlipal Tiger Reserve.
State	Odisha
Indicative length and width	Length = 2.6 km, width = 0.8 km
Geo Coordinates	N 20.37986, E 84.72706 N 20.40438, E 84.72670.
Forest ranges falling within corridor	Daspalla and Banigochha West Range
Revenue villages falling within corridor	1
Habitat type	Northern and Southern dry mixed deciduous forest
Major land use	Agriculture, Settlement, River, Plantation(Cashew)
Elephant movement status	Regular
No. of elephants using the corridor	11
Major bottleneck	1) Passing of Brutanga river 2) NH57 is crossing through the corridor 3) Proposal for Construction of Khurdha- Balangir Railway line.
Linear infrastructure in the corridor	1) Proposed railway line and canal (Brutanga Irrigation Project) 2) High-tension power line (33 KV), 4 km
Recommendations by the forest department to improve the corridor	Construction of ramp, watch tower, anti-poaching barrack, animal cross overs at specific locations.
Current status of the corridor	Active. Intensity of use by elephants decreased.

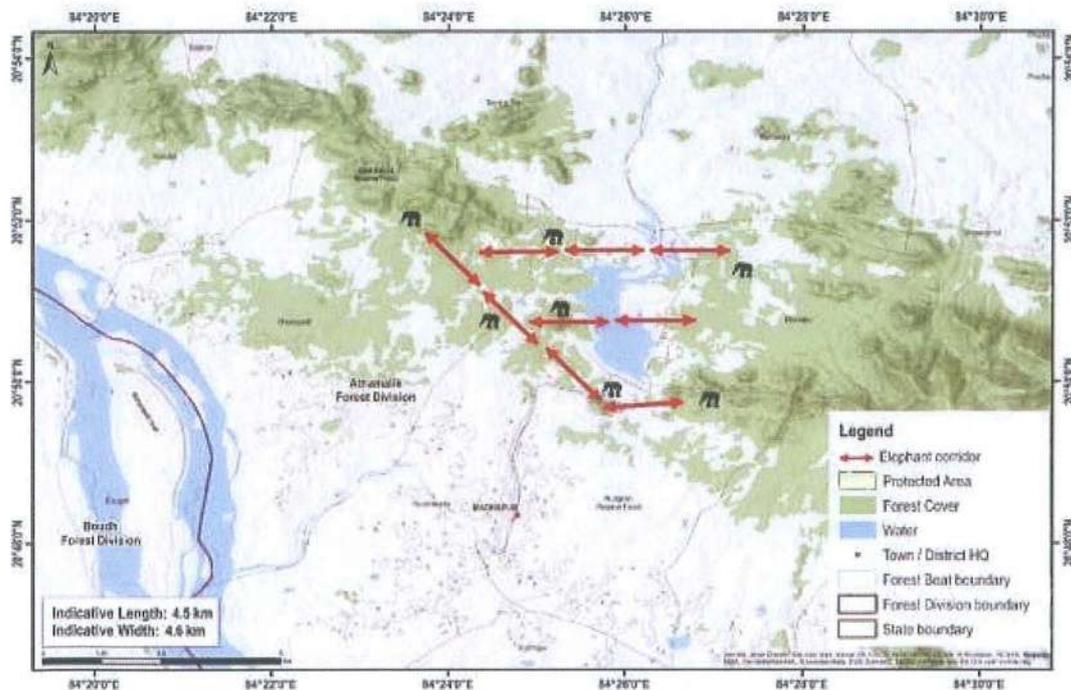


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32. Nuagaon – Baruni Corridor

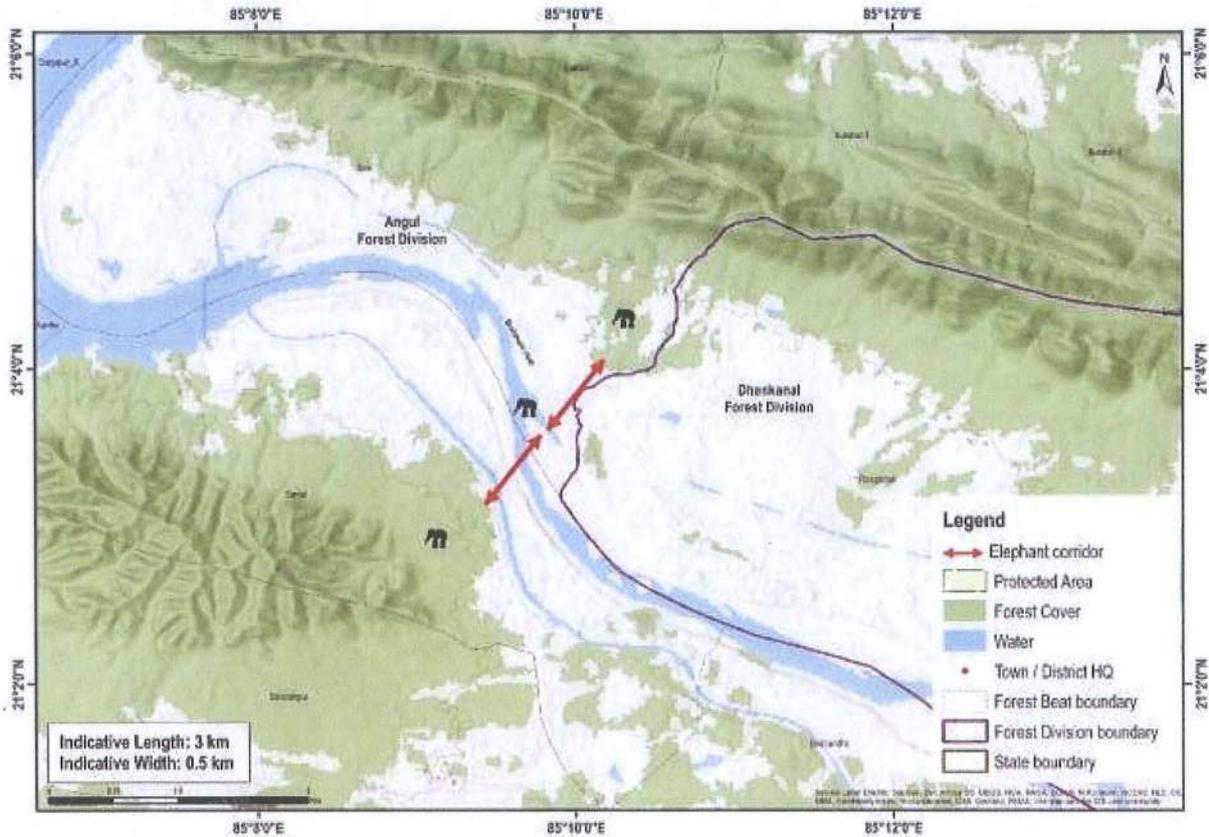
Connectivity	This corridor connects the Athmallik/ Nuagaon Reserve Forest to Baruni Reserve Forest /Angul
State	Odisha
Indicative length and width	Length = 4.5 km, width = 4.6 km
Geo Coordinates	N 20. 83111, E 84.44200
Forest ranges falling within corridor	Madhapur Range
Revenue villages falling within corridor	2
Ecological importance	It connects Mahanadi Elephant Reserve and Sambalpur Elephant Reserve by linking Satkosia Gorge Wildlife Sanctuary to Khalasuni Wildlife Sanctuary of Sambalpur Elephant Reserve, creating a large landscape complex for elephants
Habitat type	Dry deciduous forest, Sal dominated
Major land use	Forests, Agriculture and settlements Revenue Forest = 75 Ha. Forest land = 2000 Ha.
Elephant movement status	Regular
No. of elephants using the corridor	14
Major bottleneck	None
Linear infrastructure in the corridor	1) Bamur-Madhapur PWD Road and associated vehicular traffic, 5 km 2) Manjore Dam Left canal and Right canal with concrete embankment, 3.5 km 3) High-tension power line (11 KV), 1.5 KM 4) Government Establishment of Manjore Irrigation Project, 4 ha
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the State Forest Department and legally protected under appropriate law to prevent encroachment, diversion of forest land for non-forestry activities and developmental activities in the corridor critical to animal movement. 2) In consultation with the villagers, the identified land near Manarbada and Patrapada village should be secured. 3) Construction should be avoided in the areas downstream of the Manjore Dam, especially in the forest fringe. 4) Notification of the Khesra Forest in the corridor area as Reserve Forest. 5) Ensure that illegal felling of tree and collection of stone is stopped. 6) Establishment of new stone crushers should not be allowed at least 500 Mtr from the area (Near the Dam).
Current status of the corridor	Active. Intensity of use by elephants increased.



3257

33. Kanheijena- Anantapur Corridor

Connectivity	This corridor connects Angul Forest Division- Dhenkanal Forest Division
State	Odisha
Indicative length and width	Length = 3 km, width = 0.5 km
Geo Coordinates	N 21.04833, E 85.15555 N 21.07388, E 85.18472
Forest ranges falling within corridor	Talcher and Mahabir Road Range
Revenue villages falling within corridor	8
Habitat type	Tropical Dry Deciduous Forest
Major land use	Agricultural land, river and settlements
Elephant movement status	Seasonal and Occasional
No. of elephants using the corridor	Angul Division - 40 Dhenkanal Division - 165
Major bottleneck	Canals, Highways, Brick kilns, Industries and Factories
Linear infrastructure in the corridor	1) National Highway 23 2) State Highway 3) 2 km of Rengali irrigation canal with concrete embankment
Recommendations by the forest department to improve the corridor	1) Bridge along the Brahmani river and Rengali canals. 2) Protection to adjoining forest areas from industrialization.
Current status of the corridor	Active. Intensity of use by elephants decreased.

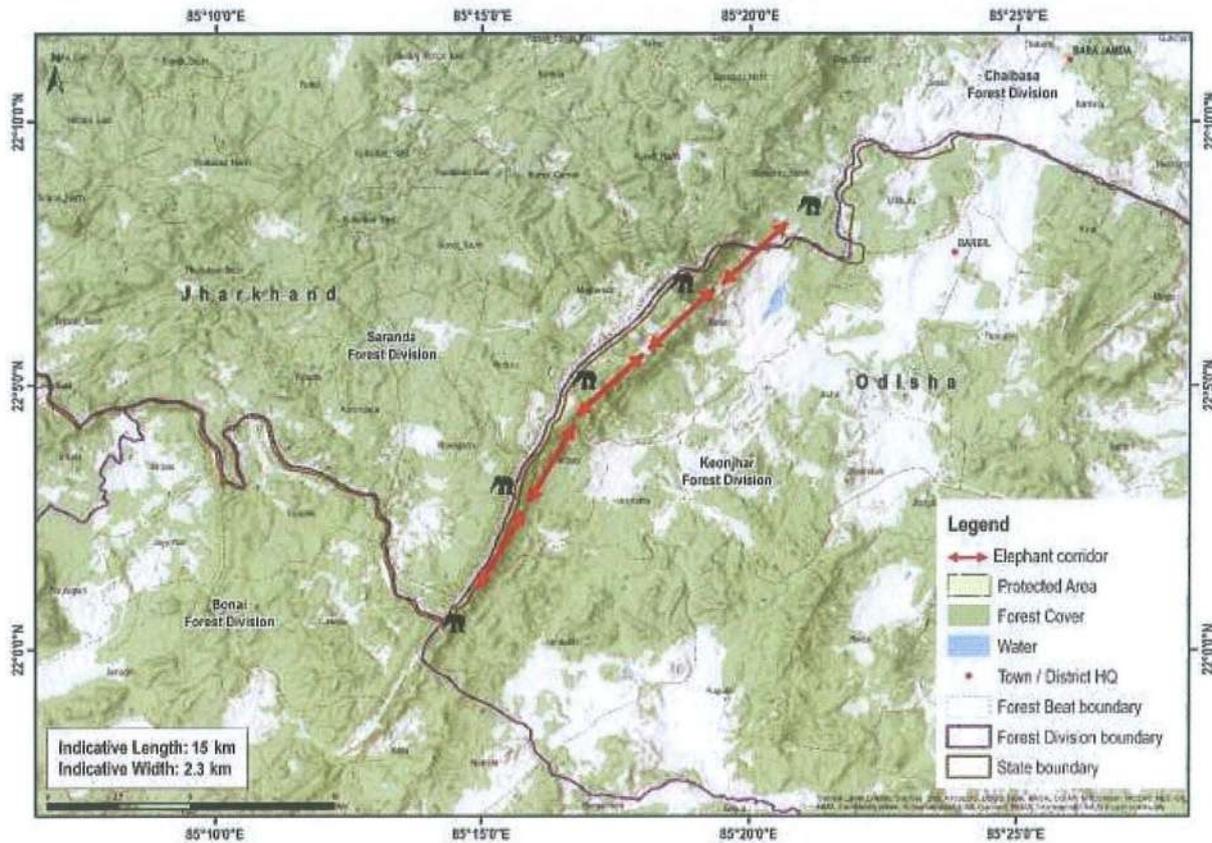


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34. Karo - Karampada Corridor (Interstate corridor)

Connectivity	This corridor connects Karo Reserve Forest to Karampada Reserve Forest
State	Odisha
Indicative length and width	Length = 15.17 km, width = 2.3 km
Geo Coordinates	N 22° 00' 20.2" E 85° 14' 41.7" N 22° 07' 41.1" E 85° 16' 25.5"
Forest ranges falling within corridor	Barbil Range
Revenue villages falling within corridor	0
Habitat type	Sal dominated dry deciduous forest
Major land use	Forest, 1588.88 ha
Elephant movement status	Occasional
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	Bolani Mines of SAIL
Linear infrastructure in the corridor	1) Mine roads, 2 km 2) Factory, 50 ha
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants decreased.

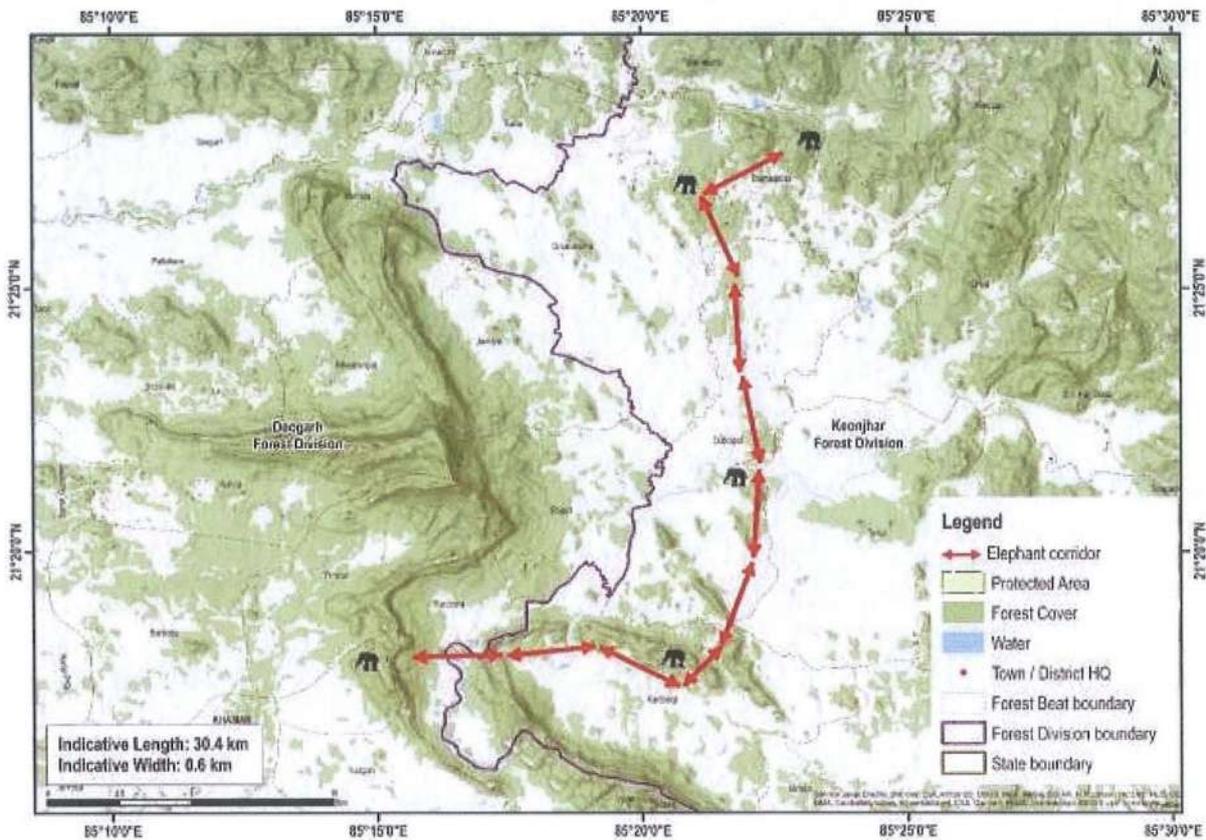


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35. Telkoi - Pallahara Corridor

Connectivity	This corridor connects Telkoi Reserve Forest to Khamar Reserve Forest
State	Odisha
Indicative length and width	Length = 30.4 km, width = 0.6 km
Geo Coordinates	N 22°27' 22.8" E 85°22' 16.7"
Forest ranges falling within corridor	Saleikena-Siriabahal-Kalapohari RF, Samakoi RF, Mankadachua RF, Tungurubahal DPF, Dabalapal PRF, Dhinkeswari DPF & Kakudiamba DPF
Revenue villages falling within corridor	12
Ecological importance	Important corridor for connecting population of Telkoi Reserve Forest to Khamar Reserve Forest
Habitat type	Mixed deciduous Forest dominated by Sal
Major land use	Revenue land and Agriculture Forest = 579.2 ha Agriculture = 747.7 ha
Elephant movement status	Regular
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	Human settlement, Agriculture field & Road
Linear infrastructure in the corridor	1) 150m of National Highway 49 2) High tension power line, 220 KV = 400 mtr, at Banspal and 220 KV= 500 mtr at Lokanathpur
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

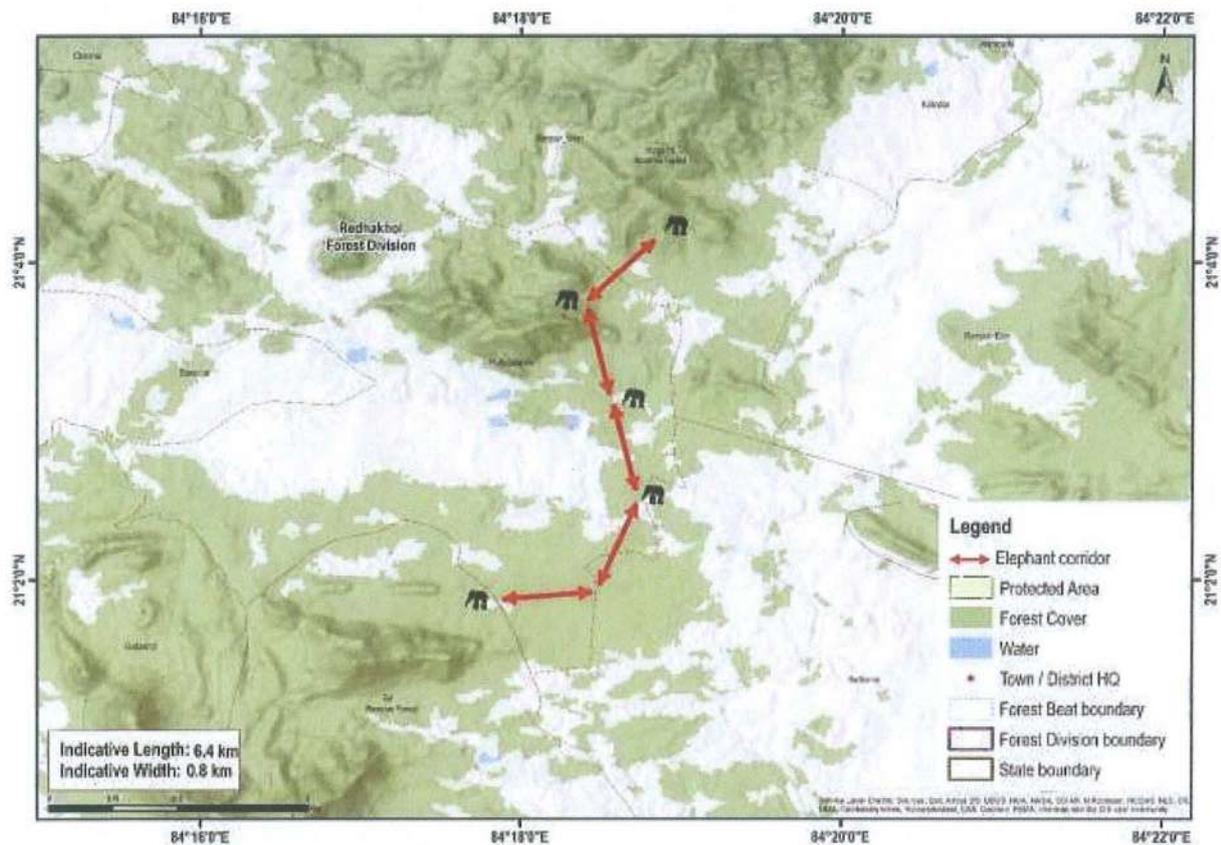


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36. Tal - Kholgarh Corridor

Connectivity	This corridor connects Tal Reserve Forest of Badbahal Range to Kholgarh Reserve Forest of Redhakhhol Range
State	Odisha
Indicative length and width	Length = 6.4 km, width = 0.8 km
Geo Coordinates	N 21° 03' 51.", E 84°19'2.29" N 20°55' 21.8" E 84°16'13.12"
Forest ranges falling within corridor	Badbahal Range and Redhakhhol Range
Revenue villages falling within corridor	4
Habitat type	Soil dominated mixed deciduous forests
Major land use	Forest, Agricultural land and Settlements
Elephant movement status	Seasonal
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	1) National Highway- 55 2) Angul to Sambalpur Railway line
Linear infrastructure in the corridor	1) 1.3 km of National Highway- 55 2) 1.2 km double track & electrified railway track
Recommendations by the forest department to improve the corridor	The corridor area needs specific legal attention like in PAs is protected by the strength of Forest and Wildlife laws. The legal implications are to be very specific regarding the developmental interventions emphasizing the protection of the animal along with its habitat.
Current status of the corridor	Active. Intensity of use by elephants decreased.

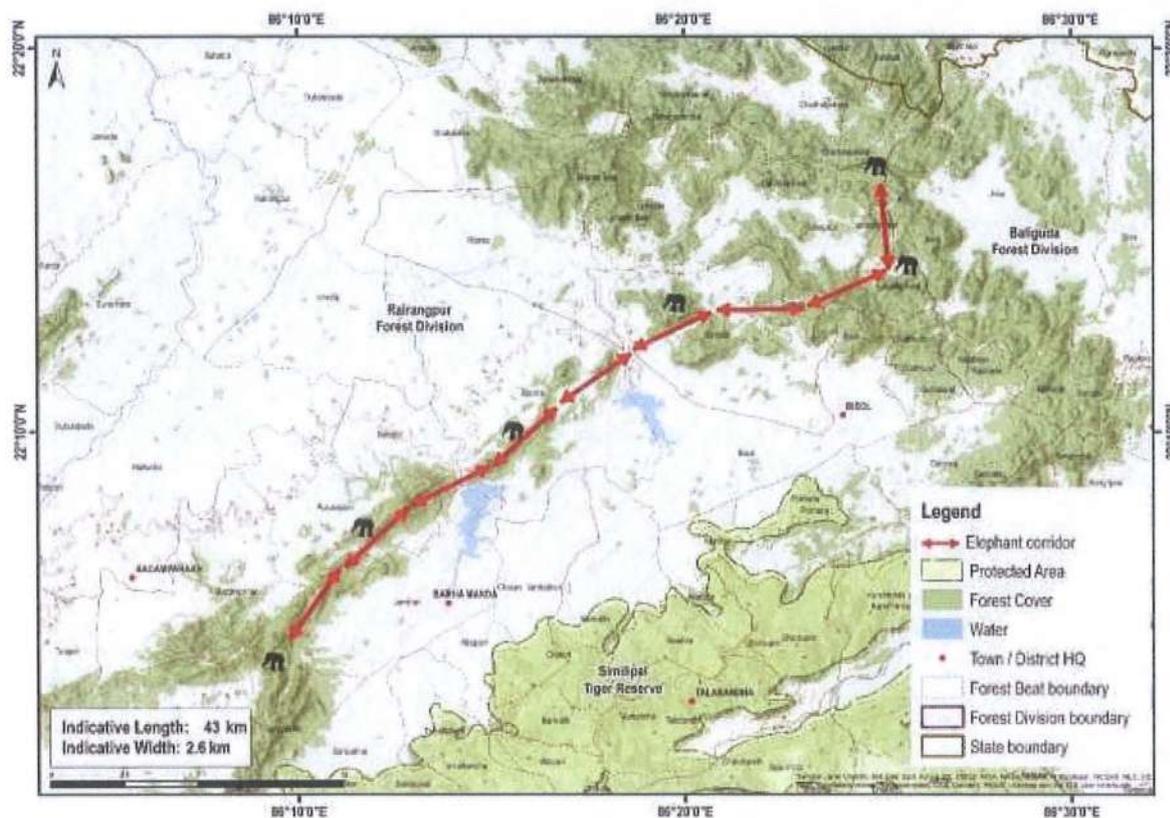


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36. Badampahar - Karida East Corridor (Interstate corridor)

Connectivity	This corridor connects Badampahar Reserve Forest to Dhusura Reserve Forest
State	Odisha and Jharkhand
Indicative length and width	Length = 43 km, width = 2.6 km
Geo Coordinates	N 22.05198, E 86.09086 N 22.06586, E 86.98804 N 22.05197, E 86.09084
Forest ranges falling within corridor	Badampahar Range, Bisoi WL Range, Rairangpur Range, Mushabani Range
Revenue villages falling within corridor	4
Habitat type	Soil dominated mixed deciduous forests
Major land use	Forest, Agricultural land and settlements Forest= 2000 ha Agriculture= 1580 ha Habitation= 120 ha
Elephant movement status	Seasonal and occasional
No. of elephants using the corridor	7
Major bottleneck	1) Khadakhai Dam and its feeder Irrigation Canal 2) State Highway-50
Linear infrastructure in the corridor	Irrigation canal
Recommendations by the forest department to improve the corridor	1) Prevent forest fire with the help of VSS/Public 2) Make public aware about ill effect of loss of bio diversity and of threatened flora crimes. 3) Enforce provisions of the wildlife (Protection) Act 1972 4) Detail study of animal behavior & public participation in management 5) Creation of public awareness & public participation in management
Current status of the corridor	Active. Intensity of use by elephants decreased.

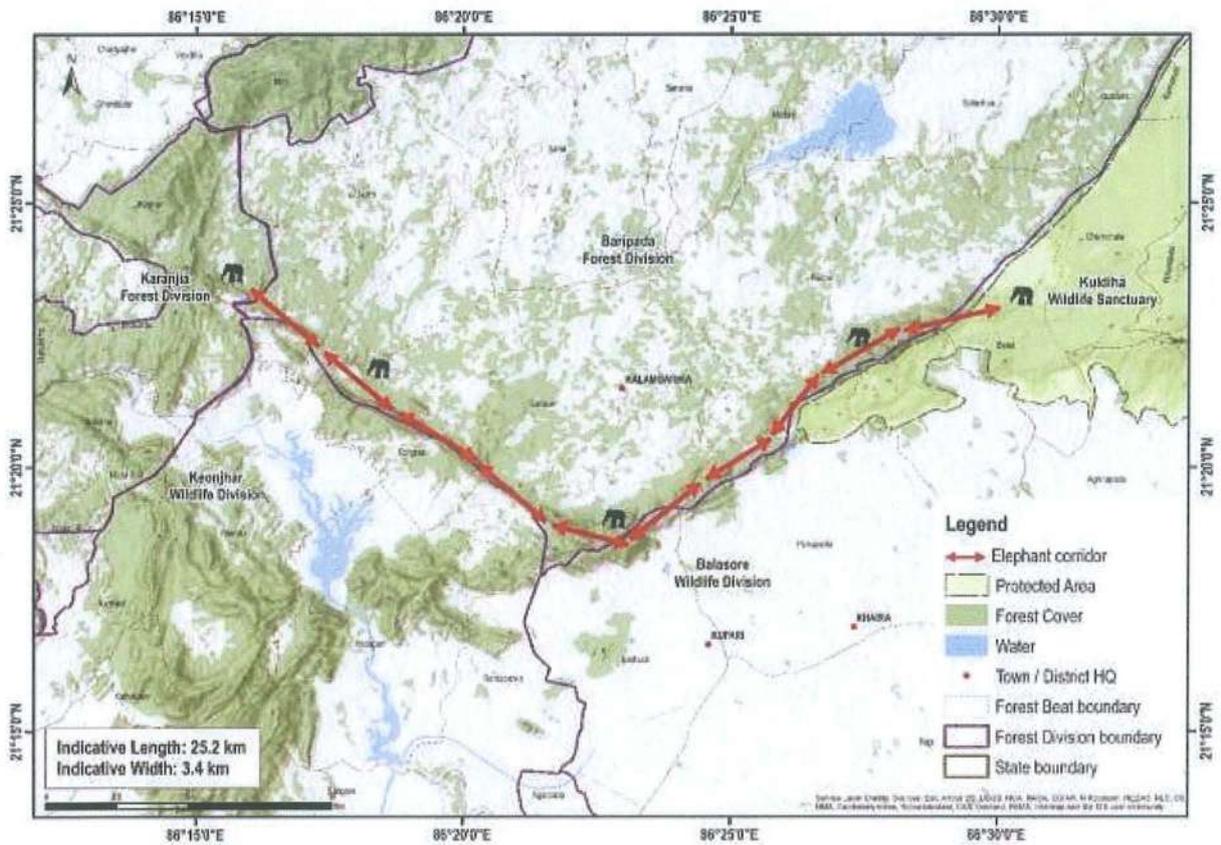


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37. Similipal - Hadgarh Corridor

Connectivity	This corridor connects Similipal Wildlife Sanctuary to Hadgarh Wildlife Sanctuary through Kuldiha Wildlife Sanctuary. The entire corridor has been declared as a Conservatio Reserve under the Wildlife (Protection) Act, 1972
State	Odisha
Indicative length and width	Length = 25.2 km, width = 3.4 km
Geo Coordinates	21.3707 N 86.22472 E
Forest ranges falling within corridor	Satkosia wildlife Range
Revenue villages falling within corridor	21
Habitat type	Soil dominated dry deciduous forests
Major land use	Forests
Elephant movement status	Occasional
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	Information NA
Linear infrastructure in the corridor	None
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants constant.

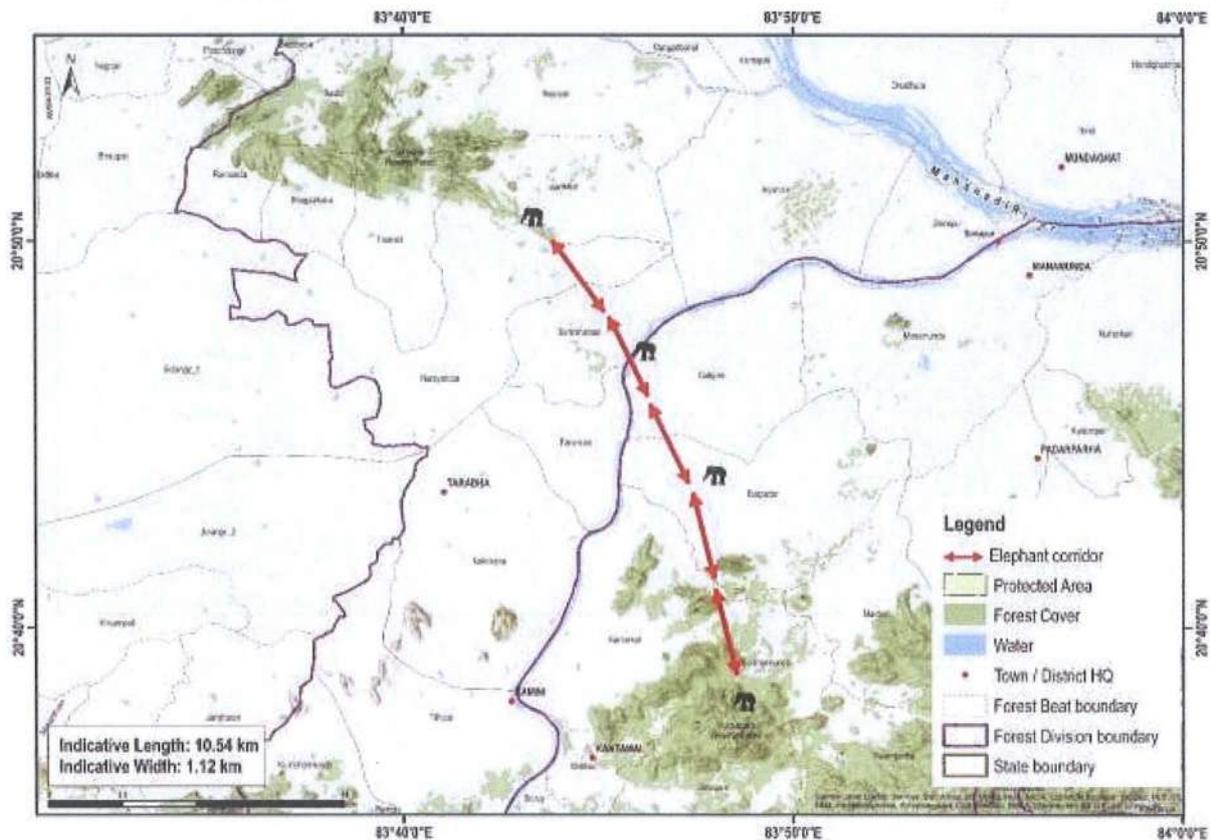


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38. Barapahad - Tarva - Kantamal Corridor

Connectivity	This corridor connects the Barapahad Reserve Forest (Sonepur range) to Putputigarh Reserve Forest (Kantamal Range) of Boudh Division
State	Odisha
Indicative length and width	Length = 10.5 km, width = 1.1 km
Geo Coordinates	N 20° 50' 40.20", E 83° 42' 48.09" N 20° 46' 14.86", E 83° 45' 51.93"
Forest ranges falling within corridor	Sonepur and Kantamal Ranges
Revenue villages falling within corridor	22
Habitat type	Dry deciduous forest
Major land use	Forest = 295.43 ha Agriculture = 467.66 ha Habitation = 5.71 ha River Suktel = 97.12 ha
Elephant movement status	Occasional
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	Construction of NH-57, Absence of contiguity in the Forest covers between two habitats, sporadic human settlement in the corridor area.
Linear infrastructure in the corridor	1) National Highway- 57 2) Broad Gauge / Electrified (KHU-BGR Railway Line) 3) Two HT (132KV) power lines from Meramunduli to Damanjodi for about 0.70 KM 4) 4.21 ha of Sheetal Industries (Kharjura).
Recommendations by the forest department to improve the corridor	1) Plantation of fruit and fodder trees in the degraded reserve forest. 2) Creation of water body inside Barapahad RF & Bahirkhaman RF. 3) Cabling of transmission lines inside the corridor area.
Current status of the corridor	Active. Intensity of use by elephants decreased.

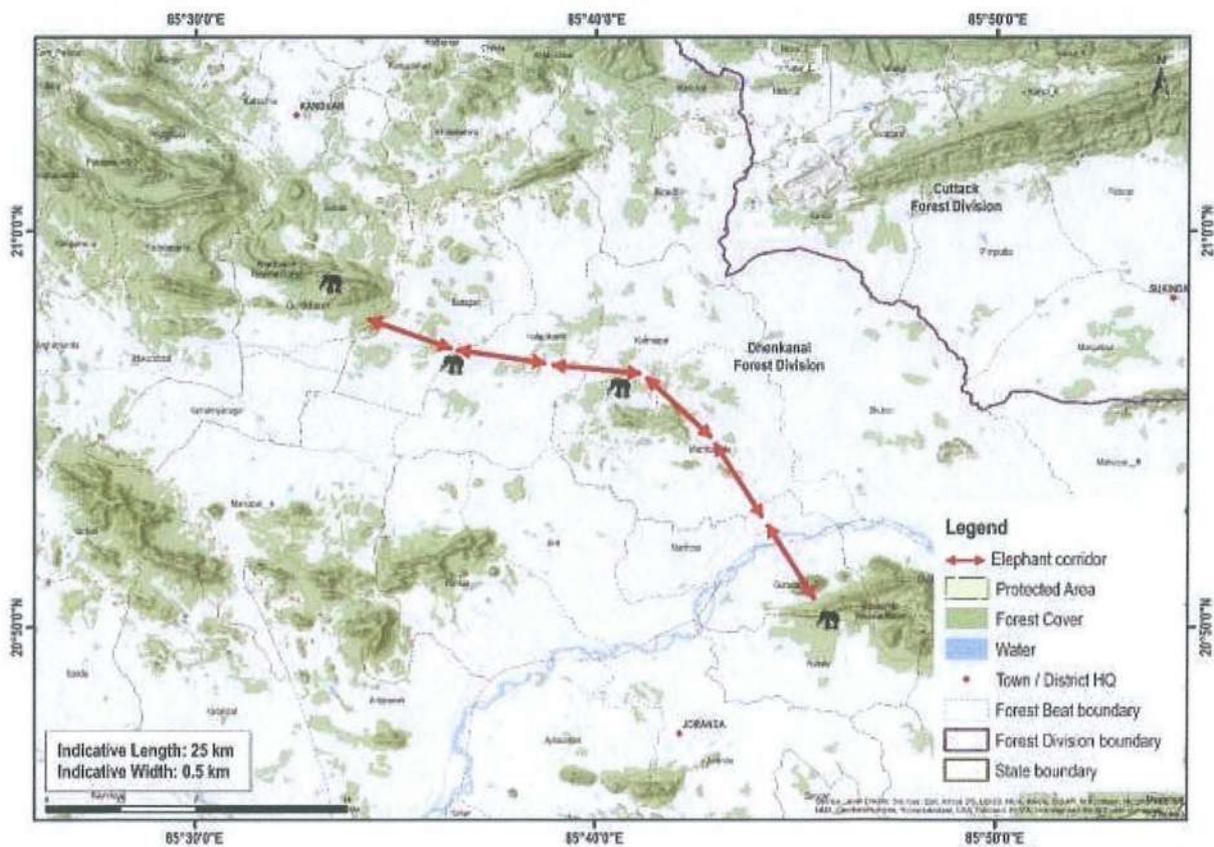


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39. Maulabhanja - Jiridamali – Anantapur Corridor

Connectivity	This corridor connects the K. Nagar East Range to K. Nagar West Range connecting the Anantapur Reserve Forest of Dhenkanal Division & Kapilash Wildlife Sanctuary
State	Odisha
Indicative length and width	Length = 6.5 km, width = 1 km
Geo Coordinates	N- 20°-50'-19", E- 85°-34'-32" N- 20°-59'-29", E- 85°-46'-17"
Forest ranges falling within corridor	K.Nagar East and K.Nagar West Range
Revenue villages falling within corridor	20
Habitat type	Sal-dominated tropical dry deciduous forest.
Major land use	Forest = 65 ha Agriculture= 60 ha Habitation= 30 ha
Elephant movement status	Occasional
No. of elephants using the corridor	Not recorded by forest department
Major bottleneck	Irrigation Canal NH- 200 connecting Talcher & Chandikhol
Linear infrastructure in the corridor	1) National Highway- 200, 20 km 2) Rengali Canal, 10 km
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants decreased.

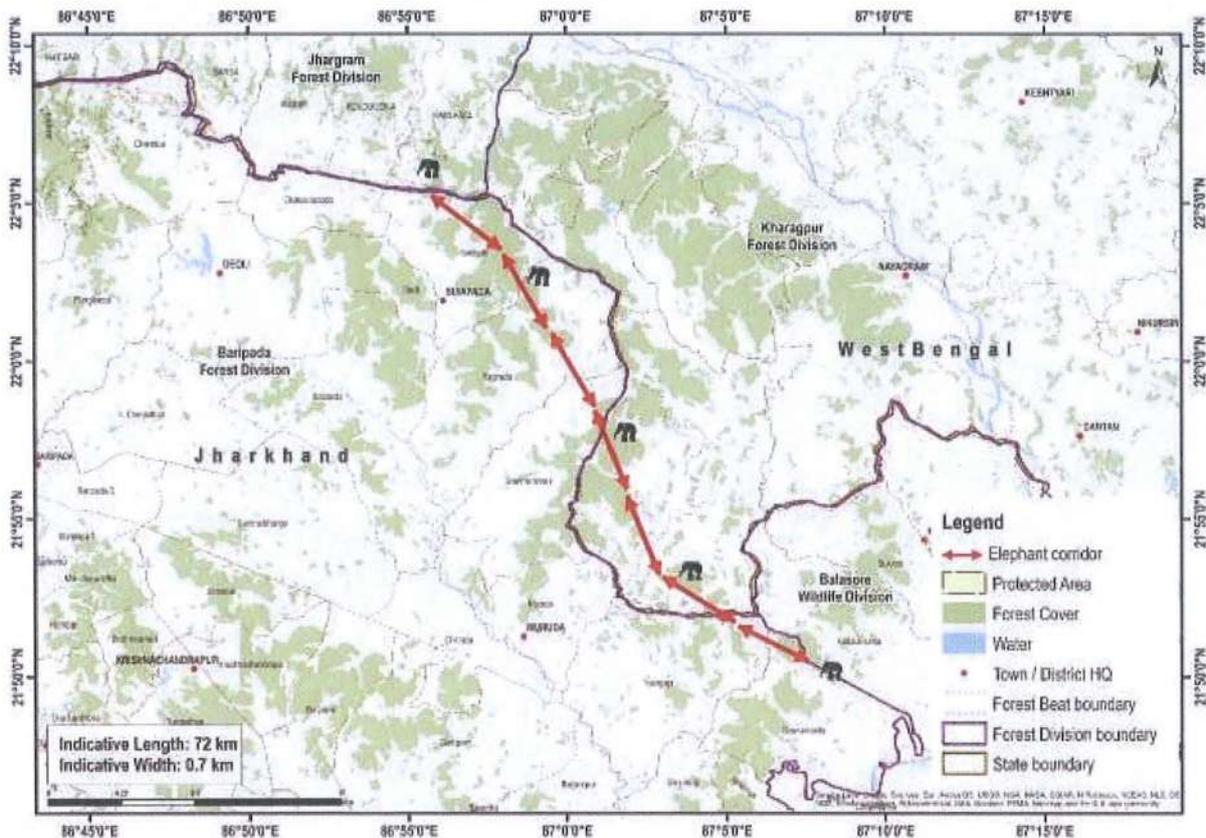


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40. Deuli – Suliapada (Interstate corridor)

Connectivity	Earlier the elephant movement was observed from Deuli to Suliapada in Deuli Range of Baripada Forest Division. Lately, the elephant movement has been shifted to Rasgobindpur and Betnoti Ranges, all the way up to Nilagiri outside Kuldiha Wildlife Sanctuary.
State	Odisha
Indicative length and width	Length = 72 km, width = 0.7 km
Geo coordinates	N- 22 05 26.4 E- 86 55 22.6 N- 21 50 36.4 E- 87 07 17.7
Forest ranges falling within corridor	Rasgovindpur and Betnoti Range
Revenue villages falling within corridor	238
Habitat type	Sal-dominated secondary deciduous forests.
Major land use	Forest = 5264.82 ha Agriculture = 30525.00 ha Habitation – 1947.37 ha
Elephant movement status	Regular
Linear infrastructure in the corridor	None
Bottleneck in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Impaired. The corridor is seldom used by elephants.

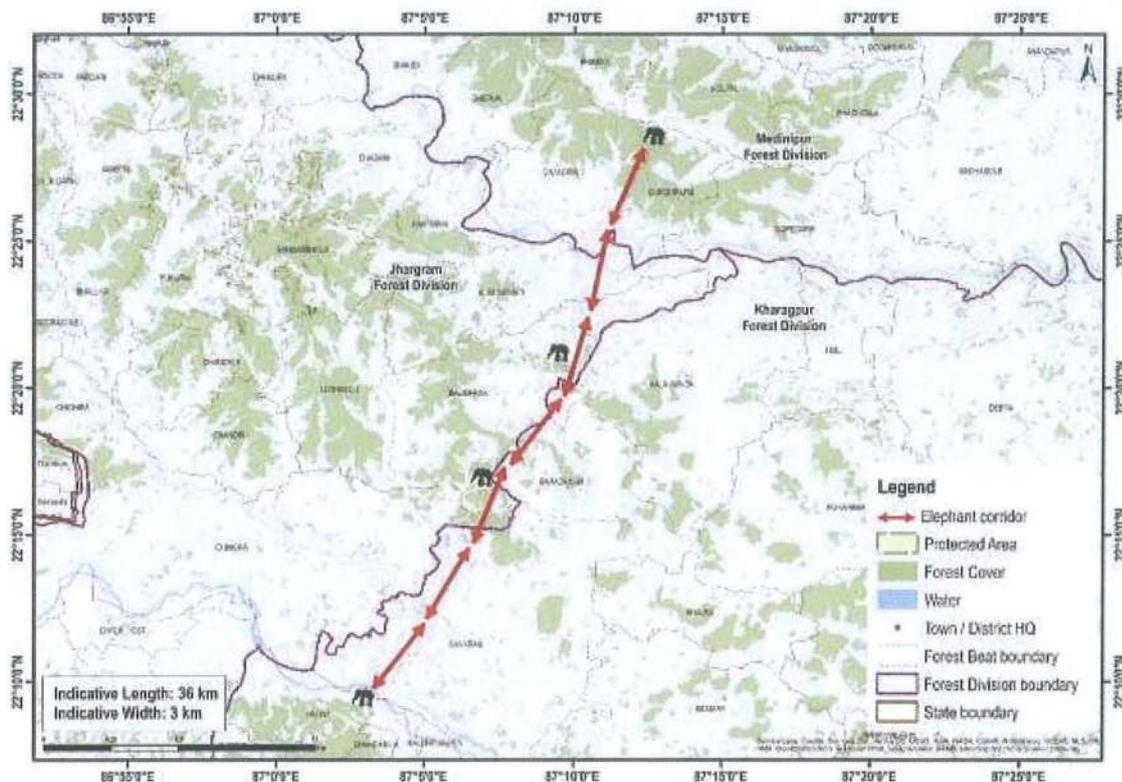


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41. Kalikunda-Chandra through Manikpara Corridor

Connectivity	The corridor links Kalaikunda to Manikpara range in Kharagpur Forest Division, passing through Chandra Range
State	West Bengal
Indicative length and width	Length = 36 km, width = 6 – 40 m
Geo coordinates	22.33562459, 87.16449294 22.15879933, 87.05297854
Compartments falling within corridor	Sankrail, Jhargram and Kharagpur 1 Block
Forest ranges falling within corridor	Kalaikunda, Manikpara and Chandra range
Revenue villages falling within corridor	65
Habitat type	Tropical dry deciduous
Major land use	Forest = 100 ha Agriculture = 150 ha Habitation = 50 ha
Elephant movement status	Regular
Linear infrastructure in the corridor	1) National Highway- 6. 3 km of the road passes through the corridor 2) Broad- gauge, double track electrified railway track, 0.5 km 3) Kangsabati irrigation canal with concrete embankment, 5 km 4) High tension power line (33KV), 2 km 5) Elephant Proof Trench- 3 km 6) Kodopal eco-tourism and solar project
Major bottleneck	Private plots between the river and forest along the Medinipur to Jhargram road.
Recommendations by the forest department to improve the corridor	1) Improvement of habitat in the corridor area 2) Recruitment of frontline staff, wildlife squads and trackers. 3) Increase in the amount of compensation for crop or hut damage. 4) Providing street light for better visibility around the village on all roads.
Current status of the corridor	Active. Intensity of use by elephants increased.

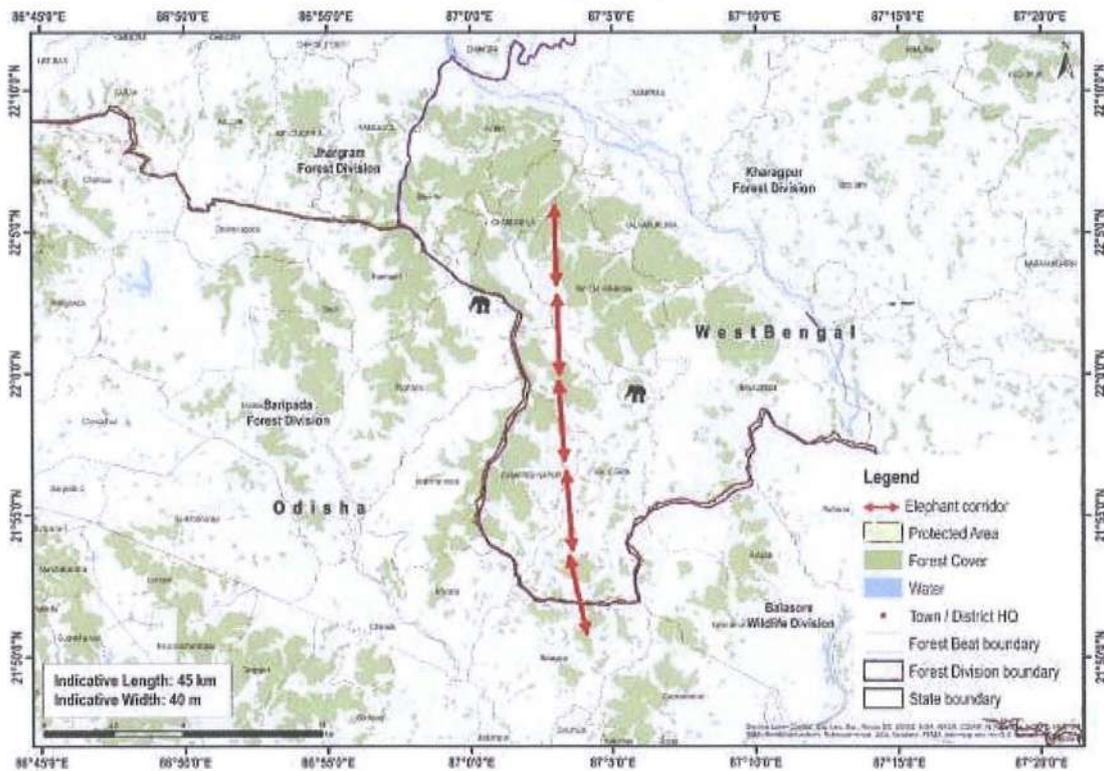


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42. Nayagram - Jamboni through keshorrekha Corridor

Connectivity	The corridor links Kalaikunda to Manikpara range in Kharagpur Forest Division, passing through Chandra Range
State	West Bengal
Indicative length and width	Length = 45 km, width = 40 m
Geo coordinates	22.108739 / 87.047986 21.865306 / 87.067815
Compartments falling within corridor	Khasjungle 76-Rangium, Baksol, Ghoratulia, Dokra, Patharband, Damdasol, Satpatia, Banskhal, Khasjungle 325, Jamboni, Jhaurishol
Forest ranges falling within corridor	Nayagram and Keshorrekha range
Revenue villages falling within corridor	35
Administrative details of the corridor	Nayagram block
Ecological Importance	This corridor provides easy movement for elephants through the fragmented forests of Kharagpur Division
Habitat type	Tropical dry deciduous
Major land use	Forest Agricultural land Settlements
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) State Highway-9: 4km of the road passes through the corridor 2) Jambhira irrigation dam and canal with concrete embankment, 25 km 3) High tension power line (33KV), 2 km 4) Elephant Proof Trench- 9 km
Recommendations by the forest department to improve the corridor	1) Improvement of habitat in the corridor area 2) Providing monitoring vehicle for the frontline staff 3) Increase in the amount of compensation for crop or hut damage. 4) Providing street light for better visibility around the village on all roads.
Current status of the corridor	Active. Intensity of use by elephants increased.

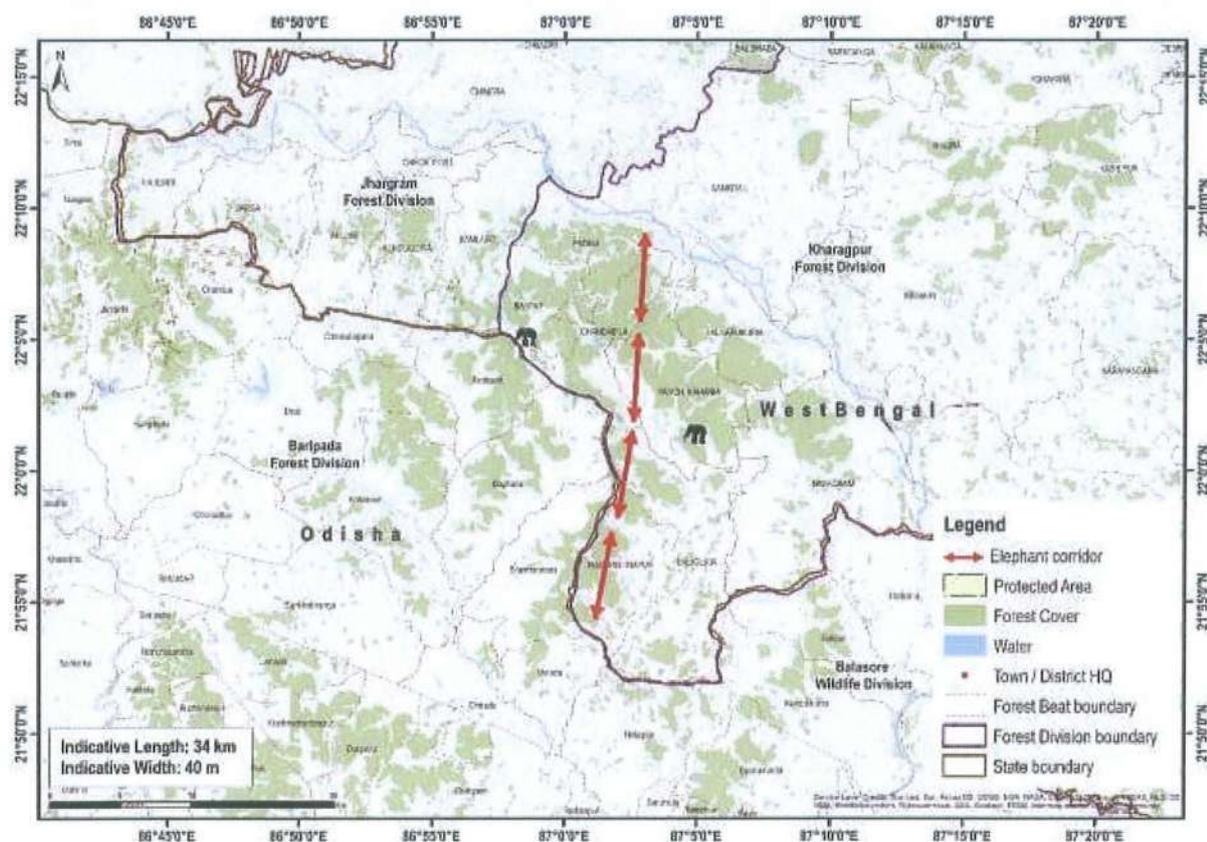


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43. Chandabila Tapoban- Dhumsi through Keshorrekha Corridor

Corridor name	Chandabila Tapoban- Dhumsi through Keshorrekha.
State	West Bengal
Connectivity	This corridor links Chandabila range in Kharagpur Division to Dhumsai range in Kharagpur Forest Division, passing through keshorrekha Range
Indicative length and width	Length = 34 km, width = 40 m
Geo coordinates	22.158799 / 87.052978 21.897336 / 87.017596
Compartments falling within corridor	Deulbar, Tiakati, Khasjungle 11, Tapoban, Ataldiha, Dulki, Raisol, Khasjungle 96, Pathrasol, Madhupua, Lakhaidihi, Bhalukbasa, Ramkrishnapur, Dhumsai
Forest ranges falling within corridor	Nayagram, Keshorrekha ranges
Revenue villages falling within corridor	35
Habitat type	Tropical dry deciduous
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) 2 km of State Highway-9 passes through the corridor 2) 25 km of Jambhira irrigation dam and canal with concrete embankment 3) 9 km long trench from Bhalukbasa to Bonisal along the West Bengal and Odisha boundary 4) 3 km of tourism impacts at Tapoban Ashram and Rameswar temple
Recommendations by the forest department to improve the corridor	1) Improvement of habitat in the corridor area 2) Providing monitoring vehicle for the frontline staff 3) Increase in the amount of compensation for crop or hut damage. 4) Providing street light for better visibility around the village on all roads
Current status of the corridor	Active. Intensity of use by elephants increased.

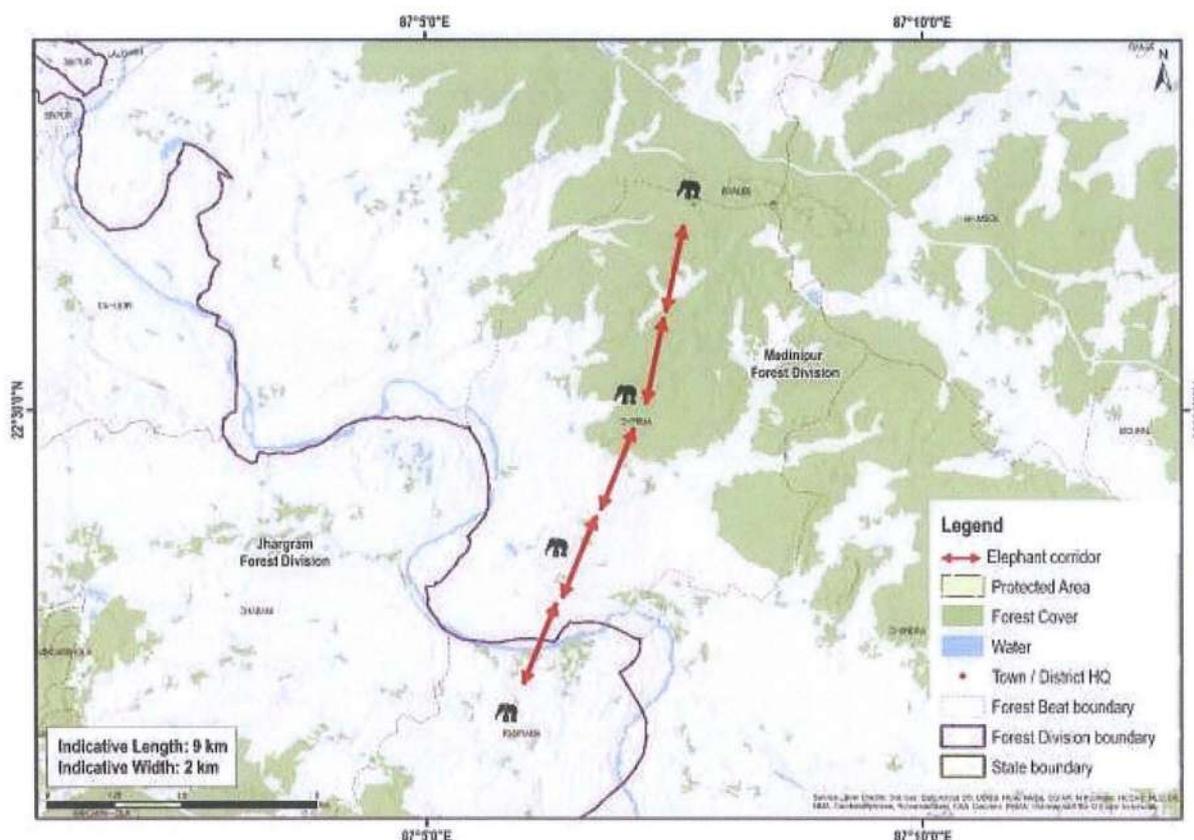


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3269

44. Kalaikunda- Chandra through Satpadi Ghat Corridor

Connectivity	This corridor connects the Manikpara range of Jhargram division to Chandra range of Medinipur division
State	West Bengal
Indicative length and width	Length = 9 km, Width = 2 km
Geo coordinates	22°27'42.44" N / 87° 6' 5.72" E 22°31'53.92" N / 87° 7' 35.50" E
Forest ranges falling within corridor	Manikpara and Chandra range
Revenue villages falling within corridor	12
Ecological importance	This corridor provides easy movement for elephants through the fragmented forests between Kharagpur and Medinipur Division
Habitat type	Tropical dry deciduous
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) 2 km of State highway 9 passes through the corridor 2) Kangsabati canal with concrete embankment, 1 km 3) High tension power line, 440 v
Major bottleneck	Barriers along the private plot between river and forest. High traffic in the Medinipur to Jhargram road.
Recommendations by the forest department to improve the corridor	1) Construction of earthen dam 2) Plantation of fodder species 3) Providing street light for better visibility around the village on all roads
Current status of the corridor	Active. Intensity of use by elephants increased.

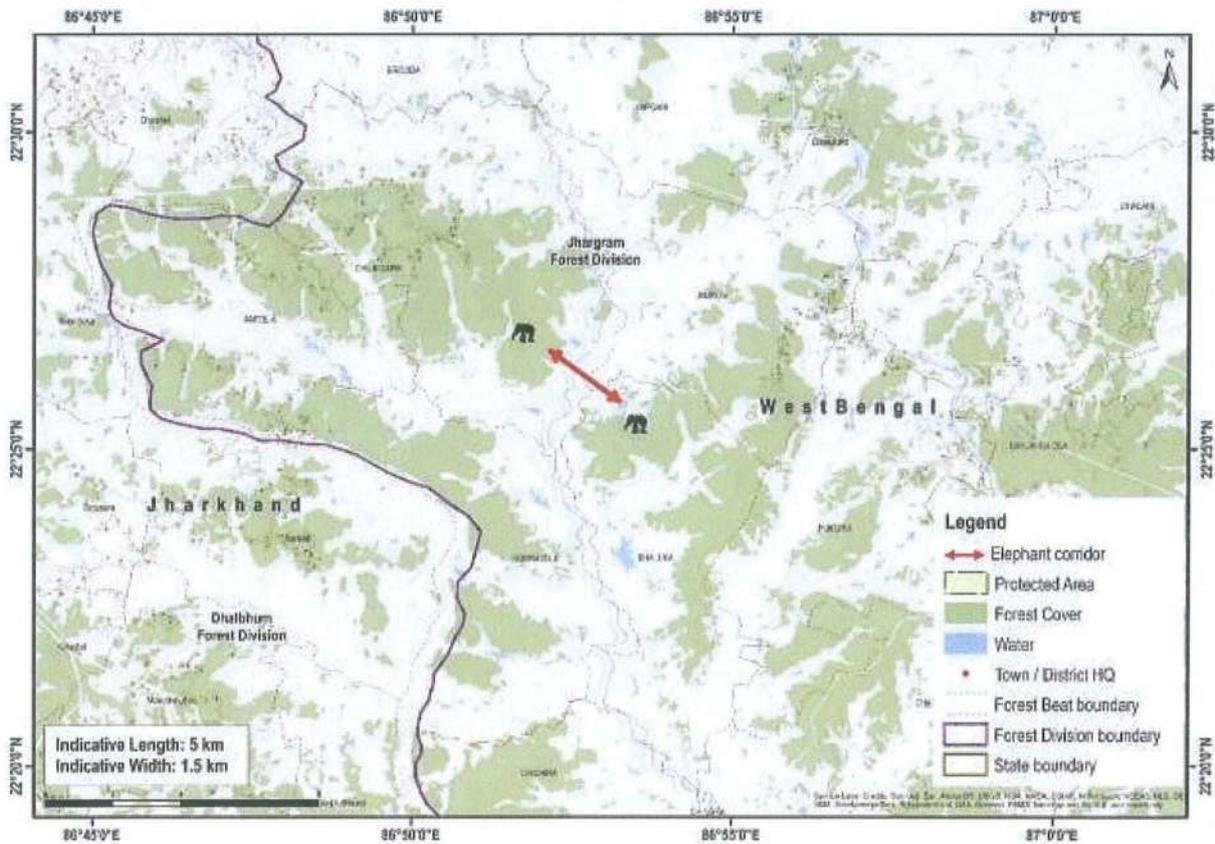


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45. Gidhni- Jamboni Corridor

Connectivity	Connects Gidhni range (Satighat) of Jhargram division to Jamboni range of Jhargram division. Elephants move from Gidhni Range (Satighata) to Jhargram Range (Pukuria beat) crossing Dulung River, Dhaniapal, Bhaluka, and Kumri.
State	West Bengal
Indicative length and width	Length = 5 km, width = 1.5 km
Geo coordinates	22° 26' 3.63" N, 86° 52' 53.57"
Compartments falling within corridor	Satighata, Pukuria, Dhaniapal, Baraghong, Bhaluka, Banksole, and Kumri
Forest ranges falling within corridor	Gidhni and Jamboni range
Revenue villages falling within corridor	8
Habitat type	Tropical dry deciduous
Major land use	Forest = 600 ha Agriculture = 200 ha Habitation = 2 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1.5 km of village road
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

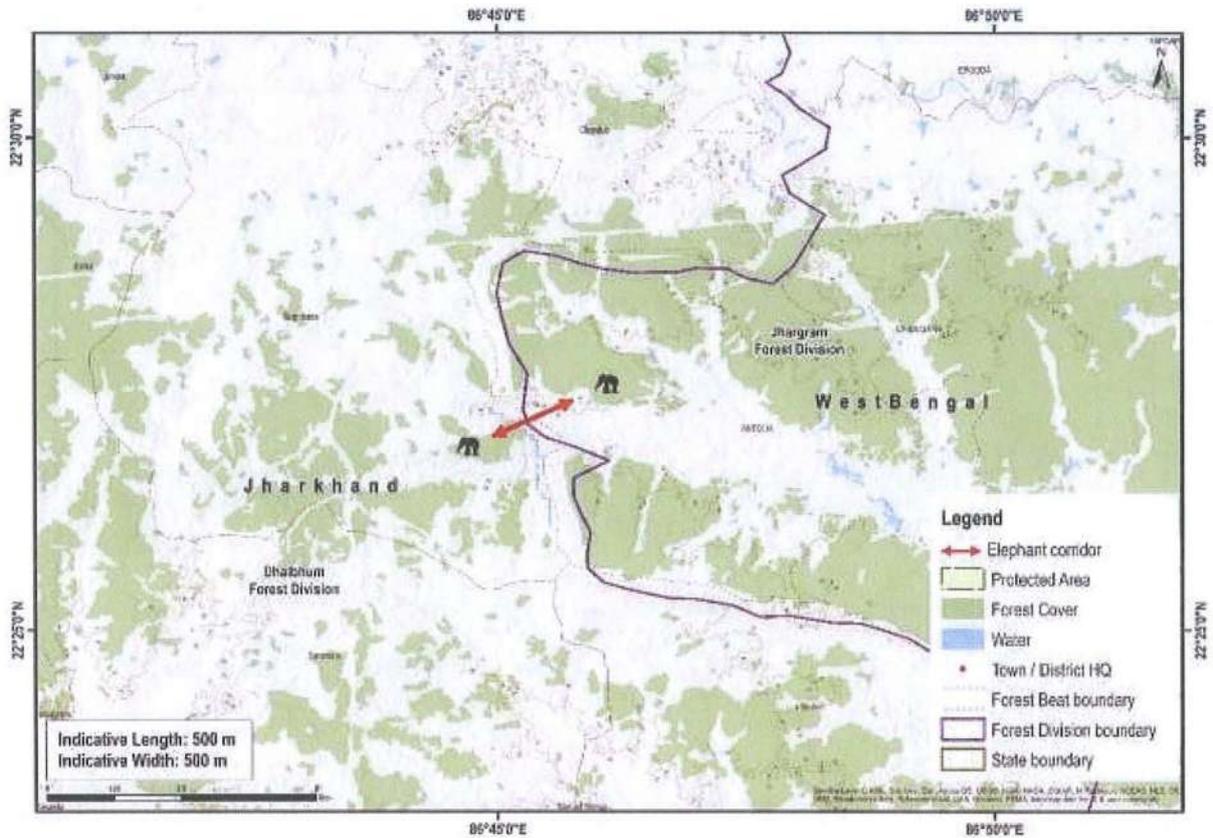


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46. Chandua- Joka Corridor

Connectivity	This corridor facilitates movement from Chandua in West Bengal to Deoshole in Jharkhand
State	West Bengal
Indicative length and width	Length = 500 m, width = 500 m
Geo coordinates	22° 27.323" N, 86° 45.753" E
Forest ranges falling within corridor	Gidhni range
Revenue villages falling within corridor	Two
Habitat type	Tropical dry deciduous
Major land use	Forest = 80 ha Agriculture = 100 ha Habitation = 5 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.

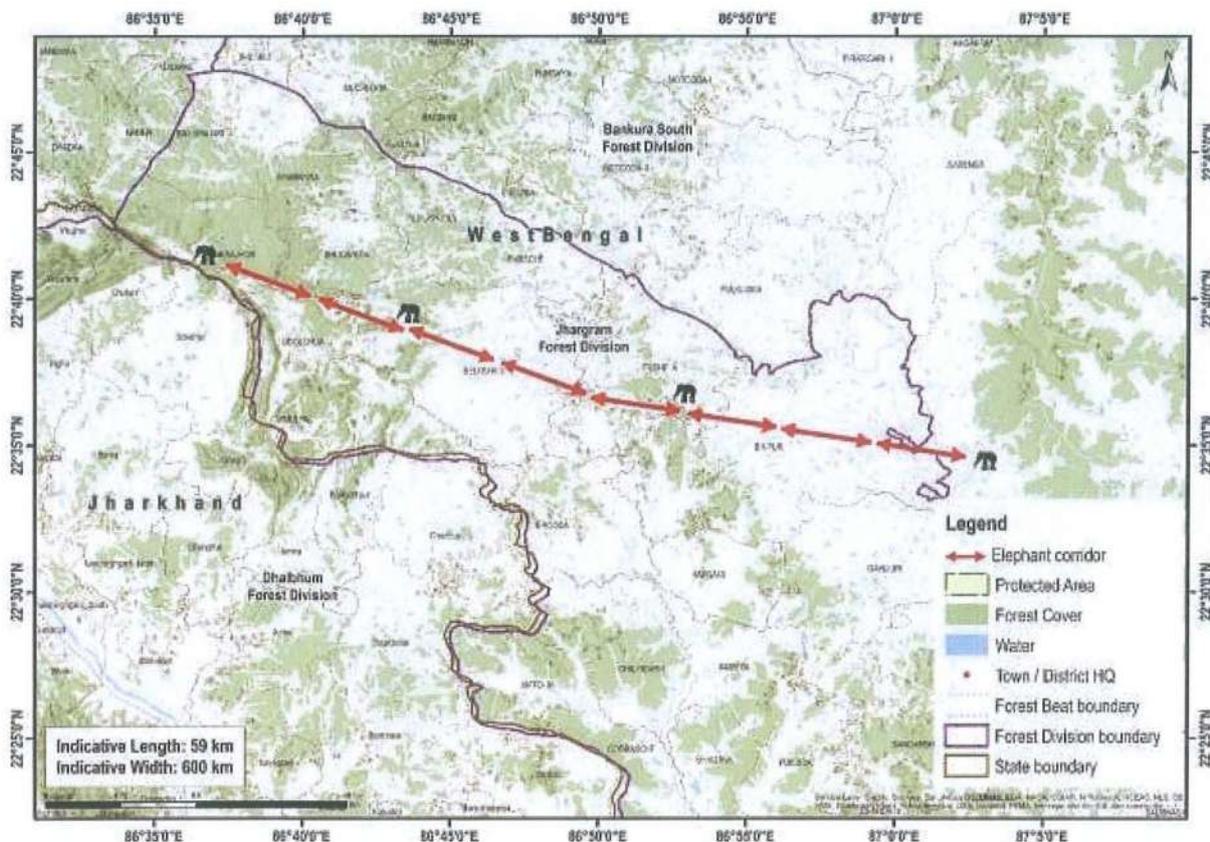


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3279

47. Kankrajhore- Lalgarh Corridor

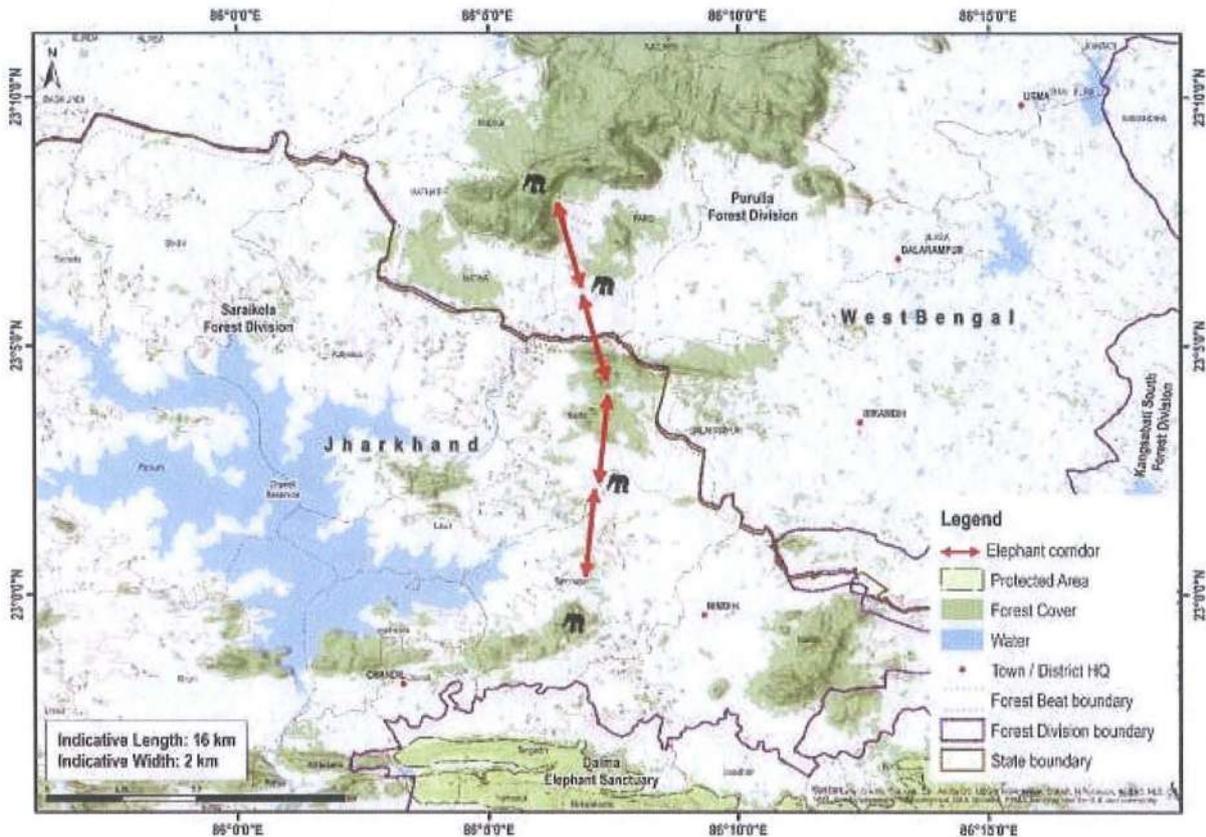
Connectivity	Bhulaveda, Belpahari and Silda ranges to lalgarh range
State	West Bengal
Indicative length and width	Length = 59 km, width = 600 m
Geo coordinates	N 22°41'22.37", 22°35'05.80"/ E 86° 37'0.17", 87°01'50.80"
Forest ranges falling within corridor	Bhulaveda, Belpahari and Silda Ranges
Revenue villages falling within corridor	25
Habitat type	Tropical dry deciduous
Major land use	Forest = 1300 ha Agricultural = 900 ha Habitation = 200 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) State highway: 12 km 2) Kangsabati canal with concrete embankment: 12 km
Recommendations by the forest department to improve the corridor	1) Improvement of habitat in the corridor area 2) Providing monitoring vehicle for the frontline staff 3) Plantation of fodder species
Current status of the corridor	Active. Intensity of use by elephants increased.



3273

48. Chandil- Matha Corridor (Interstate corridor)

Connectivity	This corridor connects the Chandil Range of Saraikela Forest Division with Matha Range of Purulia Forest Division.
State	West Bengal and Jharkhand
Indicative length and width	Length = 16 km, Width = 2 km
Geo coordinates	22°59'32" N, 86°5'56" E to 23°8'4" N, 86°8'22" E
Forest ranges falling within corridor	Chandil and Matha Range
Revenue villages falling within corridor	20-22
Habitat type	Tropical dry deciduous forest
Major land use	Forest= 10200.57 ha Agriculture= 120 ha
Elephant movement status	Regular
Number of elephants using this corridor	Not recorded by forest department
Major Bottleneck	Non forest land
Linear infrastructure in the corridor	1) State Highway 4 and associated traffic 2) High Tension power line (1100 v)
Recommendations by the forest department to improve the corridor	1) Notification of the corridor and its legal protection 2) Habitat restoration of the degraded forests in Kadla, Burudih, Chatarma and Digardih protected forests.
Current status of the corridor	Active. Intensity of use by elephants increased.

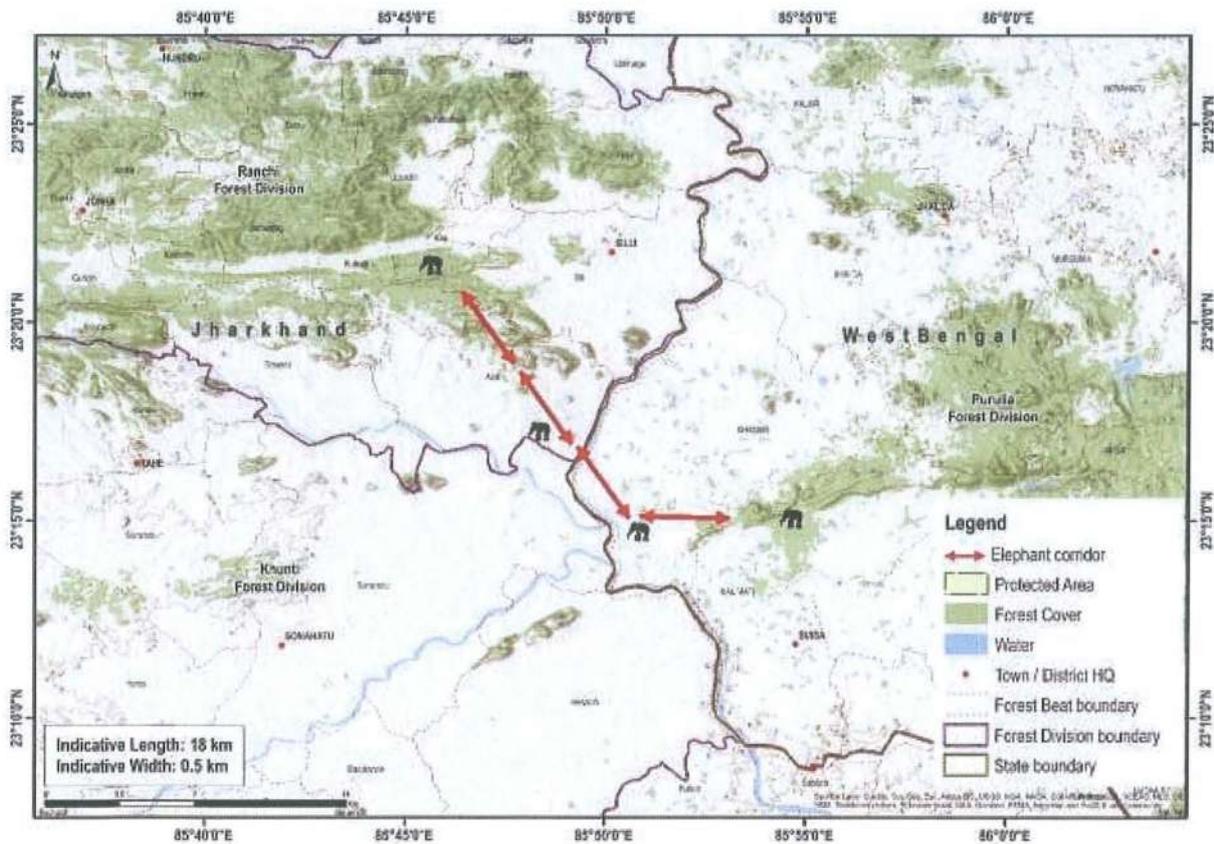


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3274

49. Mahilong- Kalimati Corridor

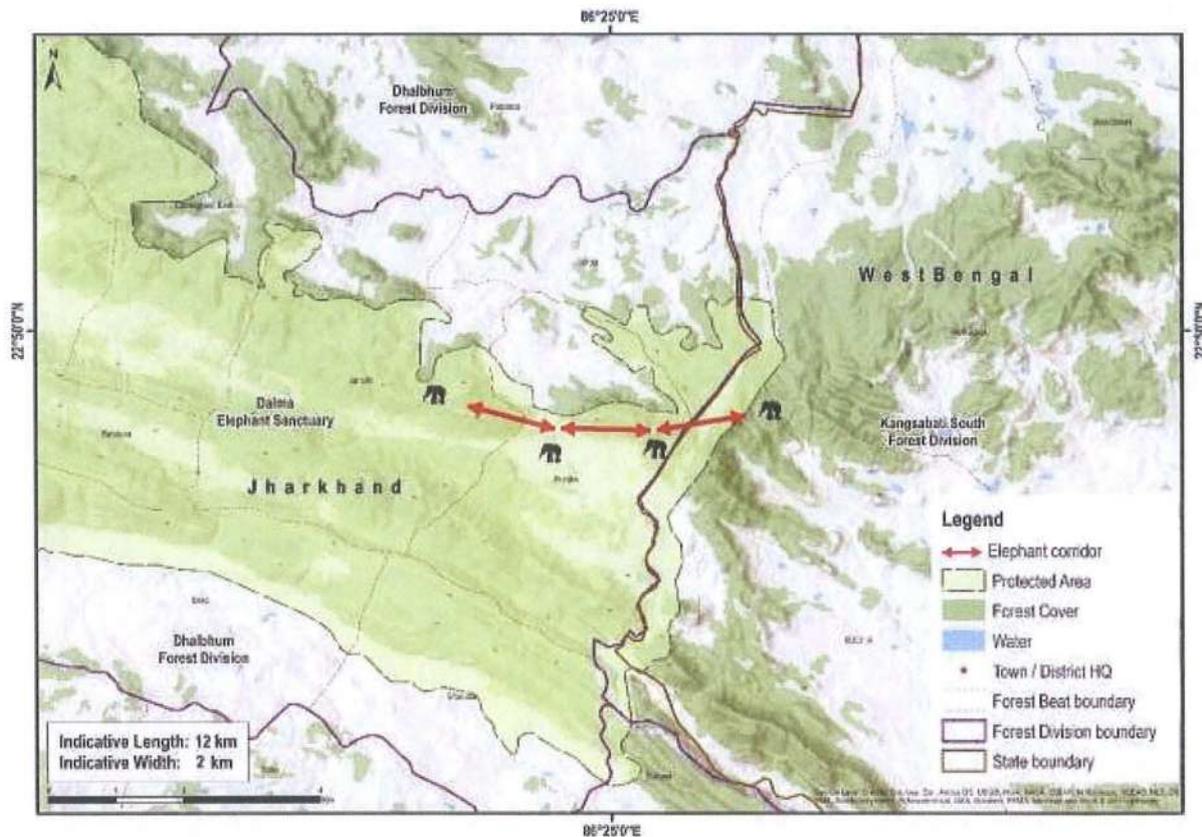
Connectivity	This corridor connects the Mahilong and Bagmundi Range of Ranchi Forest Division with Jhalda and Bagmundi Range of Purulia Forest Division.
State	West Bengal
Indicative length and width	Length = 18 km, width = 0.5 km
Geo Coordinates	23°14'20" N, 85°46'6" E to 23°20'23" N, 85°54'25" E
Forest ranges falling within corridor	Chandil, Matha, Mahilong and Bagmundi Range
Revenue villages falling within corridor	Approx 25
Habitat type	Tropical dry deciduous forest
Major land use	Agricultural land, forests and settlements Forest= 11750 ha Agriculture= 150 ha
Elephant movement status	Regular
Number of elephants using this corridor	30- 35
Major bottleneck	Non forest areas
Linear infrastructure in the corridor	1) State Highway 4 and associated traffic. 2) 8 km of double track, electrified railway track 3) High tension power line, 11000 v
Recommendations by the forest department to improve the corridor	1) Notification of the corridor and its legal protection 2) Habitat restoration and enrichment of the degraded forests in Kadla, Burudih, Chatarma and Digardih protected forests.
Current status of the corridor	Active. Intensity of use by elephants not available



3275

50. Gobarghusi- Jhunjhaka- Banduan Corridor (Interstate corridor)

Connectivity	This corridor connects the Pagda and Chimti forest blocks of Dalma Wildlife Sanctuary in Jharkhand with the Banduan Range of Kangsawati South Division in West Bengal.
State	West Bengal and Jharkhand
Indicative length and width	Length = 12 km, width = 2 km
Geo coordinates	22°38'60" N, 86°23'54" E to 22°47'32" N, 86°36'5" E
Forest ranges falling within corridor	Banduan Range
Revenue villages falling within corridor	4
Ecological importance	This corridor connects Dalma Wildlife Sanctuary with Mayurjharna Elephant Reserve.
Habitat type	Tropical Dry deciduous forest
Major land use	Forest, Agriculture land and settlements Forest= 2100 ha Agriculture= 250 ha Habitation= 50 ha
Elephant movement status	Regular
Number of elephants using this corridor	Not recorded by forest department
Bottleneck	None
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	1) Fodder plantation in and around the corridor 2) Development of water harvesting structures
Current status of the corridor	Active. Intensity of use by elephants not available

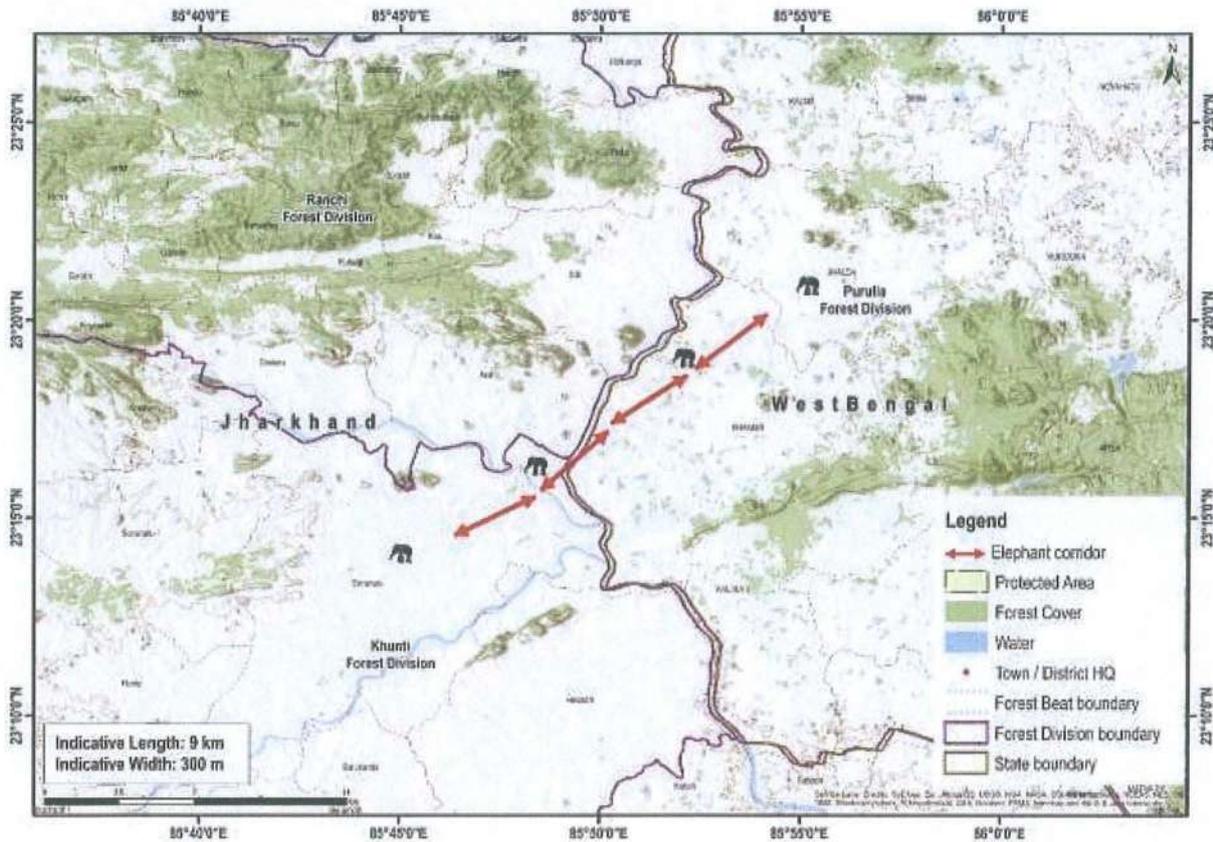


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3276

51. Jhalda- Baghmundi Corridor

Connectivity	This corridor connects Jhalda and Baghmundi Ranges
State	West Bengal
Indicative length and width	Length = 9 km, width = 300 m
Geo coordinates	N 23.221777° , E 85.865422° N 23.368329° , E 85.875779°
Forest ranges falling within corridor	Jhalda and Baghmundi Ranges
Revenue villages falling within corridor	Approx 12
Habitat type	Dry deciduous forest
Major land use	Forest = 8900 ha Agriculture = 100 ha
Elephant movement status	Regular
Number of elephants using this corridor	30- 35
Major Bottleneck	Non forest land
Linear infrastructure in the corridor	1) Village roads, heavily used by villagers 2) Railway track, 5 km, heavy traffic 3) High tension power line, 1100 v
Recommendations by the forest department to improve the corridor	Habitat enrichment on either sides of Subarnarekha river
Current status of the corridor	Active. Intensity of use by elephants increased.



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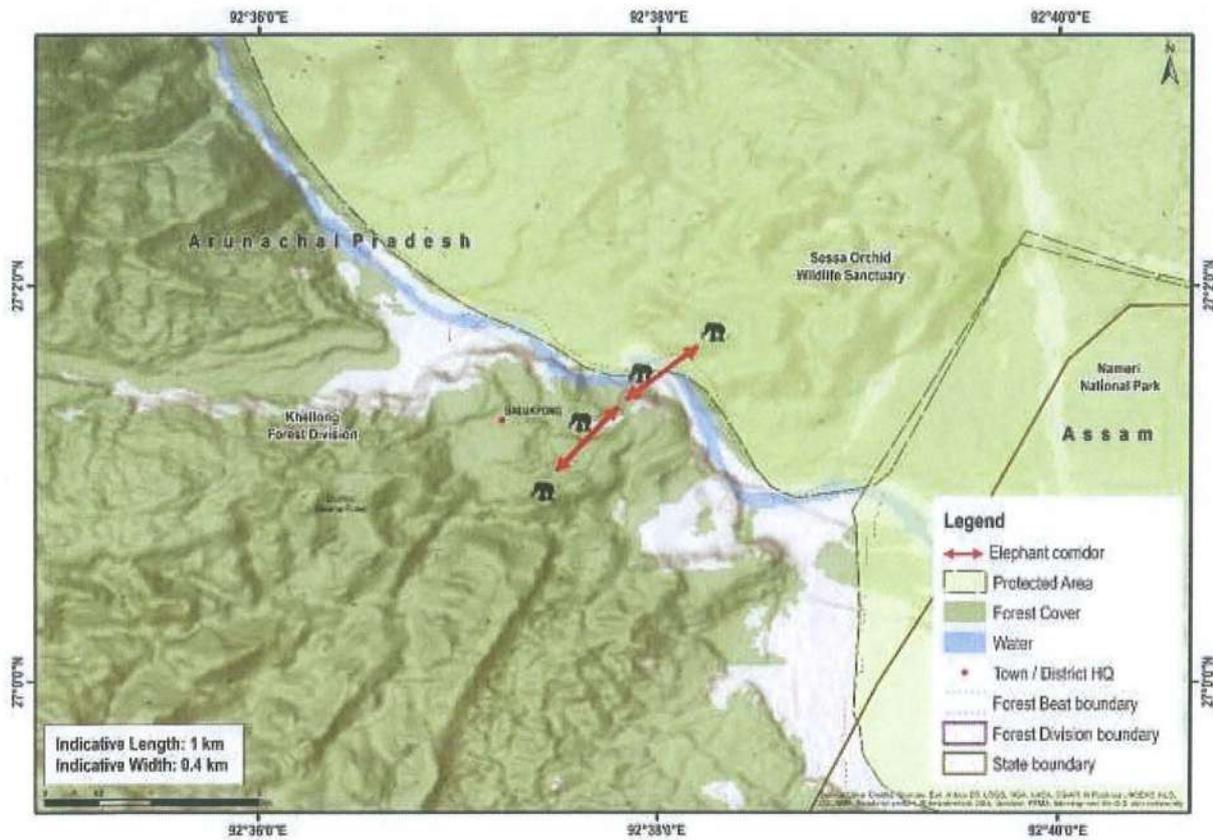
Elephant Corridors **North-East Region**



3278

1. Pakke- Doimara at Dedzelling (Dadzu- Lumia) Corridor

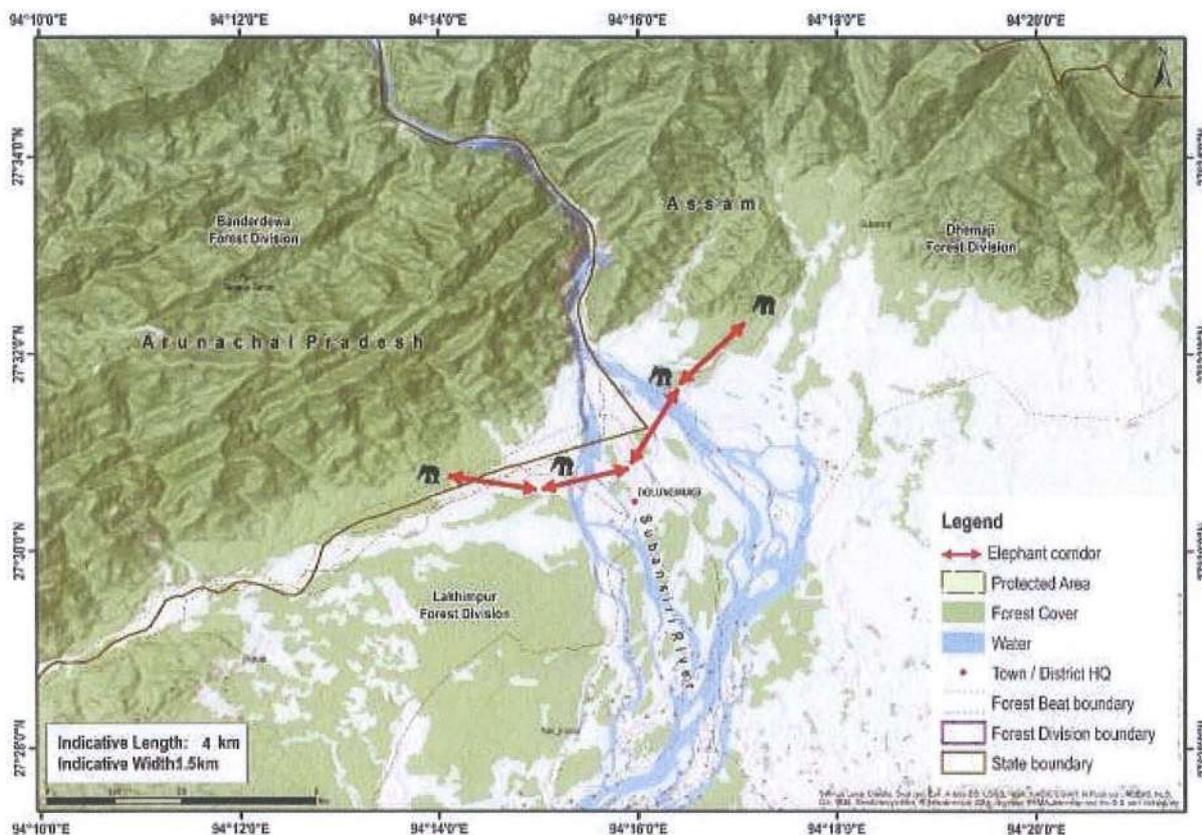
Connectivity	This corridor connects the elephant habitats between Pakke Tiger Reserve and Doimara Reserve Forest of Khellong Forest Division.
State	Arunachal Pradesh
Indicative length and width	Length = 1 km, width = 0.4 km
Geo coordinates	27° 1' 1" N / 092° 37' 17" E 27° 1' 37" N / 092° 38' 11" E
Forest ranges falling within corridor	Bhalukpong Forest range
Revenue villages falling within corridor	Information NA
Habitat type	Tropical Evergreen and Semi Evergreen Forest
Major land use	Forest with plantations
Elephant movement status	Regular
Number of elephants using the area	4
Linear infrastructure in the corridor	1) National Highway 229, 1 km of the road passes through the corridor 2) High vehicular traffic 3) Tippi Industrial estate about 1 km from corridor
Major bottleneck	Information NA
Recommendations by the forest department to improve the corridor	1) Regular patrolling by the anti-poaching squad to monitor any illegal felling of tree or poaching. 2) Camera trapping for intense monitoring of the corridor. 3) Habitat improvement activities in the corridor area.
Current status of the corridor	Active. Intensity of use by elephants increased.



3279

2. Dulung- Subansiri Corridor

Connectivity	The corridor connects Panir Reserve Forest (Banderdewa Division, Arunachal Pradesh) and Dulung Reserve Forest with Subansiri Reserve Forest (Lakhimpur Forest Division, Assam) across the Subansiri river.
State	Arunachal Pradesh
Indicative length and width	Length = 4 km, width = 1.5 km
Geo coordinates	N 27° 29' 34.8", 27°29' 48.2" / E 94° 10' 48.7", 94° 08' 12.8"
Forest ranges falling within corridor	Dirsha range
Revenue villages falling within corridor	4
Administrative details of the corridor	Panir Reserve Forest and Dulung Reserve Forest with Subansiri Reserve Forest
Habitat type	Mixed forests with bamboo and wild banana.
Major land use	Forest (94%) Agrlculture (0.5%) Habitation and others (5.5%)
Elephant movement status	Seasonal, mainly during October to December
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department	1) Habitat improvement activities in the corridor area. 2) Awareness programs for villages around the corridor.
Status of the corridor	Active. Intensity of use by elephants decreased.

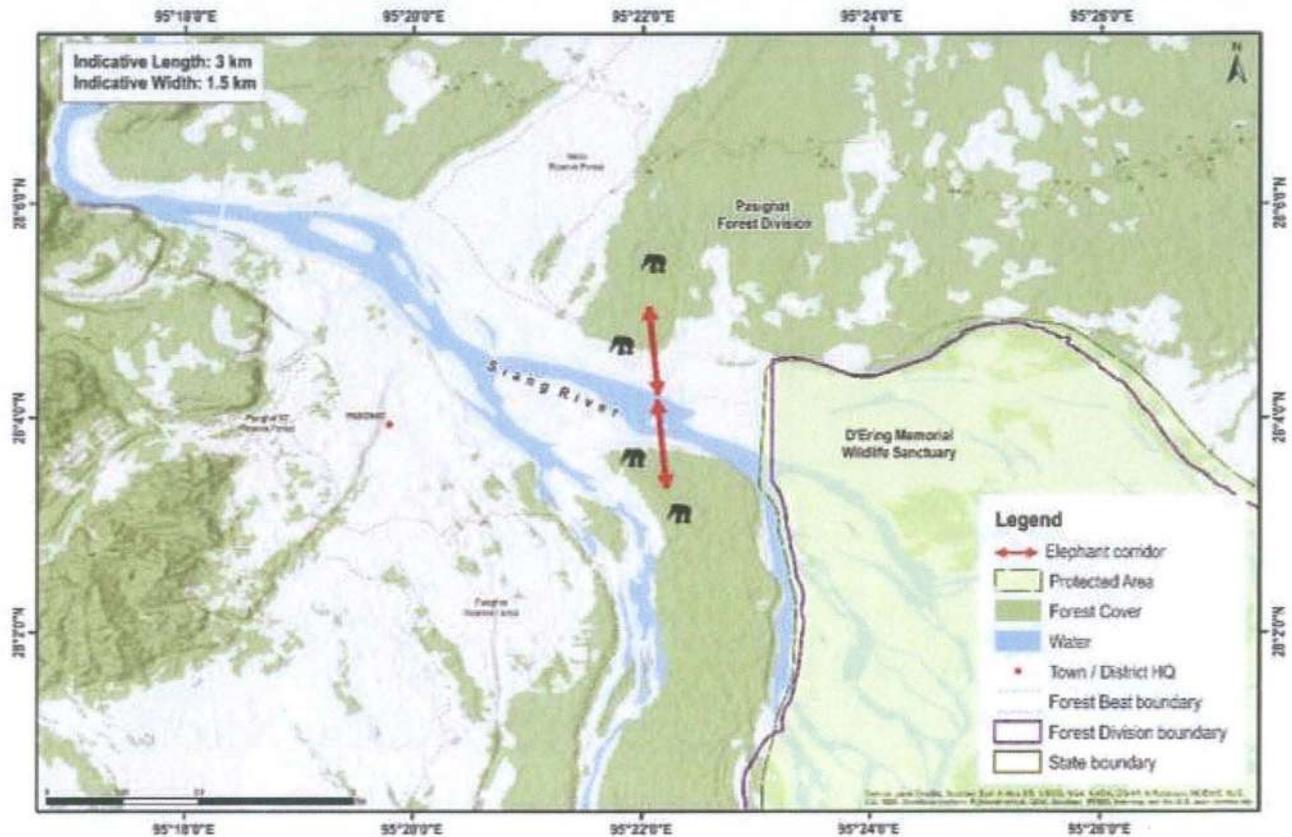


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3280

3. D'Ering- Mebo (Sigar Nallah) Corridor

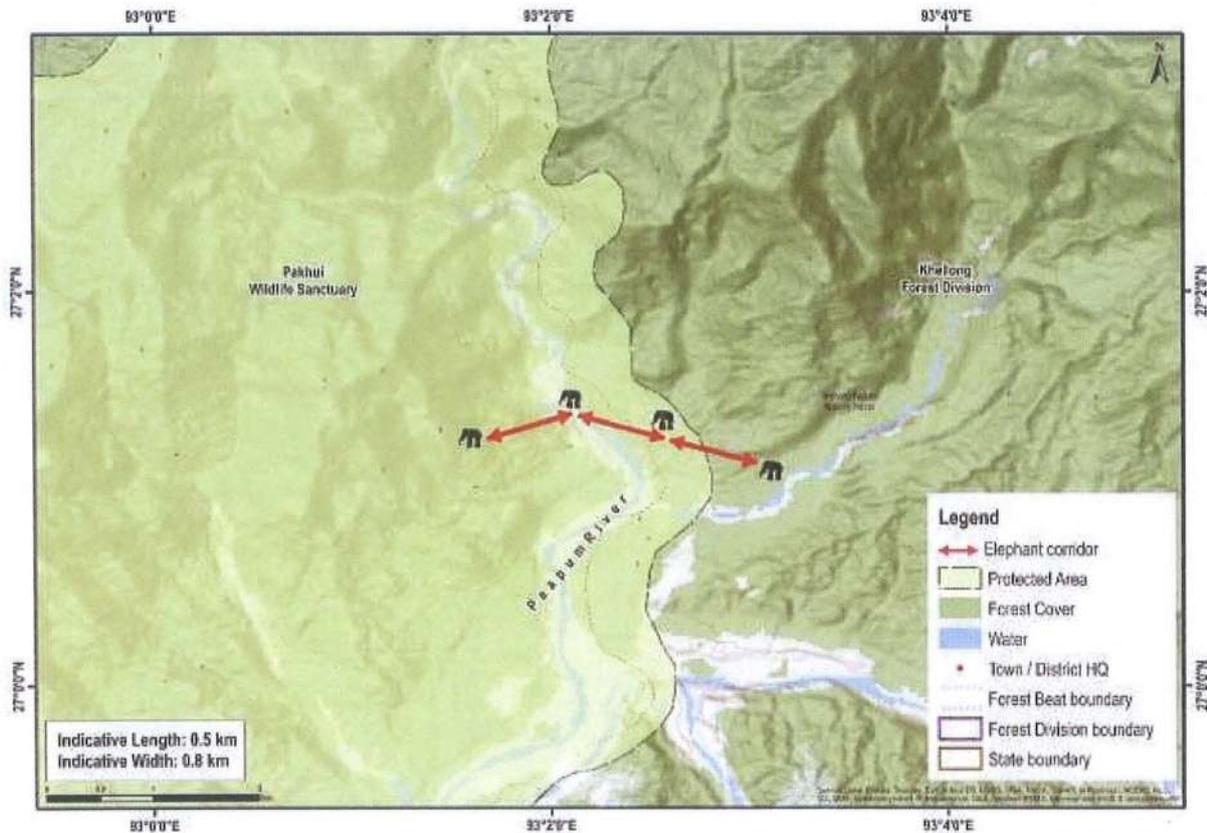
Connectivity	This corridor connects the Borgoli Range of D'ering Memorial Wildlife Sanctuary and Mebo Reserve Forest of Pasighat Forest Division and Dibang Forest Division on either side of the Siang River.
State	Arunachal Pradesh
Indicative length and width	Length = 3 km, width = 1.5 km
Geo coordinates	28° 3.176' / 95° 25.148' 28° 3.438' / 95° 24.304' 28° 4.404' / 95° 24.525' 28° 4.372' / 95° 24.110'
Forest ranges falling within corridor	Borgoli Range
Revenue villages falling within corridor	3
Ecological importance	This corridor connects the D. Ering WLS and Mebo RF of Pasighat Forest Division. The corridor facilitates movement of elephants and other wildlife like the tigers (<i>Panthera tigris</i>) and Himalayan black bear (<i>Ursus thibetanus</i>).
Habitat type	Tropical Evergreen Forest
Major land use	Forest Agricultural land Plantations
Elephant movement status	Regular
Number of elephants using the corridor	328
Linear infrastructure in the corridor	1) National Highway 13 - 5 km of the road passes through the corridor 2) Proposed railway track connecting Pasighat to Roing
Major bottleneck in the corridor	Establishment of the army base in the middle of the corridor
Recommendations by the forest department to improve the corridor	1) Extension of the biosphere zone right upto the interstate border 2) Restoration of degraded habitats and a policy on land falling under elephant corridor. 3) Livelihood support to the conflict affected villages. 4) HEC mitigation.
Current status of the corridor	Active. Intensity of use by elephants increased.



3281

4. Pakke- Papum at Langka nallah Corridor

Connectivity	The corridor connects Papum Reserve Forest with Pakke Tiger Reserve.
State	Arunachal Pradesh
Indicative length and width	Length = 0.5 km, width = 0.8 km
Geo coordinates	27° 1' 2" N / 93° 1' 44" E 27° 1' 39" N / 93° 2' 2" E
Forest ranges falling within corridor	Seijosa territorial range
Revenue villages falling within corridor	Two
Administrative details of the corridor	Western and Eastern side of Papum Reserve Forest, Khelong Forest Division, Pakke Wildlife Sanctuary and Tiger Reserve and Pakke Kessang
Habitat type	Tropical Evergreen to Semi evergreen
Major land use	Agricultural land, Settlements and Seijosa Nallah River
Elephant movement status	Seasonal, during monsoon season (May to September)
Number of elephants using the corridor	25 - 30
Linear infrastructure in the corridor	NEC road connecting Seijosa and Pakke Kessang, 15 km road passing through the corridor
Major bottleneck	Establishment of Langka village
Recommendations by the forest department to improve the corridor	1) Accurate demarcation of corridor is needed through proper study. 2) As most of the land is disputed, a planned study is required for the corridor area.
Current status of the corridor	Active. Intensity of use by elephants decreased.

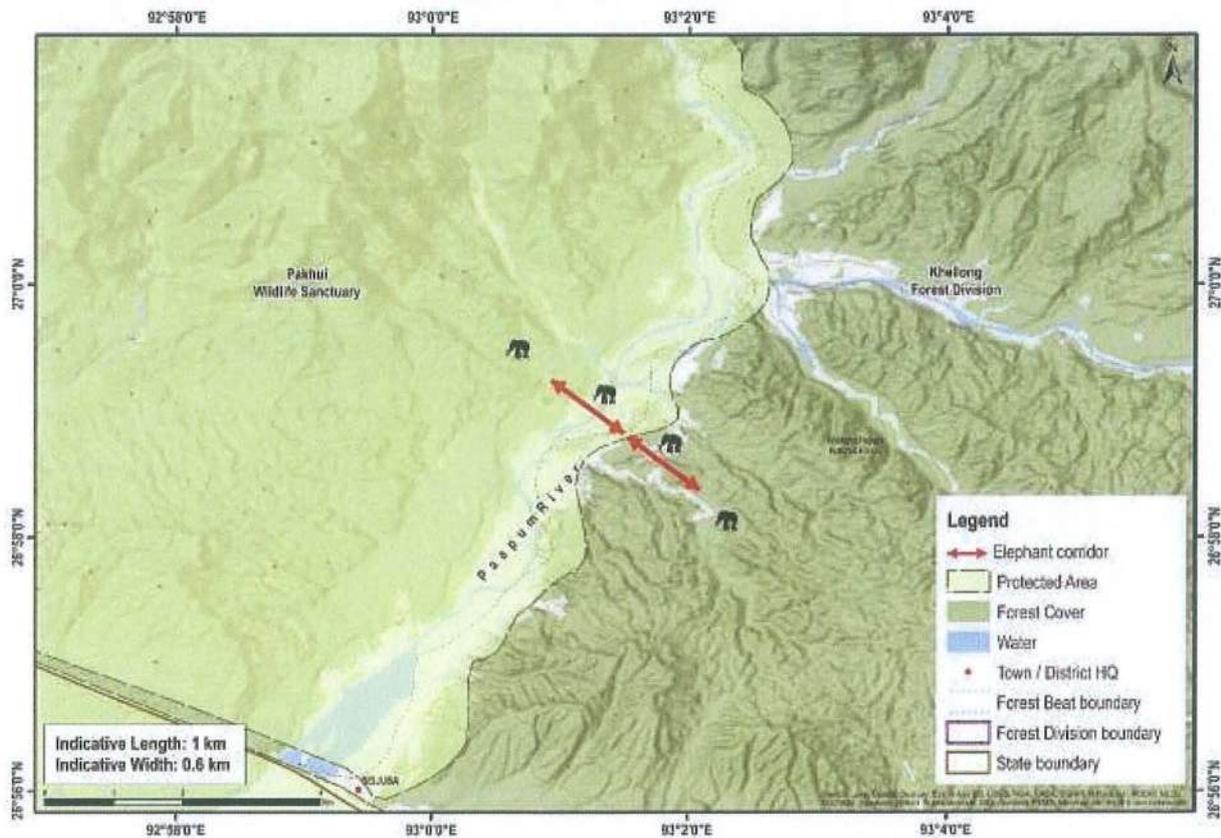


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3282

5. Pakke- Papum Seijosa nallah Corridor

Connectivity	The corridor connects Papum Reserve Forest in the Khelong Forest Division to Pakke Tiger Reserve.
State	Arunachal Pradesh
Indicative length and width	Length = 1 km, width = 0.6 km
Geo coordinates	26° 58' 23" N / 93° 0' 49" E 26° 59' 22" N / 93° 2' 2" E
Forest ranges falling within corridor	Seijosa territorial range
Revenue villages falling within corridor	2
Ecological importance	The corridor is critical link into Pakke Tiger Reserve that harbors tigers (<i>Panthera tigris</i>), leopard (<i>Panthera pardus</i>), clouded leopard (<i>Neofelis nebulosa</i>), Himalayan black bear (<i>Ursus thibetanus</i>) and others.
Habitat type	Tropical Evergreen to Semi evergreen
Major land use	Agricultural land, Settlements and Seijosa Nallah River
Elephant movement status	Seasonal, during monsoon season (May to September)
Number of elephants using the corridor	25 - 30
Linear infrastructure in the corridor	1) 15 km of NEC road connecting Seijosa and Pakke Kessang road passing through the corridor 2) Proposed high power tension line
Major bottleneck	Establishment of two villages viz. Lower Balibasti and Upper Balibasti
Recommendations by the forest department to improve the corridor	1) Accurate demarcation of corridor is needed. 2) As most of the land is disputed, a planned study is required for the corridor area.
Current status of the corridor	Active. Intensity of use by elephants decreased.

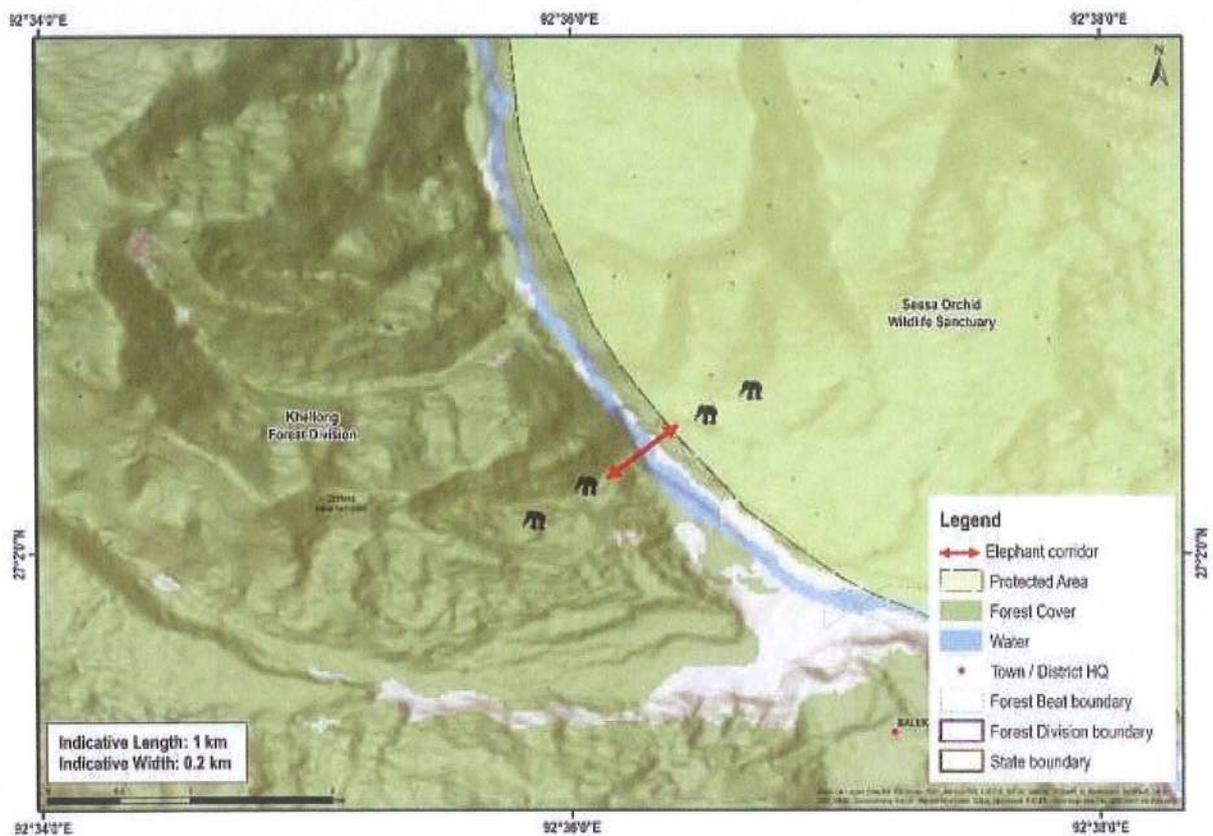


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6. Pakke- Doimara at Tippi Corridor

Connectivity	The corridor connects Pakke Tiger Reserve with Doimara Reserve Forest of Khellong Forest Division
State	Arunachal Pradesh
Indicative length and width	Length = 1 km, width = 0.2 km
Geo coordinates	27° 1' 1" N / 092° 37' 17" E 27° 01' 35.2" N / 092° 36' 43.1" E
Forest ranges falling within corridor	Bhalukpong range
Revenue villages falling within corridor	One
Administrative details of the corridor	Khellong Forest division,
Ecological importance	Pakke Tiger Reseve harbors good population of Tigers, Hornbills, Leopard, Clouded leopard, Himalayan black bear and binturong etc.
Habitat type	Tropical evergreen forest and semi evergreen forest
Major land use	Forest, Kameng River, settlements
Elephant movement status	Seasonal, during monsoon season (May to September)
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1. National Highway 229, 1 km of road passes through the corridor and its heavy vehicular traffic 2. Fencing around the residential area 3. Tippi industrial estate 4. Concrete walls as boundary of the Tippi tourism guest house and Orchid Research Centre
Recommendations by the forest department to improve the corridor	This corridor is no longer being used by elephants
Current status of the corridor	Impaired Earlier this corridor was used by elephants for crossing into Doimara RF. However, due to obstruction of the corridor at Tippi, the elephants take the route of Dedzeling nullah to reach Dadzu-Lumia-Dedzeling at present for their further movement to Doimara RF. Thus, the Dadzu – Lumia (Dedzeling) serves as the substitute for the Pakke – Doimara elephant corridor at Tippi.

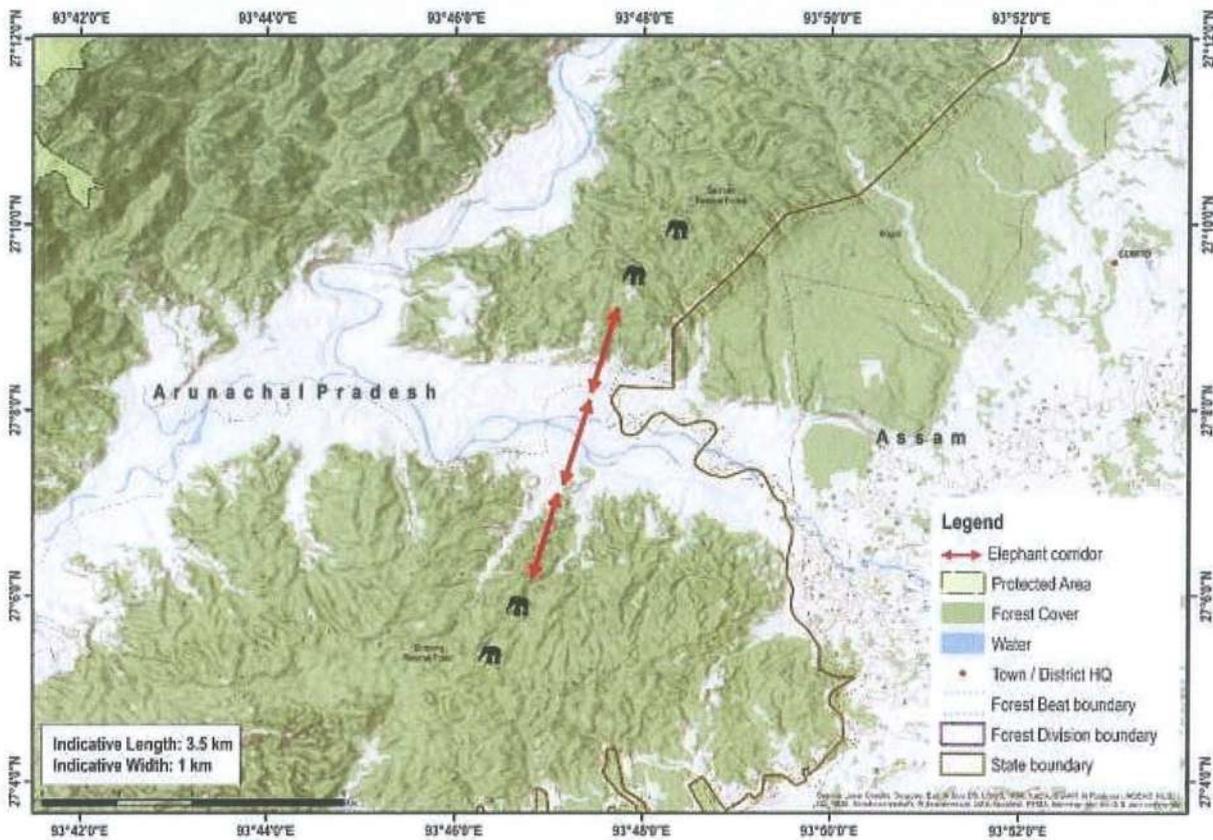


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3284

7. Durpong - Doimukh at Khundakuwa Corridor

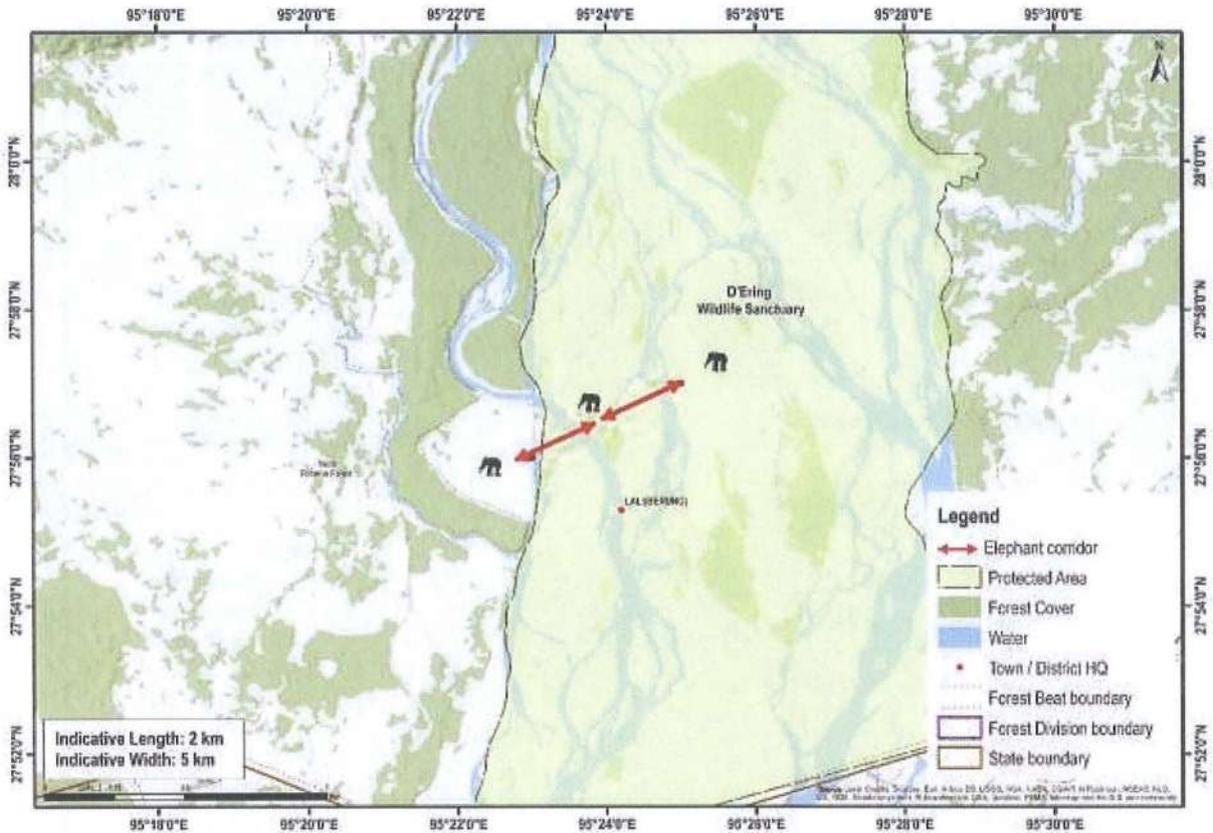
Connectivity	The corridor connects Durpong Forest Reserve with the proposed Doimukh Reserve Forest.
State	Arunachal Pradesh
Indicative length and width	Length = 3.5 km, width = 1 km
Geo coordinates	27°06'54", 27°07'09"N 93°47'26", 93°48'26"E
Revenue villages falling within corridor	3
Habitat type	Tropical semi-evergreen forest
Major land use	Forest, agriculture and settlements
Elephant movement status	None
Number of elephants using the corridor	None
Linear infrastructure in the corridor	Heavy vehicular traffic along National Highway-52A
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the state 2) Regulating night traffic along the National Highway-52A 3) Protection of Khundakuwa nullah from encroachment 4) Finding alternatives for 55 households of Berup and Gumto villages 5) Protection of the small grassland at the point where River Dikrong and Khundakhowa nullah converge
Current status of the corridor	Impaired



3285

8. D'ering - Mebo at Kongkul Corridor

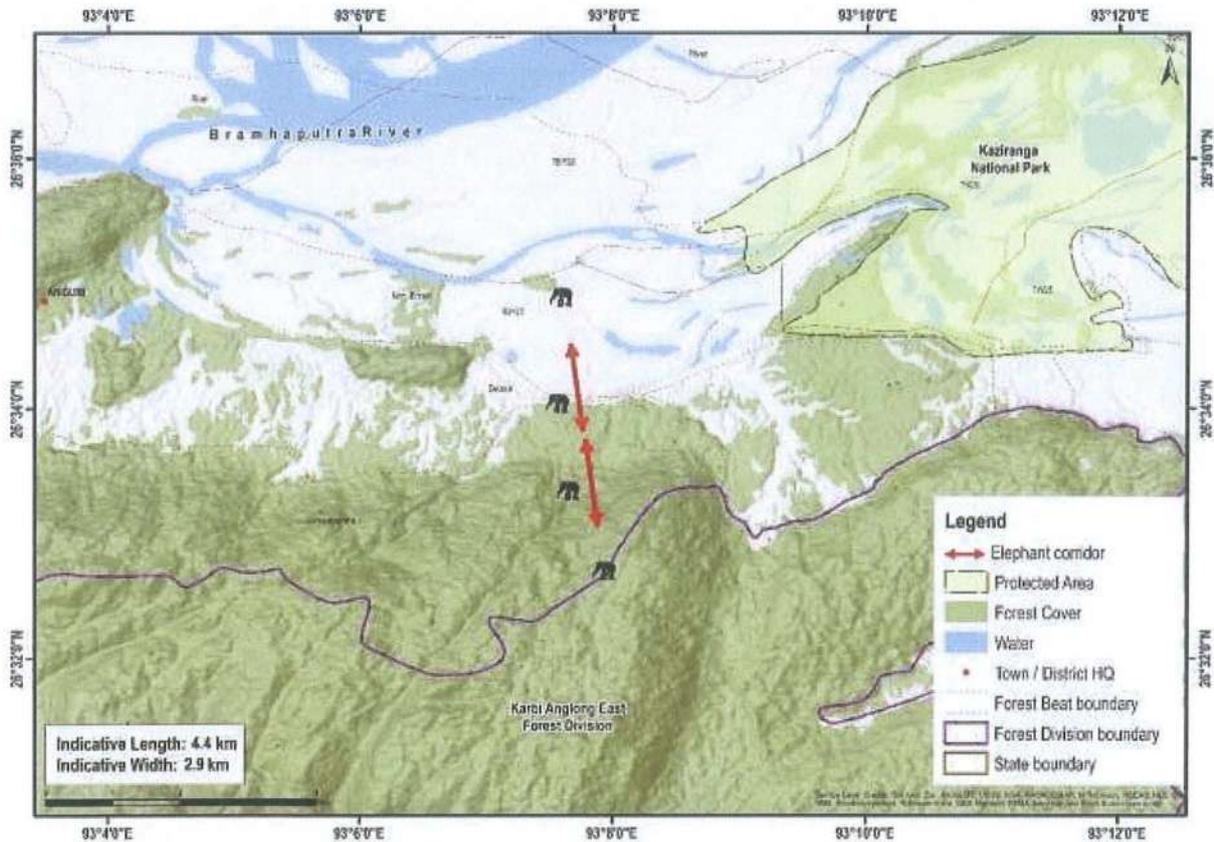
Connectivity	D'Ering Memorial Wildlife Sanctuary with Mebo Reserve Forest leading to Dibang Reserve Forest of Roing Forest Division
State	Arunachal Pradesh
Indicative length and width	Length = 2 km, width = 0.5 km
Geo coordinates	27°56'-27°57' N 95°23'-95°25' E
Revenue villages falling within corridor	1
Ecological importance	Elephants from D'Ering Wildlife Sanctuary used this corridor to move to Mebo Reserve forest through the Sissar River bed.
Habitat type	Tropical evergreen forest
Major land use	Forest, agriculture and settlement
Elephant movement status	Information NA
Number of elephants using the corridor	None
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the state 2) Seeking alternatives for Kongkul village 3) Protecting the corridor forest by eco-development in Kongkul village 4) Declaring the corridor and surrounding forest areas as Community Reserves
Current status of the corridor	Impaired



3286

9. Deosur Corridor

Connectivity	This corridor connects the Burapahar Range of Kaziranga National Park to Porcupa Range of East Karbi Anglong Forest Division
State	Assam
Indicative length and width	Length = 4.44 km, Width = 2.9 km
Geo coordinates	N 26° 34' 5.153", 26° 33' 41.180" / E 93° 7' 30.138", 93° 9' 20.274"
Forest ranges falling within corridor	Burapahar Range and Porcupa Range
Revenue villages falling within corridor	2
Ecological importance	The corridor is part of Kaziranga National Park which harbors large number of elephants along with other megafauna species like one-horned rhinoceros.
Habitat type	Tropical moist deciduous forest
Major land use	Forest Agriculture Tea plantations Settlements
Elephant movement status	Seasonal, during monsoon
Number of elephants using the corridor	Not recorded
Linear infrastructure in the corridor	1) National Highway 37, 6.8 km of road passes through the corridor, vehicular frequency is also high 2) High tension power line (440 V)
Bottlenecks in the corridor	National Highway 37
Recommendations by the forest department to improve the corridor	Around 26.63 ha of the corridor is under revenue land. The revenue authorities should minimize human influences and help in restoring the structural corridor.
Current status of the corridor	Active. Intensity of use by elephants not available.

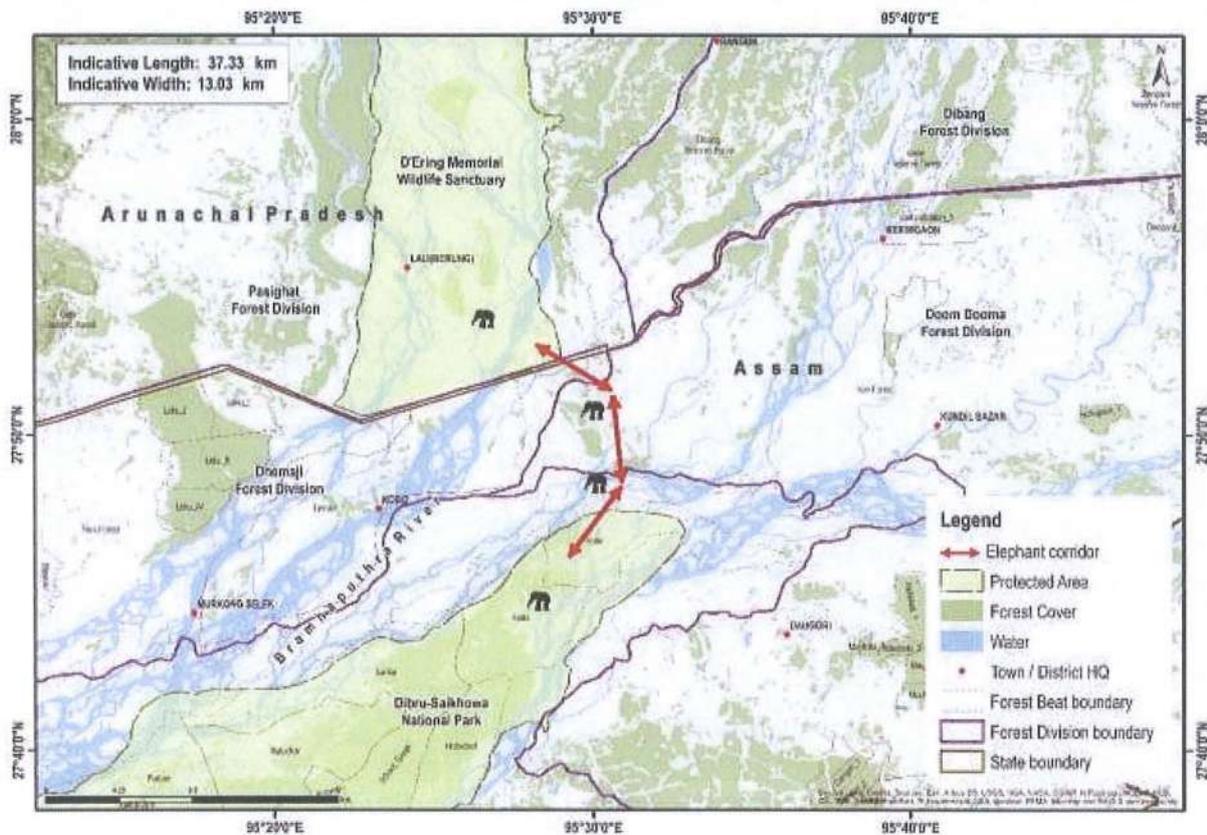


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3287

10. D'ering- Dibru Saikhowa Corridor (Interstate corridor)

Connectivity	This corridor connects the D'ering Memorial Wildlife Sanctuary, Dibang Forest Division and Pasighat Forest Division (Arunachal Pradesh) with Dibru Saikhowa National Park (Assam) via forest patches of the Sadiya Forest Range of Doomdooma Forest Division.
State	Assam and Arunachal Pradesh
Indicative length and width	Length = 37.33 km, Width = 13.03 km
Geo coordinates	N 27° 50' 36.041", 27° 51' 13.986" / E 95° 49' 58.861", 95° 49' 46.320"
Beats falling within corridor	Sadiya beat
Forest ranges falling within corridor	Sadiya and Anchalghat Forest Range
Revenue villages falling within corridor	S7
Administrative details of the corridor	The corridor connects D'ering Memorial Wildlife Sanctuary and Dibru Saikhowa National Park
Habitat type	Semi Evergreen and Riverine Forest.
Major land use	Forests River & flood plains Agricultural land Human settlements
Elephant movement status	Regular with seasonal peaks during months from October to February
Number of elephants using the corridor	> 40
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	1) The corridor should have a legal entity so that the state forest department could protect the corridor. 2) Prevention of encroachment and new settlements towards the Assam state. 3) Support for the local communities for improving their livelihood and minimize their interactions with the elephants.
Current status of the corridor	Active. Intensity of use by elephants increased.

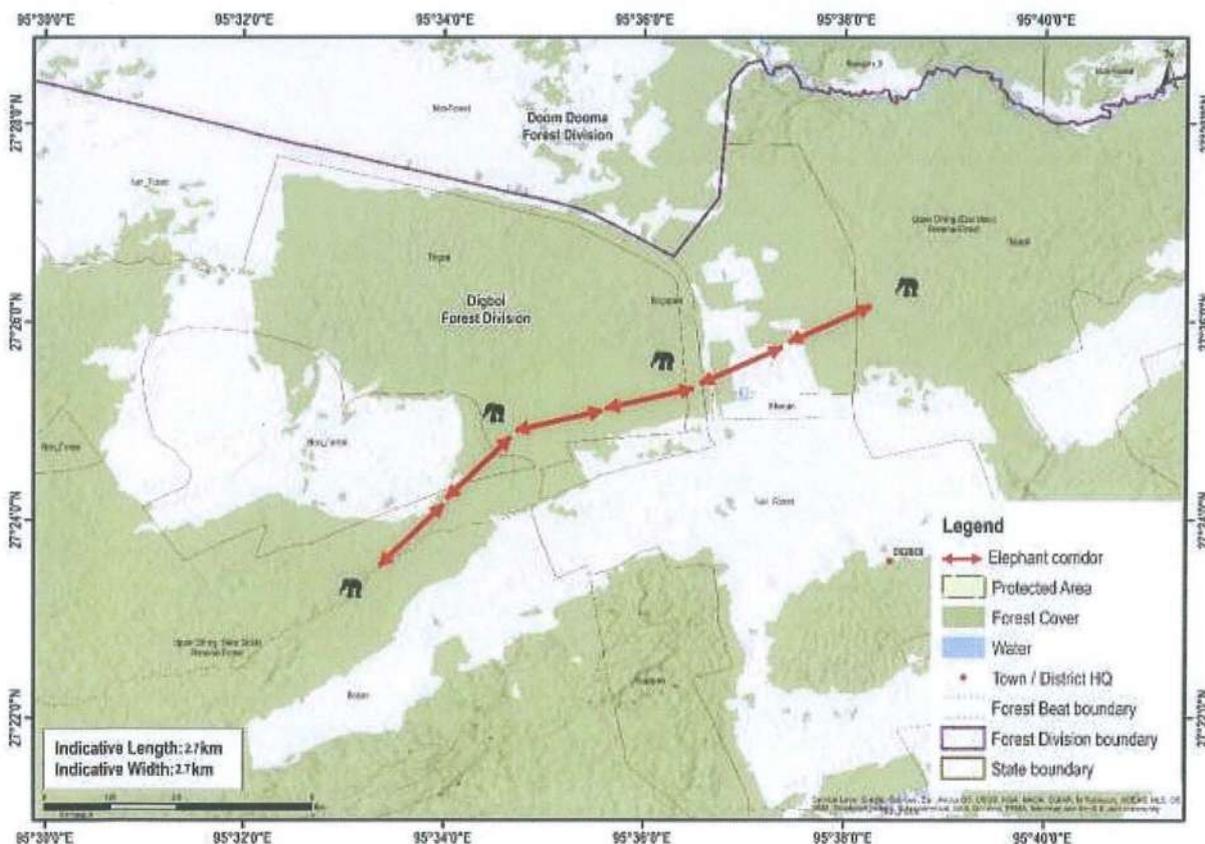


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3288

11. Bogapani Corridor- Upper Dihing East- Upper Dihing West Block

Connectivity	This corridor connects the East and West Blocks of Upper Dihing Reserve Forest in Digboi Forest Division
State	Assam
Indicative length and width	Length = 2.79 km, Width = 2.74 km
Geo coordinates	N 27° 25'1.453", 27°25'1.453" / E 95° 36'25.842", 95° 36'25.842"
Compartments falling within corridor	Compartment 94 UDRF West Block and compartments 21,22 & 23 in UDRF East Block.
Forest ranges falling within corridor	Lakhipathar Range and Digboi Range
Revenue villages falling within corridor	2
Administrative details of the corridor	The corridor connects the Upper Dihing East - Upper Dihing West block
Ecological importance	The corridor helps in the extended movement of elephants to and from Dihing-Patkai Elephant Reserve.
Habitat type	Tropical Evergreen Forest.
Major land use	Forest, Agricultural land and Tea plantations.
Elephant movement status	Seasonal, majorly in months of October to February.
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway 38, 1 km of the road passes through the corridor 2) Single track non electrified railway line (1 km)
Bottleneck in the corridor	Railway track and National Highway
Recommendations by the forest department to improve the corridor	1) Up gradation of the corridor area into community and conservation reserve. 2) Removal of encroachment 3) Purchasing the private land falling in the corridor area 4) Creation of over bridges in the area for the vehicles.
Current status of the corridor	Active. Intensity of use by elephants decreased.

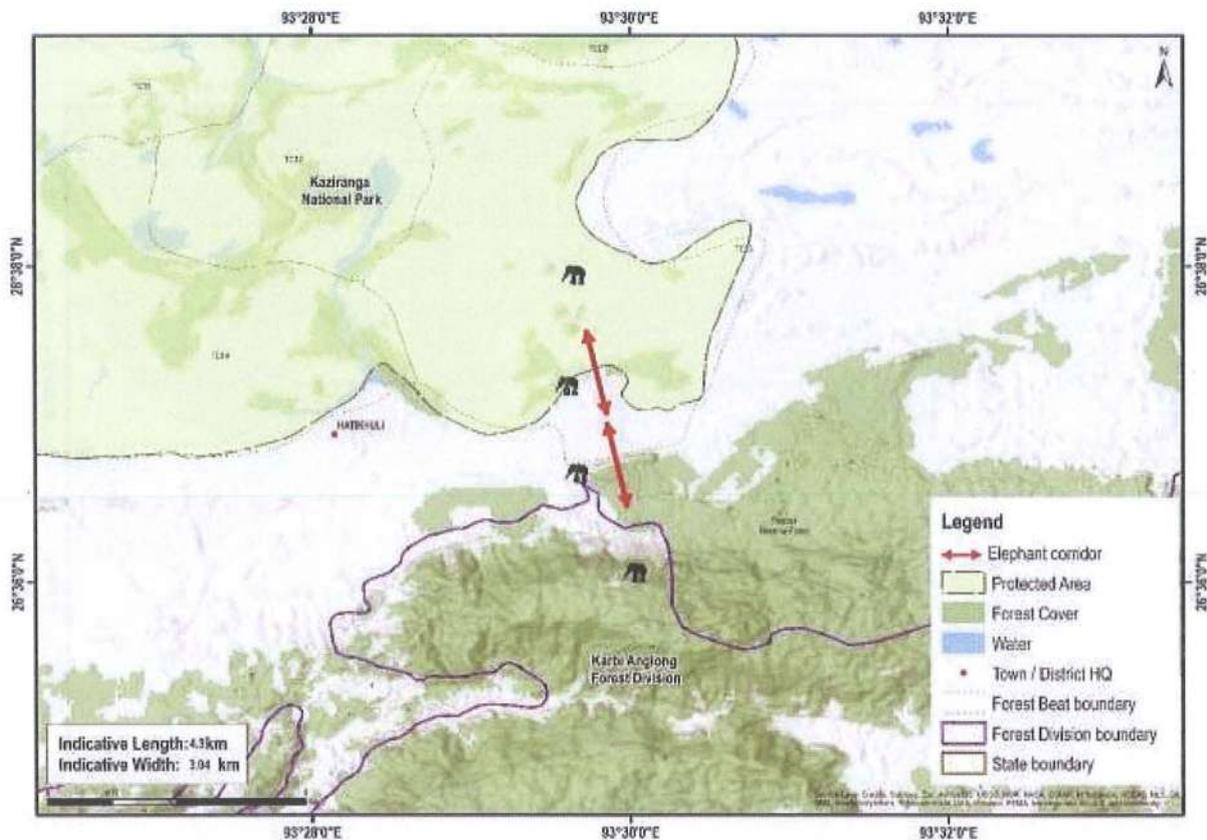


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3289

12. Panbari Corridor

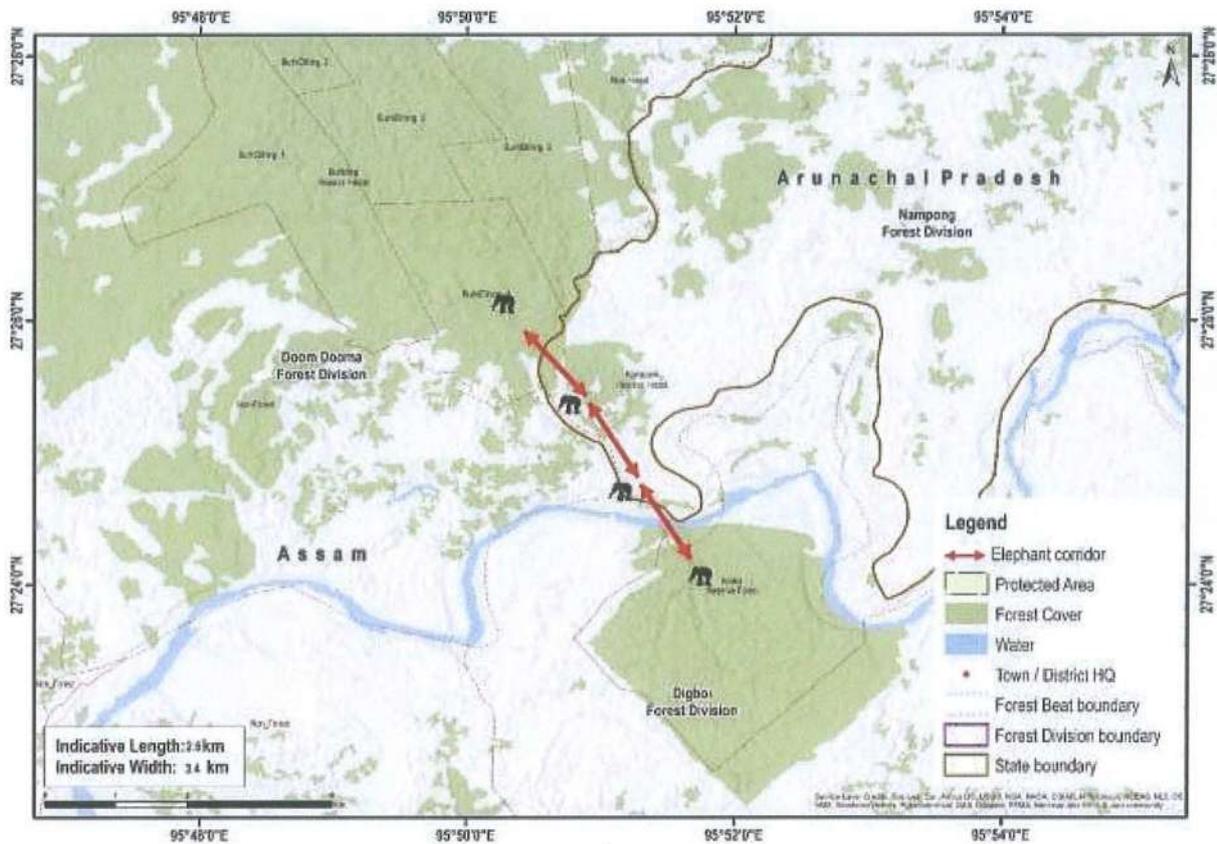
Connectivity	This corridor connects the elephant habitats of Kaziranga National Park with Karbi Anglong Forest Division through Panbari Reserve Forest.
State	Assam
Indicative length and width	Length = 4.3 km, width = 3.0 km
Geo coordinates	N 26° 37' 10.303", 26°36'44.927"/ E 93° 31'0.100", 93° 29'48.442"
Forest ranges falling within corridor	Central Kohora Range
Revenue villages falling within corridor	2
Administrative details of the corridor	The corridor connects Kaziranga National Park with Karbi Anglong Forest
Ecological importance	The corridor is part of Kaziranga National Park which harbors large number of elephants along with other megafauna species like one-horned Rhinoceros.
Habitat type	Tropical Semi Evergreen Forest
Major land use	Forest Agricultural
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway 37, 4 km of the road passes through the corridor with around 1500 vehicles passing per day 2) High tension power line (440 V)
Bottleneck in the corridor	National Highway 37
Recommendations by the forest department to improve the corridor	1) Addressing human encroachment in the area. 2) Land use change restrictions should be imposed
Current status of the corridor	Active. Intensity of use by elephants decreased.



3290

13. Kotha Buridehing Corridor

Connectivity	This corridor connects Kotha Reserve Forest of Digboi Forest Division with Buridehing Reserve Forest of Khatangpani Range of Doomdooma Forest Division
State	Assam
Indicative length and width	Length = 2.62 km, Width = 3.41 km
Geo coordinates	N 27° 25' 25.056", 27° 25' 25.056" / E 95° 50' 24.976", 95° 50' 24.976"
Forest ranges falling within corridor	Khatangpani Range and Jagun Range
Revenue villages falling within corridor	Six
Habitat type	Semi evergreen Forest and Riverine Forest.
Major land use	Forest River and flood plains Agricultural land Settlements
Elephant movement status	Regular with seasonal peaks during months from October to February
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department to improve the corridor	1) The corridor should have a legal entity so that the state forest department could protect the corridor. 2) Encroachment from the Buridehing Reserve Forest should be freed. 3) Controlled and regulated agricultural practices. 4) Terminating the brick kilns from the corridor area.
Current status of the corridor	Active. Intensity of use by elephants increased.

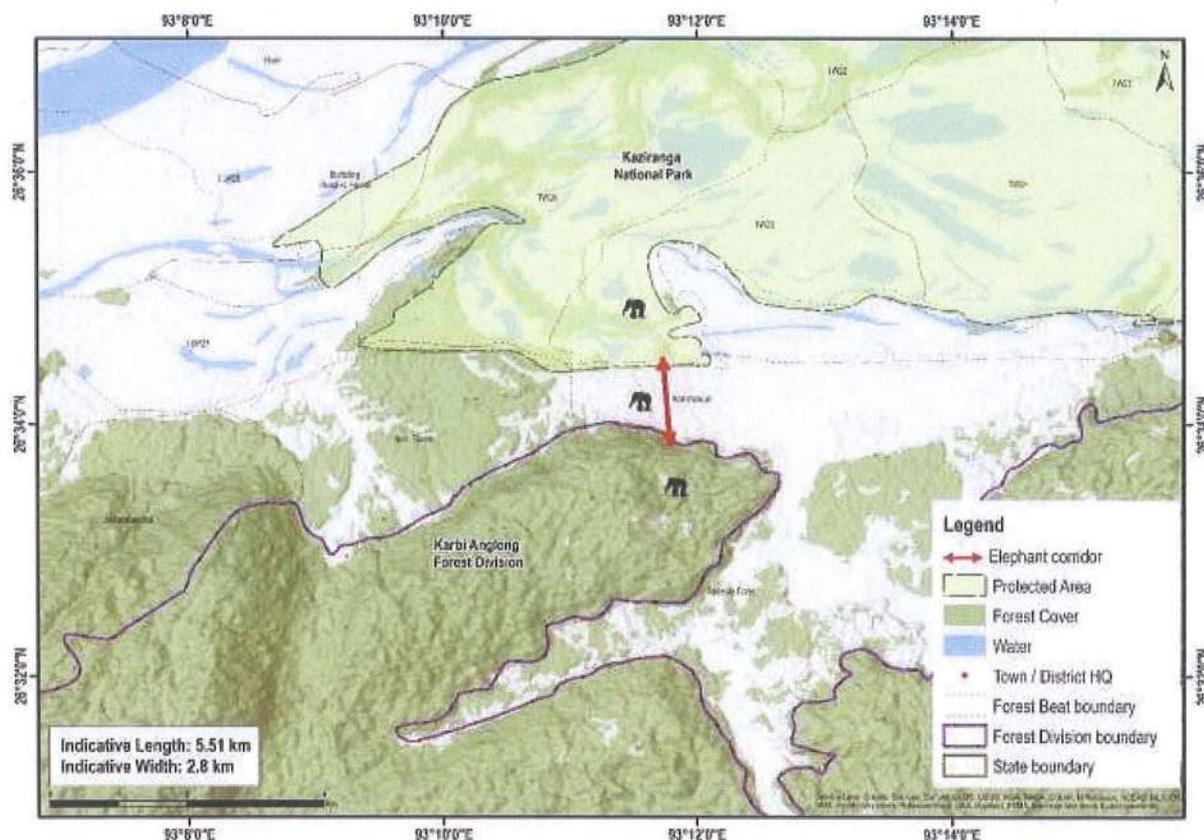


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3291

14. Kanchanjuri Corridor

Connectivity	This corridor connects the elephant habitats of Kaziranga National Park with Rutehpahar forest of East Karbi Anglong Forest Division (towards the northeast) and Bagser Reserve Forest of Nagaon Forest Division (to the southwest).
State	Assam
Indicative length and width	Length = 5.51 km, width = 2.81 km
Geo coordinates	N 26° 34' 25.402", 26° 35' 27.205"/ E 93° 10' 46.970", 93° 11' 38.073"
Forest ranges falling within corridor	Western Bagori Range
Revenue villages falling within corridor	3
Ecological importance	The corridor is part of Kaziranga National Park which harbors large number of elephants along with other mega fauna species like one-horned rhinoceros.
Habitat type	Tropical moist deciduous
Major land use	Forest Agricultural land
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	3.3 km of National Highway 37 passing through the forest
Bottleneck in the corridor	National Highway 37
Recommendations by the forest department to improve the corridor	1) Prevention of human induced disturbances in and around the corridor. 2) Land use change restrictions should be imposed.
Current status of the corridor	Active. Intensity of use by elephants decreased.

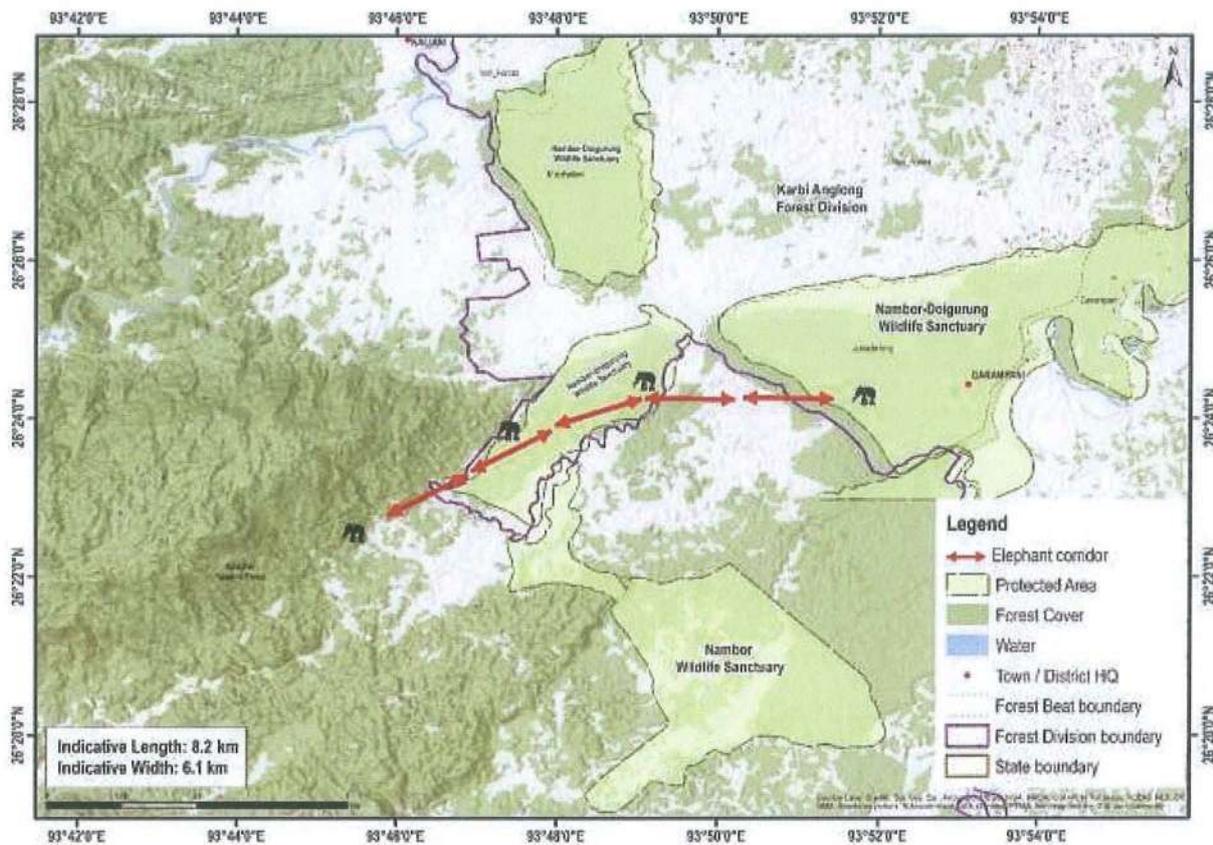


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3292

15. Kalapahar- Doigrung Corridor (Interstate corridor)

Connectivity	This corridor connects Kalapahar Proposed Reserve Forest and Nambor West Block of East Karbi Anglong Division with Nambor-Doigrung. The corridor is formed from the land gifted by Sar Kro village and the land vacated by Ram Terang village and part of Doigrung and Nambor wildlife sanctuary under Golaghat Range, Golaghat District. Wildlife Sanctuary (Nambor North Block in Golaghat District)
State	Assam and Arunachal Pradesh
Indicative length and width	Length = 8.27 km, width = 6.17 km
Geo coordinates	N 26° 23' 12.331", 26° 23' 12.331"/ E 93° 47' 48.671", 93° 47' 48.671"
Forest ranges falling within corridor	Golaghat Range
Habitat type	Mix moist deciduous and Semi evergreen Forest.
Major land use	Forests Agricultural land Settlements
Elephant movement status	Regular
Number of elephants using the corridor	NA. But in a single herd 30+ elephants can be seen.
Linear infrastructure in the corridor	1) PWD road from Silonijan to Chowkihola, 2.5 km of this road falls within the corridor 2) Increased vehicular traffic
Recommendations by the forest department to improve the corridor	1) Proper demarcation of the corridor is urgently required. 2) The encroached area should be converted into plantations and further encroachment should be restricted. 3) Anti- poaching camps should be constructed near the corridor areas.
Current status of the corridor	Active. Intensity of use by elephants increased.

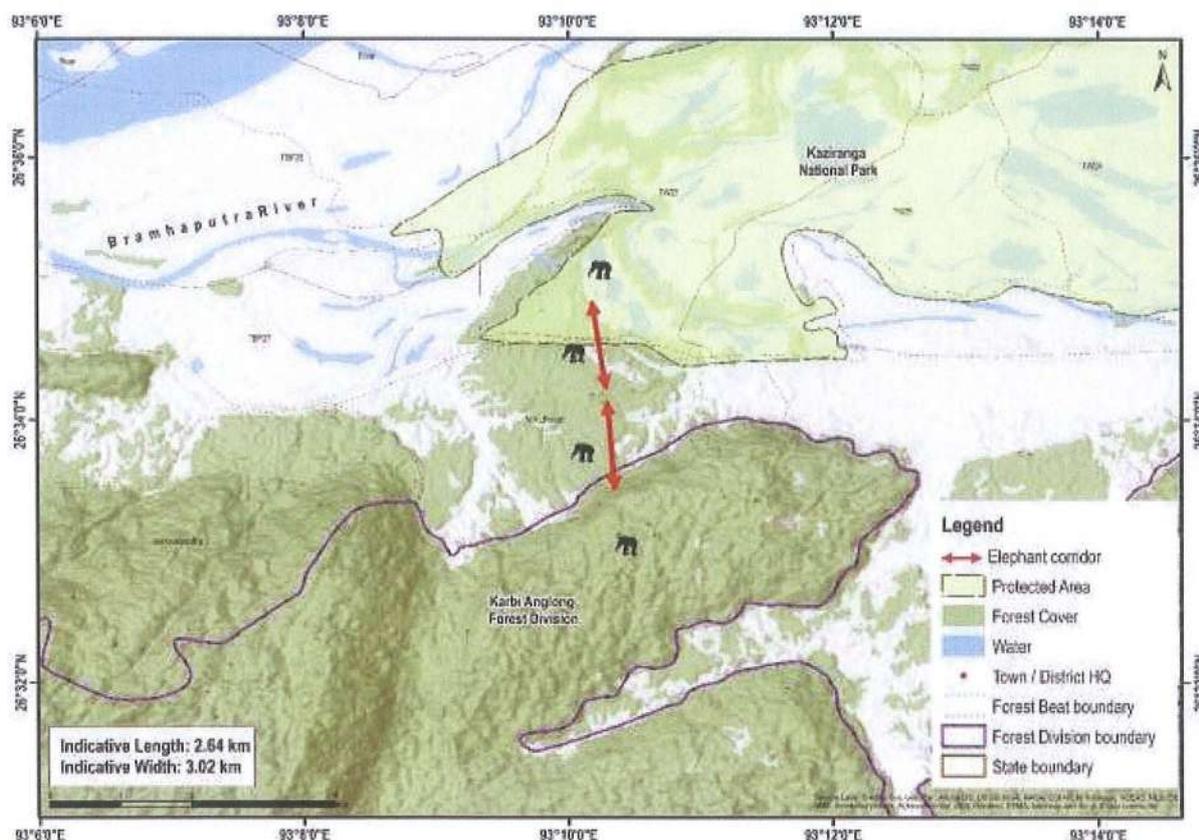


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3293

16. Hatidandi Corridor

Connectivity	This corridor connects the elephant habitats of Kaziranga National Park with Karbi Anglong Forest Division
State	Assam
Indicative length and width	Length = 2.64 km, width = 3.02 km
Geo coordinates	N 26° 32' 56.741", 26° 33' 40.465"/ E 93° 9' 10.639", 93° 10' 35.068"
Forest ranges falling within corridor	Nagaon Range
Revenue villages falling within corridor	1
Administrative details of the corridor	Nagaon Forest Division
Ecological importance	The corridor is part of Kaziranga National Park which harbors large number of elephants along with other mega fauna species like one-horned Rhinoceros.
Habitat type	Semi Evergreen Forest
Major land use	Forest Tea plantation
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway- 37, 4 km of road passes through the corridor 2) High tension power line (440 V) 3) Trench along the tea garden
Bottleneck in the corridor	National Highway 37
Recommendations by the forest department to improve the corridor	1) Prevention of human induces disturbances in and around the corridor. 2) Land use change restrictions should be imposed.
Current status of the corridor	Active. Intensity of use by elephants decreased.

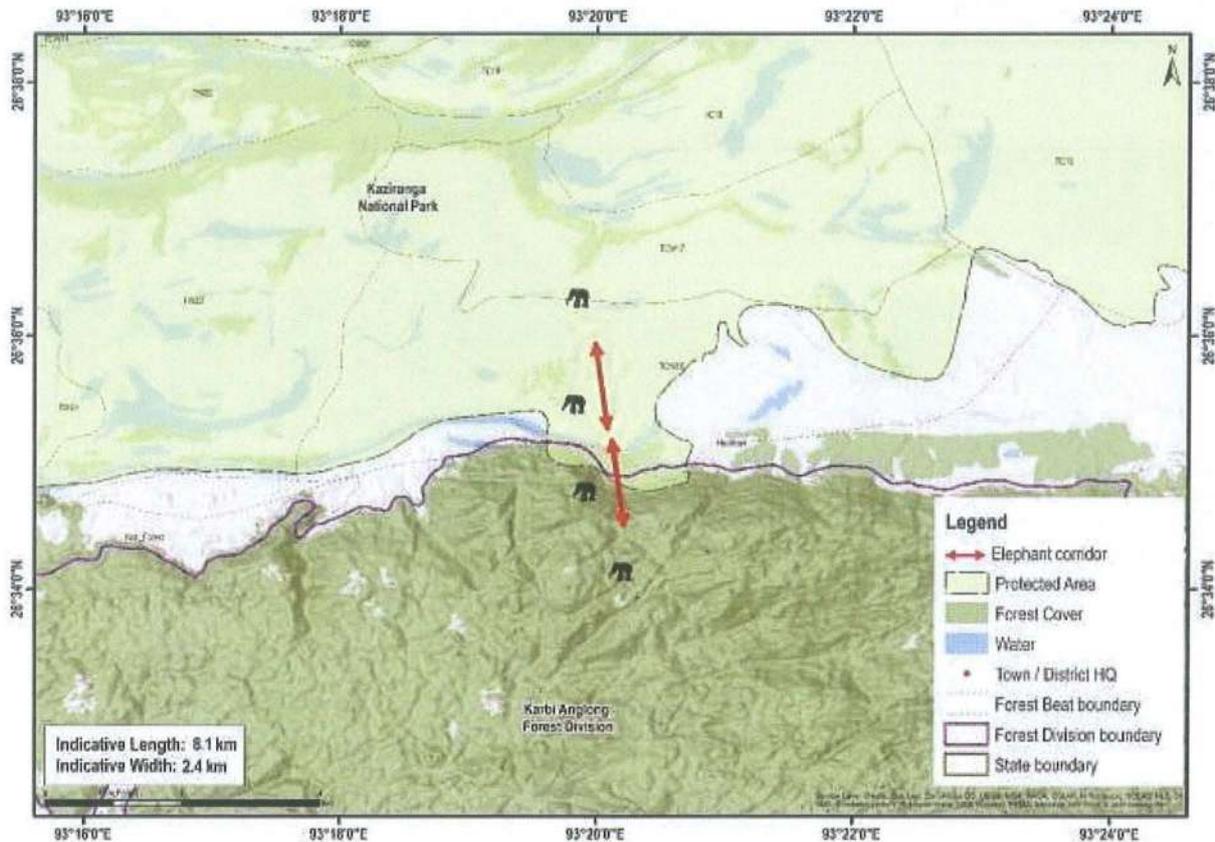


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3294

17. Haldhibari Corridor

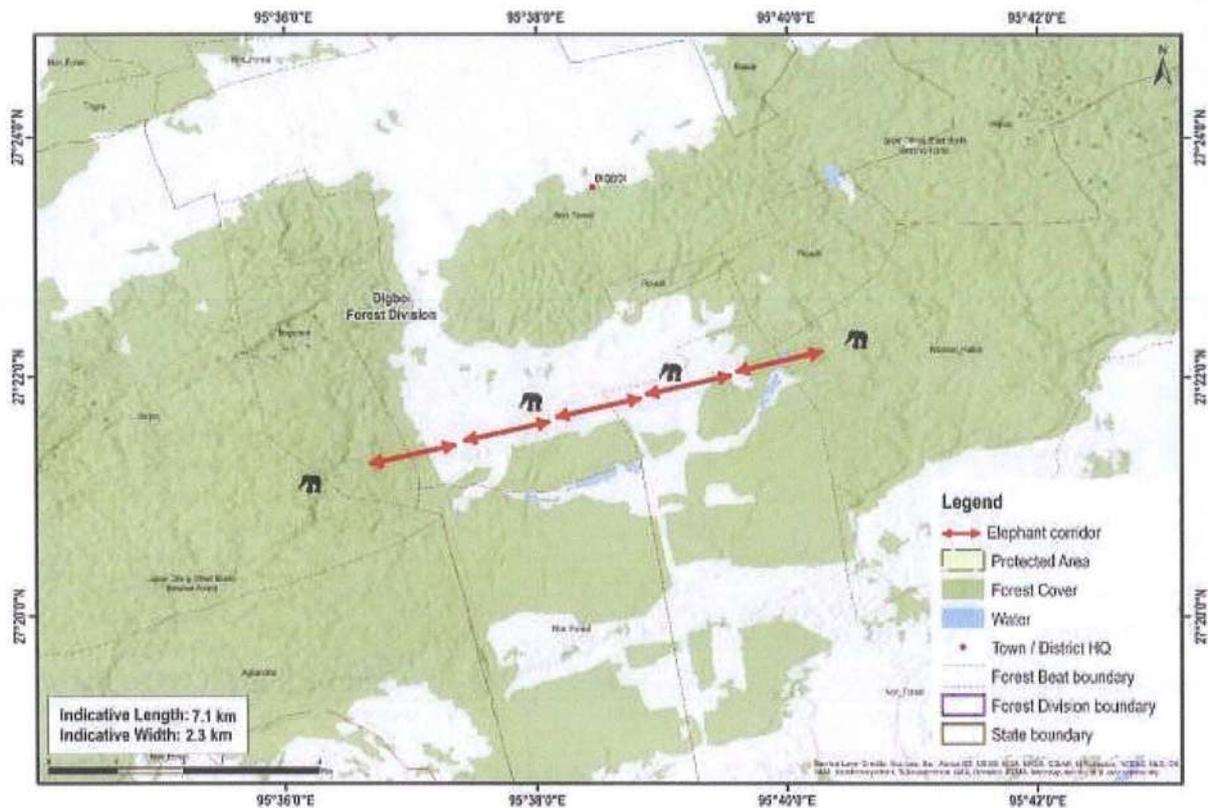
Connectivity	This corridor connects the elephant habitats of Kaziranga National Park in the north with North Karbi Anglong Wildlife Sanctuary and the adjoining community forests of the Karbi Anglong Hills in the south.
State	Assam
Indicative length and width	Length = 8.13 km, width = 2.46 km
Geo coordinates	N 26° 34' 37.063", 26° 34' 54.424" E 93° 17' 53.772", 93° 20' 33.037"
Forest ranges falling within corridor	Central Western Range
Revenue villages falling within corridor	One
Administrative details of the corridor	Kaziranga National Park with North Karbi Anglong Wildlife Sanctuary
Ecological importance	The corridor is part of Kaziranga National Park which harbors large number of elephants along with other mega fauna species like one-horned rhinoceros.
Habitat type	Tropical Moist Deciduous
Major land use	Forests
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway- 37, 7 km of road passes through the corridor 2) High vehicular traffic (around 1500 per day)
Recommendations by the forest department to improve the corridor	1) Prevention of human induces disturbances in and around the corridor. 2) Land use change restrictions should be imposed.
Current status of the corridor	Active. Intensity of use by elephants stable.



3295

18. Golai- Pawai corridor- Upper Dihing East- Upper Dihing West Block Corridor

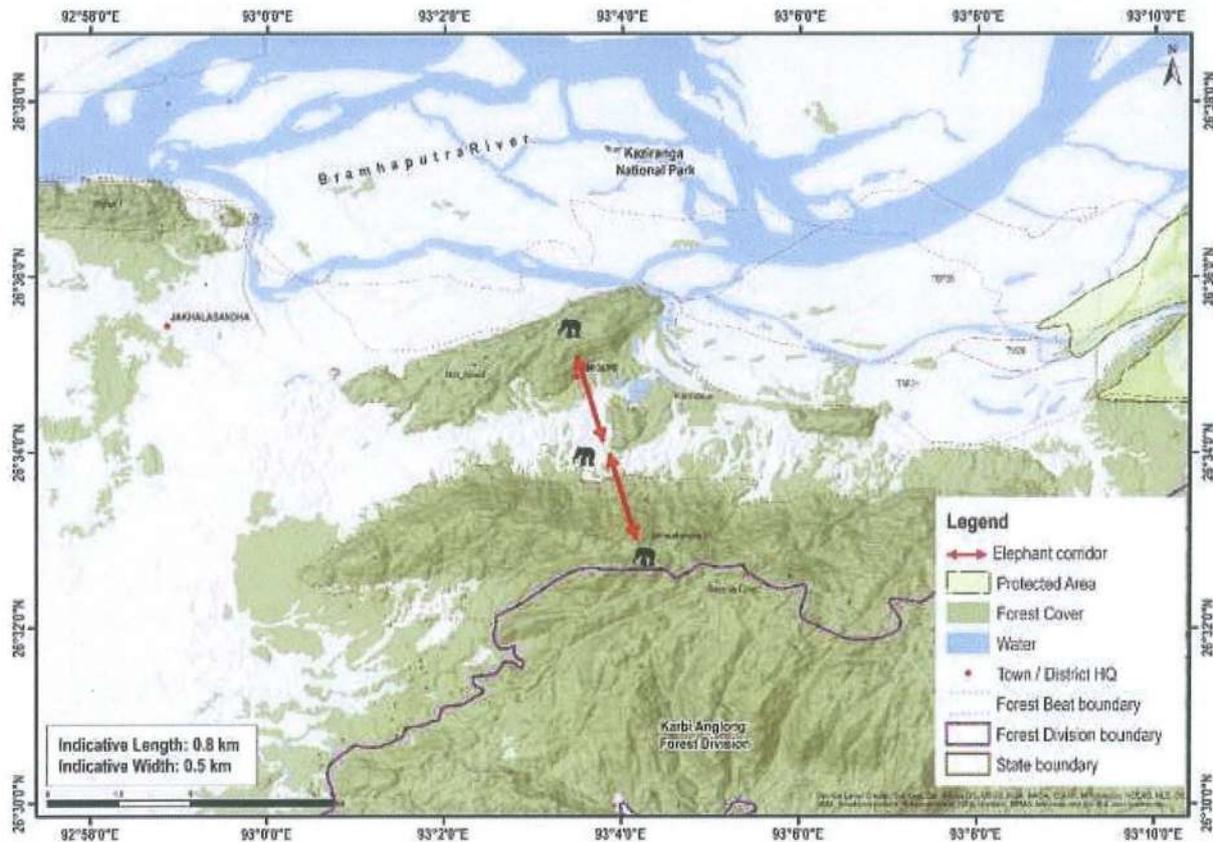
Connectivity	The corridor connects the East and West Blocks of Upper Dihing Reserve Forest of Digboi Forest Division.
State	Assam
Indicative length and width	Length = 7.11 km, width = 2.36 km
Geo coordinates	N 27° 21' 38.416", 27° 21' 38.416"/ E 95° 36' 50.757", 95° 36' 50.757"
Compartments falling within corridor	Compartment 94 UDRF West Block and 21,22 & 23 Compartment in UDRF, East Block.
Forest ranges falling within corridor	Digboi, Margherita West and Margherita East
Revenue villages falling within corridor	One
Administrative details of the corridor	Upper Dihing East and West block
Ecological importance	The corridor helps in the extended movement of elephants to and from Dihing-Patkai Elephant Reserve.
Habitat type	Tropical Evergreen Forest
Major land use	Forest Agricultural land Tea plantations
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) IOCL Campus 2) National Highway- 38 3) Single track non- electrified railway line connecting Tinsukia and Lidu 4) Amalgamated Tea company's tea estate
Bottleneck in the corridor	Tinsukia – Lidu railway track, National Highway 38, and IOCL terminal
Recommendations by the forest department to improve the corridor	1) Removal of IOCL Terminus 2) Purchasing the private land falling in the corridor. 3) Constructing over bridges for the vehicular movement.
Current status of the corridor	Active. Intensity of use by elephants decreased.



3296

19. Kukurakata - Bagser at Amguri Corridor

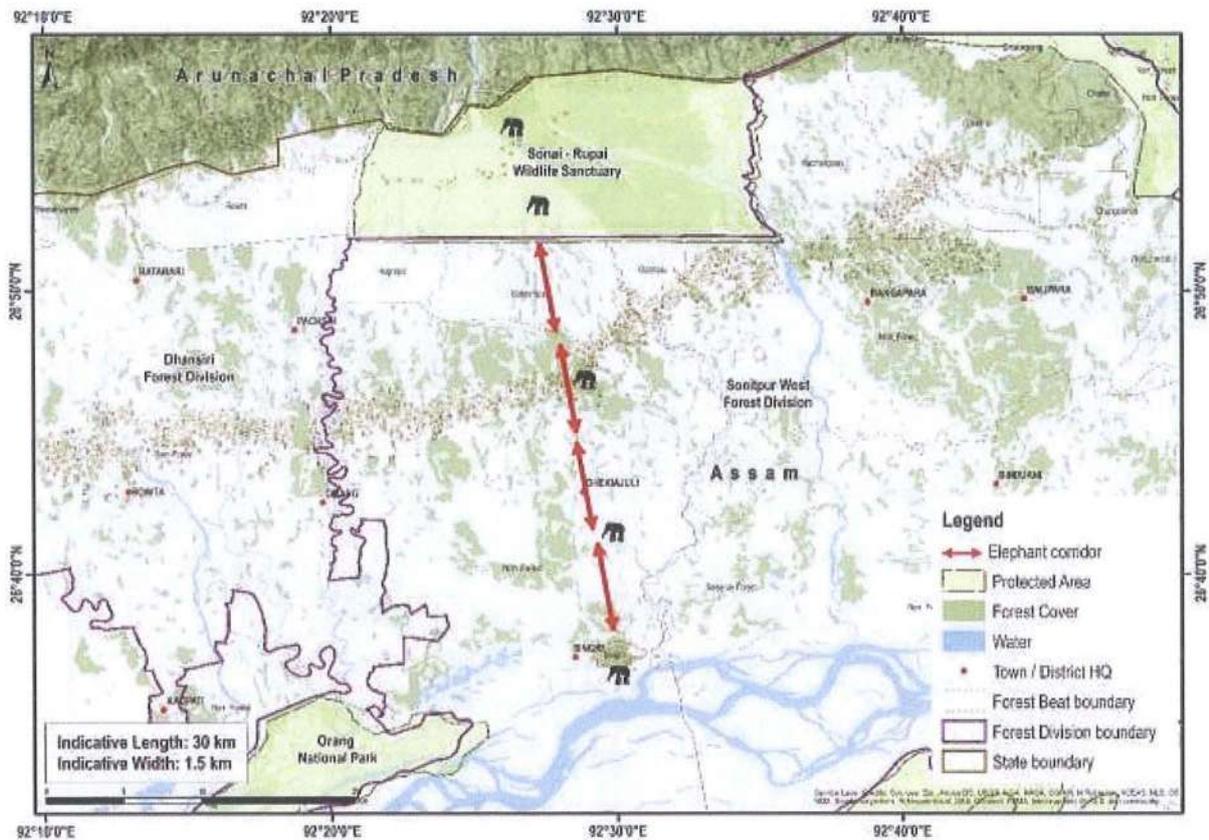
Connectivity	Kaziranga National Park and Kukurakata Reserve Forest with Bagser Reserve Forest and the forest of Karbi Anglong.
State	Assam
Indicative length and width	Length = 0.8 km, width = 0.5 km
Geo coordinates	26°34'02"–26°34'04" N 93°03'49"–93°04'03" E
Revenue villages falling within corridor	1
Ecological importance	This corridor used to connect the elephant habitats of Kaziranga National Park and Kukurakata Reserve Forest with Bagser Reserve Forest and the forest of Karbi Anglong.
Habitat type	Tropical semi-evergreen forest, tea gardens and grassland
Major land use	Agriculture, tea garden and fores
Elephant movement status	None
Number of elephants using the corridor	None
Linear infrastructure in the corridor	1) National Highway 37 and associated traffic 2) School 3) Road side dhabas and Hotels
Bottleneck in the corridor	Highway Road
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the state 2) Regulating night traffic along National Highway 37 3) Preventing destructive developmental activities 4) Relocation of the roadside <i>dhaba</i> and hotels outside the corridor
Current status of the corridor	Impaired



3297

20. Charduar - Singri Hill Corridor

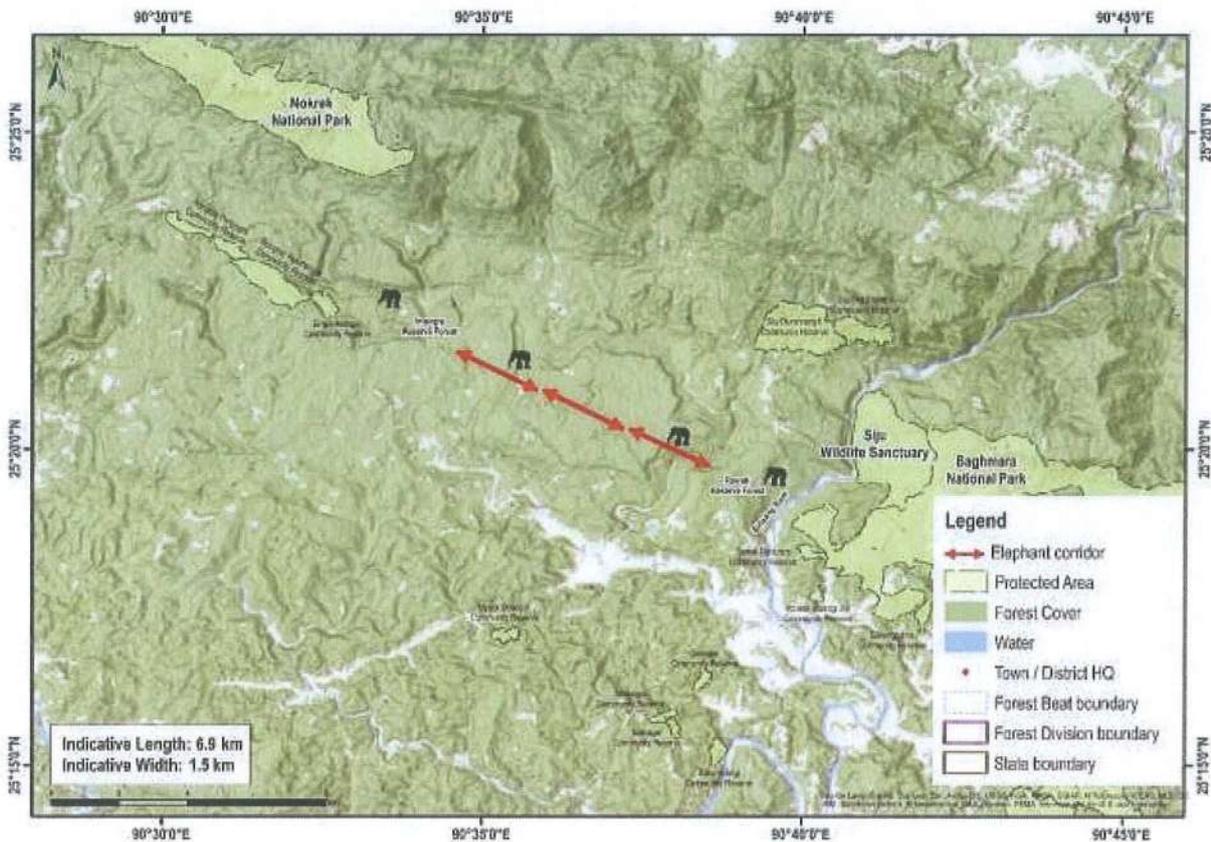
Connectivity	Sonai Rupai Wildlife Sanctuary and Charduar Reserve Forest and adjoining forests with Singri Hill Reserve Forest.
State	Assam
Indicative length and width	Length = 30 km, width = 1.5 km
Geo coordinates	26°36'41"-26°48'39" N 92°26'58"-92°29'37" E
Revenue villages falling within corridor	8
Habitat type	Tropical deciduous forest
Major land use	Agriculture, settlement and tea gardens
Elephant movement status	None
Number of elephants using the corridor	None
Linear infrastructure in the corridor	National Highway 52 (Guwahati to North Lakhimpur)
Bottleneck in the corridor	National Highway 52 (Guwahati to North Lakhimpur)
Recommendations by the forest department to improve the corridor	1) Declaration, demarcation and legal protection of the corridor under various laws appropriate for the state 2) Lobbying with tea gardens to leave a part of the land for easy movement of elephants and prevention of change of land-use pattern in these tea gardens
Current status of the corridor	Impaired



3298

21. Rewak- Emangre Corridor

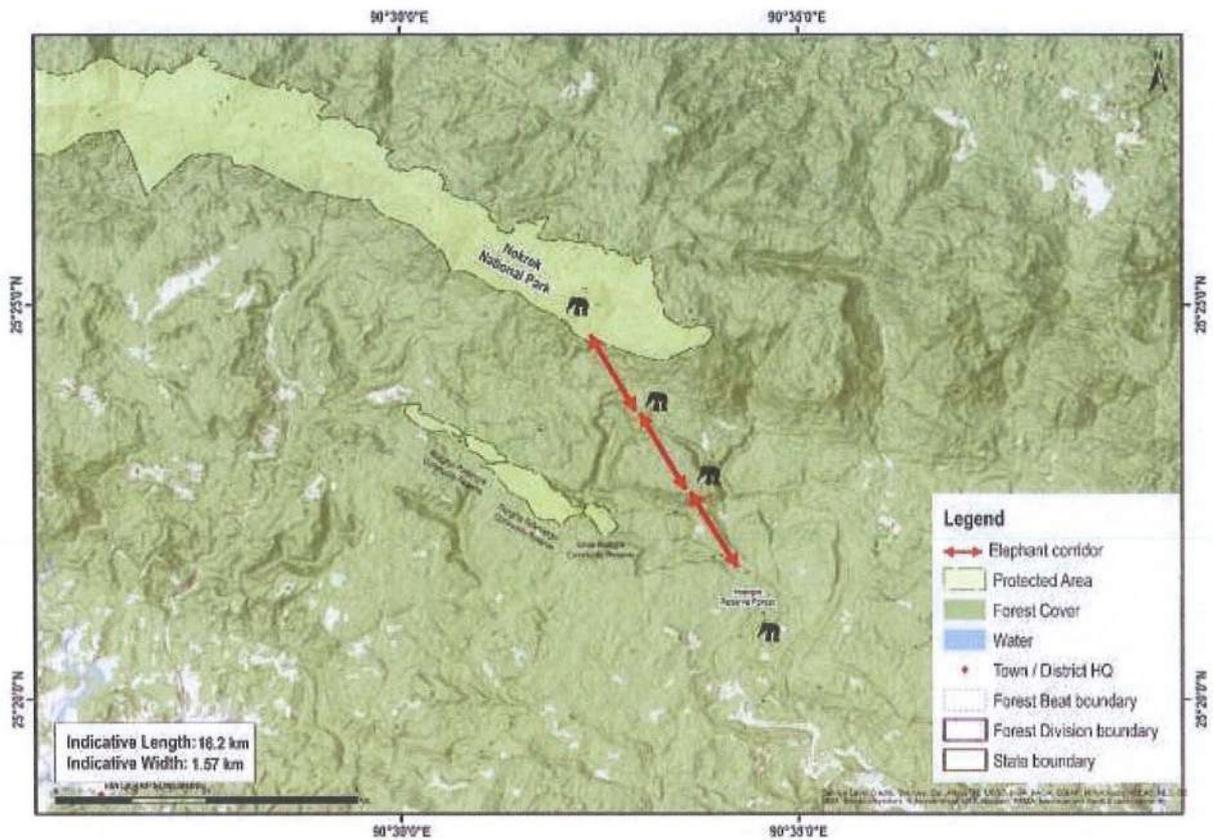
Connectivity	The corridor connects Emangre Reserve Forest to Nokrek National Park. The corridor falls under South Garo Hills district under Siju Block and under Siju Wildlife Range and Baghmara Wildlife Range
State	Meghalaya
Indicative length and width	Length = 6.90 km, Width = 1.57 km
Geo coordinates	25° 19' 47" N, 90° 39' 14.98" E 25° 20' 38.25" N, 90° 35' 17.70" E
Forest ranges falling within corridor	Siju and Baghmara Ranges
Revenue villages falling within corridor	8
Habitat type	Tropical deciduous, semi-evergreen forest
Major land use	Forest = 419 ha Agriculture = 280.4 ha Habitation = 92.6 ha
Elephant movement status	Regular
Number of elephants using the corridor	19
Linear infrastructure in the corridor	Local roads and a low hanging power line (35 Kv)
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.



3299

22. Nokrek- Emangre Corridor

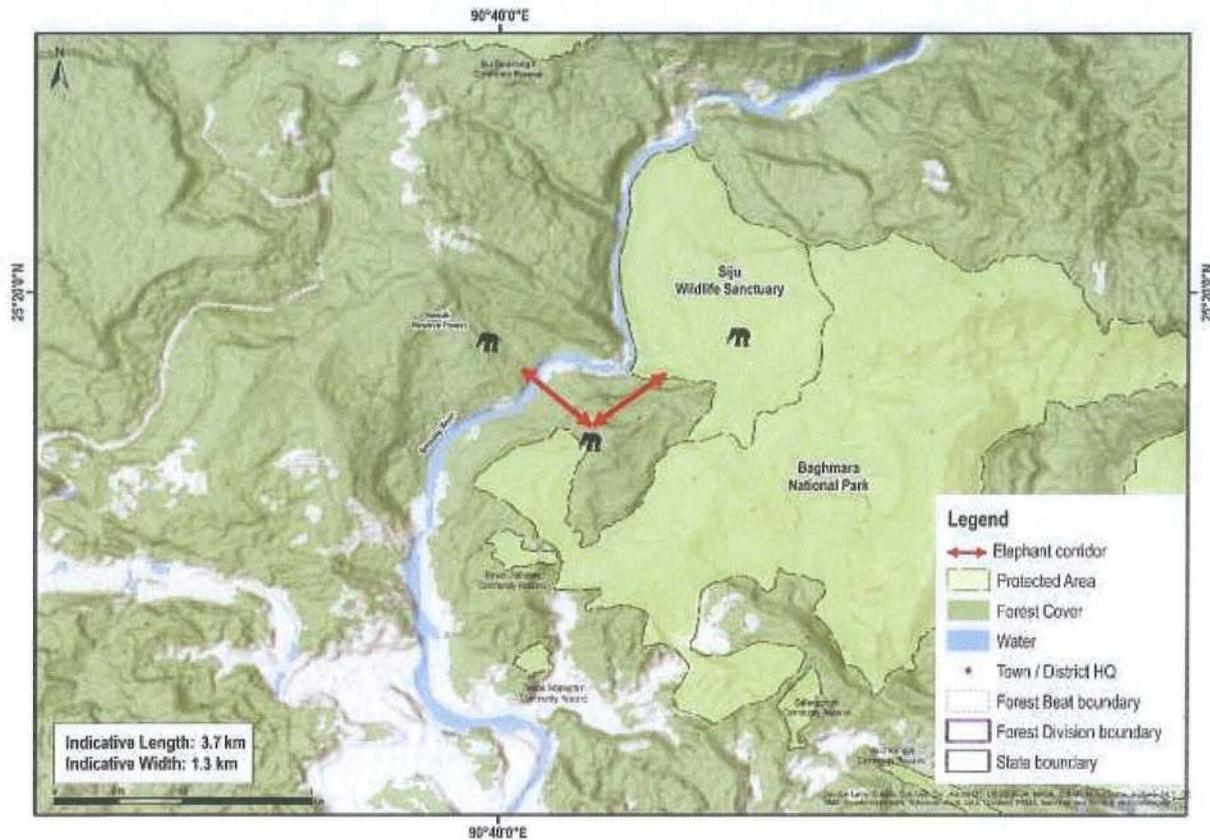
Connectivity	The corridor connects Emangre Reserve Forest with Nokrek National Park. The corridor falls in the West and South Garo Hills district under Rongram, Chokpot and Siju Block and under Nokrek Wildlife Range and Baghmara Wildlife Range.
State	Meghalaya
Indicative length and width	Length = 16.2 km, width = 1.57 km
Geo coordinates	25° 26'49.49" N, 90° 27'54.14" E 25° 21'14.51" N, 90° 32'22.84" E
Forest ranges falling within corridor	Nokrek and Baghmara Ranges
Revenue villages falling within corridor	15
Habitat type	Tropical deciduous, semi-evergreen forest
Major land use	Forest = 1099 ha Agriculture = 452 ha Habitation = 189 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Local roads and a low hanging power line (35 Kv)
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.



3300 3079

23. Siju- Rewak Corridor

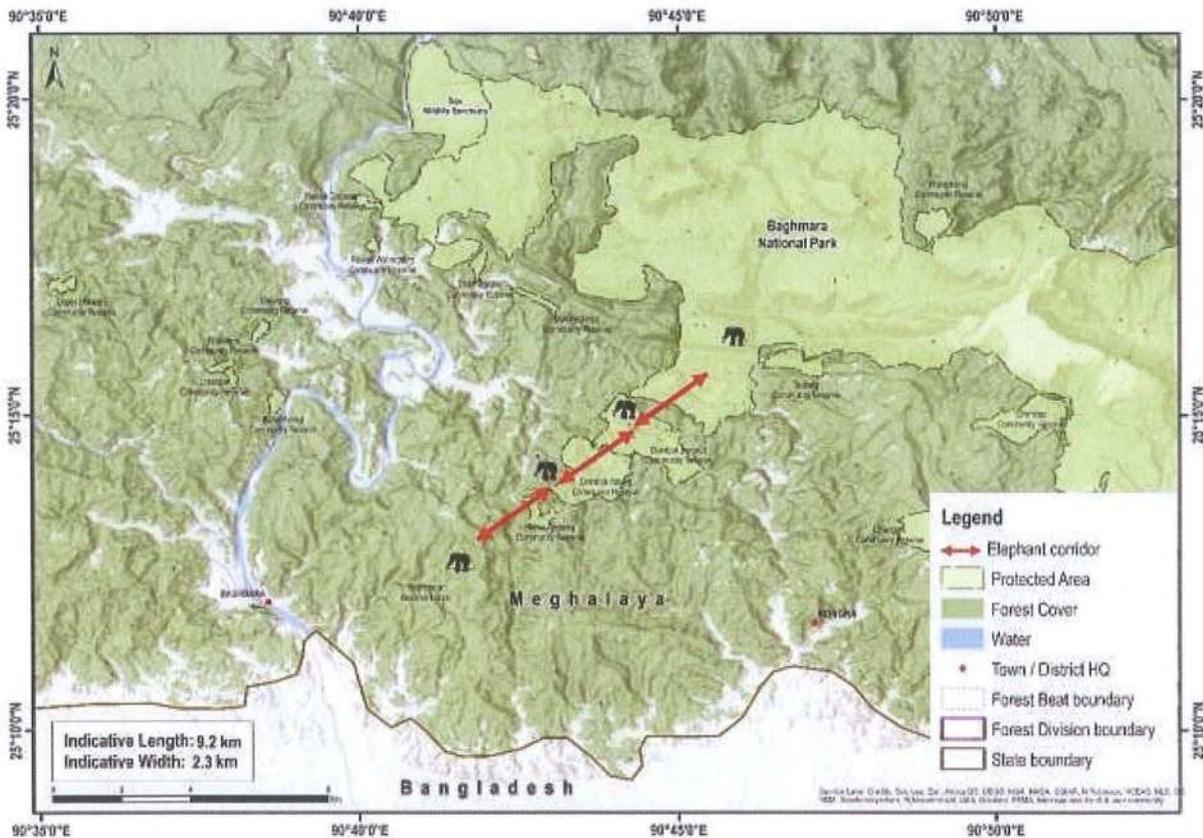
Connectivity	This corridor connects Siju Wildlife Sanctuary with Rewak Reserve and helps maintain the habitat continuity between Balpakram National Park, Siju Wildlife Sanctuary, Rewak and Emangre Reserve Forests, and Nokrek National Park. The corridor falls in the South Garo Hills district under Siju Block and under Siju Wildlife Range.
State	Meghalaya
Indicative length and width	Length = 3.78 km, width = 1.38 km
Geo coordinates	25° 19' 42.33" N / 90° 41' 24.60" E 25° 19' 53.26" N / 90°
Forest ranges falling within corridor	Siju Range
Revenue villages falling within corridor	12
Ecological importance	The corridor is also regularly used by elephants and other wildlife. The corridor is also an extension to the biodiversity rich Nokrek National Park
Habitat type	Tropical deciduous, semi-evergreen forest
Major land use	Forest = 184 ha Agriculture = 24.1 ha Habitation = 1.90 ha
Elephant movement status	Regular
Number of elephants using the corridor	39
Linear infrastructure in the corridor	1) National Highway 62, 1.41 km of the road passes through the corridor 2) Low hanging power line (35 Kv)
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.



3301

24. Balpakram- Baghmara

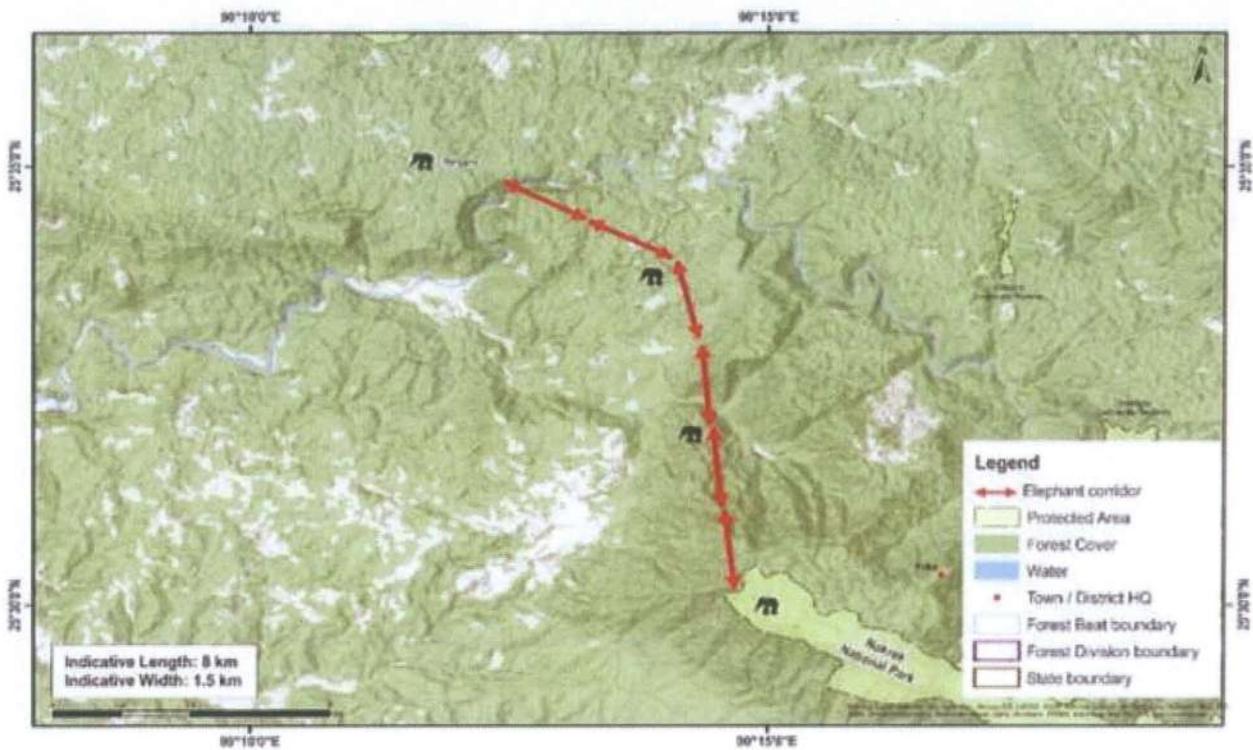
Connectivity	This corridor connects the Mahadeo Range in Balpakram National Park with Baghmara Reserve Forest. The corridor falls South Garo Hills district under Rongara Block and under Mahadeo Wildlife Range and Baghmara Wildlife Range
State	Meghalaya
Indicative length and width	Length = 9.27 km, width = 2.30 km
Geo coordinates	25° 14.755" N / 90° 44.329" E
Forest ranges falling within corridor	Mahadeo and Baghmara Ranges
Revenue villages falling within corridor	Ten
Ecological importance	The corridor is an important for connectivity between Balpakram National Park and Baghmara Reserved Forest and used by other wildlife including wild ungulates and leopard (<i>Panthera pardus</i>).
Habitat type	Tropical deciduous, semi-evergreen forest
Major land use	Forest = 1098 ha Agriculture = 161.1 ha Habitation = 20.9 ha
Elephant movement status	Regular
Number of elephants using the corridor	68
Linear infrastructure in the corridor	1) State Highway 4, 3.75 km of the road passes through the corridor 2) Low hanging power line (35 Kv)
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Active. Intensity of use by elephants increased.



3302

25. Ranggira- Nokrek Corridor

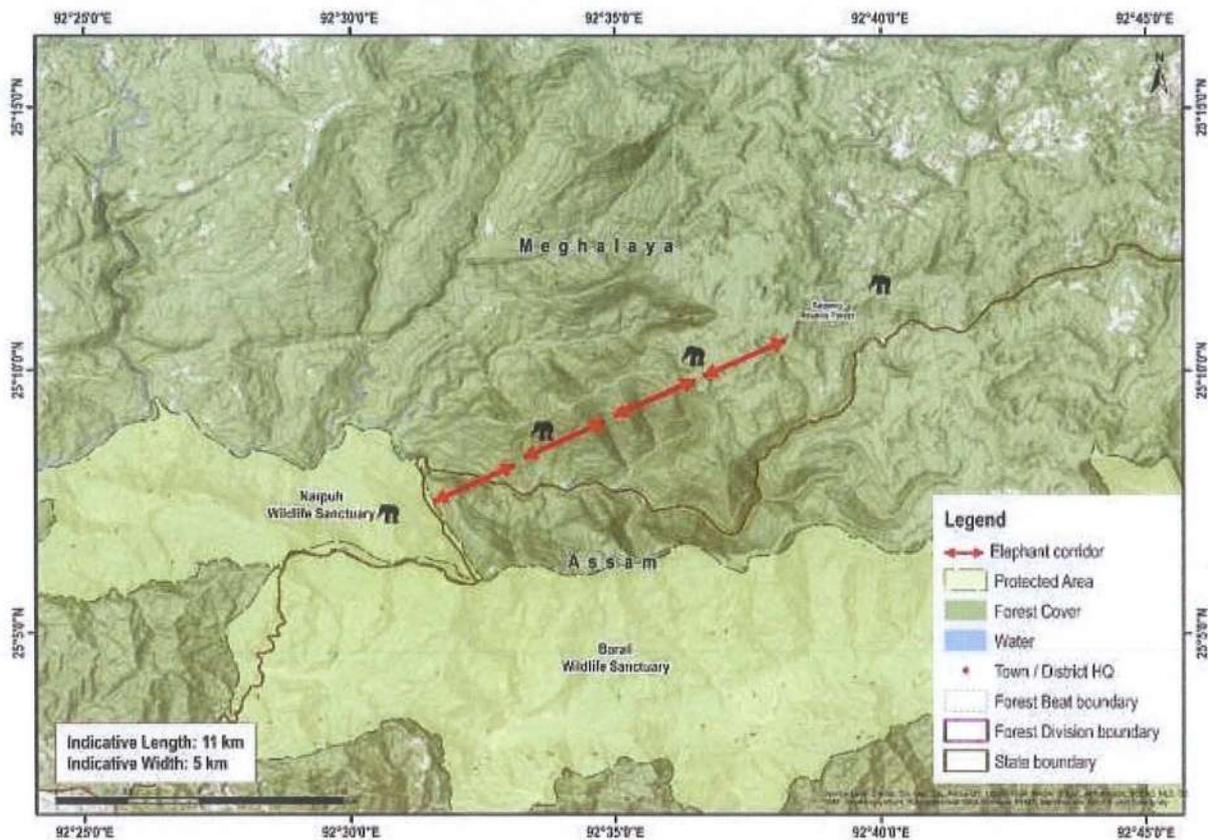
Connectivity	This corridor connects Ranggira, Sanchangiri and Galwang Reserve Forest to Nokrek National Park
State	Meghalaya
Indicative length and width	Length = 8 km, width = 1.5 km
Geo coordinates	25° 30' 5" N / 90° 12' 3" E 25° 34' 59" N / 90° 15' 10" E
Forest ranges falling within corridor	Tura
Revenue villages falling within corridor	Ten
Ecological importance	This corridor is very critical for movement of elephants and other wildlife from Ranggira to Nokrek National Park.
Habitat type	Tropical evergreen forest
Major land use	Forest Agriculture Plantation (tea/coffee) Settlement
Elephant movement status	Occasional, but not through the corridor.
Number of elephants using the corridor	40-50 in the past, but not now.
Linear infrastructure in the corridor	1) National Highway- 51 and Asanang- Williamnagar Road 2) High tension powerline (11 kv and 33 kv) 3) NEHU Campus 4) Garo student union building 5) 2 nd Police battalion
Major bottleneck	Establishment of NEHU campus, Garo students union building, fishery pond, 2 nd Police battalion, and expansion of human settlements and horticultural crops
Recommendations by the forest department to improve the corridor	1) State forest department should secure land on the other side of the road to NEHU campus to provide 500 m width to the corridor 2) Legal protection of the corridor area 3) Negotiation with NEHU authorities to spare about 44 ha of land near the hostel area for elephant movement 4) The Garo Students Union building (now school) has to be relocated to an alternate site outside the corridor
Current status of the corridor	Impaired



3303

26. Saipung- Narpuh Corridor

Connectivity	This corridor connects Saipung Reserve Forest and Narpuh Wildlife Sanctuary
State	Meghalaya
Indicative length and width	Length =11 km, width = 4-5 km
Geo coordinates	25° 6' N / 92° 30' E 25° 15' N / 92° 41' E
Forest ranges falling within corridor	Saipung and Narpuh Ranges
Revenue villages falling within corridor	2
Habitat type	Tropical mixed evergreen
Major land use	Forests, Agricultural land and Settlements
Elephant movement status	None, last elephant seen in 2001
Number of elephants using the corridor	None
Linear infrastructure in the corridor	Information NA
Major bottleneck	Information NA
Recommendations by the forest department to improve the corridor	Information NA
Current status of the corridor	Impaired

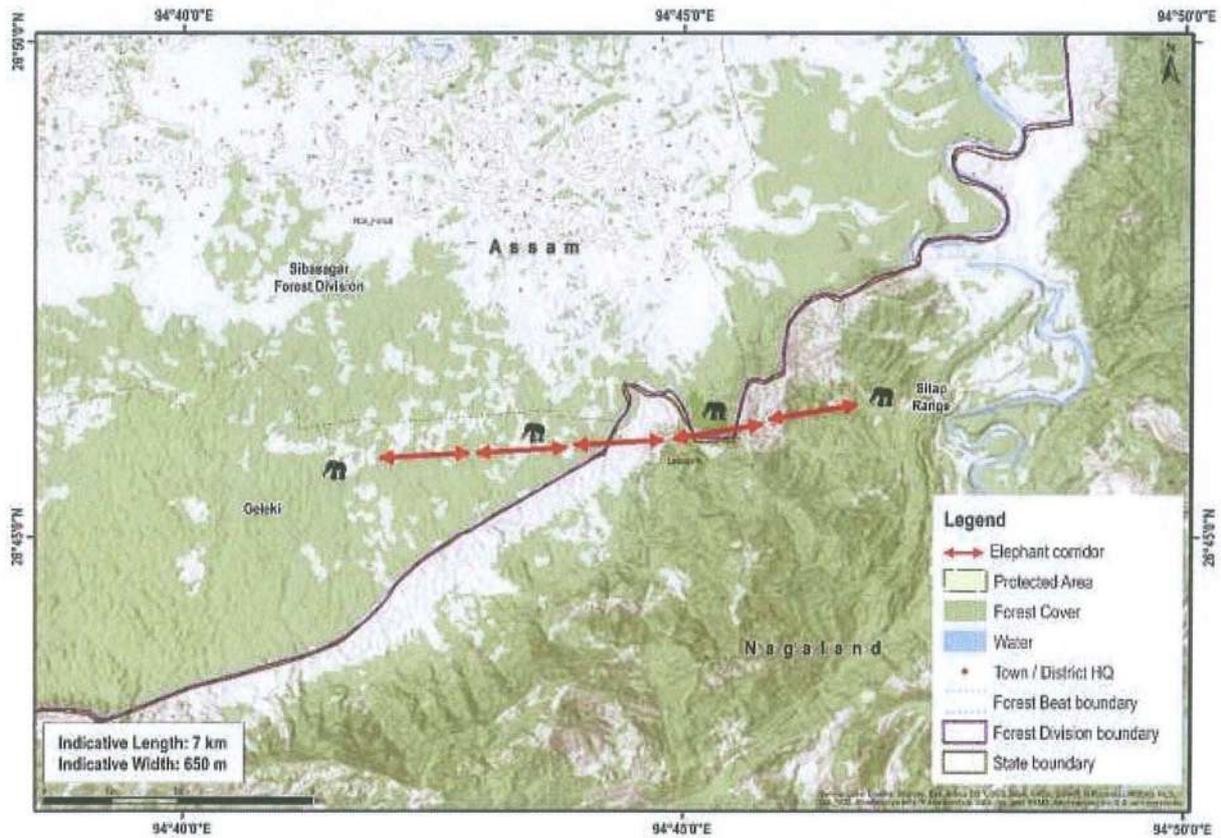


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3304

27. Geleki- Sitap corridor

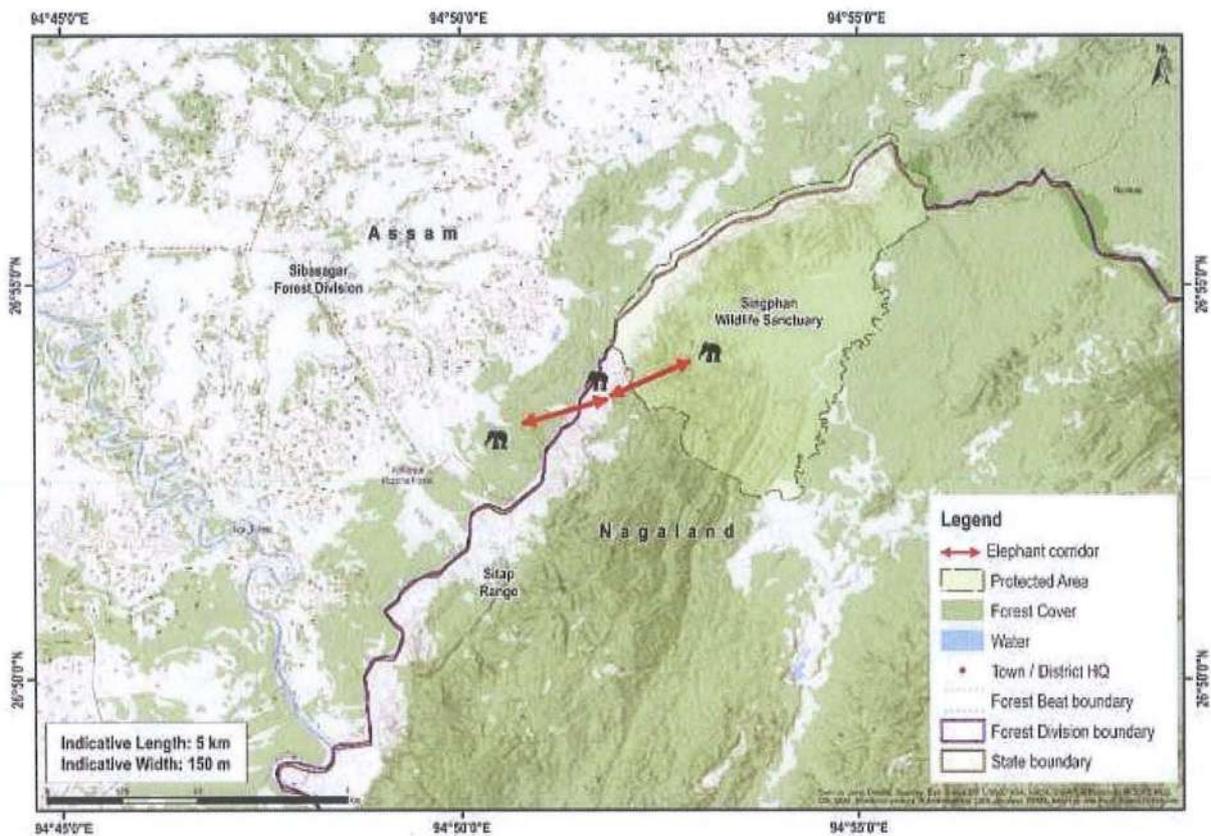
Connectivity	This corridor connects the elephant populations Geleki Reserve Forest to Sitap range
State	Nagaland
Indicative length and width	Length = 7 km, width = 110 m - 650 m
Geo coordinates	26° 47' 02" N, 94° 46' 22" E
Forest ranges falling within corridor	Galeki and Sitap range
Revenue villages falling within corridor	8
Administrative details of the corridor	Longleng district
Ecological importance	Unexplored biodiversity. Corridor is used by animals like Himalayan black bear (<i>Ursus thibetanus</i>), leopard (<i>Panthera pardus</i>), tiger (<i>Panthera tigris</i>) and others.
Habitat type	Hilly semi evergreen tropical forest
Major land use	Forest Agriculture Plantation Settlement
Elephant movement status	Seasonal
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department	1. Proper survey of corridor is required. No such attempts were made earlier. 2. Systematic use of land prioritizing conservation is needed. 3. Sensitization and awareness programs 4. Creation of salt licks
Status of the corridor	Active. Intensity of use by elephants decreased.



3305

28. Abhaypur- Singphan corridor

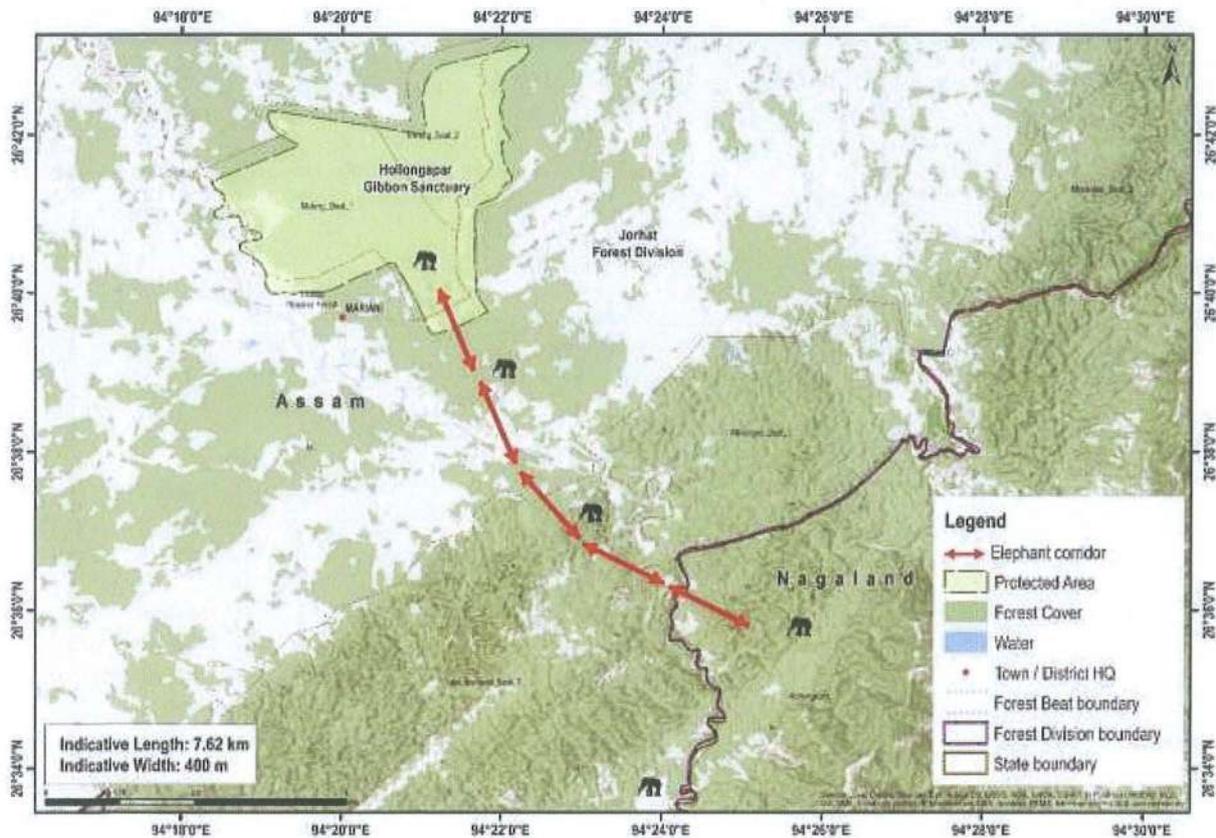
Connectivity	This corridor connects the Mon of Singphan Wildlife Sanctuary in Nagaland with Abhaypur Reserve Forest in Sonari Forest Division of Assam across Tiru River. Corridor falls within the Singphan Wildlife Sanctuary in Mon District.
State	Nagaland
Indicative length and width	Length = 5 km, Width = 150 m
Geo coordinates	Lat = 26. 856923 / Lon = 94.863468
Forest ranges falling within corridor	Abhaypur RF
Revenue villages falling within corridor	Nine
Ecological importance	Singphan Wildlife Sanctuary is home to rare and endangered flora species along with elephant, tigers (<i>Panthera tigris</i>), leopards (<i>Panthera pardus</i>), hoolock gibbon (<i>Hoolock hoolock</i>) and other wildlife.
Habitat type	Tropical semi-evergreen
Major land use	Forest
Elephant movement status	Regular
Number of elephants using the corridor	45
Linear infrastructure in the corridor	Village road- 8 km
Recommendations by the forest department to improve the corridor	1. Removal of mining road passing through Singphan wildlife sanctuary. 2. Increase in wildlife staff 3. Fund release for compensation 4. Ecological restoration of the lost forest cover
Current status of the corridor	Active. Intensity of use by elephants increased.



3306

29. Hollongapar- Longtho corridor

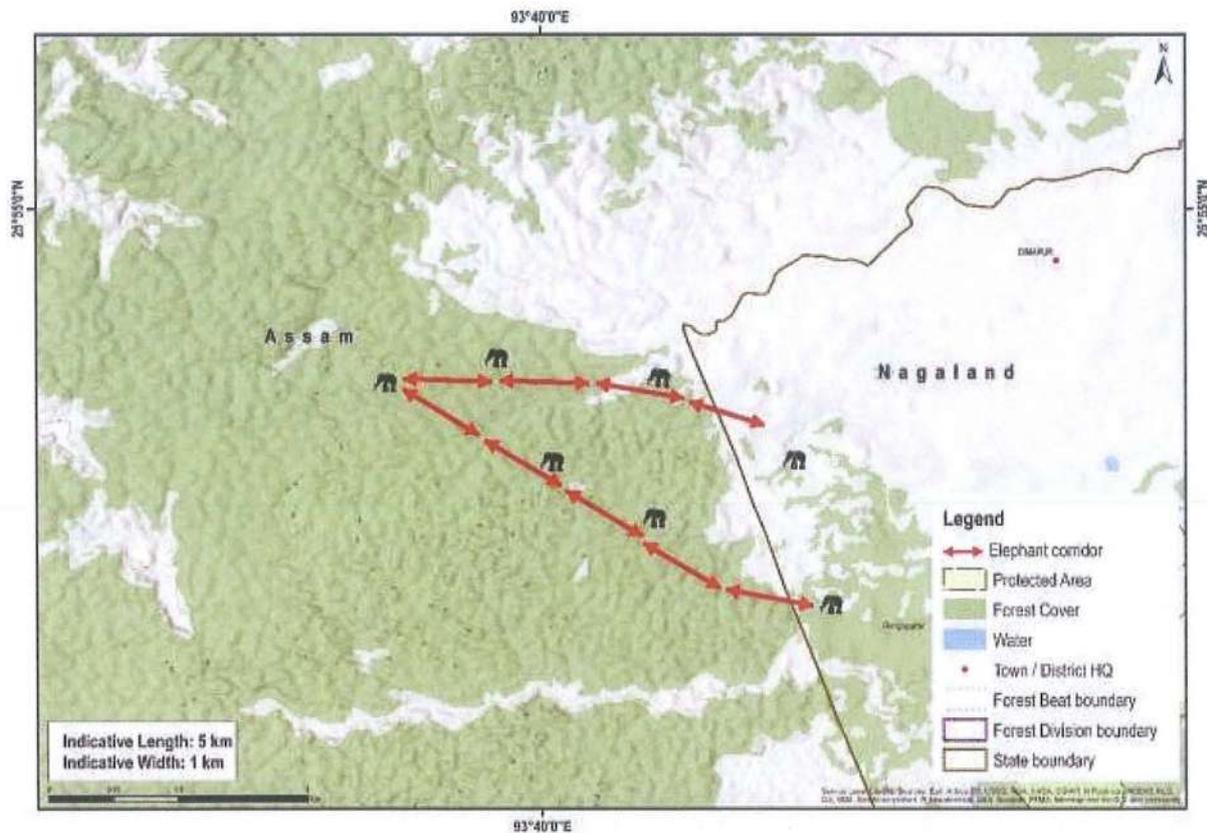
Connectivity	Meleng Reserve forest, Hollongapar Gibbon Sanctuary to Longtho Range
State	Nagaland
Indicative length and width	Length = 7.62 km, width = 400 m
Geo coordinates	26° 36' 03" N / 94° 23' 21" E
Forest ranges falling within corridor	Longtho range
Revenue villages falling within corridor	3
Ecological importance	Corridor is possibly used by species including hoolock gibbon (<i>Hoolock hoolock</i>), slow loris (<i>Nycticebus bengalensis</i>), leopard (<i>Panthera pardus</i>), stump-tailed macaque (<i>Macaca arctoides</i>), pig-tailed macaque (<i>Macaca leonine</i>), Assamese macaque (<i>Macaca assamensis</i>) among others.
Habitat type	Tropical wet evergreen, wet temperate, secondary moist bamboo forest
Major land use	Forest (mostly under private and community forests) Agricultural land Plantations Settlements
Elephant movement status	Seasonal
Number of elephants using the corridor	40
Linear infrastructure in the corridor	National Highway
Recommendations by the forest department to improve the corridor	1) Ecological restoration of the lost forest cover 2) Awareness and sensitization programs
Current status of the corridor	Active. Intensity of use by elephants decreased.



3307

30. Daldali- Dimapur corridor

Connectivity	This corridor connects the Daldali Reserved Forest to Dimapur Reserve Forest in the Dimapur district.
State	Nagaland
Indicative length and width	Length = 5 km, width = 1 km
Geo coordinates	25° 53' 33" N / 94° 40' 42" E
Forest ranges falling within corridor	Ranga Pahar and Kuhuboto ranges
Revenue villages falling within corridor	5
Ecological importance	Elephants and other wildlife including leopard (<i>Panthera pardus</i>) and dhole (<i>Cuon alpinus</i>) use this corridor.
Habitat type	Tropical wet evergreen forest
Major land use	Forest (Private and community conservation areas, Daldali RF) Agriculture Plantations Settlement
Elephant movement status	Occasional
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	Information NA
Major bottleneck in the corridor	Indisen and Aryimkum areas falling within corridor
Recommendations by the forest department to improve the corridor	Awareness and sensitization programs to local communities
Current status of the corridor	Active. Intensity of use by elephants decreased.

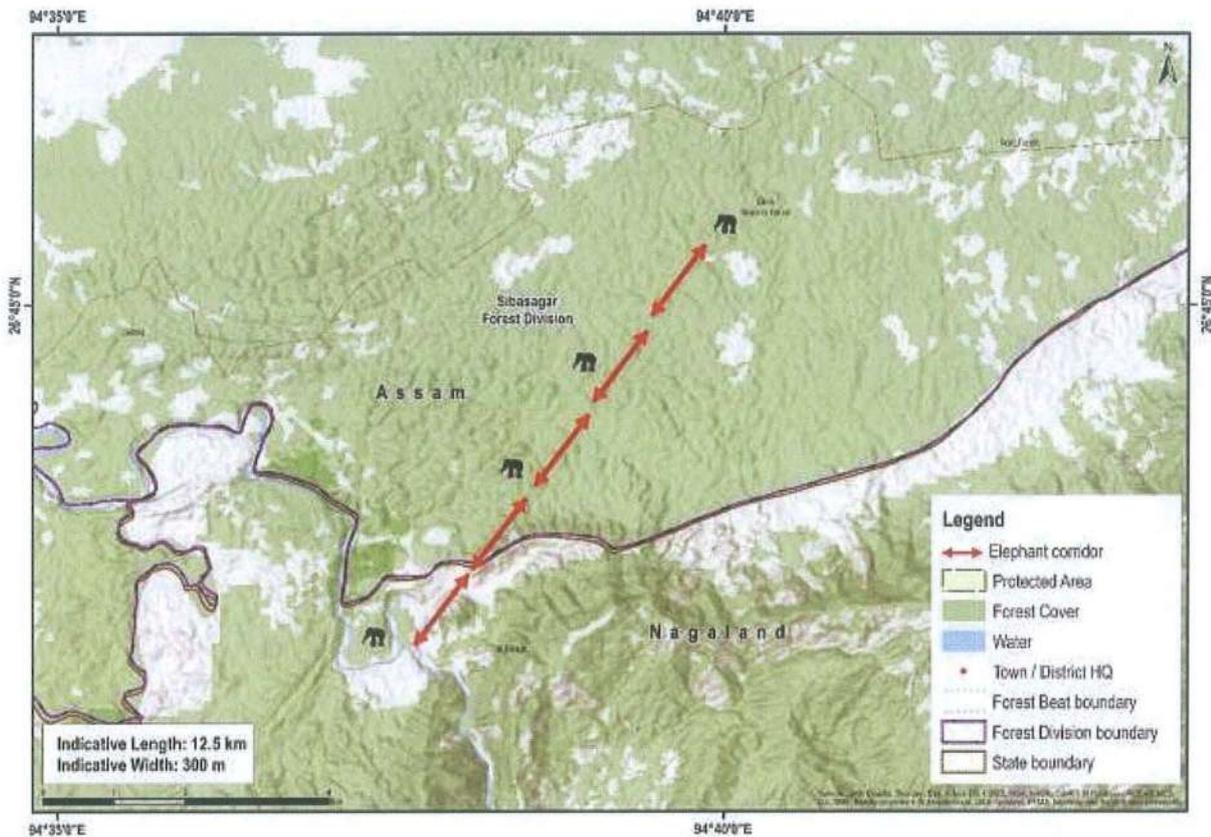


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3308

31. Geleki- Tuli corridor

Connectivity	Geleki Reserve Forest to Tuli Range Forest Division of Dimapur district.
State	Nagaland
Indicative length and width	Length = 12.5 km, width = 300 m
Geo coordinates	26° 43' 38" N / 94° 40' 02"
Forest ranges falling within corridor	Tuli range
Revenue villages falling within corridor	7
Administrative details of the corridor	Dimapur district
Ecological importance	Besides elephants, tigers (<i>Panthera tigris</i>) and leopards (<i>Panthera pardus</i>) also use this corridor.
Habitat type	Tropical wet evergreen and bamboo-dominated forests
Major land use	Forest (private forests and community conservation areas) Agriculture Plantation (rubber + tea)
Elephant movement status	Seasonal
Number of elephants using the corridor	2 (as on 2022)
Linear infrastructure in the corridor	National highway
Major bottleneck in the corridor	Teudikong, Wamaken, and Anaki Yimsen in the corridor due to mining and infrastructure
Recommendations by the forest department to improve the corridor	1) Awareness and sensitization programs 2) Engagement with the Community Conservation Areas (CCA) to prevent further fragmentation of forests 3) Training of the forest staff for timely monitoring of the corridor areas.
Current status of the corridor	Active. Intensity of use by elephants decreased.

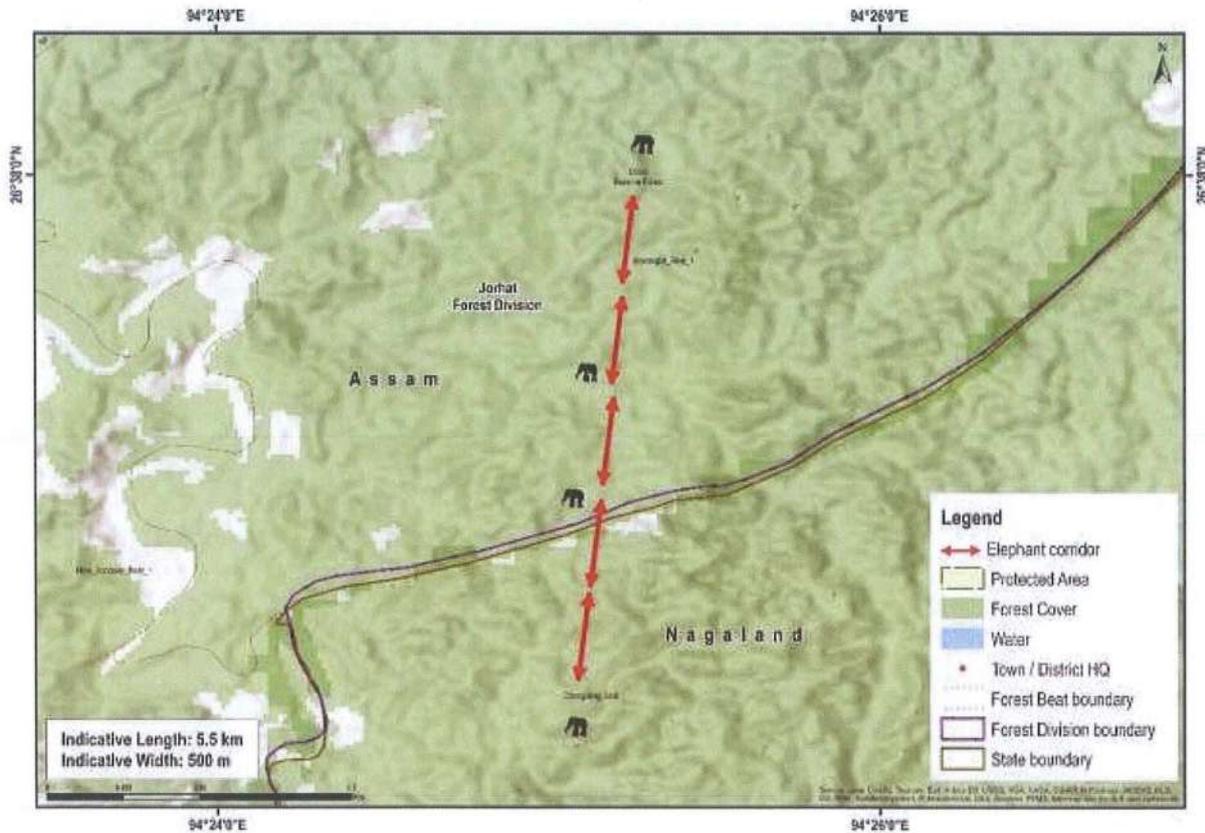


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3309

32. Desoi- Changdang corridor

Connectivity	This corridor connects the Changdang beat of the Desoi Reserve Forest to Longchem Range in the Mokokchung district
State	Nagaland
Indicative length and width	Length = 5.5 km, width = 300 m
Geo coordinates	26° 36' 41" N / 94° 25' 49" E
Forest ranges falling within corridor	Longchem range
Revenue villages falling within corridor	10
Ecological importance	Elephants and wildlife like tiger (<i>Panthera tigris</i>), dhole (<i>Cuon alpinus</i>), leopard (<i>Panthera pardus</i>) and Himalayan black bear (<i>Ursus thibetanus</i>) use this corridor
Habitat type	Eastern Himalayan moist mixed deciduous, Naga Hills wet temperate and montane forest
Major land use	Forest (private and community forests) Agricultural land Plantations Settlements
Elephant movement status	Seasonal
Number of elephants using the corridor	20 - 30
Linear infrastructure in the corridor	Information NA
Recommendations by the forest department	1. Engagement with the Community Conservation Areas (CCA) to prevent further fragmentation of forests 2. Awareness and sensitization programs 3. Training of the forest staff for timely monitoring of the corridor areas. 4. Constructing a few forest offices for monitoring purposes.
Status of the corridor	Active. Intensity of use by elephants decreased.

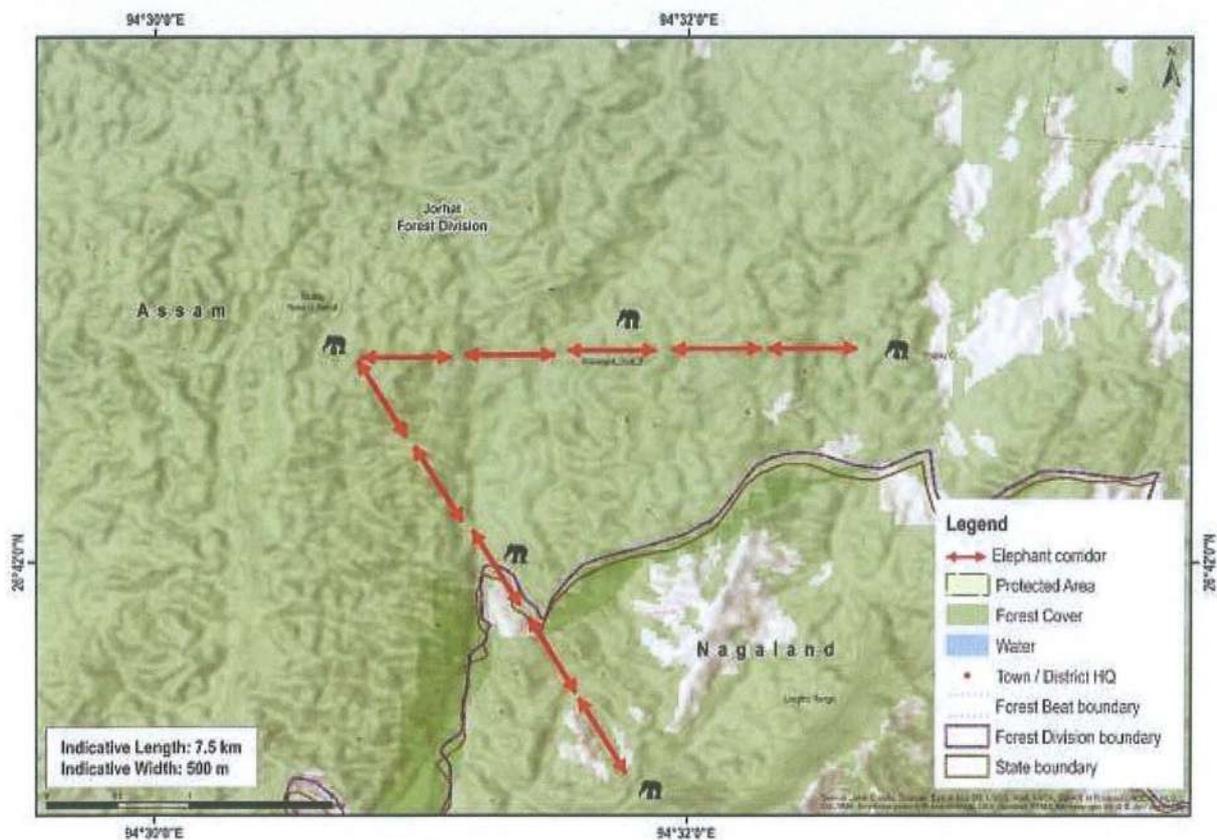


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10.2 3310

33. Tirutilip- Longchem

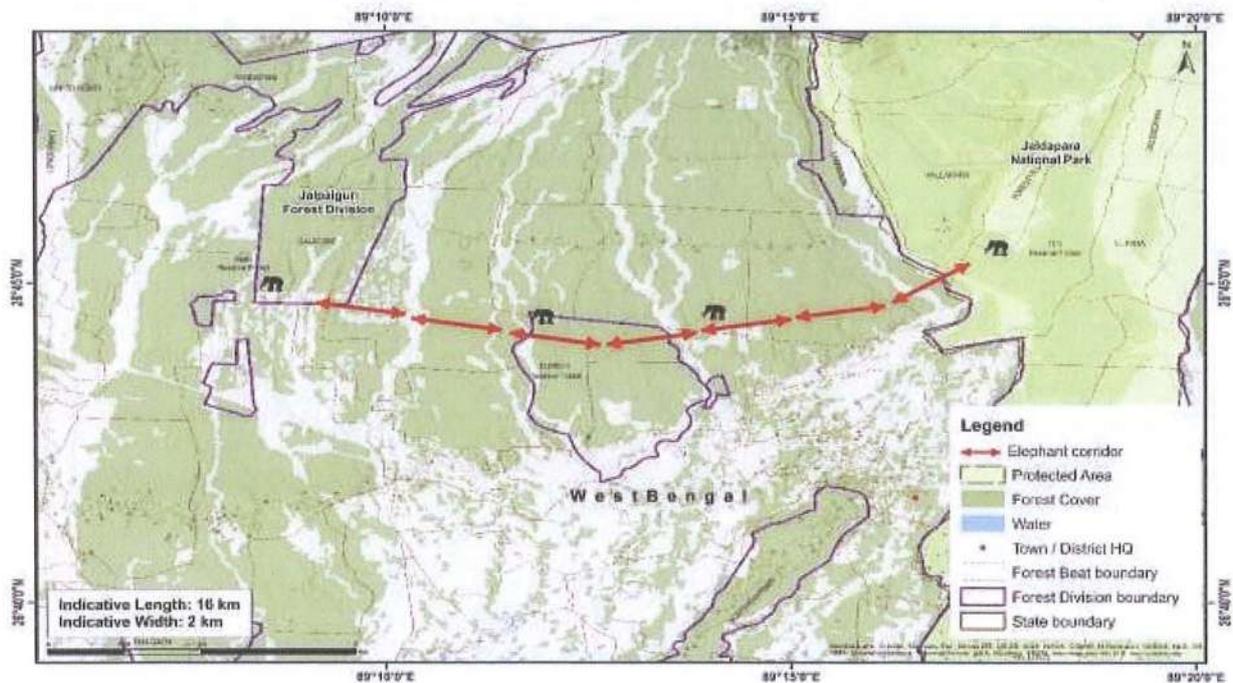
Connectivity	This corridor connects the Tirutilip Reserve Forest with the Longchem Range in the Mokokchung District.
State	Nagaland
Indicative length and width	Length = 7.5 km, width = 500 m
Geo coordinates	26° 41' 38" N / 94° 31' 07" E
Forest ranges falling within corridor	Longhem range
Revenue villages falling within corridor	5
Administrative details of the corridor	Changdang beat, Longchem Range
Ecological importance	Elephants and wildlife like tiger (<i>Panthera tigris</i>), dhole (<i>Cuon alpinus</i>), leopard (<i>Panthera pardus</i>) and Himalayan black bear (<i>Ursus thibetanus</i>) use this corridor
Habitat type	Northern tropical semi evergreen forests
Major land use	Agricultural land, Plantations, forests, settlements
Elephant movement status	Seasonal
Number of elephants using the corridor	5
Linear infrastructure in the corridor	National Highway
Major bottleneck in the corridor	Yajang B and Yajang C areas within the corridor
Recommendations by the forest department to improve the corridor	<ol style="list-style-type: none"> 1. Conservation of remnant habitat through the community conservation area (CCA) 2. Awareness and sensitization programs 3. Habitat improvement such as creation of salt licks.
Current status of the corridor	Active. Intensity of use by elephants decreased.



3311

34. Titi- Dumchi - Reti

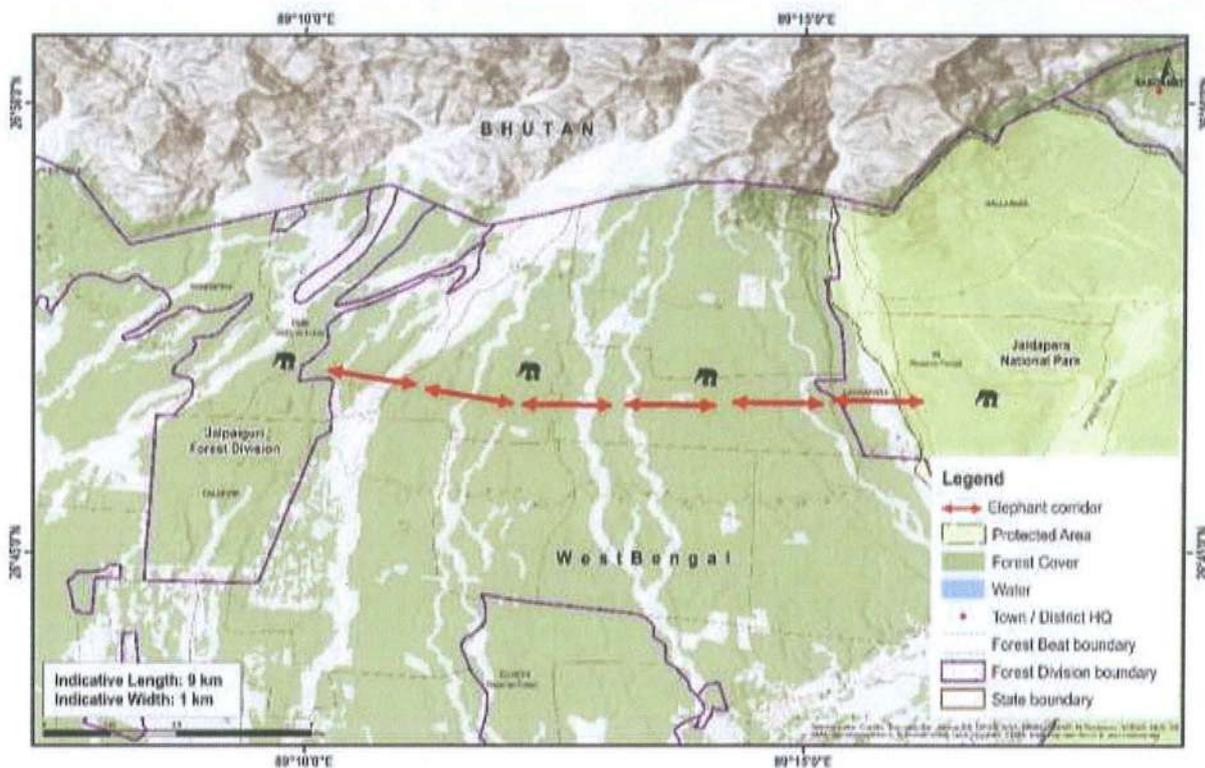
Connectivity	The corridor links Titi Reserve Forest in Lankapara and Madarihah Ranges of northern part of Jaldapara National Park (Wildlife Division III) with Rethi Reserve Forest in Dalgaon Range of Jalpaiguri Forest Division), passing through Dumchi Reserve Forest.
State	West Bengal
Indicative length and width	Length = 14-16 km, width = 1.2 km
Geo coordinates	Titi to Dumchi = 26°44'54.492" N, 89°16'29.4744" E & 26°43'29.7732" N, 89°13'39.8388" E Dumchi to Reti = 26°43'40.26" N, 89°11'32.8416" E & 26°44'40.4962" N, 89°9'8.2362" E
Beats falling within corridor	Titi 3A, Titi extension to DMC 1,2 compt. to Rethi forest of Jalpaiguri Forest Division
Forest ranges falling within corridor	Lankapara, Madarihah and Dalgaon ranges
Revenue villages falling within corridor	Five
Administrative details of the corridor	Titi 3A, Titi extension to DMC 1, 2 compt to Rethi forest of Jalpaiguri Division.
Ecological importance	This is the main corridor used by elephants to move from Alipurduar to Jalpaiguri maintaining to connectivity between the Protected Areas of Jaldapara and Gorumara National Parks through the Reserved Forests of Jalpaiguri Forest Division.
Habitat type	Tropical semi evergreen, Sal-dominated northern dry deciduous and riverine forest
Major land use	Forest = 1245 ha Agriculture = 2455 ha Habitation = 300
Elephant movement status	Regular
Number of elephants using the corridor	65 - 75
Linear infrastructure in the corridor	1) Indian Oil filtration unit and its settlements bounded by high walls. 2) High heavy vehicular traffic 3) Irrigation canal at Tulsipara tea garden 4) High power tension line (11000 v)
Major bottleneck	Jamtola Bazar to Hantapara tea garden
Recommendations by the forest department to improve the corridor	1) 200 metre section of the southern part of the Hantapara Tea Garden Labour Line (Bigan Bari) towards Jamtola needs to be secured to increase the effective width of the corridor. 2) Vehicular speed should be controlled using suitable barriers on Lankapara Birpara state highway.
Current status of the corridor	Active. Intensity of use by elephants increased.



3312

35. Titi- Reti

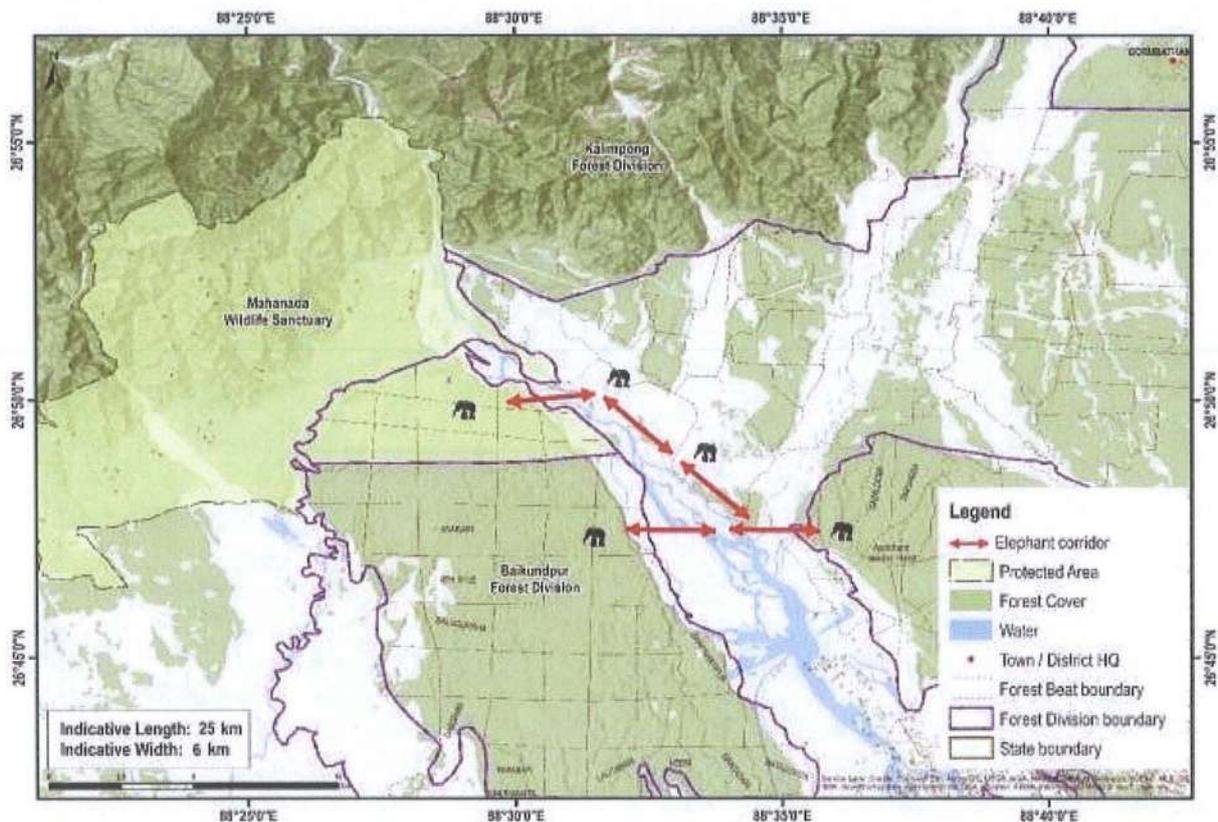
Connectivity	The corridor links Titi Reserve Forest in Lankapara Range and Madarihat Range of the northern part of Jaldapara National Park (Wildlife Division III) with Rethi Reserve Forest in Dalgaon Range of Jalpaiguri Forest Division passing through Dumchi Reserve Forest.
State	West Bengal
Indicative length and width	Length = 8-9 km, width = 700 m – 1300 m
Geo coordinates	26° 45' 59" N, 89° 10' 12" E 26° 47' 37" N, 89° 15' 49" E
Compartments/beats falling within corridor	Titi 3A, Titi extension to DMC 1, 2 compt to Rethi forest of Jalpaiguri Division.
Forest ranges falling within corridor	Lankapara, Madarihat and Dalgaon ranges
Revenue villages falling within corridor	Five
Ecological importance	This is one of the important corridors that elephants use to move from Jaldapara National Park to the forests of Jalpaiguri Forest Division.
Habitat type	Tropical semi-evergreen, Sal-dominated northern dry deciduous and riverine forest
Major land use	Forest = 0 Tea garden = 1200 ha Habitation = 100 ha
Elephant movement status	Regular
Number of elephants using the corridor	65 - 75
Linear infrastructure in the corridor	1) Indian Oil filtration unit and its settlements bounded by high walls. 2) High heavy vehicular traffic 3) Irrigation canal at Tulsipara TG 4) High power tension line (11000 v)
Major bottleneck	Labour lines of Lankapara and Garganda tea gardens
Recommendations by the forest department to improve the corridor	1) 200 metre section of the southern part of the Hantapara Tea Garden Labour Line (Bigan Bari) towards Jamtola needs to be secured to increase the effective width of the corridor. 2) Vehicular speed should be controlled using suitable barriers on Lankapara Birpara state highway.
Current status of the corridor	Active. Intensity of use by elephants increased



3313

36. Apalchand- Mahananda

Connectivity	This corridor connects Apalchand Reserve Forest (Baikunthapur Forest Division) with Mahananda Wildlife Sanctuary.
State	West Bengal
Indicative length and width	Length = 25 km, width = 6 km
Geo coordinates	26°46'58" N / 088°28'10" E 26°52'22" N / 088°35'39" E
Compartments falling within corridor	Lalong compartment 3, 8 and 13 of South range
Forest ranges falling within corridor	Apalchand, Targhera, Sarugarh, Ranges and North, South and west ranges of Mahananda Wildlife Sanctuary
Revenue villages falling within corridor	12
Ecological importance	The riparian tract along river Teesta is an important dry season habitat for elephants.
Habitat type	Grassland
Major land use	Forest = 3500 ha Agriculture = 2000 ha Habitation = 2500 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) Teesta filed firing range 2) Bituminous road form Trghera checkpost to Apalchand checkpost (10 km) and Bagarmore to Gazoldoba Bazar road (10 km) 3) Teesta canal with concrete embankment 4) National Highway 10A (NH 31)
Major bottleneck	Saugoan, Kalagati, Washabari, Ellenbari, Totgoan, Sundari busty, Nipania, Saraswatipur village, Chumakdangi
Recommendations by the forest department to improve the corridor	1) Teesta filed firing range should be immediately be shifted to some other area
Current status of the corridor	Active. Intensity of use by elephants increased.

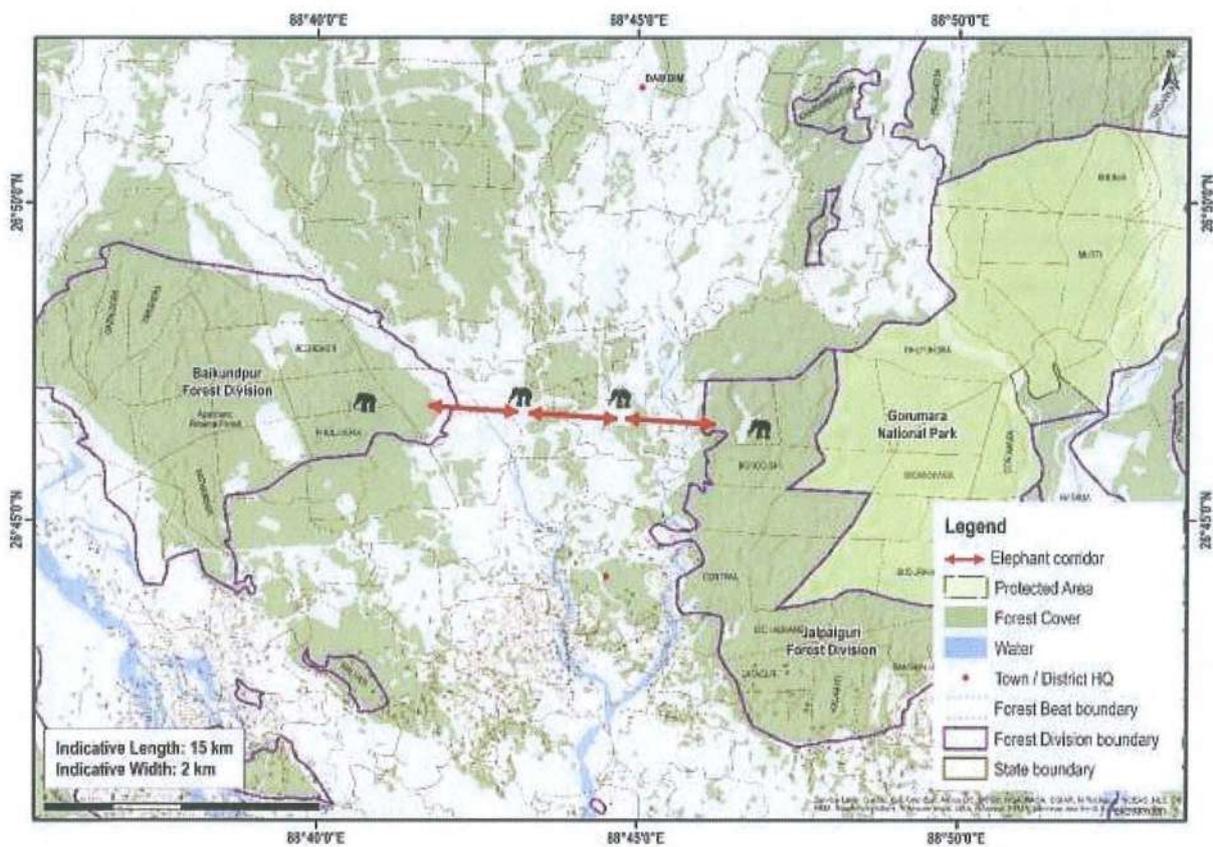


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3314

37. Apalchand- Gorumara

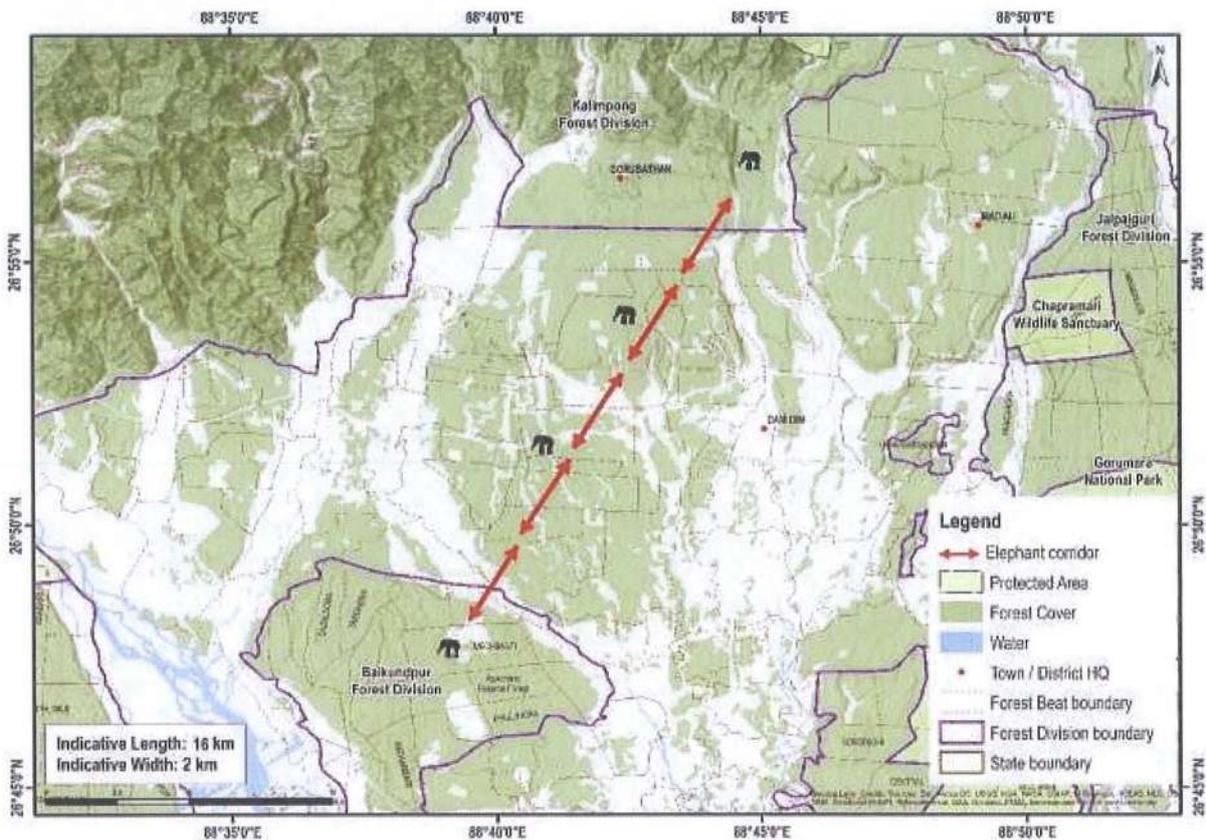
Connectivity	This corridor connects the elephant population of Gorumara National Park with Apalchand Reserve Forest.
State	West Bengal
Indicative length and width	Length = 15 km, width = 2 km
Geo coordinates	26°44'38" N / 088°40'30" E 26°48'14" N / 088°48'39" E
Forest ranges falling within corridor	Apalchand, Targhera and Lataguri Ranges
Revenue villages falling within corridor	Seven
Habitat type	River bed
Major land use	Forest = 3000 Agriculture = 500 Habitation = 700
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway 31 and associated vehicular traffic 2) A broad-gauge railway line connecting Mal Bazar to Jalpaiguri 3) Teesta canal with concrete embankment
Major bottleneck	Barodighi, Nepuchapur, Damdim, Bethguri, Kumlai, Kranti and Neora
Recommendations by the forest department to improve the corridor	1) Shifting of human habitations from the area.
Current status of the corridor	Impaired



3315

38. Apalchand- Klimpong at Mal block (via Meenglass)

Connectivity	This corridor facilitates elephant movement from Apalchand Reserve Forest in the Baikuntapur Forest Division to Mal Block in Bhuttabari Forest of Kalimpong Forest Division.
State	West Bengal
Indicative length and width	Length = 16 km, width = 2 km
Geo coordinates	26°48'14" N / 088° 39'07" E 26°55'37" N / 088°45'06" E
Forest ranges falling within corridor	Apalchand, Targhera and Gorubathan ranges
Revenue villages falling within corridor	Nine
Habitat type	Riparian
Major land use	Forest = 2800 ha Agriculture = 100 ha Habitation = 250 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway 31 and associated vehicular traffic 2) A broad-gauge railway line connecting Mal Bazar to Jalpaiguri 3) High tension power line (11000 v), 15 km
Recommendations by the forest department to improve the corridor	1) Shifting of human habitations from the area.
Current status of the corridor	Impaired Elephants diverted from their route and using a different nearby corridor.

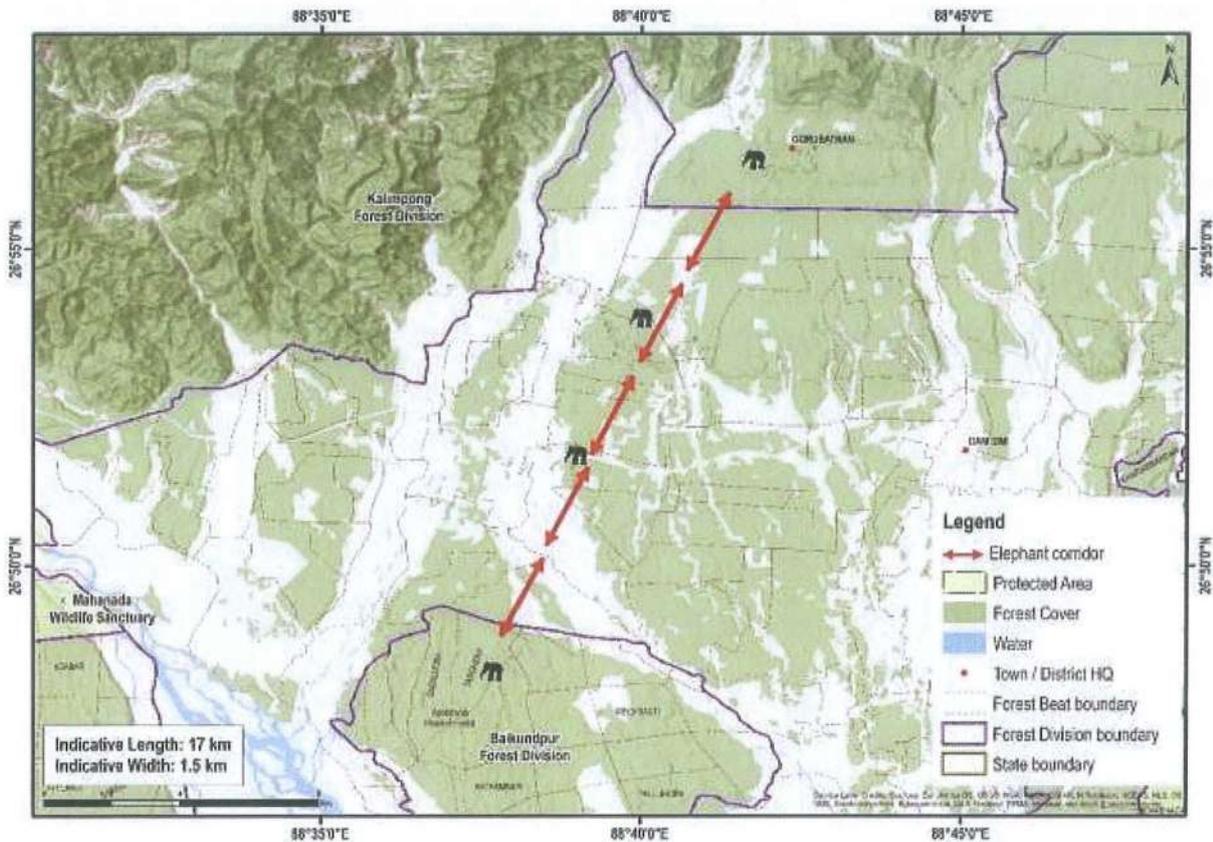


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3316

39. Apalchand- Klimpong at Mal block (via Sylee)

Connectivity	This corridor connects Apalchand Reserve Forest (Baikanthapur Forest Division) with Mal Block (Kalimpong Forest Division)
State	West Bengal
Indicative length and width	Length = 17 km, width = 1.5 km
Geo coordinates	26° 48' 53" N / 088° 39' 40" E 26° 55' 36" N / 088° 42' 18" E
Forest ranges falling within corridor	Apalchand, Targhera and Gorubathan Ranges
Revenue villages falling within corridor	Nine
Administrative details of the corridor	Mal block
Habitat type	Riparian forests and grasslands
Major land use	Forest = 1800 ha Agricultural land = 150 ha Habitation = 280 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) National Highway 31 and associated vehicular traffic 2) A broad-gauge railway line connecting Mal Bazar to Jalpaiguri 3) High tension power line (11000 v), 10 km
Major bottleneck	Damdin, Ranichera, Sylee, Chakla basti, Kumlai, Rungamatee, Dalim Kote, Gurjan Jhora, Bhutta Bari villages falling within the corridor
Recommendations by the forest department to improve the corridor	1) Shifting of human habitations from the area and raising plantations in those areas.
Current status of the corridor	Active. Intensity of use by elephants increased.

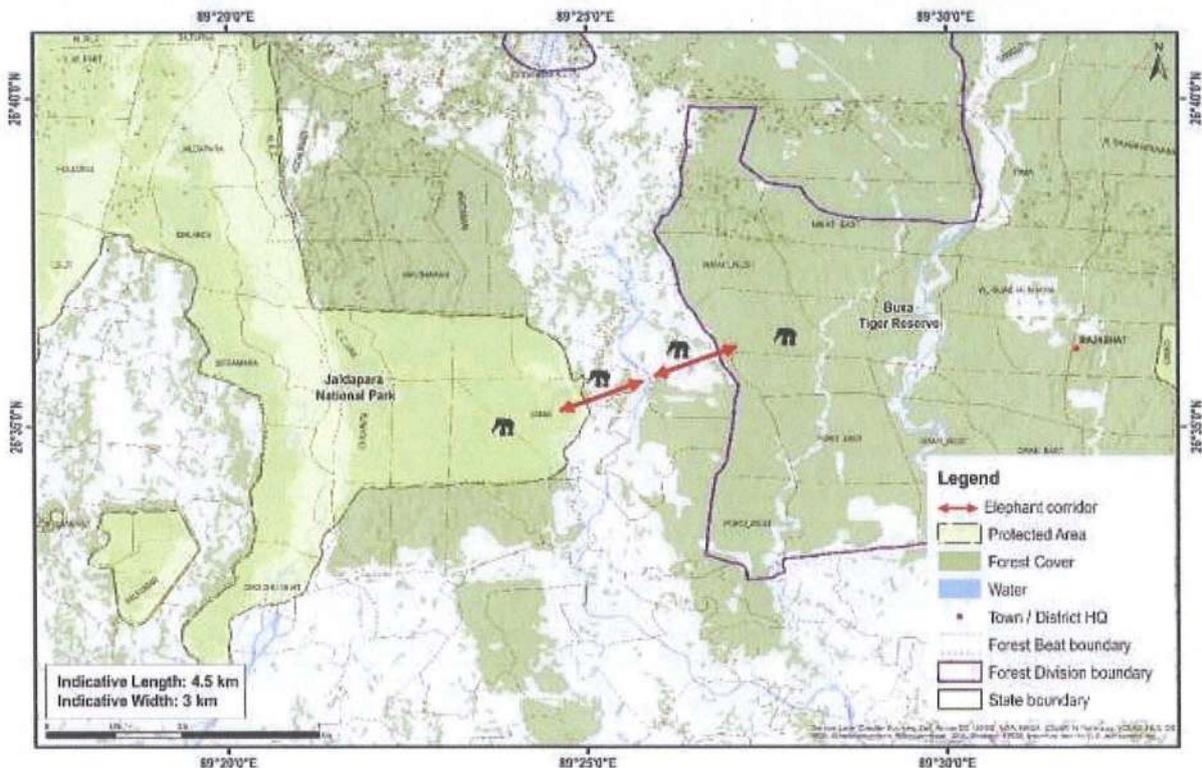


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3317

40. Nimati- Chilpata (Buxa- Chilpata)

Connectivity	This corridor facilitates elephant movement between the Nimati Range of Buxa Tiger Reserve and Chilpata Reserve Forest of Wildlife III Division, thereby maintaining elephant movement between Buxa Tiger Reserve and Jaldapara Wildlife Sanctuary.
State	West Bengal
Indicative length and width	Length = 4.5 km, width = 3 km
Geo coordinates	26° 34' 45" N, 89° 24'15" E 26° 36' 41" N, 89° 26'43" E
Compartments falling within corridor	Poro 5,6,11
Forest ranges falling within corridor	Nimati range
Revenue villages falling within corridor	5
Ecological importance	This is one of the most important corridor used by elephants for moving between Jaldapara National Park and Buxa Tiger Reserve.
Habitat type	Sub-Himalayan secondary wet mixed forest, Eastern Bhabar and Terai Sal
Major land use	Forest = 650 ha Agriculture = 500 ha Habitation = 100 ha
Elephant movement status	Regular
Number of elephants using the corridor	Around 290 elephants occur in the landscape. Many of them use the corridor.
Linear infrastructure in the corridor	1) National Highway 31 and associated vehicular traffic 2) PWD Roads including Nimati – Patkapara road and Mendabari road 3) 10 Km of High tension (11 KV) power line 4) Tea estate factories, hotels and <i>dhabas</i> 5) Ishtikutum Khamar Bari lodge
Major bottleneck	Bhutia Basti and Patkapra village
Recommendations by the forest department to improve the corridor	1) Notification of the corridors and its legal protection 2) The southern part of Nimtijhora Tea Garden line should be secured to increase the effective width 3) Ishtikutum Khamar Bari lodge should be relocated
Corridor status of the corridor	Active. Intensity of use by elephants increased.

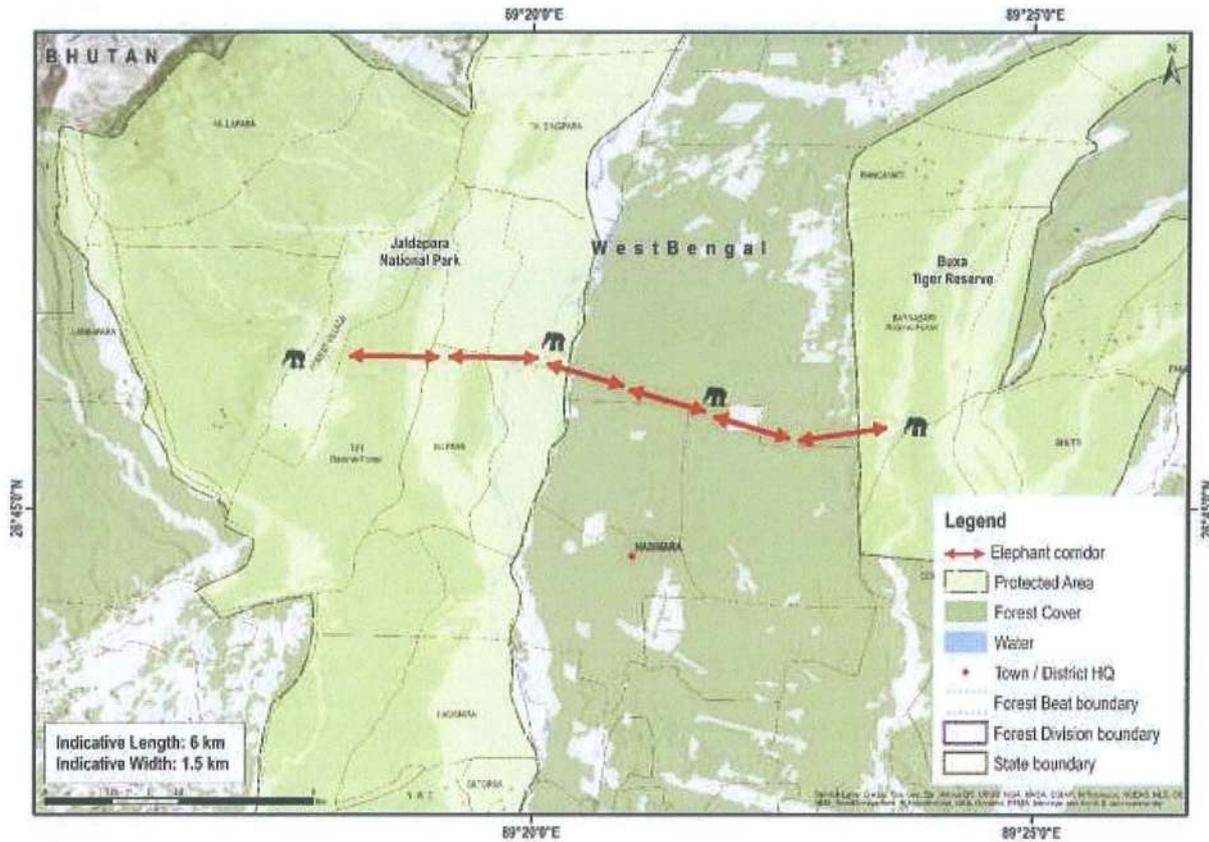


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3318

41. Buxa- Titi (via Beech and Bharnobari Tea Garden)

Connectivity	This corridor connects Buxa Tiger Reserve and Titi Reserve Forest (Wildlife III Division), thereby connecting the elephant population between Buxa Tiger Reserve and Jaldapara National Park.
State	West Bengal
Indicative length and width	Length = 6 km, width = 1.5 km
Geo coordinates	26° 44' 22" N, 89° 18' 24" E 26° 47' 19" N, 89° 23' 26" E
Compartments falling within corridor	BNB 1 of the Bhamabari beat
Forest ranges falling within corridor	Hamiltonganj and Nilpara range
Revenue villages falling within corridor	3
Ecological importance	One of the most important corridors intensively used by the elephants.
Habitat type	Sub-Himalayan secondary wet mixed forest, Eastern Bhabar and Terai Sal
Major land use	Forest = 150 ha Agriculture = 350 ha Habitation = 100
Elephant movement status	Regular
Number of elephants using the corridor	Around 290 elephants occur in the landscape. Many of them use the corridor.
Linear infrastructure in the corridor	1) State Highway 12 A and associated vehicular traffic 2) Old railway line trench 3) Factories of Bharnabari and Beech Tea Garden
Major bottleneck	Topline of Beech Tea Garden
Recommendations by the forest department to improve the corridor	1) Notification of the corridors and its legal protection 2) Expansion of tea gardens and settlements should be regulated. 3) Trenches meant for waste water drainage in tea gardens should be leveled.
Current status of the corridor	Active. Intensity of use by elephants increased.

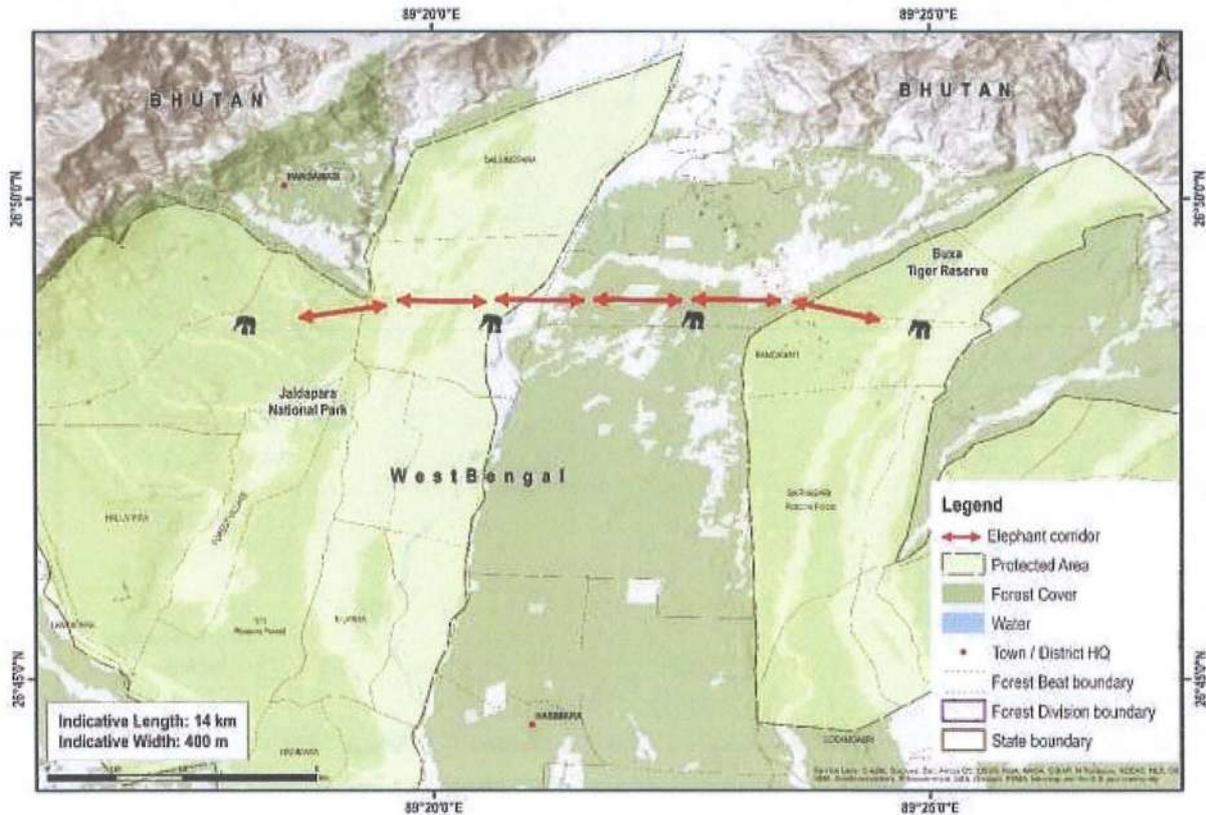


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3319

42. Buxa- Titi (via Torsha)

Connectivity	This corridor connects Buxa Tiger Reserve and Titi Reserve Forest (Wildlife III Division), thereby connecting the elephant population between Buxa Tiger Reserve and Jaldapara National Park in Alipurduar District.
State	West Bengal
Indicative length and width	Length 14 km, width = 400 m
Geo coordinates	26° 48' 11" N, 89° 18' 43" E 26° 49' 34" N, 89° 24' 45" E
Compartments falling within corridor	Rangamati block of Hamiltonganj range of Buxa Tiger Reserve and Titi Forest of Lankapara Range of Jaldapara Wildlife Division
Forest ranges falling within corridor	Hamiltonganj and Lankapara range
Revenue villages falling within corridor	Four
Ecological importance	Important elephant corridor between Buxa Tiger Reserve and Titi Reserved Forests that is widely used by elephants.
Habitat type	Tropical semi evergreen forest, northern Sal-dominated dry deciduous forest, Eastern sub-montane semi-evergreen forest, Riparian Forest and Forest plantations
Major land use	Forest = 160 ha Agriculture = 300 ha Habitation = 100
Elephant movement status	Regular
Number of elephants using the corridor	Around 290 elephants occur in the landscape. Many of them use the corridor.
Linear infrastructure in the corridor	1) State Highway 12 A and associated vehicular traffic 2) High vehicular traffic on hasimara- Pasakha road 3) Old railway line trench 4) Factories of Torsa Tea Garden
Recommendations by the forest department to improve the corridor	1) Notification of the corridors and its legal protection 2) Expansion of tea gardens and settlements should be regulated. 3) Trenches meant for waste water drainage in tea gardens should be leveled
Current status of the corridor	Active. Intensity of use by elephants increased.

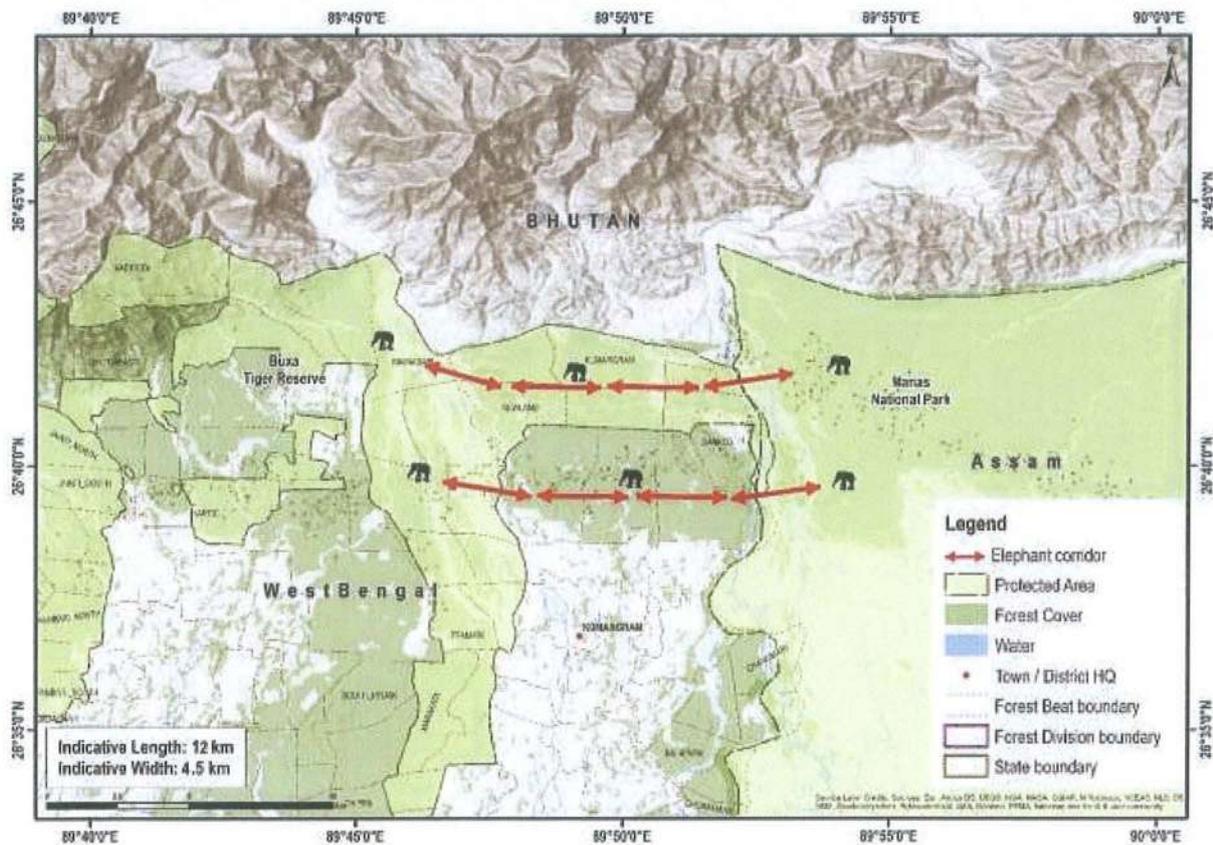


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43. Buxa- Ripu at Sankosh

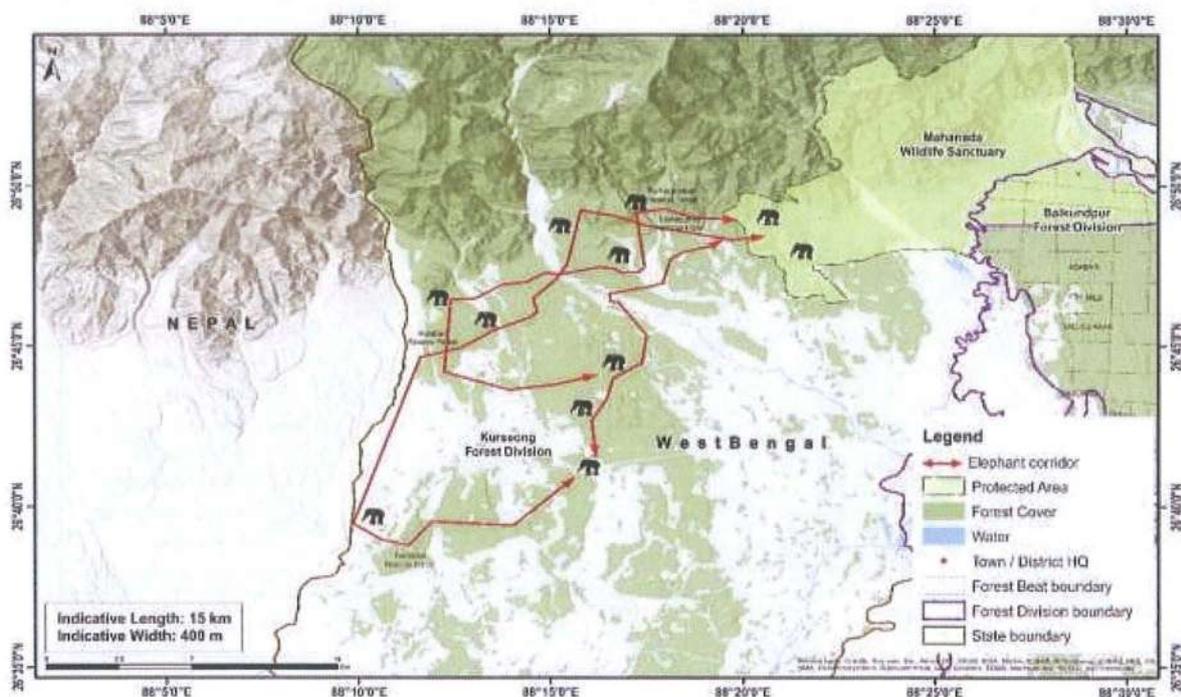
Connectivity	This corridor connects Buxa Tiger Reserve (West Bengal) with the Ripu forest in Kochugaon Forest Division (Assam).
State	West Bengal
Indicative length and width	Length = 12 km, width = 4.5 km
Geo coordinates	26° 38' 58" N, 89° 46' 47" E 26° 42' 40" N, 89° 53' 55" E
Compartments falling within corridor	Newland- 1, 2A, 2B, Kumargram- 1, 2, Sankosh- 1a, 1b, 2, 3a, 3b
Forest ranges falling within corridor	Kumargram range
Revenue villages falling within corridor	3
Ecological importance	It provides linkage between Buxa Tiger Reserve in West Bengal to Raimona National Park and Manas Tiger Reserve in Assam. It acts as satellite habitat for spill over population.
Habitat type	Tropical semi evergreen and tropical deciduous forest
Major land use	Forest = 3099 ha Agriculture = 141 ha Habitation = 54 ha
Elephant movement status	Regular
Number of elephants using the corridor	215 (approximately)
Linear infrastructure in the corridor	1) Electric fence – 1 km 2) 400 kv DC power line- 3.5 km 3) Borobisha- Sankosh- Bhutan state highway, 3 km
Major bottleneck	Kumargram and Sankosh forest villages falling right in the corridor.
Recommendations by the forest department to improve the corridor	1) Notification of the corridors and its legal protection 2) Relocation of forest villages
Current status of the corridor	Active. Intensity of use by elephants increased.



3321

44. Mahananda- Kolabari- Tukriajhar

Connectivity	This corridor connects the Sukna and West range under Mahananda Wildlife Sanctuary with Bamonpokhri, Panighatta, Bagdogra Range and Tukriajhar Ranges of Kurseong Forest Division.
State	West Bengal
Indicative length and width	Length = 15 km, width = 400 m
Geo coordinates	26°48'25.4" N, 88°20'34.0" E to 26°40'54.6" N, 88°15'37.2" E 26°48'56" N, 88°19'50.8" E to 26°44'06.3" N, 88°16'11.9" E 26°41'33.7" N, 88°16'10.3" E to 26°48'18.5" N, 88°19'28.4" E
Beats falling within corridor	Sukna, Lamgumpha, Rakti, Balasan, Tatari, Panighatta, and Marapur
Forest ranges falling within corridor	Sukna Range, West Range, Bamonpokhri Range, Panighatta Range, Bagdogra Range and Tukriajhar Range
Revenue villages falling within corridor	50- 60
Ecological importance	The corridor provides movement to elephant from Baikunthapur Forest Division to Mahananda WLS and Kurseong Division.
Habitat type	Moist mixed forests, teak (<i>Tectona grandis</i>) plantations
Major land use	Forest = 500 ha Agriculture = 2500 ha Habitation = 200 ha
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) In Bamanpokhri Range: Kurseong Connecting road Via Rohini and Khaprail, MatigaraPankhabari Road 2) In Bagdogra Range: Asian Highway and Broad Gauge Train. Bengdubi Panighatta Road. 3) Vehicular traffic on Asian Highway 4) About 2 -3 km long boulder sausage and concrete embankment along Mechi River. 5) High tension power line
Major bottleneck	Sukna and Bengdubi cantonment. Railway lines and presence of HT lines.
Recommendations by the forest department to improve the corridor	1) No further extension of human settlement to be allowed by district administration in areas falling within elephant corridors. 2) Innovative conflict mitigation strategies. 3) Regular Checking of illegal hooking, sagging power lines along the corridor by electricity department
Current status of the corridor	Active. Intensity of use by elephants increased.

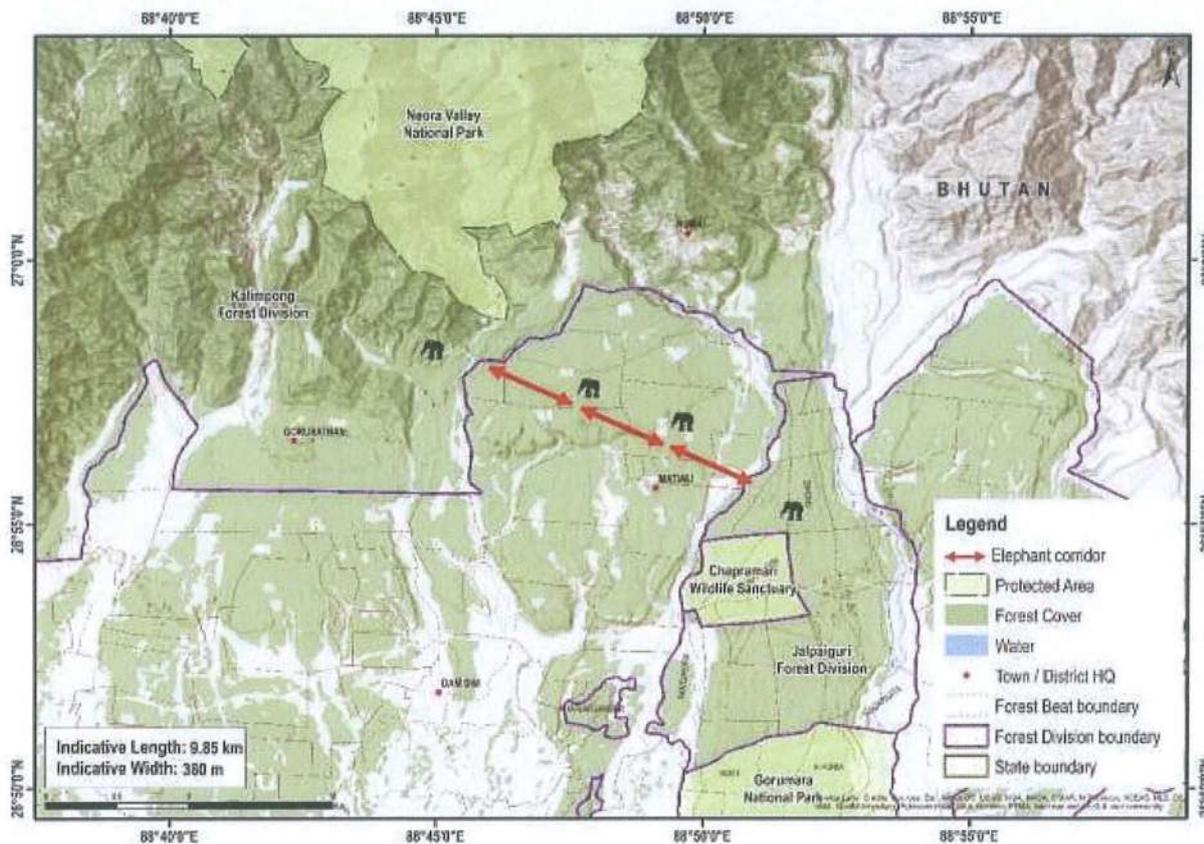


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3322

45. Chapramari - Kalimpong

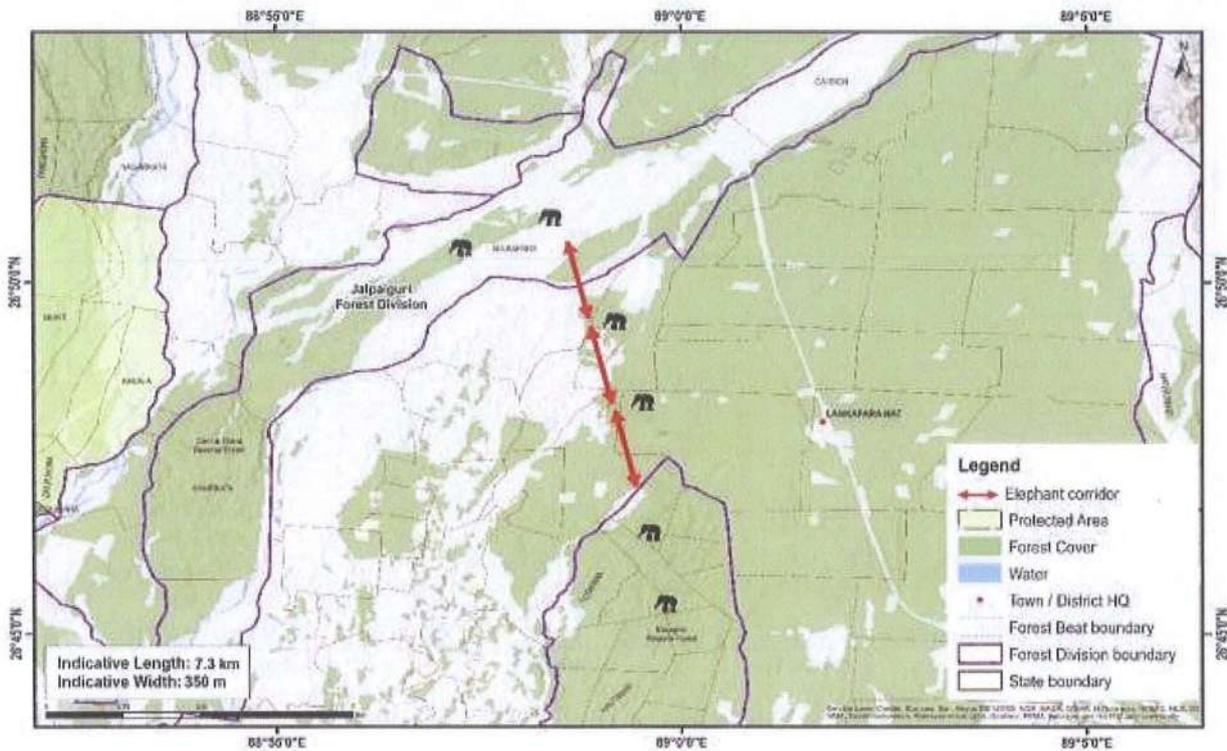
Connectivity	This corridor connects the Chapramari Wildlife Sanctuary (Jalpaiguri District) to Kalimpong Division – Bhuttabari Forest (Kalimpong District)
State	West Bengal
Indicative length and width	Length = 9.8 km, width = 380 m
Geo coordinates	26°56'30.92" N, 88°51'10.79" E 26°57'41.49" N, 88°45'27.59"E
Forest ranges falling within corridor	Gorumara North, Chalsa, Neora South, Gorubathan and Jaldhaka Ranges
Revenue villages falling within corridor	10
Ecological importance	This corridor facilitates elephant movement between the Mal Block of Kalimpong Forest Division and Chapramari Wildlife Sanctuary of Gorumara Wildlife Division.
Habitat type	Tropical moist deciduous forest, Riparian Forest
Major land use	Tea plantations and settlements
Elephant movement status	Regular, the usage has increased
Number of elephants using this corridor	80- 90
Major Bottleneck	Tea Garden and Labour Lines
Linear infrastructure in the corridor	1) Chalsa-Matiali road, Gorubathan road 2) T.G Irrigation canals 3) High-tension power line (11000 V) 4) Razor blade fencing 6) Tea garden factories
Recommendations by the forest department to improve the corridor	1) No new construction should be permitted inside the corridor areas. 2) Limit expansion of Labour lines of Kilcot TG, Indong TG and Aibheel TG 3) Habitat should be restored in Gorubathan Reserve Forest. 4) Planned expansion of semi – urban agglomerations and convergence modules to be taken up by District Administration (District Planning Officer) with that of the Forest Dept.
Current status of the corridor	Active. Intensity of use by elephants not available



3323

46. Moraghat–Central Daina

Connectivity	The corridor connects Moraghat Reserve Forest with Diana Reserve Forest of Jalpaiguri Forest Division, leading on to Gorumara National Park.
State	West Bengal
Indicative length and width	Length = 7.3 km, width = 350 m
Geo coordinates	26°47'12.22"N, 88°59'57.88"E 26°50'14.32"N, 88°58'57.83"E
Forest ranges falling within corridor	Banarkat Range
Revenue villages falling within corridor	4
Ecological importance	There is a good population of Elephants in Moraghat Reserve Forest which forms an important forest patch connecting forest of Central Daina.
Habitat type	Plantations
Major land use	Tea garden
Elephant movement status	Regular, the usage has increased
Number of elephants using this corridor	75
Bottleneck	Tea garden labour lines
Linear infrastructure in the corridor	1) Banarhat - Totapara Road 2) Khairkata - Prayagpur road 3) Banarhat - Hridaypur road 4) Tea garden Irrigation canals 5) Tea garden Factory
Recommendations by the forest department to improve the corridor	1) Overpass and underpass construction in selected areas of elephant passage. 2) Insulation and periodical maintenance of aerial HT and LT power lines. 3) Preserve continuity of corridors by preventing rampant building of infrastructures and inculcating the planning of civil administration with that of the Forest Dept. 4) Planned expansion of semi – urban agglomerations and convergence modules to be taken up by District Administration (District Planning Officer) with that of the Forest Deptt. 5) Change in cropping pattern and crop variations at specific areas. 6) Securing elephant corridors by creating dedicated route through Intra T.G jurisdictions.
Current status of the corridor	Active. Intensity of use by elephants increased.

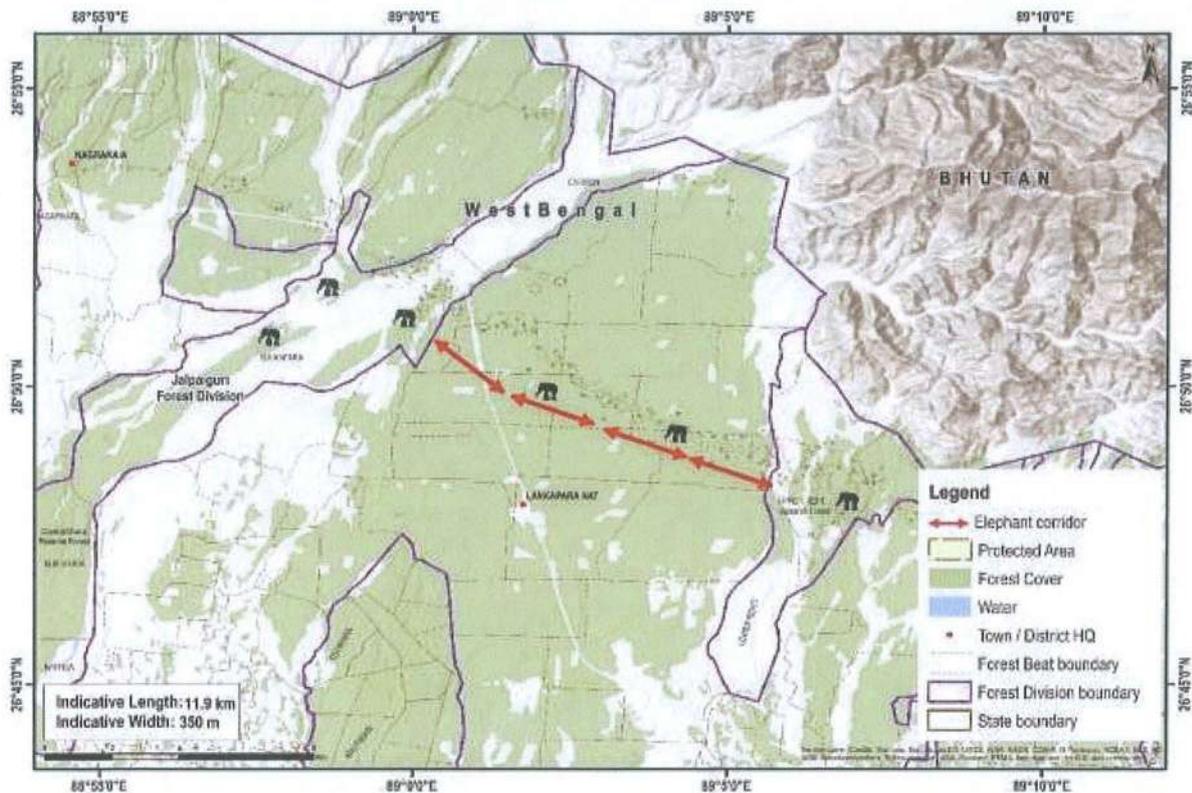


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3324

47. Reti-Central Daina

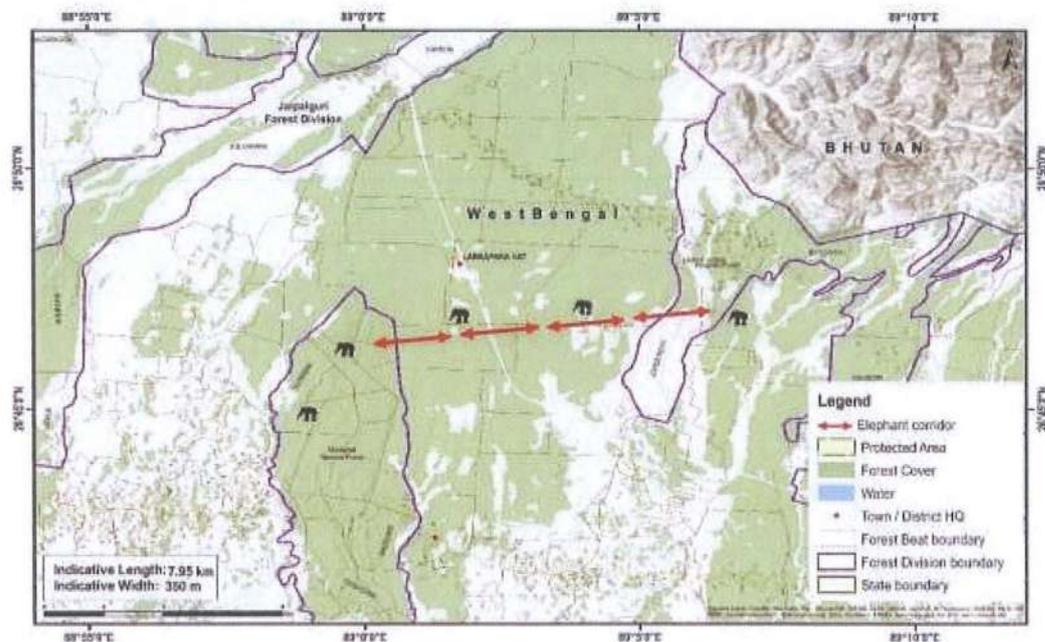
Connectivity	The corridor connects Reti Reserve Forest with Diana Reserve Forest of Jalpaiguri Forest Division, leading on to Gorumara National Park.
State	West Bengal
Indicative length and width	Length = 11.9 km, width = 350 m
Geo coordinates	26°48'20.84" N, 89° 5'22.11" E 26°52'3.68" N, 89° 1'27.06" E
Forest ranges falling within corridor	Banarhat Range
Revenue villages falling within corridor	5
Habitat type	Tea garden
Major land use	Tea garden
Elephant movement status	Regular, Increased use
Number of elephants using this corridor	80-90
Bottleneck	Tea garden labour lines
Linear infrastructure in the corridor	1) National Highway- 31C 2) Banarhat - Chamurchi Road 3) Alipurduar to Siliguri Double track railway line, electrified, 1 km 4) T.G Irrigation canals. 5) High-tension power line (11000V) 6) Tea Garden Factory
Recommendations by the forest department to improve the corridor	1) Insulation and periodical maintenance of aerial HT and LT power lines. 2) Preserve continuity of corridors by preventing rampant building of infrastructures and inculcating the planning of civil administration with that of the Forest Dept. 3) Planned expansion of semi – urban agglomerations and convergence modules to be taken up by District Administration (District Planning Officer) with that of the Forest Dept. 4) Securing elephant corridors by creating dedicated route through Intra tea garden jurisdictions.
Current status of the corridor	Active. Intensity of use by elephants increased.



3325

48. Moraghat-Reti

Connectivity	This corridor connects Moraghat Reserve Forest with Reti Reserve Forest (Jalpaiguri Forest Division)
State	West Bengal
Indicative length and width	Length = 7.9 km, width = 350 m
Geo coordinates	26°47'12.22"N, 88°59'57.88"E 26°50'14.32"N, 88°58'57.83"E
Forest ranges falling within corridor	Banarhat Range
Revenue villages falling within corridor	NA
Ecological importance	The area consists of more than 80 - 90 elephants which keep travelling between these forest patches.
Habitat type	Tea Garden
Major land use	Tea Garden and Army Cantonment
Elephant movement status	Regular, increased
Number of elephants using this corridor	80- 90
Bottleneck	1) Siliguri – Alipurduar Railway line 2) National Highway 31 and associated heavy vehicular traffic
Linear infrastructure in the corridor	1) National Highway 31C. 2) DBITA Road. 3) Banarhat – Chamurchi – Samtsa Road 4) One km of Alipurduar to Siliguri electrified double track railway line 5) One km of Irrigation canal 6) One km of High-tension power line (11000 V) 7) Tea garden factories
Recommendations by the forest department to improve the corridor	1) Overpass and underpass construction in selected areas of elephant passage. 2) Insulation and periodical maintenance of aerial HT and LT power lines. 3) Monitoring of rail movement and speed limit fixed for the stretch through thermal sensor. 4) Preserve continuity of corridors by preventing rampant building of infrastructures and inculcating the planning of civil administration with that of the Forest Dept. 5) Planned expansion of semi-urban agglomerations and convergence modules to be taken up by District Administration (District Planning Officer) in coordination with Forest Dept. 6) Securing elephant corridors by creating dedicated route through Intra tea garden jurisdictions.
Current status of the corridor	Active. Intensity of use by elephants increased.



3326

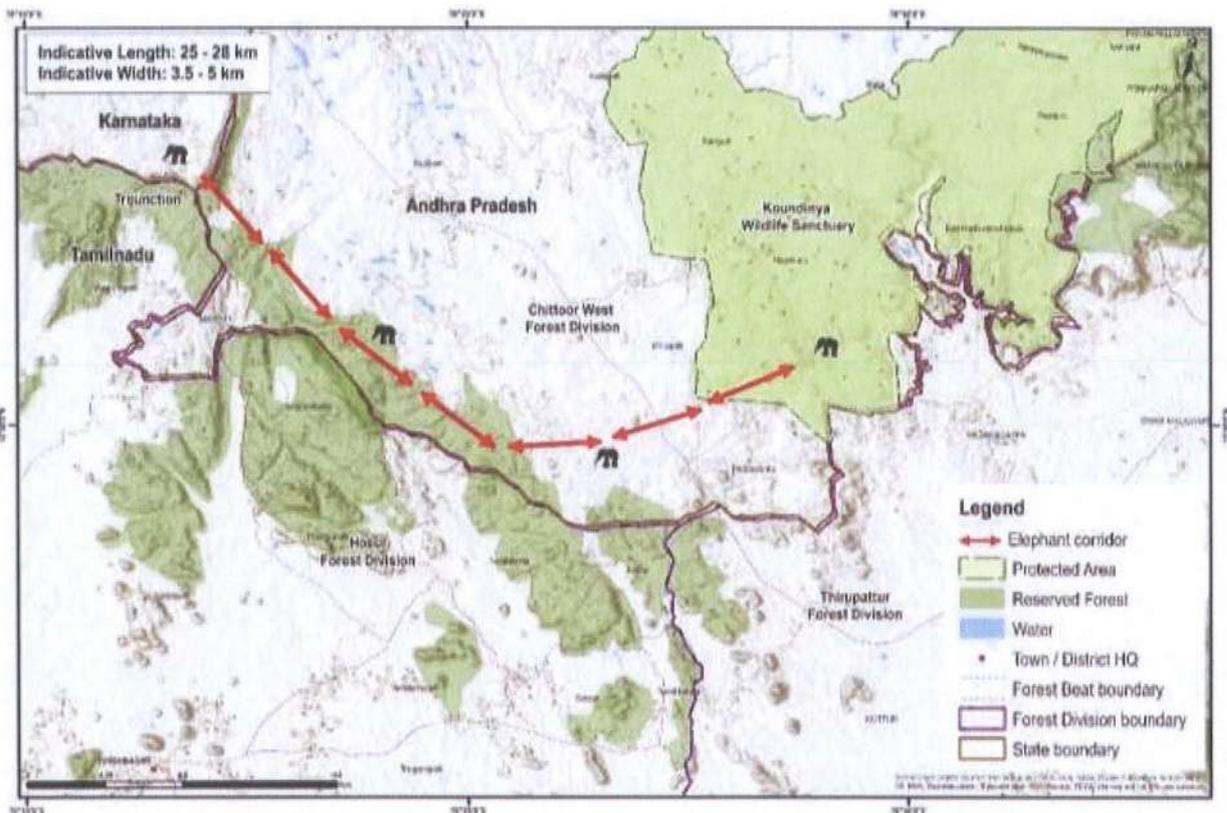
Elephant Corridors **Southern Region**



3327

1. Tri-Junction Corridor

Connectivity	This corridor is used by elephants moving from (i) Kamasamudram SF of Bangarapet Range in Kolar Forest Division, Karnataka, (ii) Veppanapalli RF of Hosur Forest Division in Tamil Nadu, (iii) Nedumuru RF of Kuppam Range in Chittoor West Forest Division into Koundinya Wildlife Sanctuary through the village of Mallanoor.
State	Andhra Pradesh
Indicative length and width	Length = 28 km, width = 3.5 - 5 km
Geo coordinates	12.661704 / 78.383441
Compartments falling within corridor	Compartment No- 328 to 334, 381, and 382
Forest ranges falling within corridor	Kuppam Range of Chittoor West Forest Division
Revenue villages falling within corridor	40
Ecological Importance	This is the only corridor used by elephants dispersing from Karnataka and Tamil Nadu into southern Andhra Pradesh. In the absence of this corridor, the elephants of southern Andhra Pradesh would occur as a small and isolated population. The number of elephants in the area has also increased in the recent years
Habitat type	Dry deciduous forest, scrub forest with boulder hills and revenue lands
Major land use	Agricultural land along with human habitation
Elephant movement status	Seasonal, with movement of few loner males throughout the year
Number of elephants using the corridor	15 - 20
Linear infrastructure in the corridor	1) Krishnagiri- Palamaner National Highway (NH42) 2) Bengaluru - Chennai Railway Line (approx. 25 km) passes through the corridor. Within Kothur RF of Tamil Nadu, there are two Railway lines 3) Other major district roads pass through the corridor
Bottlenecks in the corridor	Bangalore - Chennai Railway lines
Recommendations by the forest department to improve the corridor	Long term monitoring of the elephant movement required.
Current status of the corridor	Active. Intensity of use by elephants increased

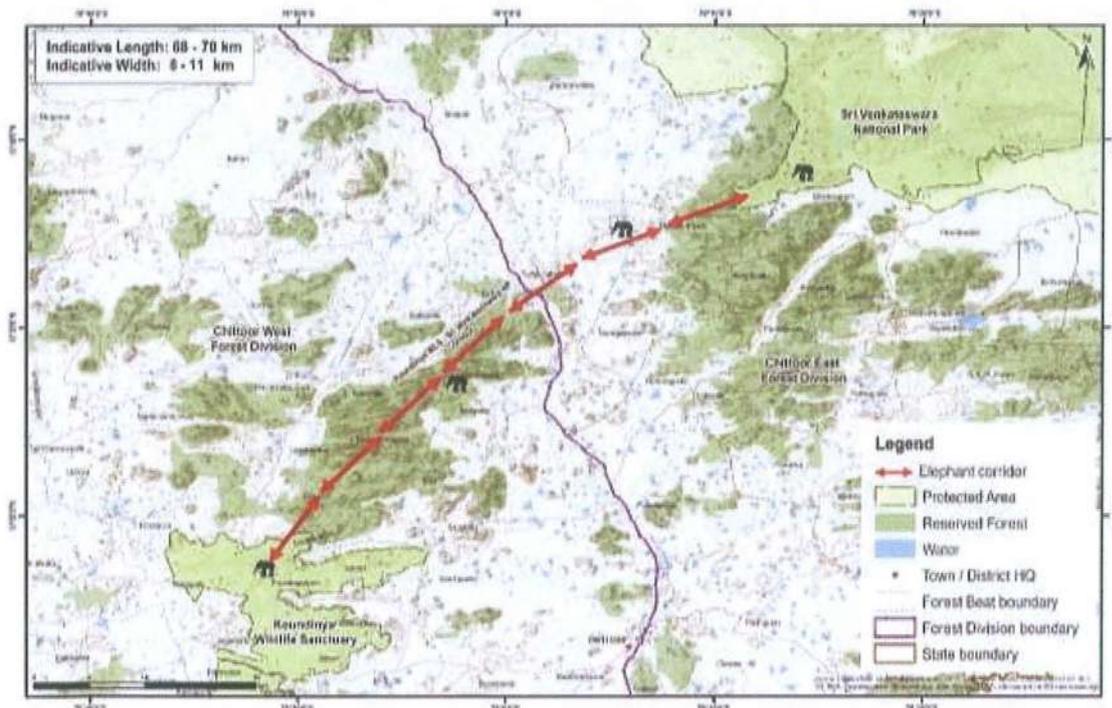


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3328

2. Rayala Elephant Reserve Corridor

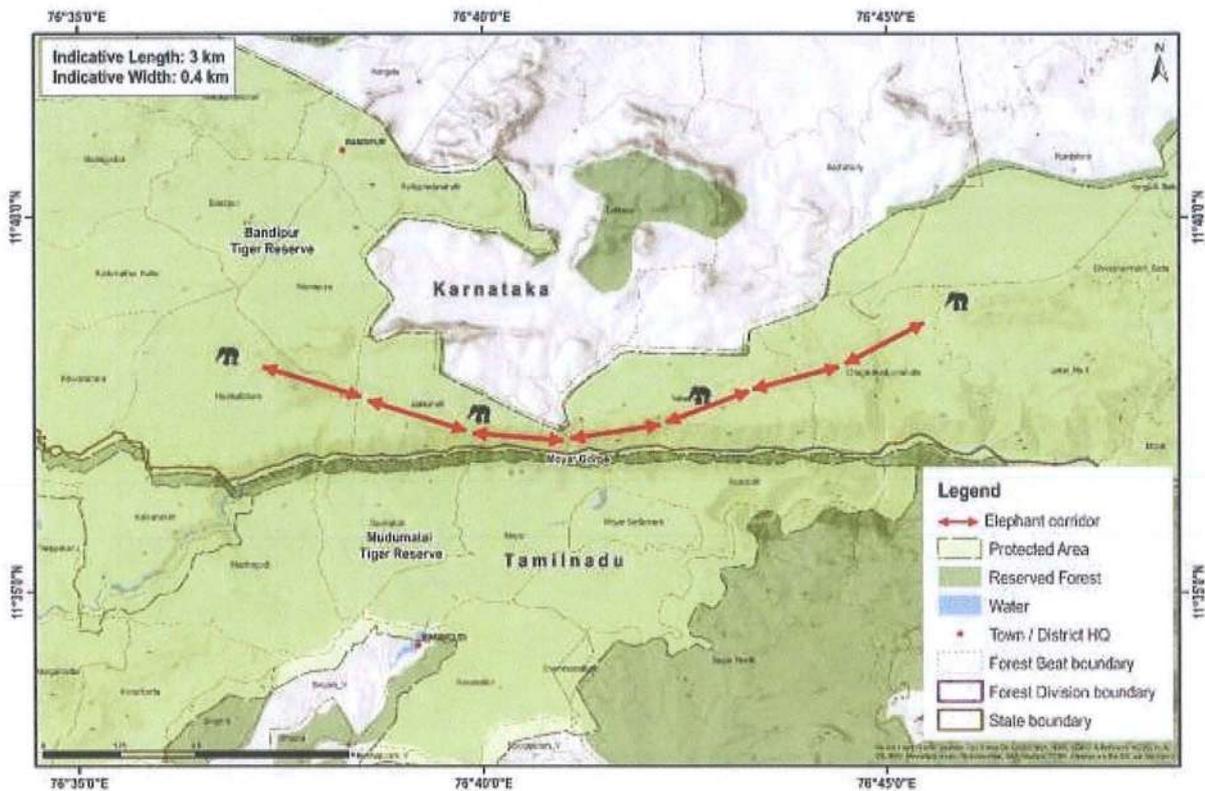
Corridor name	Rayala Elephant Reserve Corridor
State	Andhra Pradesh
Connectivity	Koundinya Wildlife Sanctuary to Sri Venkateswara National Park
Indicative length and width	Length = 70 km, Width = 11 km
Geo coordinates	13.491271 / 79.006550
Compartments falling within corridor	Compartment No- 78-83, 103- 108, 117, 118, 121- 131, 139- 195, 305- 323, 384, 1000
Forest ranges falling within corridor	Punganur and Chittoor west ranges of Chittoor west Forest Division and Bakarapet Range of Chittoor east Forest Division
Revenue villages falling within corridor	20
Administrative details of the corridor	This area is extended Reserve forest of Koundinya Wildlife Sanctuary and a part of the elephant range
Ecological importance	This is the only corridor that elephants occurring in Sri Venkateswara National Park have used to move from Koundinya Wildlife Sanctuary. The corridor is also used by wildlife including leopard (<i>Panthera pardus</i>), slender loris (<i>Loris lydekkerianus</i>), four-horned antelope (<i>Tetracerus quadricornis</i>), dhole (<i>Cuon alpinus</i>), sloth bear (<i>Melursus ursinus</i>), sambar (<i>Rusa unicolor</i>), and others. The number of elephants in the area has also increased in the recent years.
Habitat type	Dry deciduous, scrub forest with boulder hills and revenue lands
Major land use	Forest area, with presence of few villages, agricultural land and mango orchards
Elephant movement status	Regular
Number of elephants using the corridor	50 - 60
Linear infrastructure in the corridor	1) Bangalore- Tirupati Highway (NH4)- have heavy vehicular movement with reported animal hits 2) Kadapa- Chittoor Highway (NH40) 3) Proposed Bangalore- Chennai Expressway 4) High tension power line (approx. 50 km) passes through the corridor
Bottlenecks in the corridor	Elephant movement status between Pudiputlabylu and Mangalampettai beats of Chittoor East Forest Division remains unclear.
Recommendations by the forest department to improve the corridor	Long term monitoring of the elephant movement required.
Current status of the corridor	Active. Intensity of use by elephants increased. However, elephant movement status between Pudiputlabylu and Mangalampettai beats of Chittoor East Forest Division remains unclear.



3329

3. Kaniyanpura- Moyar Corridor

Connectivity	This corridor connects the Kaniyanpura Reserve Forest with the Moyar Reserve Forest of Bandipur Tiger Reserve and is located on the inter-state boundary of Karnataka and Tamil Nadu.
State	Karnataka
Indicative length and width	Length = 3 km, width = 0.4 km
Geo coordinates	11° 37' 1", 11° 39' 6" N 76° 38' 22", 76° 44' 49" E
Forest ranges falling within corridor	Kundakere Range
Revenue villages falling within corridor	3
Habitat type	Dry deciduous and mixed thorn forest
Major land use	Agricultural land, Plantations
Elephant movement status	Regular
Linear infrastructure in the corridor	1) Mangala-Jakkahalli-Yelchetti road 2) The emergence of resorts near the corridor
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the state forest department. 2) Reduce dependency of fringe villagers on the corridor forest through suitable eco-developmental support and assistance. 3) More area (south of the Mangala-Jakkahalli-Yelchetti road) could be secured to widen the corridor at its bottleneck. The Karnataka Forest Department has plans to add more area to the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available

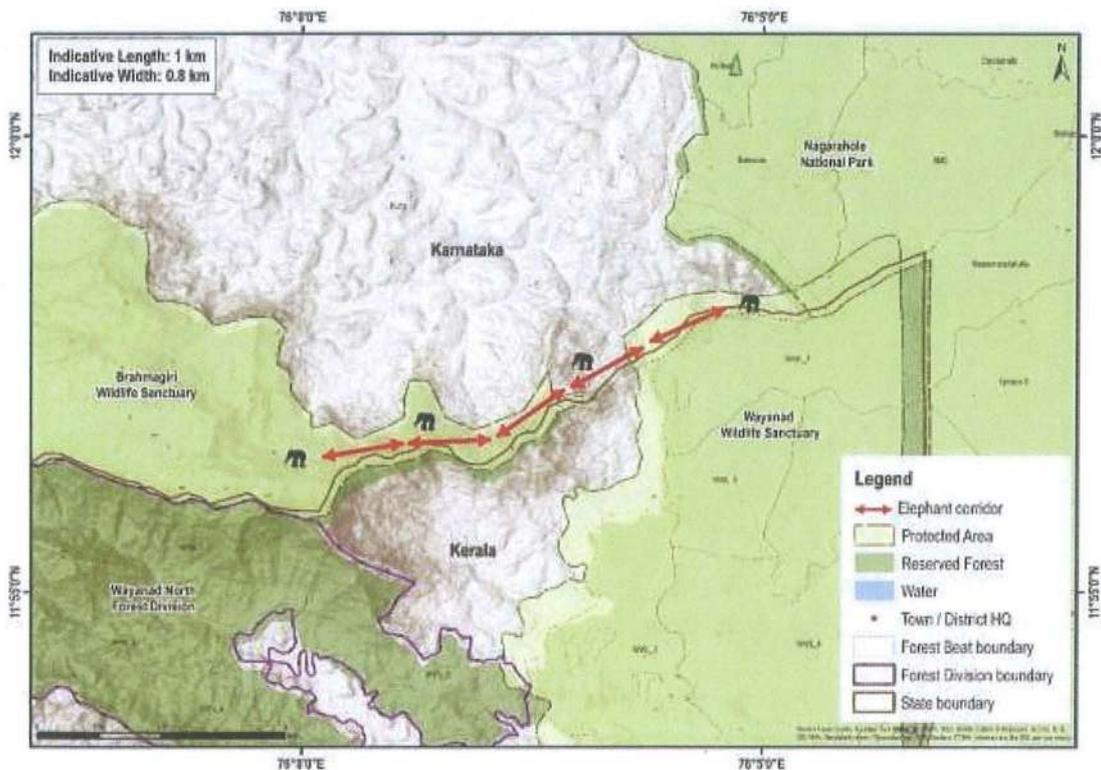


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3330

4. Begur – Brahmagiri Corridor (Interstate corridor)

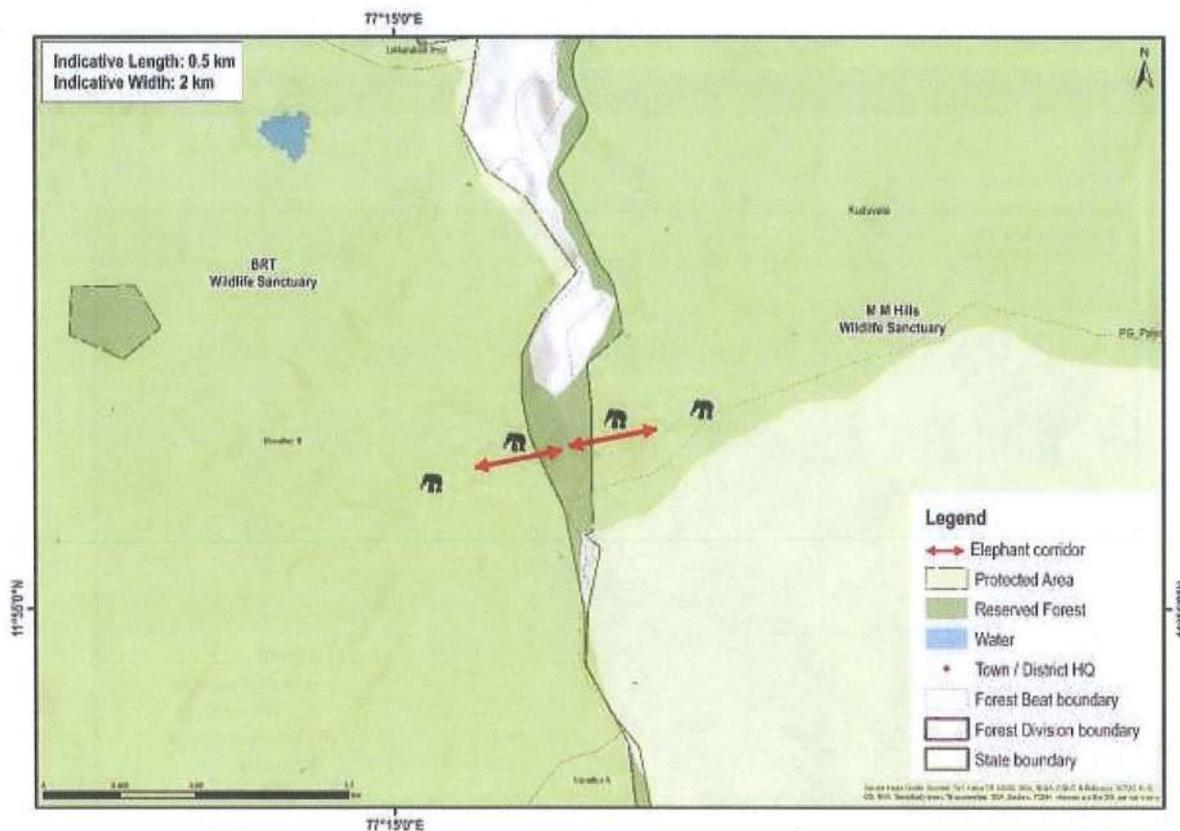
Connectivity	This corridor connects Begur Reserve Forest and the Tholpetty Range of Wayanad Wildlife Sanctuary with Brahmagiri Reserve Forest and the Srimangala Range of Brahmagiri Wildlife Sanctuary.
State	Karnataka
Indicative length and width	Length = 1 km, width = 0.8 km
Geo coordinates	11° 55' 55" - 11° 57' 60" N 76° 0' 36" - 76° 4' 15" E
Forest ranges falling within corridor	Tholpetty and Srimangala Range
Revenue villages falling within corridor	3
Habitat type	Moist deciduous forest
Major land use	Coffee estate and human habitation
Elephant movement status	Regular
Linear infrastructure in the corridor	1) Mananthavady-Kutta State Highway 2) Electric fences and Elephant Proof Trenches (EPTs) around the coffee estates
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the state forest department and legally protected under an appropriate law to prevent encroachment and development activities detrimental to animal movement. 2) Electric fences and EPTs in the corridor area should be removed on a priority basis. 3) About 375 acres of land identified in the Huvinakadu and Faith Coffee Estates in Karnataka needs to be secured in consultation with the management of these estates. Similarly, about 100 acres of land identified in the Narikkal Coffee Estate in Kerala should be secured for the long-term conservation of elephants in the region. 4) Inter-state border checkpoints in the corridor area should be shifted. 5) No construction should be allowed on either side of the road passing through the corridor.
Current status of the corridor	Active. Intensity of use by elephants not available



3331

5. Edayarhalli – Doddasampige Corridor

Connectivity	This corridor connects Edayarhalli Reserve Forest of Malai Madeshwara Wildlife Sanctuary with Doddasampige Reserve Forest of Biligiri Rangaswamy Temple (BRT) Tiger Reserve.
State	Karnataka
Indicative length and width	Length = 0.5 km, width = 2 km
Geo coordinates	11° 55' 12" - 11° 55' 52" N 77° 15' 21" - 77° 16' 1" E
Forest ranges falling within corridor	Bylore Range
Revenue villages falling within corridor	6
Habitat type	Tropical thorn and mixed deciduous forest
Major land use	Forest and agricultural land
Elephant movement status	Regular
Linear infrastructure in the corridor	Kollegal- Sathyamangalam (State Highway 38)
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the state forest department and legally protected under an appropriate law to prevent encroachment and developmental activities detrimental to animal movement. 2) Suitable eco-development activities need to be initiated in corridor fringe villages, especially to reduce fuel wood extraction and cattle grazing. Energy efficient cook stoves could be provided to the villagers to minimize fuel wood extraction
Current status of the corridor	Active. Information on intensity of use not available.

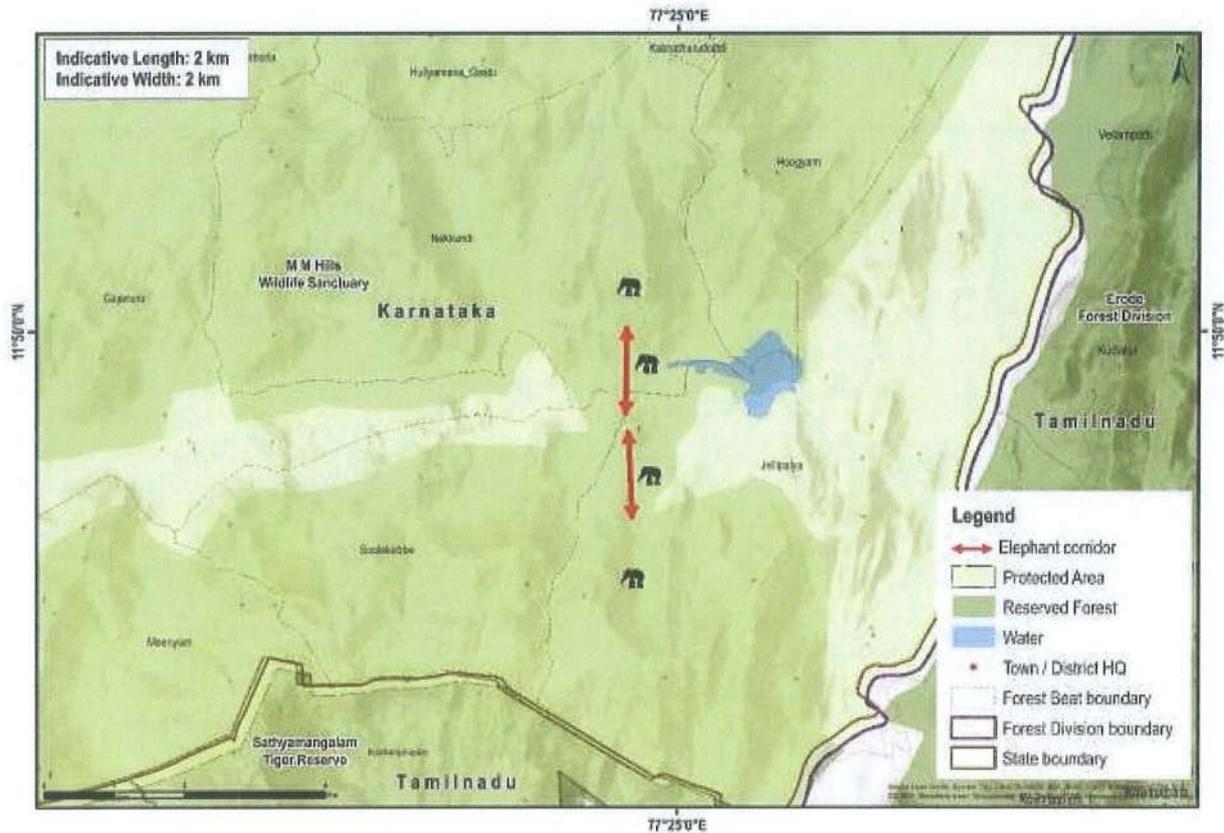


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3332

6. Edayarhalli – Guthiyalathur Corridor

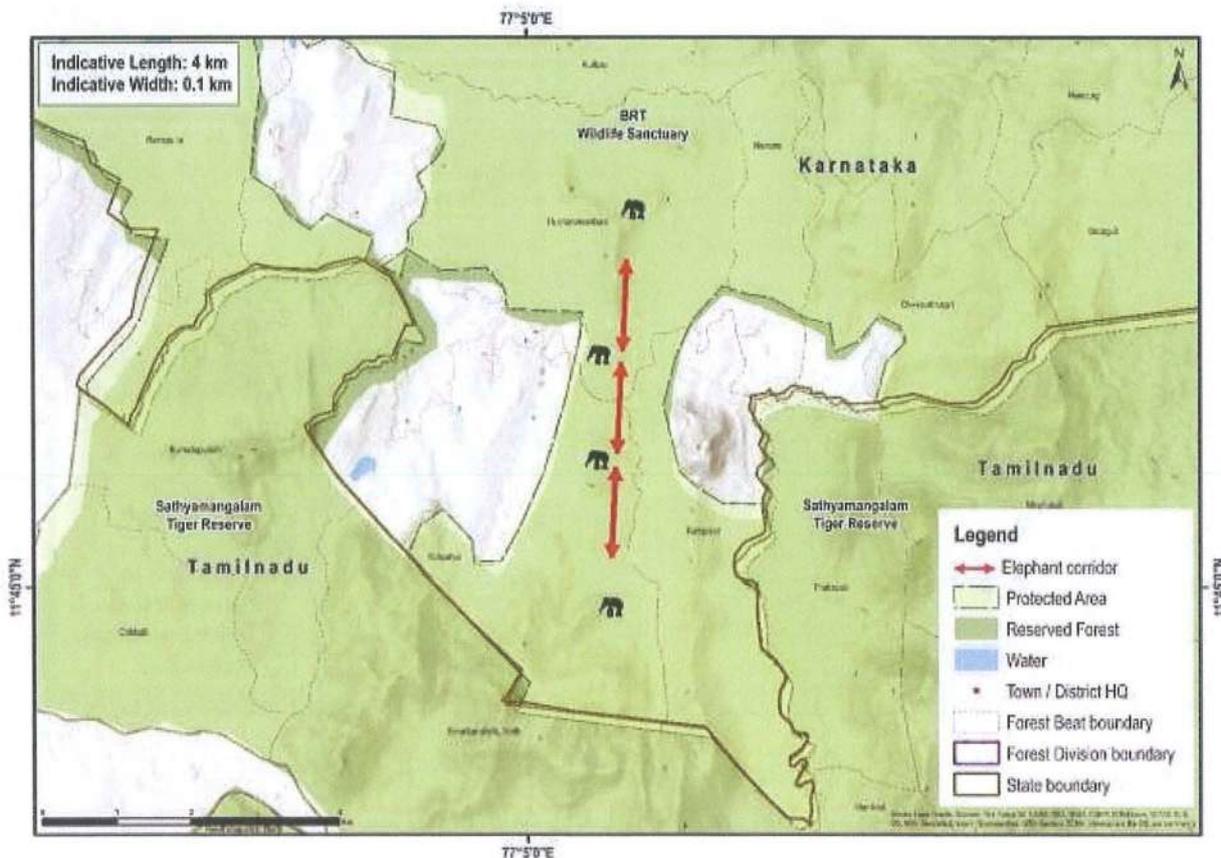
Connectivity	This corridor connects Malai Madeshwara Wildlife Sanctuary with Sathyamangalam Tiger Reserve
State	Karnataka
Indicative length and width	Length = 2 km, width = 2.1 km
Geo coordinates	11° 48' 38"- 11° 49' 52" N 77° 23' 60"- 77° 25' 10" E
Forest ranges falling within corridor	Hoogyam Range
Revenue villages falling within corridor	3
Habitat type	Dry deciduous, mixed dry deciduous and shrub forests
Major land use	Human habitation
Elephant movement status	Regular
Linear infrastructure in the corridor	Encroachment by families in Kallatibyalur has further reduced the width of the corridor
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the state forest department and legally protected under an appropriate law to prevent encroachment and developmental activities detrimental to animal movement. 2) Encroachments in Kallatibyalur should be removed in consultation with settlers.
Current status of the corridor	Active. Information on intensity of use not available.



3333

7. Chamarajanagar – Talamalai at Punjur Corridor (Interstate corridor)

Connectivity	This corridor connects the K Gudi Range of Chamarajanagar Wildlife Division (BRT Tiger Reserve) with the Thalavadi Range of Sathyamangalam Tiger Reserve through the Punjur Range.
State	Karnataka
Indicative length and width	Length = 4 km, width = 0.1 km
Geo coordinates	11° 46' - 11° 47' N 77° 05' - 77° 06' E
Forest ranges falling within corridor	K Gudi and Thalavadi Range
Revenue villages falling within corridor	3
Habitat type	Tropical thorn and deciduous forest
Major land use	Human habitation
Elephant movement status	Regular
Linear infrastructure in the corridor	National highway 209 and the associated vehicular traffic
Recommendations by the forest department to improve the corridor	1) The corridor should be notified and legally protected by the state forest department under an appropriate law, and action should be taken to prevent encroachment and developmental activities detrimental to animal movement. 2) In consultation with villagers, about 126 acres of the corridor land belonging to 86 families in the Hosaboddoddi and Srinivasapuram settlements needs to be secured on a priority basis. To further strengthen the corridor, efforts should be made to secure land from Muneeshwara Colony in the second stage, following due consultations with the local community. 3) No construction should be allowed on either side of NH 209 in the area passing through the corridor
Current status of the corridor	Impaired.

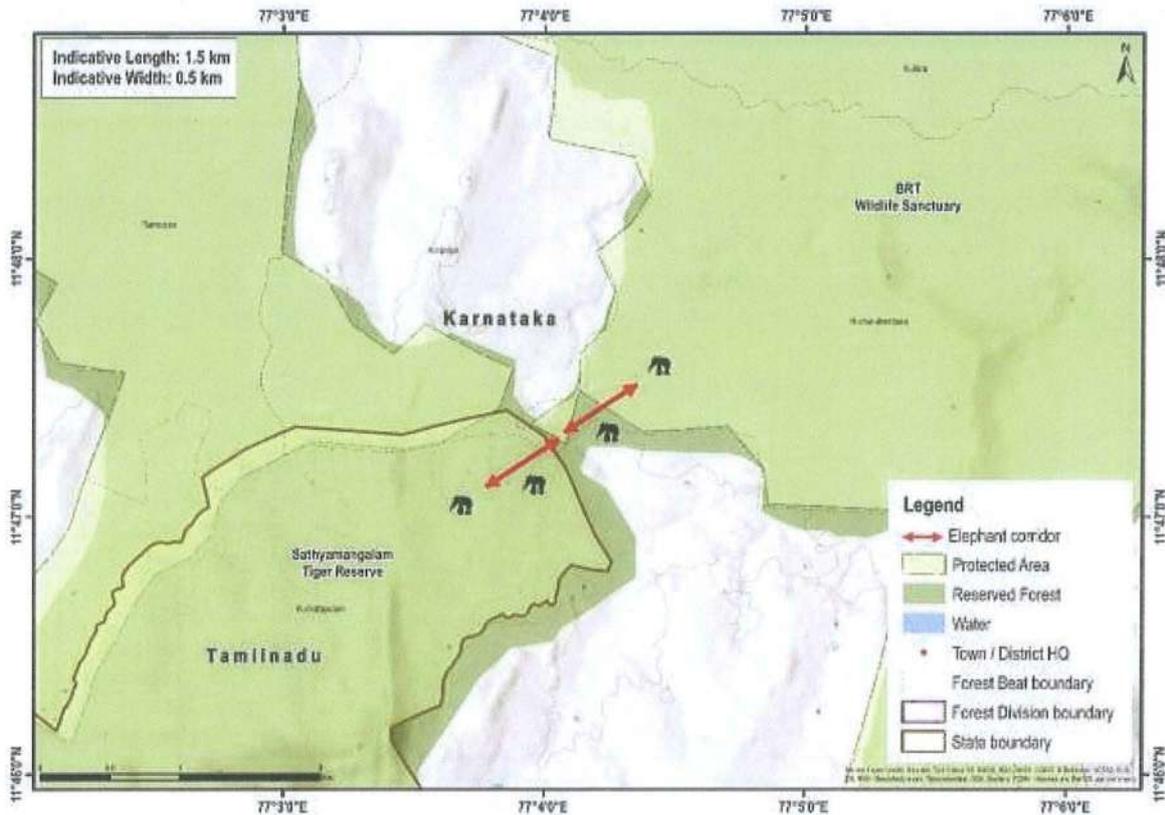


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8. Chamarajanagar – Talamalai at Muddahalli Corridor (Interstate corridor)

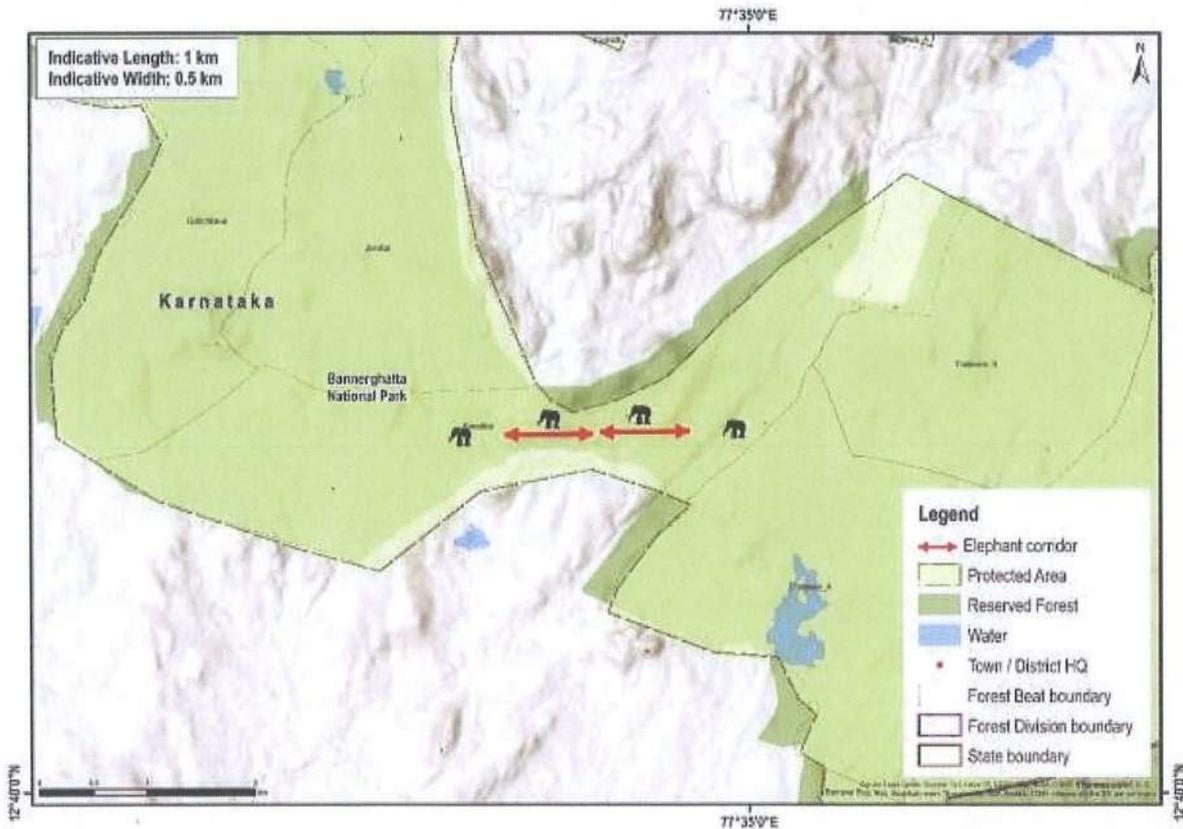
Connectivity	This corridor connects the Punjur Range of Chamarajanagar Wildlife Division (BRT Tiger Reserve) with the Thalavadi Range of Sathyamangalam Tiger Reserve and is located at the inter-state boundary of Karnataka and Tamil Nadu.
State	Karnataka and Tamil Nadu
Indicative length and width	Length = 1.5 km, width = 0.5 km
Geo coordinates	11° 47' 12"- 11° 47' 37" N 77° 3' 50"- 77° 4' 20" E
Forest ranges falling within corridor	Punjur and Thalavadi Range
Revenue villages falling within corridor	6
Habitat type	Tropical thorn and deciduous forest
Major land use	Forests and settlements
Elephant movement status	Regular
Linear infrastructure in the corridor	National highway 209 and the associated vehicular traffic
Recommendations by the forest department to improve the corridor	1) The corridor should be notified and legally protected by the state forest department under an appropriate law, and action should be taken to prevent encroachment and developmental activities detrimental to animal movement. 2) In consultation with villagers, 27.39 acres of land belonging to six families from Goramadu Doddi, and 10 acres of forest leased land from the Muddahalli Joint Farming Cooperative Society, should be secured as a priority to increase the width of the corridor. 3) No construction should be allowed on either side of the national highway passing through the corridor. 4) In consultation with the National Highway Authority of India, speed breakers should be created on the stretch passing through the corridor to minimize vehicular speeds and facilitate elephant movement.
Current status of the corridor	Active. Intensity of use by elephants increased.



3335

9. Karadikkal – Madeshwara Corridor

Connectivity	This corridor connects Karadikkal State Forest and Madheshwara State Forest of Bannerghatta National Park, Karnataka.
State	Karnataka
Indicative length and width	Length = 1 km, width = 0.5 km
Geo coordinates	12° 41' 29"- 12° 42' 30" N 77° 33' 46"- 77° 34' 49" E
Forest ranges falling within corridor	Harohalli Range
Revenue villages falling within corridor	6
Ecological importance	This area facilitates the movement of elephants from Bannerghatta to Hosur Forest Division in Tamil Nadu, further leading on to Cauvery Wildlife Sanctuary, Karnataka.
Habitat type	Tropical thorn and deciduous forest
Major land use	Forests
Elephant movement status	Regular
Linear infrastructure in the corridor	1) Stone quarries inside Bannerghatta National Park. 2) Anekal-Harohalli State Highway and associated vehicular traffic. 3) Resorts being developed on the southern boundary of the corridor at Jayapuradoddi
Recommendations by the forest department to improve the corridor	1) The corridor should be notified by the state forest department and legally protected under an appropriate law to prevent encroachment and developmental activities detrimental to animal movement. 2) A total of about 87 acres of land belonging to private estates could be secured to increase the width of the corridor from 510 m to 1000 m. 3) Mining and stone quarries near the corridor need to be prohibited
Current status of the corridor	Active. Information on intensity of use not available.

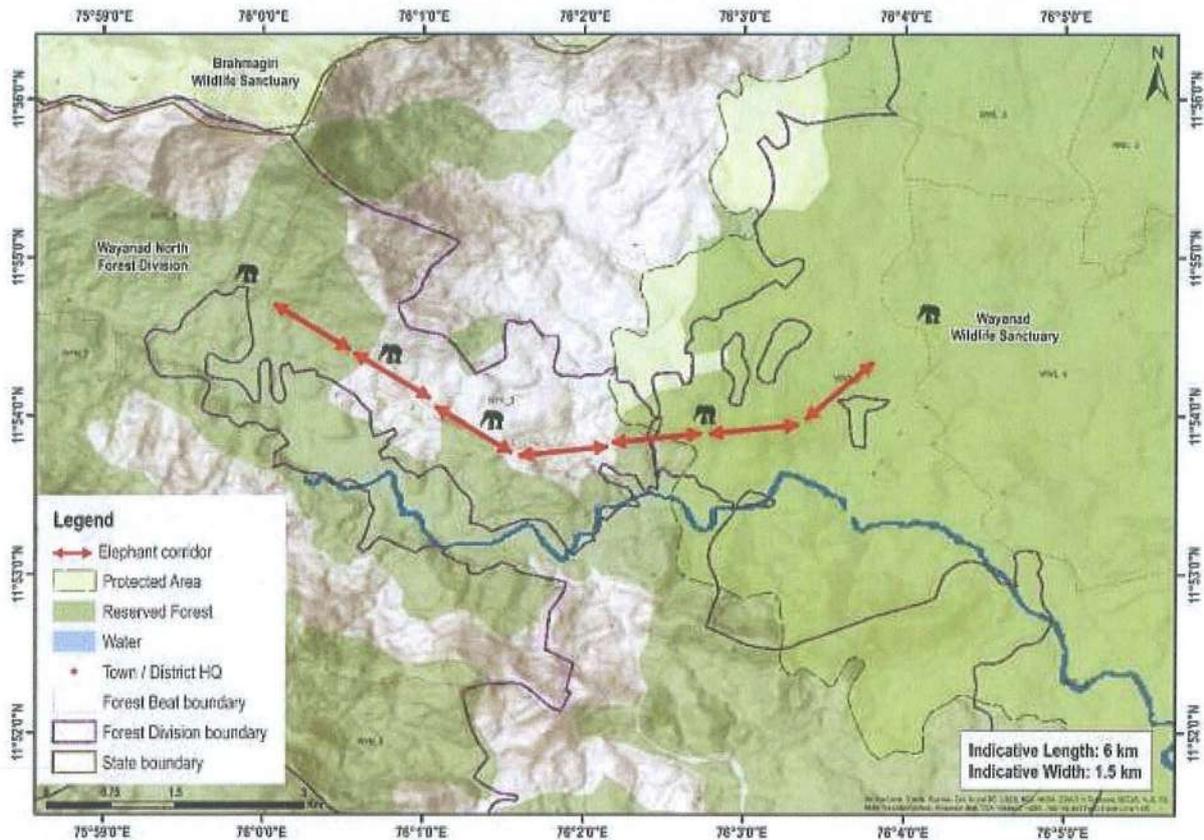


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3336

10. Kudrakote- Thirunelli Corridor

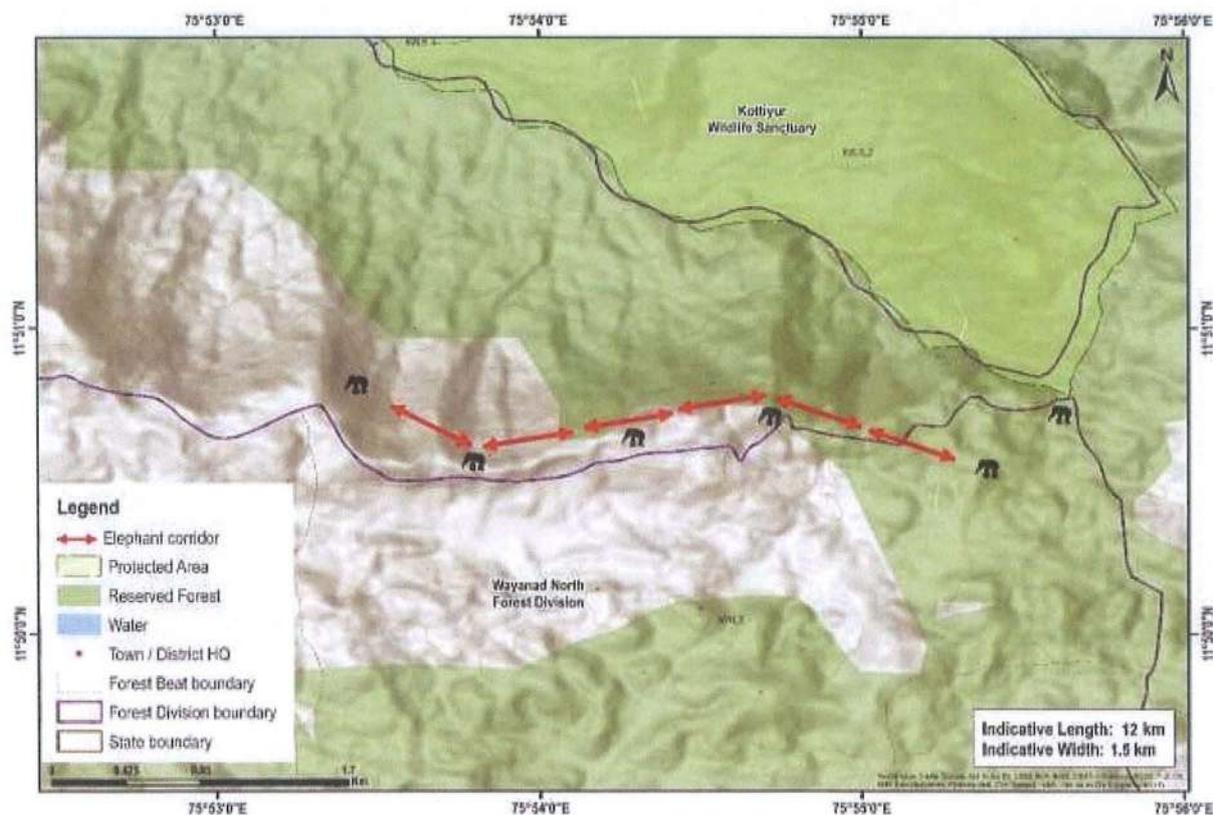
Connectivity	Connectivity is from Tholpetty Range of Wayanad Wildlife Sanctuary to Appapara station of Begur Range of the North Wayanad Division
State	Kerala
Indicative length and width	Length = 6 km, width = 1.8 km
Geo coordinates	11.899945° N, 76.012624° E to 11.892096° N, 76.075286° E
Forest ranges falling within corridor	Tholpetty, Appapara and Begur ranges
Revenue villages falling within corridor	3
Habitat type	Forest and forest plantations
Major land use	Teak plantations with secondary vegetation growth
Elephant movement status	Regular
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) Thetturoad- Thirunelly Road- 1.6 km 2) Panavally- Appapara Road- 9 km 3) High tension power line (220 KV)- 1.6 km 4) Electric fence- 8 km 5) Elephant proof trench- 6 km
Bottleneck in the corridor	Stretch between Pulivalmoola to Appappra and Panavally, where the width is reduced. Additionally, a HT line and a minor road further impede the movement.
Recommendations by the Forest Department to improve the corridor	1) Habitat enhancement of forest. 2) Check on the vehicular movement and restriction on the nighttime movement on Thetturoad- Thirunelly Road.
Current status of the corridor	Active. Intensity of use by elephants increased.



3337

11. Kottiyur-Peria Corridor

Connectivity	Connectivity is from Kottiyur Wildlife Sanctuary to Peria Reserve Forest of Peria Range
State	Kerala
Indicative length and width	Length = 12 km; width = 1.5 km
Geo coordinates	11.848266° N, 75.817852° E to 11.847653° N, 75.929685° E
Forest ranges falling within corridor	Peria Range
Revenue villages falling within corridor	2
Ecological importance	This is the narrowest corridor in the division and is characterized by dense human population, making this corridor important for the movement of the elephants from Peria Reserve Forest.
Habitat type	Evergreen forests and scattered grassland
Major land use	Forest = 835 ha Agriculture = 85 ha Habitation = 30 ha
Elephant movement status	Occasional, the movement has decreased.
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) Boystown- Kottiyur Hill highway 2) High tension power line from Chandanathodu to Peria (440 KV), 3 km 3) Electric fence, 12 km 4) Boystown, Varayal Forest station building
Bottleneck in the corridor	Kottiyur road running along the stream creates a steep and inaccessible terrain for elephants.
Recommendations by the forest department to improve the corridor	1) Establishment of elephant specific overpass across Boystown- Kottiyur road. 2) Construction of underpass along the Thalaseery- Mananthavady road at Peria between district border and Peria 35. 3) Acquiring estates within forested areas 4) Considering ban on the erection of electric fences for preserving their natural movement.
Current status of the corridor	Active. Intensity of use by elephants decreased.

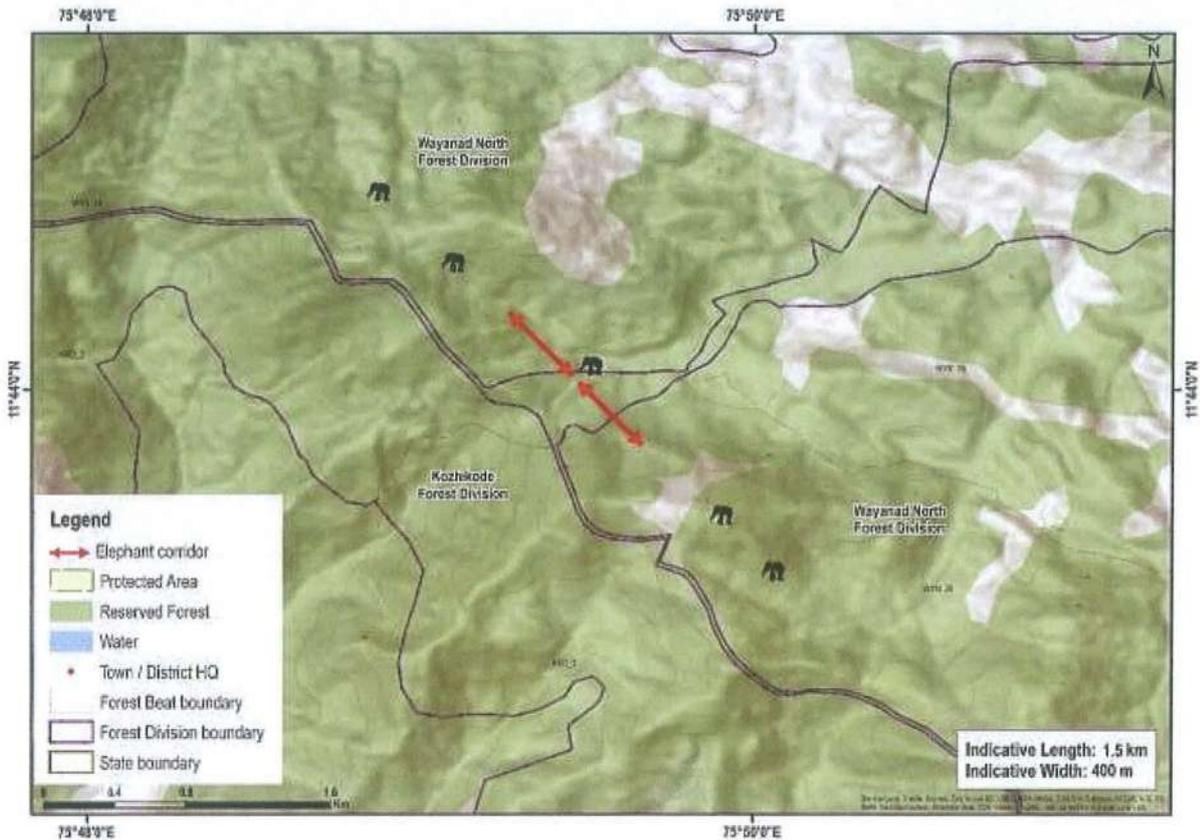


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3338

12. Peria- Pannippad (Peria at Pakranthalam) Corridor

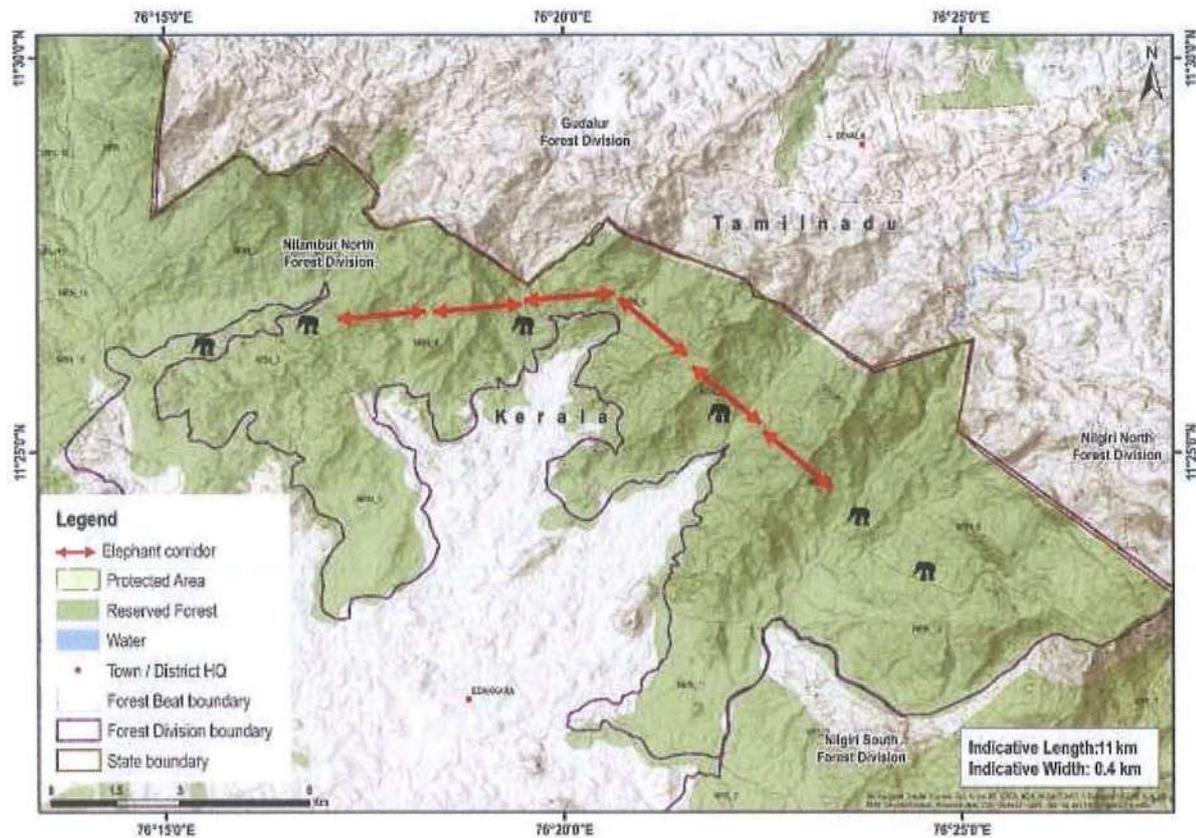
Connectivity	Connectivity is from Peria Reserve Forest of Peria Range to Mananthavady Range, Kozhikode Division and South Wayanad Division
State	Kerala
Indicative length and width	Length = 1.5 km; width = 400 m
Geo coordinates	11.726990° N, 75.828181° E to 11.740851° N, 76.820213° E
Forest ranges falling within corridor	Peria and Mananthavady Ranges
Revenue villages falling within corridor	Information NA
Ecological importance	The corridor plays significant role in maintaining ecological as well as genetic connectivity and diversity between the elephant populations of Peria Reserve Forest, Kozhikode Forest Division and South Wayanad Forest Division for elephants and other wildlife.
Habitat type	Evergreen Forest
Major land use	Forest = 85 ha Agriculture = 14 ha Habitation = 1 ha
Elephant movement status	Occasional, the movement has increased
Number of elephants using the corridor	Not recorded by forest department
Linear infrastructure in the corridor	1) Mananthavady Kuttiyadi Road and its associated traffic. 2) Electric fence along the boundaries of the private land. 3) Mobile tower 4) Resorts
Bottleneck in the corridor	Private area between the Peria and Mananthavady range and Mananthavady Kuttiyadi Road.
Recommendations by the forest department to improve the corridor	1) Acquiring land from the nearby estates 2) Relocation of the mobile tower to a more suitable location.
Current status of the corridor	Active. Intensity of use by elephants increased.



3339

13. Nilambur Kovilakam- New Amarambalam Corridor (Interstate corridor)

Connectivity	This corridor connects the Nilambur Kovilakam Reserve Forest of Nilambur North Division (Vazhikkadavu area) with New Amarambalam Reserve Forest of Nilambur South Division in the Malappuram district.
State	Kerala and Tamil Nadu
Indicative length and width	Length = 11 km; width = 0.4 km
Geo coordinates	N 11°23'12.71", E 76° 21'18.67" N 11°26'30", E 76° 23'23"
Forest ranges falling within corridor	Vazhikkadavu
Revenue villages falling within corridor	4
Habitat type	Moist Deciduous and Semi Evergreen forest
Major land use	Forest = 440 ha
Elephant movement status	Regular, the movement has increased.
Number of elephants using the corridor	162
Linear infrastructure in the corridor	1) Calicut- Nilambur State Highway 2) Electric fence- 12 km but do not affect the elephant movement
Bottleneck in the corridor	CNG road, PCK Rubber plantation, Panchakolly
Recommendations by the forest department to improve the corridor	Restriction on the vehicular movement between 8 PM to 6 AM.
Current status of the corridor	Active. Intensity of use by elephants increased.

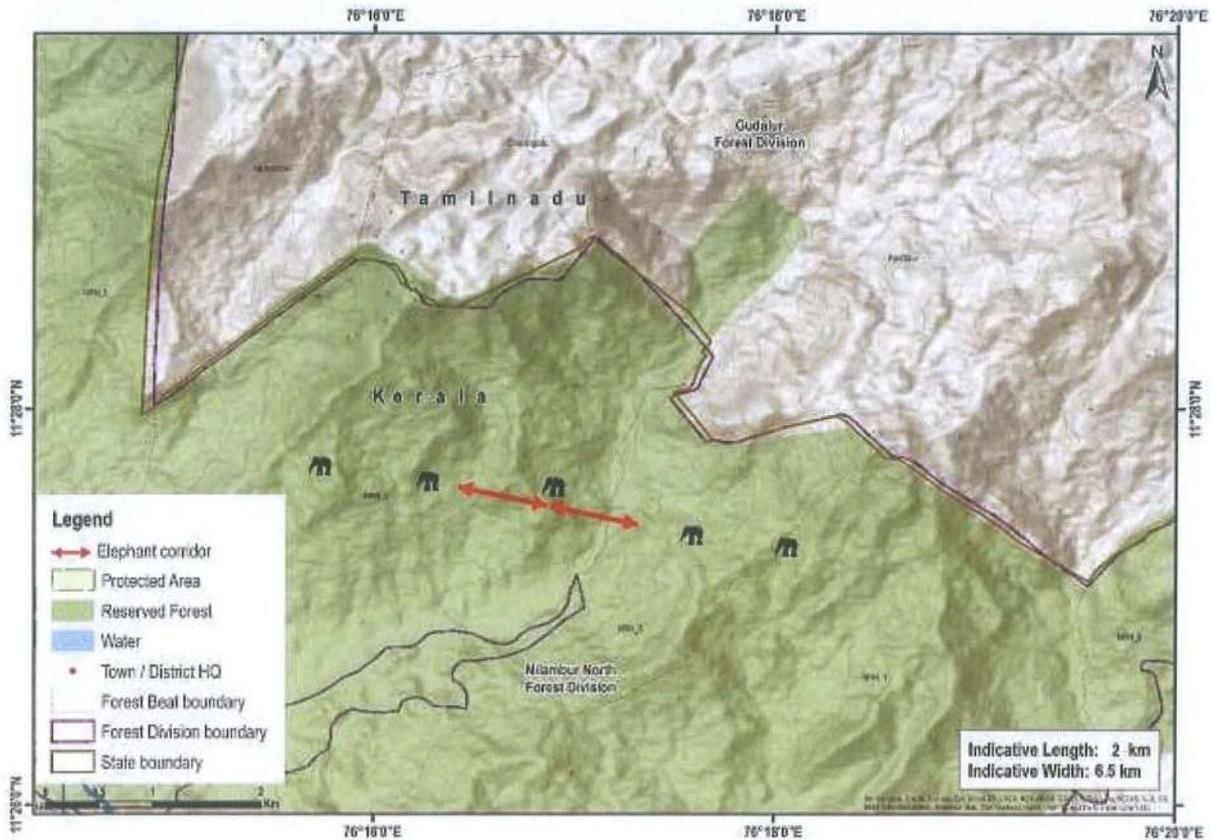


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3340

14. Nilambur-Appankappu Corridor

Connectivity	This corridor connects the Vazhikkadavu and Nilambur Ranges of Nilambur North Division
State	Kerala
Indicative length and width	Length = 2 km, width = 6.5 km
Geo coordinates	11.726990° N, 75.828181° E to 11.740851° N, 76.820213° E
Forest ranges falling within corridor	Vazhikkadavu and Nilambur Ranges
Revenue villages falling within corridor	1
Ecological importance	At the landscape scale, this corridor facilitates interstate movement of elephants between Kerala and Tamil Nadu
Habitat type	Moist deciduous forest
Major land use	Forest = 480 ha Agriculture = 23.5 ha
Elephant movement status	Regular, the movement has increased.
Number of elephants using the corridor	156
Linear infrastructure in the corridor	Electric fence- 12 km but do not affect the elephant movement.
Bottleneck in the corridor	Appankappu 23.35ha agricultural land in Vellarampuzha
Recommendations by the forest department to improve the corridor	Acquiring land from the nearby estates.
Current status of the corridor	Active. Intensity of use by elephants increased.

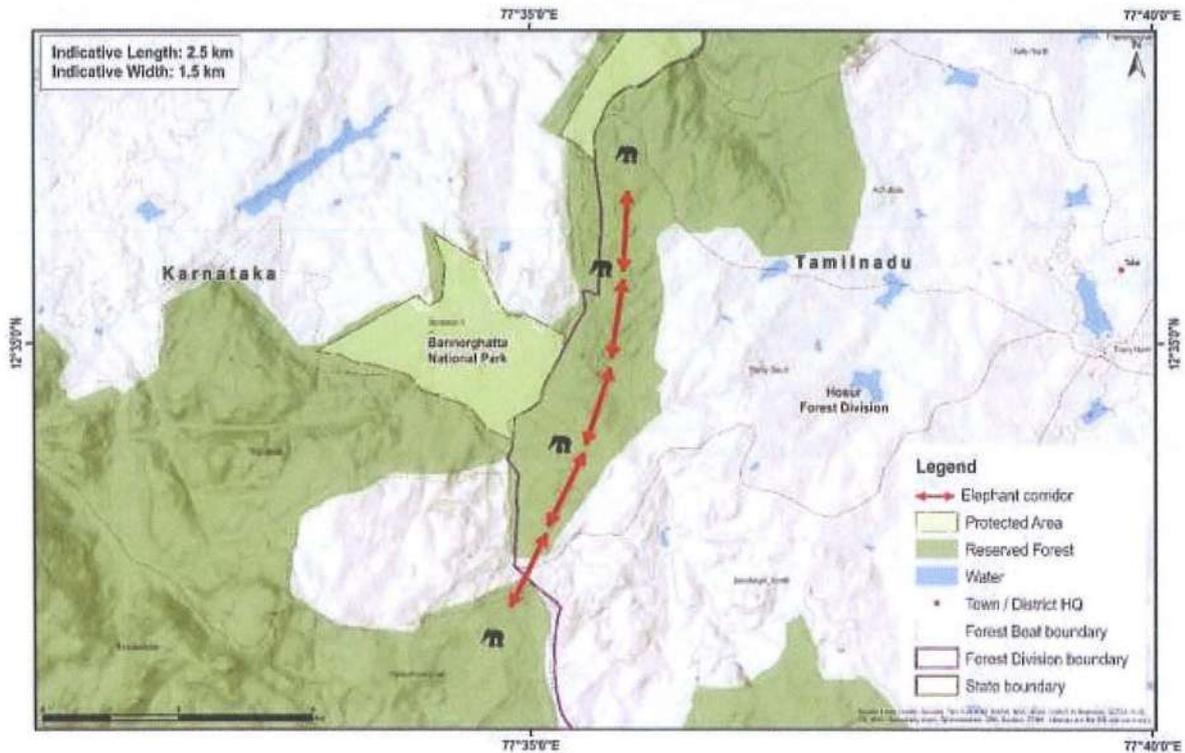


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33 4-1

15. Thally – Bilikkal Corridor (Interstate corridor)

Connectivity	This corridor connects the Bannerghatta National Park of Karnataka with the North Cauvery Wildlife Sanctuary of Tamil Nadu.
State	Tamil Nadu and Karnataka
Indicative length and width	Length = 2.50 km, width = 1 km
Geo coordinates	12.577567° N, 77.591290° E 12.535615° N, 77.579358° E.
Forest ranges falling within corridor	Jawalagiri and Kodihalli ranges
Revenue villages falling within corridor	7
Habitat type	Southern Tropical Dry Mixed Deciduous Forest
Major land use	Forest = 3302.35 ha Agriculture = 500 ha Habitation = 250 ha
Elephant movement status	Regular
No. of elephants using the corridor	100 to 200
Major Bottleneck	1. Revenue land along the Dodduru – Belalam road that created a ca. 300-m gap in the habitat connectivity. 2. Elephant-proof barriers
Linear infrastructure in the corridor	1) Road from Thally to Maralavadi via Belalam and Therubidhi. 2) Road from Elavanathe to Hosadoddi. 3) Road from Therbidi to Kadusivanapalli. 4) 765 kV S/C Transmission line from Dharmapuri (Salem) to Madhugiri (Karnataka) is passing through Thally RF 5) 765 kV S/C Transmission line from Dharmapuri (Salem) to Madhugiri (Karnataka). 6) Elephant proof trench formed about 3 km in Thally RF and 3 km in Bannerghatta National Park in the corridor area.
Recommendations by the forest department to improve the corridor	1) The encroachment may be evicted in the corridor area. 2) Alternate revenue land near to the Town areas for the Patta holders / encroachers. 3) Habitat improvement works like removal of Invasive alien species, creation of waterholes and fodder plots inside the area will helps the elephant movement within the corridor.
Current Status of the corridor	Active. Intensity of use by elephants increased.

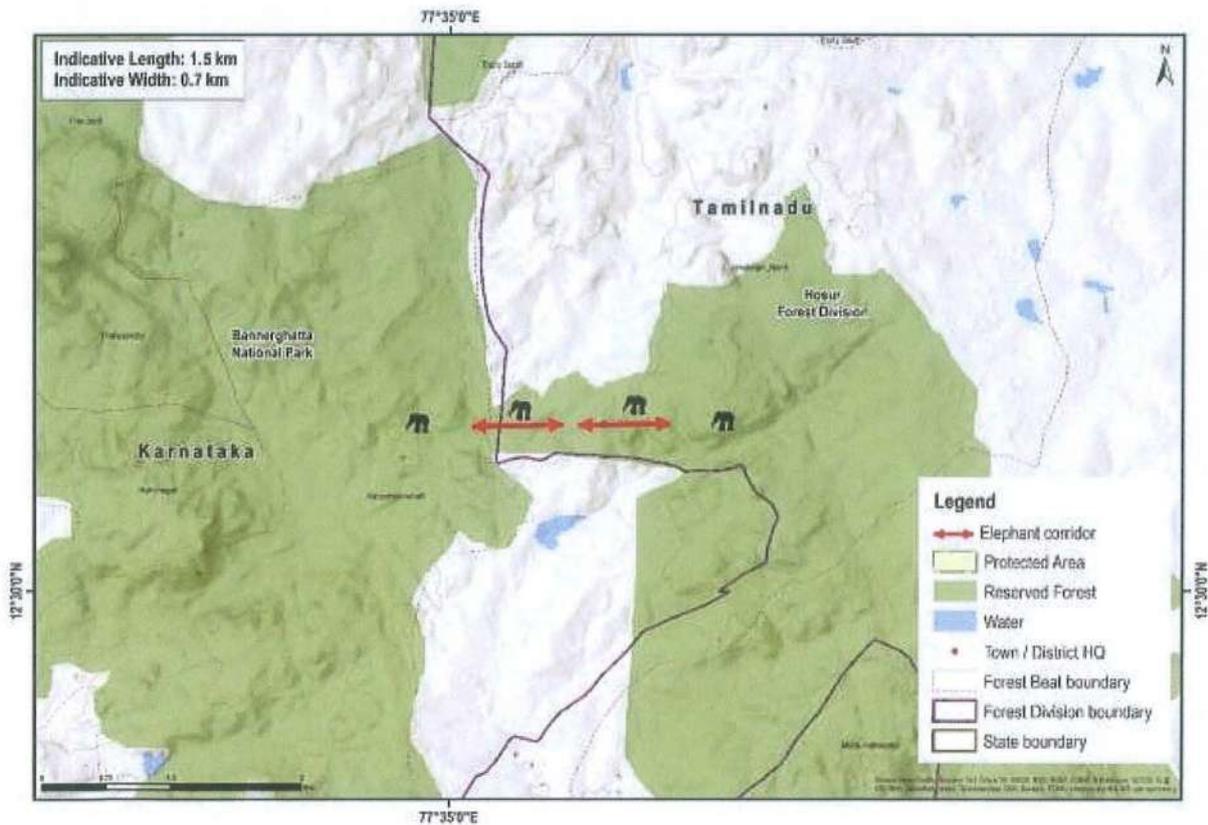


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3342

16. Bilikkal- Jawalagiri Corridor (Interstate corridor)

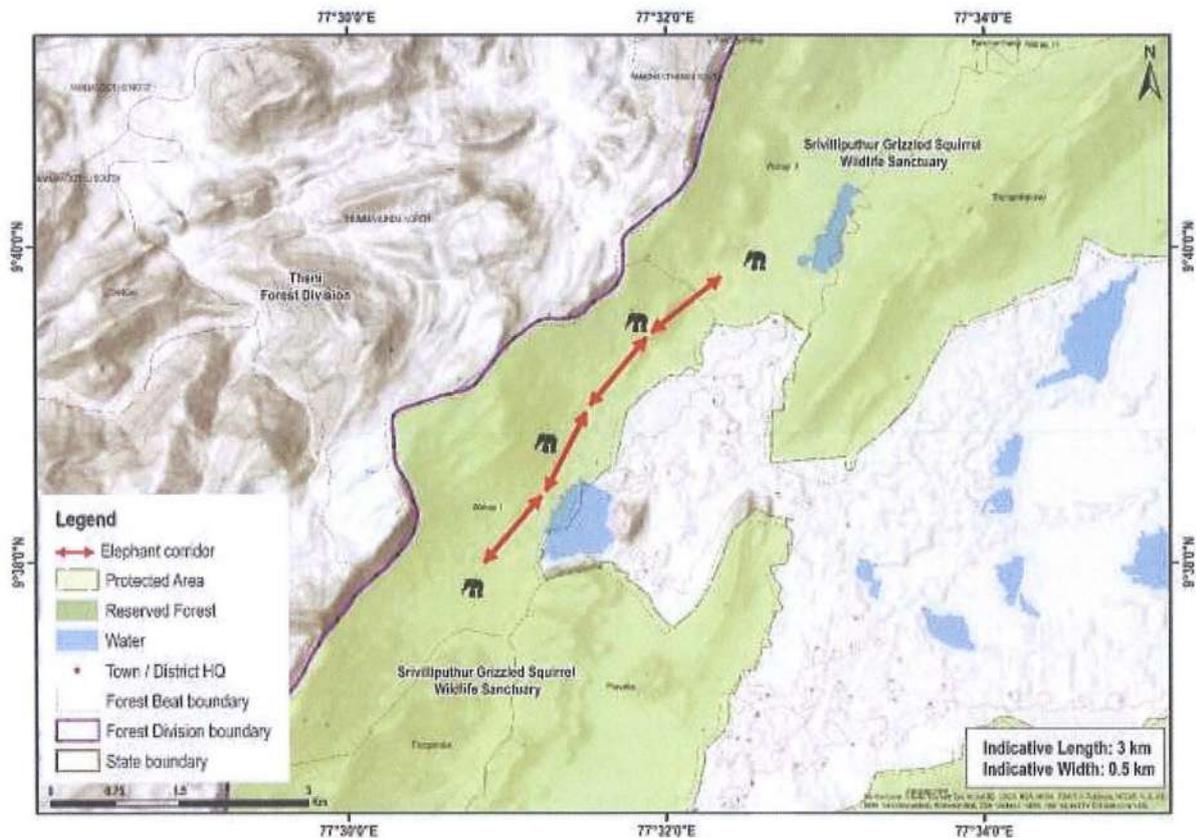
Connectivity	This corridor connects Bilikkal State Forest of Bannerghatta National Park, Karnataka, with Jawalagiri Reserve Forest of Cauvery North Wildlife Sanctuary, Tamil Nadu.
State	Tamil Nadu and Karnataka
Indicative length and width	Length = 1.5 km, width = 0.7 km
Geo coordinates	12.516164° N, 77.579524° E. 12.524220° N, 77.608672° E.
Beats falling within corridor	Jawalagiri North, Therubeedi, Yaluvantha and Kadusivanapalli Beat
Forest ranges falling within corridor	Jawalagiri (North Cauvery WLS), Kodihalli and Harohalli ranges (Bannerghatta NP)
Revenue villages falling within corridor	0
Habitat type	Southern Tropical Dry Mixed Deciduous Forest
Major land use	Forests Jawalagiri Reserved Forest = 3141.58 ha Bilikkal State Forest = 3500 ha
Elephant movement status	Regular
No. of elephants using the corridor	Around 200
Major bottleneck	Bandemuthappa temple in the Bilikkal State Forest areas along with the road that connecting to the temple located in the Bannerghatta National Park in Karnataka.
Linear infrastructure in the corridor	1) Road from Belalam and Kadusivanapalli. 2) Road from Elavanathe to Kadukempthalli
Recommendations by the forest department to improve the corridor	1) Habitat improvement works like removal of Invasive alien species, creation of waterholes and fodder plots inside the area will helps the elephant movement within the corridor.
Current status of the corridor	Active. Intensity of use by elephants increased.



3343

17. Srivilliputtur – Saptur Corridor

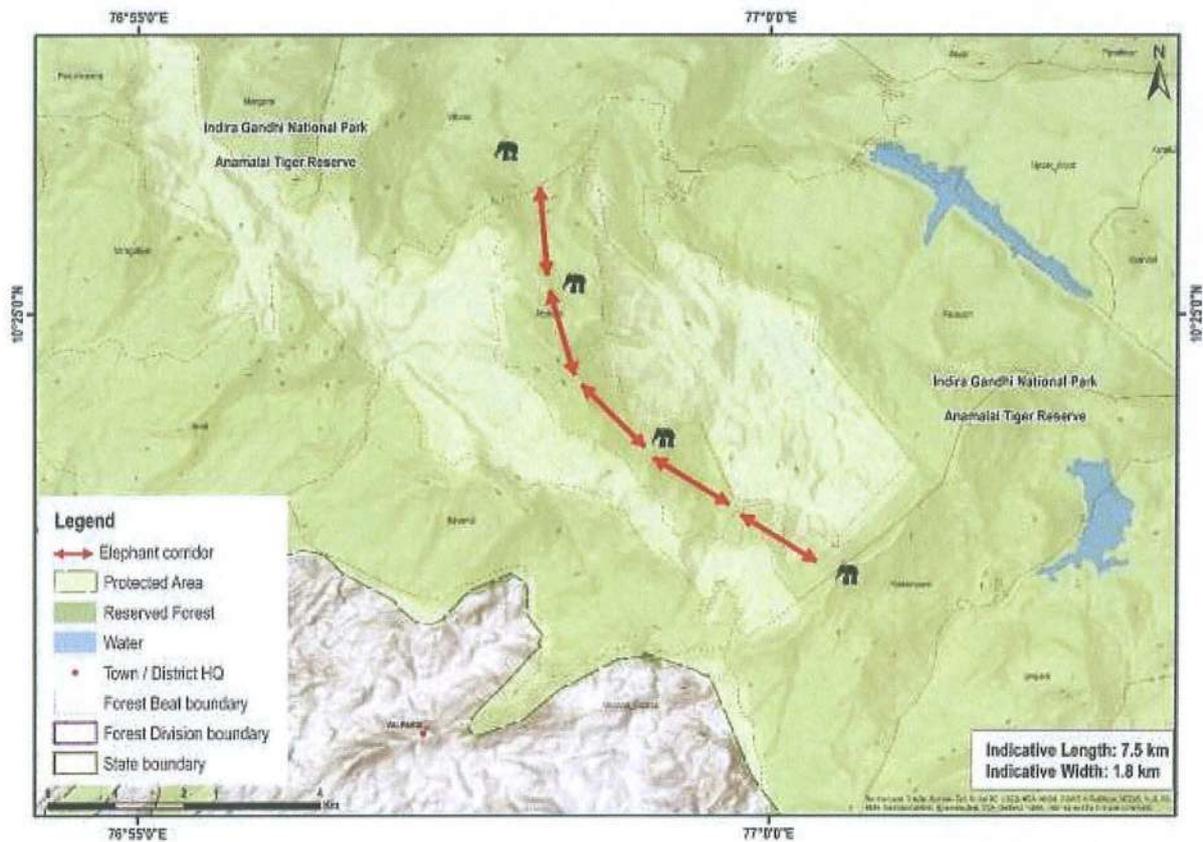
Connectivity	This corridor connects Saptur Reserve Forest with Srivilliputtur Reserve Forest of the Srivilliputtur Grizzled Squirrel Sanctuary.
State	Tamil Nadu
Indicative length and width	Length = 3 km, width = 0.5 km
Geo coordinates	N 9° 38' 3", E 77° 30' 39" N 9° 39' 48", E 72° 32' 14"
Beats falling within corridor	Beat I, II of Watrap range in Srivilliputtur sanctuary.
Forest ranges falling within corridor	Watrap range
Revenue villages falling within corridor	0
Ecological importance	This is a very important corridor facilitating movement of elephants in the South Western Ghats landscape complex comprising of Theni and Madurai Forest Divisions, and Srivilliputtur Wildlife Sanctuary, Megamalai Wildlife Sanctuary and the Poriyar Tiger Reserve in Kerala.
Habitat type	Dry deciduous forest and agricultural lands
Major land use	Forest = 60.70 ha Agriculture = 75.70 ha
Elephant movement status	Seasonal
No. of elephants using the corridor	Around 20 - 30
Major bottleneck	Narrow forest patch between the two forest ranges
Linear infrastructure in the corridor	1) Canal, 2km 2) Power fence, 3 km
Recommendations by the forest department to improve the corridor	1) Increasing the width of the corridor is crucial 2) Regulation of tourism activities.
Current status of the corridor	Active. Intensity of use by elephants stable.



3344

18. Anaimalai at Waterfalls Estate Corridor

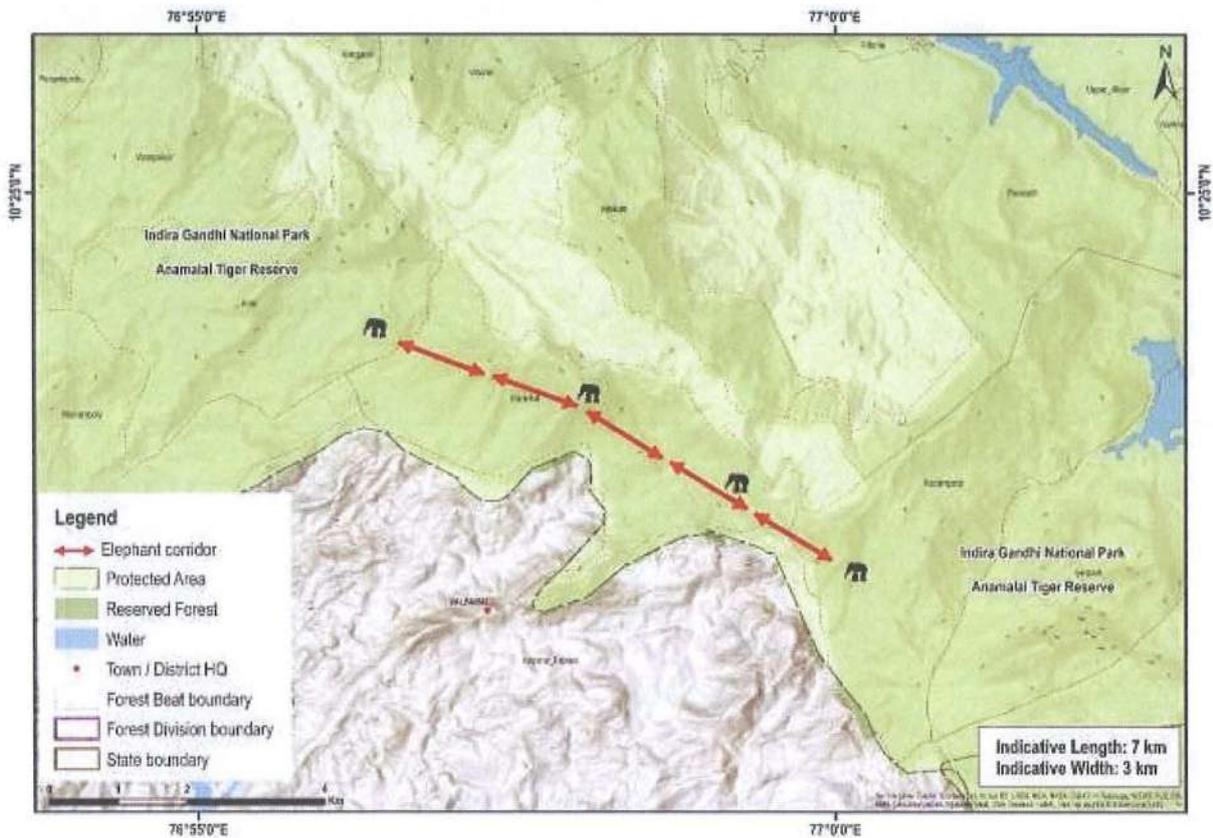
Connectivity	This corridor links the habitats of the Valparai and Pollachi Ranges of the Anaimalai Tiger Reserve.
State	Tamil Nadu
Indicative length and width	Length = 7.5 km, width = 1.8 km
Geo coordinates	N 10° 22' 42", E 77° 0' 31" N 10° 26' 15", E 76° 57' 42"
Forest ranges falling within corridor	Valparai and Pollachi ranges of Anaimalai Tiger Reserve
Revenue villages falling within corridor	0
Ecological importance	This is an important corridor to connect the western part of the Anaimalai Tiger Reserve to the east. Many herds of elephants and solitary individuals use this corridor for local migration. This is an important corridor for tigers (<i>Panthera tigris</i>) too.
Habitat type	Tropical moist deciduous forest
Major land use	Tea plantations and forest
Elephant movement status	Seasonal, majorly between March- August
No. of elephants using the corridor	Information on intensity of use not available.
Major bottleneck	1) State Highway 78 (Pollachi- Valparai) at Andiparai shola 2) Tea estates like Waterfall and Waverly
Linear infrastructure in the corridor	1) 1.8km of State Highway 78 and associated high vehicular traffic 2) Tea factories of the estate
Recommendations by the forest department to improve the corridor	1) Regulating the road work undertaken, with special attention towards use of JCB and construction of revetment walls by the Highway department. 2) Regulating the number and speed of vehicles passing through the corridor.
Current status of the corridor	Active. Intensity of use by elephants stable



3345

19. Siluvaimedu – Kadamparai Corridor

Connectivity	This corridor links the habitats of the Valparai and Manambolly Ranges of Anaimalai Tiger Reserve.
State	Tamil Nadu
Indicative length and width	Length = 7 km, width = 2.7 km
Geo coordinates	N 10°24'34" - E 76°56'15", N 10°21'45" - E 77°0'14"
Forest ranges falling within corridor	Valparai, Manambolly and Pollachi ranges of Anaimalai Tiger Reserve
Revenue villages falling within corridor	1
Ecological importance	This corridor connects the ranges of Valparai and Manambolly of Anaimalai Tiger Reserve that extends till Parambikulam Tiger Reserve. This landscape also harbors high number of micro habitats like swamps that are favoured by elephants.
Habitat type	Tropical moist deciduous forest
Major land use	Forest Tea plantations
Elephant movement status	Regular
No. of elephants using the corridor	Around 50
Major bottleneck	Private estates near Iyerpadi shola
Linear infrastructure in the corridor	1) 1.8 km of State Highway 78, and associated high vehicular traffic 2) Tea factories of the estate
Recommendations by the forest department to improve the corridor	1) Encouraging people to use LPG instead of fuel wood to ease the pressure on corridor. 2) Regulation on the vehicular movement on State Highway 78. 3) Regulation on the tourism.
Current status of the corridor	Active. Intensity of use by elephants stable.

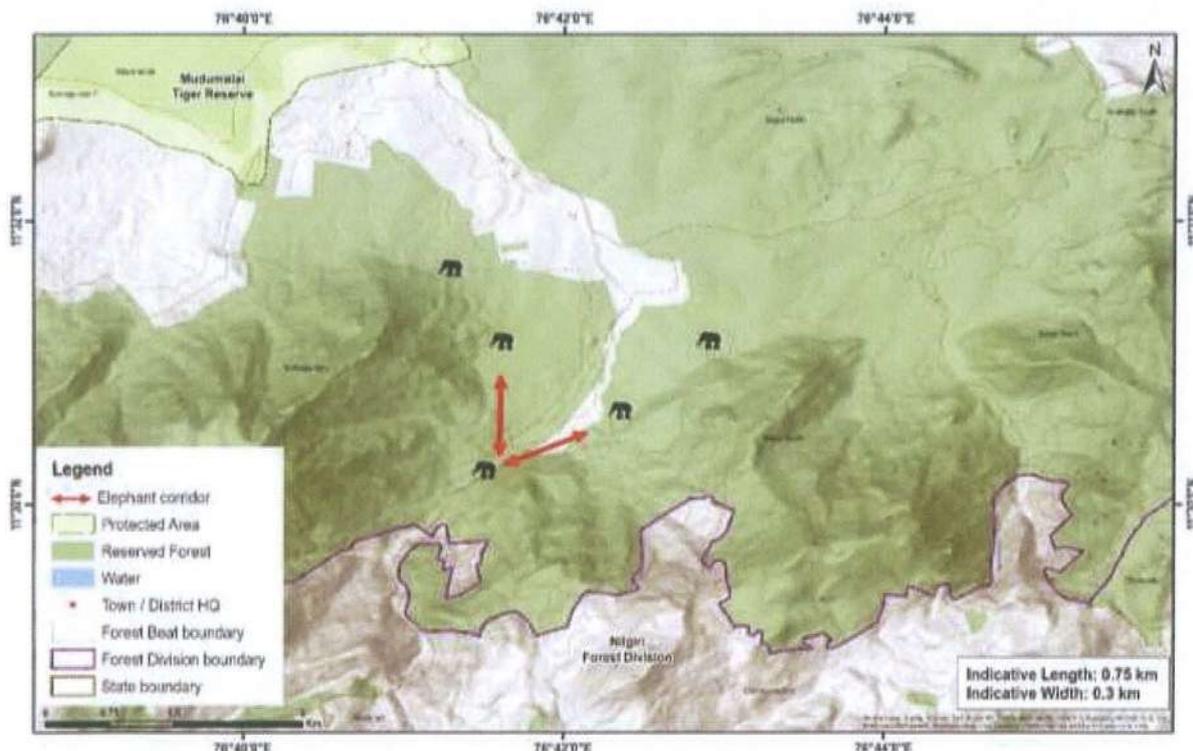


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3346

20. Kallhatti- Segur at Glencorin Corridor (Segur Corridor-1)

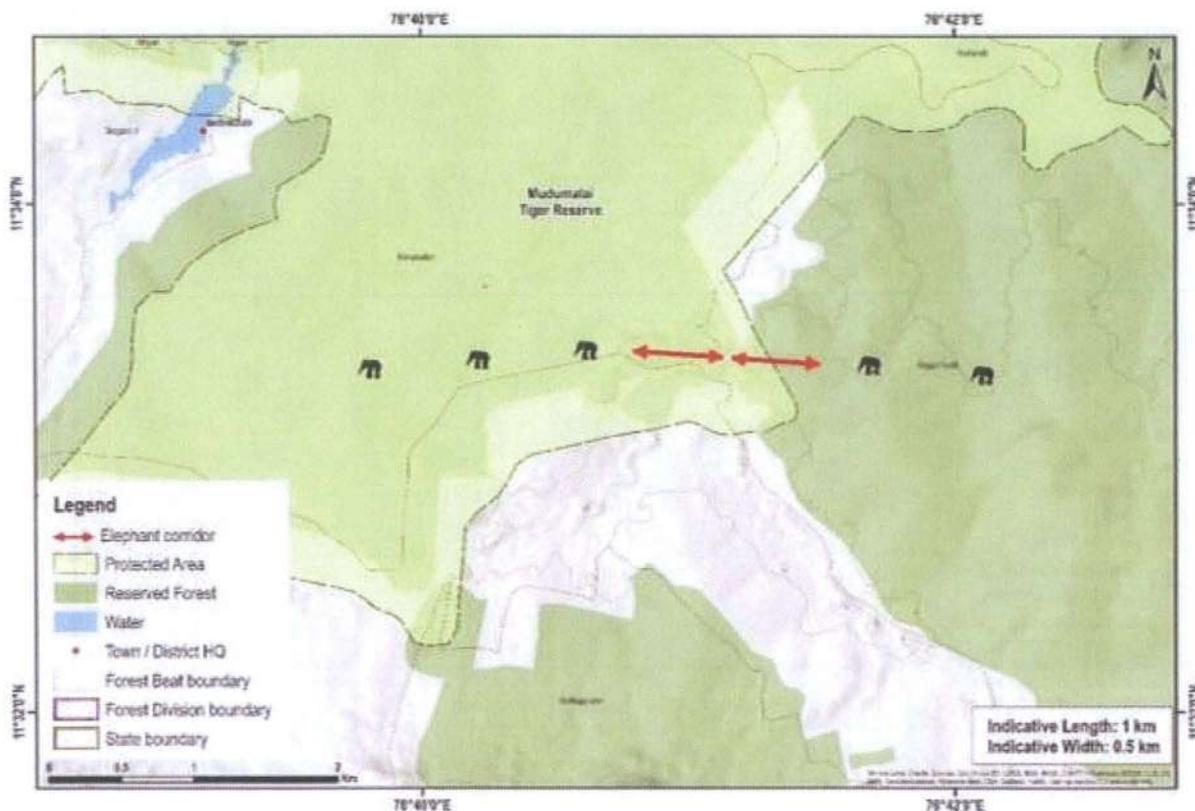
Connectivity	This corridor connects Kallhatti RF with Singara RF and is part of the Segur corridor with an extent of 3413.73 hectares covering four corridors declared as a Segur Plateau Elephant Corridor vide G.O.Ms No 125 E & F (FR.5) Dept Dated 31.08.2010
State	Tamil Nadu
Indicative length and width	Length = 23.5 km, width = 1.5 km
Geo Coordinates	1) N- 11.521750°, E- 76.53937° 2) N- 11.539190°, E- 76.64606° 3) N- 11.523191°, E- 76.73430° 4) N- 11.559855°, E- 76.68879°
Forest ranges falling within corridor	Segur, Singara and Masinagudi Ranges
Revenue villages falling within corridor	8
Ecological importance	Segur corridors are critical in facilitating elephant movement in the larger Mudumalai – Bandipur – Wayanad – Sathyamangalam complex of Western Ghats
Habitat type	Tropical thorn and deciduous forest
Major land use	Forest = 61,392 ha, Agriculture = 1,193 ha Habitation = 195.40 ha
Elephant movement status	Regular
No. of elephants using the corridor	61 (for the entire series of 4 Segur corridors as estimated by the forest department during the year 2023)
Major bottleneck	Habitations at Mavanallah, Bokkapuram and flume channel running across the Corridor from Masinagudi to Moyar
Linear infrastructure in the corridor	1) State Highway (Stretch I- 4.77 km, Stretch II- 1.71 km) and associated high traffic 2) 7 km of concrete flume hannel that runs from Masinagudi to Moyar 3) 2.09 km of Northern Hay and 3.27 km of Singara HT power lines 4) Establishments like schools, settlement, resorts and tourism infrastructure
Recommendations by the forest department to improve the corridor	1) Acquiring land at crucial bottle neck points. 2) Reengineering of canal and flume channel to facilitate wildlife movement 3) Regulation of tourism activities.
Current status of the corridor	Active. Intensity of use by elephants stable



3347

21. Avarahalla Sigur Corridor (Segur Corridor-2)

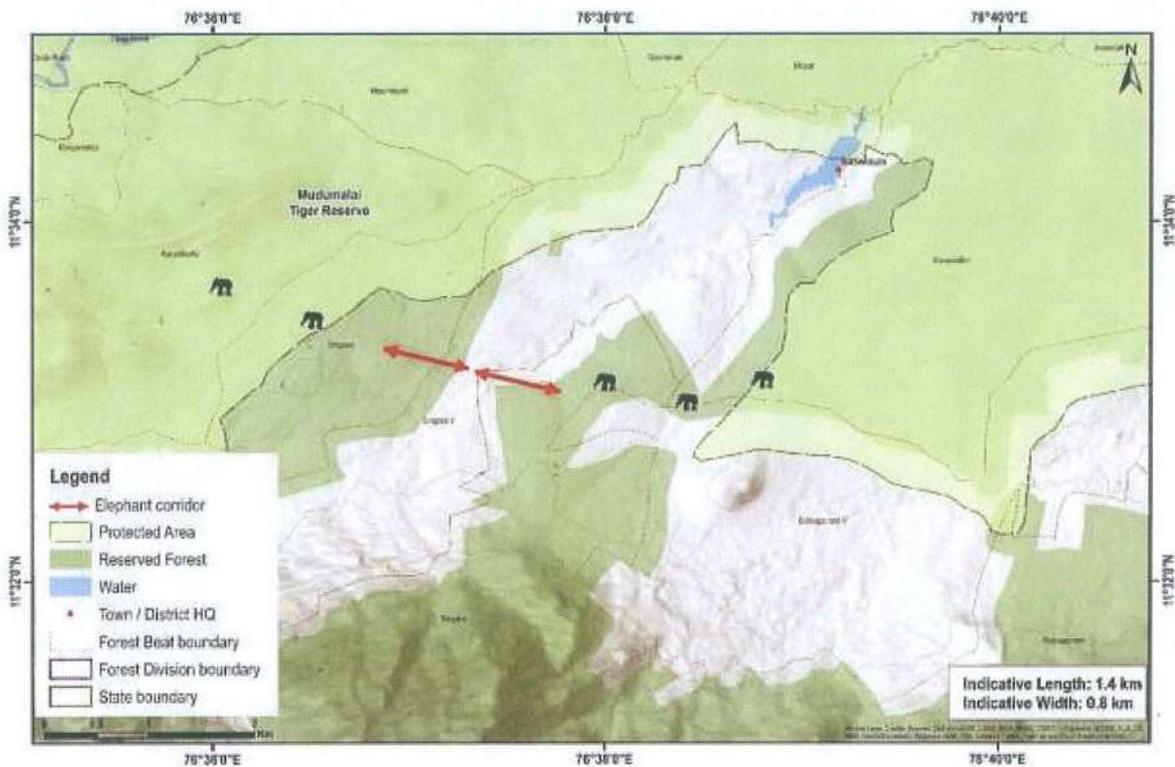
Connectivity	This corridor connects Avarahalla RF with Segur RF and is part of the Segur corridor with an extent of 3413.73 hectares covering four corridors declared as a Segur Plateau Elephant Corridor vide G.O.Ms No 125 E & F (FR.5) Dept Dated 31.08.2010
State	Tamil Nadu
Indicative length and width	Length = 23.5 km, width = 1.5 km
Geo Coordinates	1) N- 11.521750°, E- 76.53937° 2) N- 11.539190°, E- 76.64606° 3) N- 11.523191°, E- 76.73430° 4) N- 11.559855°, E- 76.68879°
Forest ranges falling within corridor	Segur, Singara and Masinagudi Ranges
Revenue villages falling within corridor	8
Ecological importance	Segur corridors are critical in facilitating elephant movement in the larger Mudumalai – Bandipur – Wayanand – Sathyamangalam complex of Western Ghats
Habitat type	Tropical thorn and deciduous forest
Major land use	Forest = 61,392 ha, Agriculture = 1,193 ha, Habitation = 195.40 ha
Elephant movement status	Regular
No. of elephants using the corridor	61 (for the entire series of 4 Segur corridors as estimated by the forest department during the year 2023)
Major bottleneck	Habitations at Mavanallah, Bokkapuram and flume channel running across the Corridor from Masinagudi to Moyar
Linear infrastructure in the corridor	1) State Highway (Stretch I- 4.77 km, Stretch II- 1.71 km) and associated high traffic 2) 7 km of concrete flume hannel that runs from Masinagudi to Moyar 3) 2.09 km of Northern Hay and 3.27 km of Singara HT power lines 4) Establishments like schools, settlement, resorts and tourism infrastructure
Recommendations by the forest department to improve the corridor	1) Acquiring land at crucial bottle neck points. 2) Reengineering of canal and flume channel to facilitate wildlife movement 3) Regulation of tourism activities.
Current status of the corridor	Active. Intensity of use by elephants stable.



3348

22. Kalmalai-Avarahalla-Singhara Corridor (Segur Corridor-3)

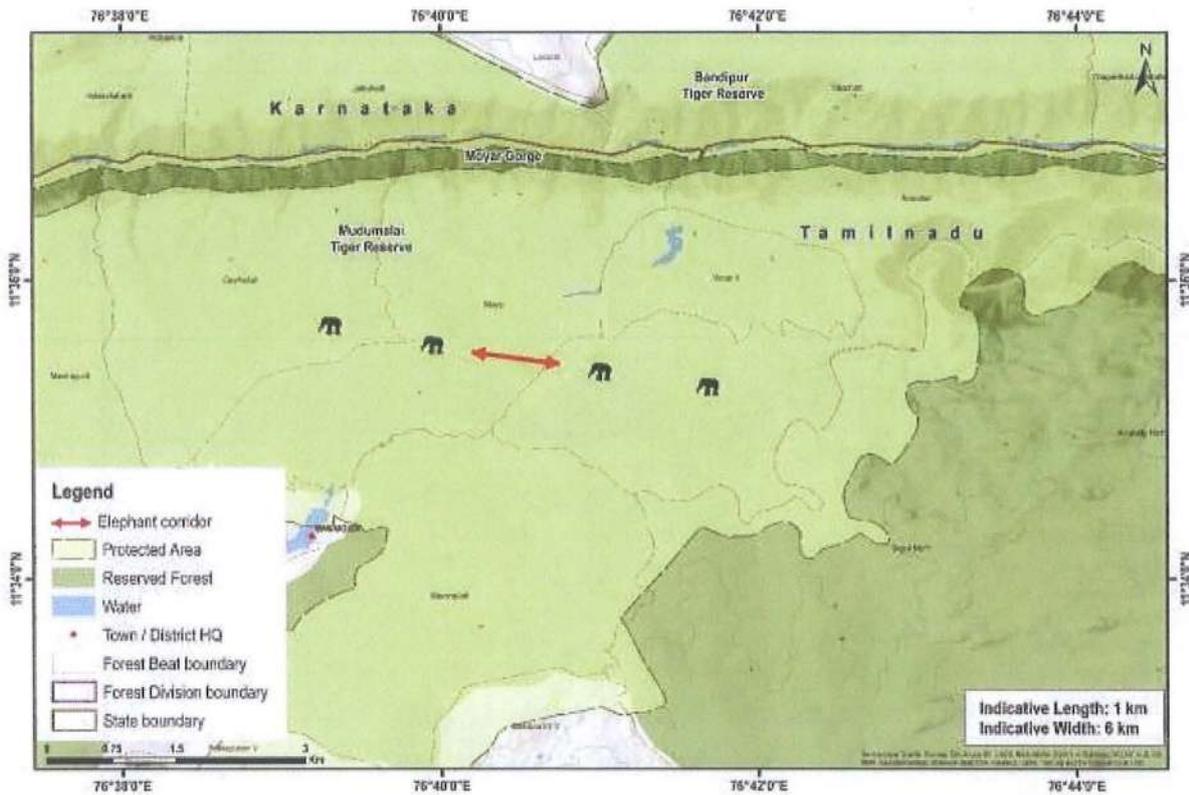
Connectivity	This corridor connects Kalmalai RF with Singara RF and Avarahalla RF, and is part of the Segur corridor with an extent of 3413.73 hectares covering four corridors declared as a Segur Plateau Elephant Corridor vide G.O.Ms No 125 E & F (FR.5) Dept Dated 31.08.2010
State	Tamil Nadu
Indicative length and width	Length = 23.5 km, width = 1.5 km
Geo Coordinates	1) N- 11.521750°, E- 76.53937° 2) N- 11.539190°, E- 76.64606° 3) N- 11.523191°, E- 76.73430° 4) N- 11.559855°, E- 76.68879°
Forest ranges falling within corridor	Segur, Singara and Masinagudi Ranges
Revenue villages falling within corridor	8
Ecological importance	Segur corridors are critical in facilitating elephant movement in the larger Mudumalai – Bandipur – Wayanand – Sathyamangalam complex of Western Ghats
Habitat type	Tropical thorn and deciduous forest
Major land use	Forest = 61,392 ha, Agriculture = 1,193 ha, Habitation = 195.40 ha
Elephant movement status	Regular
No. of elephants using the corridor	61 (for the entire series of 4 Segur corridors as estimated by the forest department during the year 2023)
Major bottleneck	Habitations at Mavanallah, Bokkapuram and flume channel running across the corridor from Masinagudi to Moyar
Linear infrastructure in the corridor	1) State Highway (Stretch I- 4.77 km, Stretch II- 1.71 km) and associated high traffic 2) 7 km of concrete flume hannel that runs from Masinagudi to Moyar 3) 2.09 km of Northern Hay and 3.27 km of Singara HT power lines 4) Establishments like schools, settlement, resorts and tourism infrastructure
Recommendations by the forest department to improve the corridor	1) Acquiring land at crucial bottle neck points. 2) Reengineering of canal and flume channel to facilitate wildlife movement 3) Regulation of tourism activities.
Current status of the corridor	Active. Intensity of use by elephants stable.



2349

23. Moyar Avarahalla Corridor (Segur Corridor-4)

Connectivity	This corridor connects Moyar RF with Avarahalla RF and is part of the Segur corridor with an extent of 3413.73 hectares covering four corridors declared as a Segur Plateau Elephant Corridor vide G.O.Ms No 125 E & F (FR.5) Dept Dated 31.08.2010
State	Tamil Nadu
Indicative length and width	Length = 23.5 km, width = 1.5 km
Geo Coordinates	1) N- 11.521750°, E- 76.53937° 2) N- 11.539190°, E- 76.64606° 3) N- 11.523191°, E- 76.73430° 4) N- 11.559855°, E- 76.68879°
Forest ranges falling within corridor	Segur, Singara and Masinagudi Ranges
Revenue villages falling within corridor	8
Ecological importance	Segur corridors are critical in facilitating elephant movement in the larger Mudumalai – Randipur – Wayanand – Sathyamangalam complex of Western Ghats
Habitat type	Tropical thorn and deciduous forest
Major land use	Forest = 61,392 ha, Agriculture = 1,193 ha, Habitation = 195.40 ha
Elephant movement status	Regular
No. of elephants using the corridor	61 (for the entire series of 4 Segur corridors as estimated by the forest department during the year 2023)
Major bottleneck	Habitations at Mavanallah, Bokkapuram and flume channel running across the Corridor from Masinagudi to Moyar
Linear infrastructure in the corridor	1) State Highway (Stretch I- 4.77 km, Stretch II- 1.71 km) and associated high traffic 2) 7 km of concrete flume hannel that runs from Masinagudi to Moyar 3) 2.09 km of Northern Hay and 3.27 km of Singara HT power lines 4) Establishments like schools, settlement, resorts and tourism infrastructure
Recommendations by the forest department to improve the corridor	1) Acquiring land at crucial bottle neck points. 2) Reengineering of canal and flume channel to facilitate wildlife movement 3) Regulation of tourism activities.
Current status of the corridor	Active. Intensity of use by elephants stable.

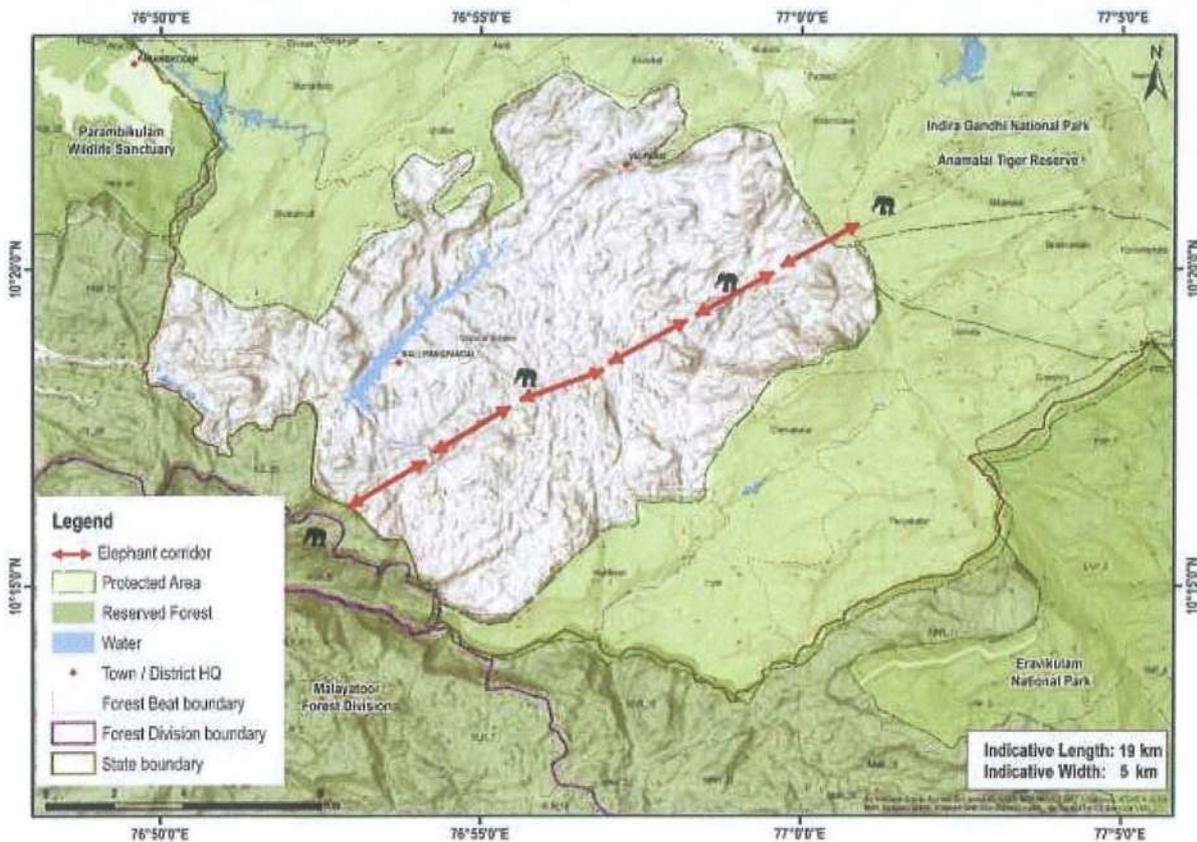


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3350

24. Sholayar Dam Corridor (Vazhachal – Anamalai via Sholayar)

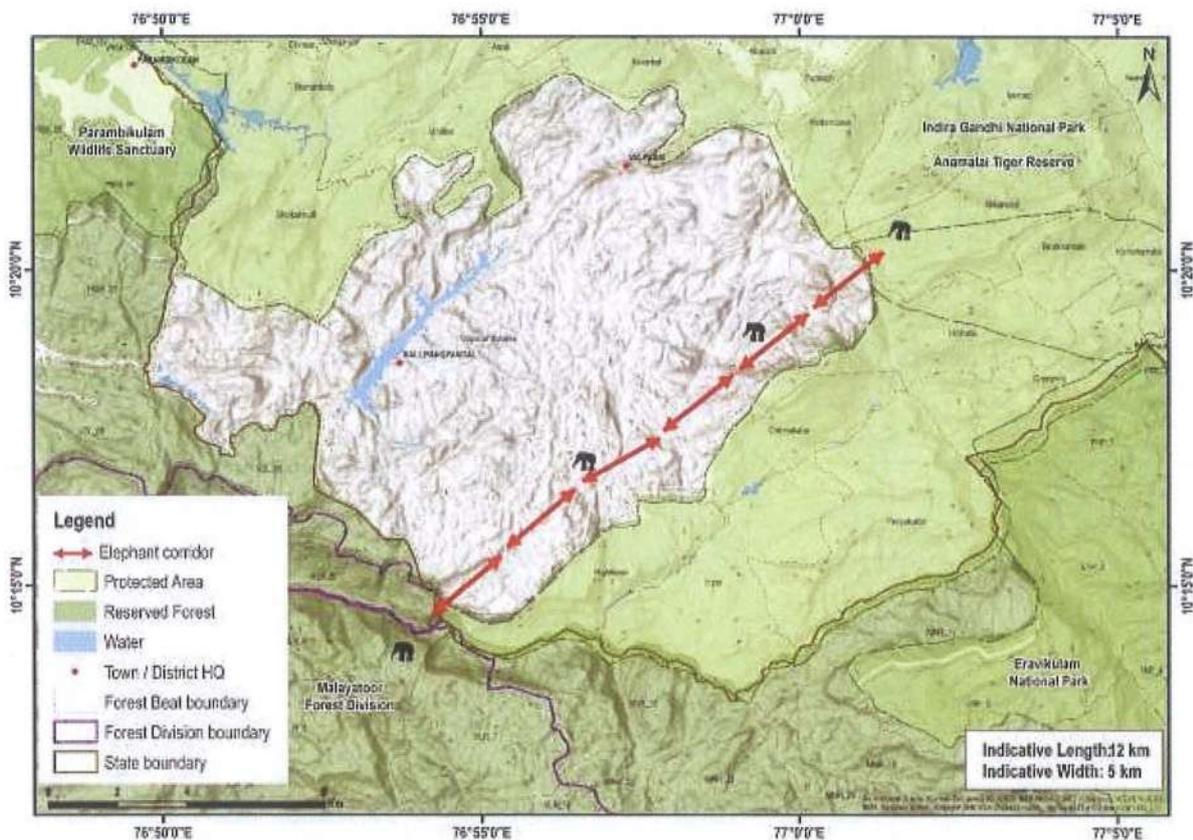
Connectivity	This corridor links the habitats Kerala Reserve Forest boundary to Valparai Range of Anamalai Tiger Reserve
State	Tamil Nadu
Indicative length and width	Length = 19 km, width = 5 km
Geo Coordinates	N 10°18'38.03" - E 76°52'3.48", N 10°21'15.08" - E 76°59'39.20"
Forest ranges falling within corridor	Valparai Range
Revenue villages falling within corridor	4
Ecological importance	The connectivity between Malayattur Forest Division, Parambikulam Tiger Reserve of Kerala and Iyerpadi in Valparai of the Anamalai Tiger Reserve in Tamil Nadu is crucial for movement of elephants and other large animals including the tigers.
Habitat type	Evergreen Forest
Major land use	Forests, tea estates and PWD land
Elephant movement status	Regular,
No. of elephants using the corridor	Around 50
Major bottleneck	Sholayar dam, tea estate and river
Linear infrastructure in the corridor	1) Estate roads (20 km) 2) High tension power line- Sholayar I, II- 6 km and Urulikkal to Manambolli- 8 km 3) 15 Homestays and Resorts
Recommendations by the forest department to improve the corridor	Purchasing of land by the forest dept.
Current status of the corridor	Active. Intensity of use by elephants increased.



3351

25. TANTEA Corridor (Vazhachal – Anaimalai via Ryan)

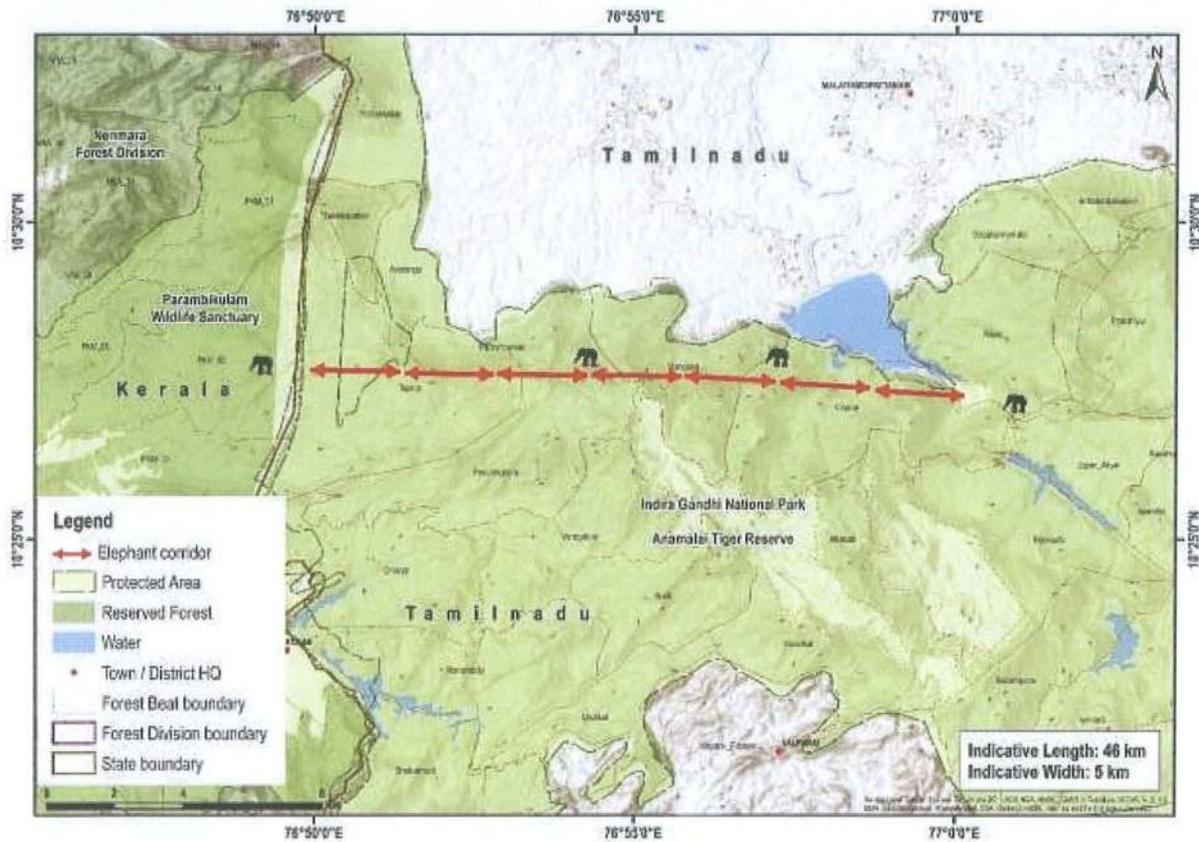
Connectivity	This corridor links the Manamboly Range to Valparai Range
State	Tamil Nadu
Indicative length and width	Length = 12 km, width = 5 km
Geo Coordinates	N 10°16'9.89" - E 76°57'45.68", N 10°17'18.77" - E 77°0'34.37"
Forest ranges falling within corridor	Valparai and Manamboly Range
Revenue villages falling within corridor	4
Ecological importance	The passage of Upasi to Chinnakallar is one of the most important pathways. This corridor acts as an important link connecting the protected areas of Tamil Nadu and Kerala, including Malayattur Forest Division.
Habitat type	Evergreen forest
Major land use	Forests and TANTEA leased land
Elephant movement status	Throughout the year, but high during certain seasons.
No. of elephants using the corridor	Around 50 elephants
Major bottleneck	1) TANTEA tea factory, 200 labor quarters
Linear infrastructure in the corridor	1) Estate roads (20 km) 2) High tension power line- Sholayar I, II- 6 km and Urulikkal to Manambolly- 8 km 3) 15 Homestays and Resorts
Recommendations by the forest department to improve the corridor	Leased areas in the corridor should be handed over to the Forest Department to maintain the integrity of the corridor.
Current status of the corridor	Active. Intensity of use by elephants increased.



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26. Topslip to Navamalai Corridor

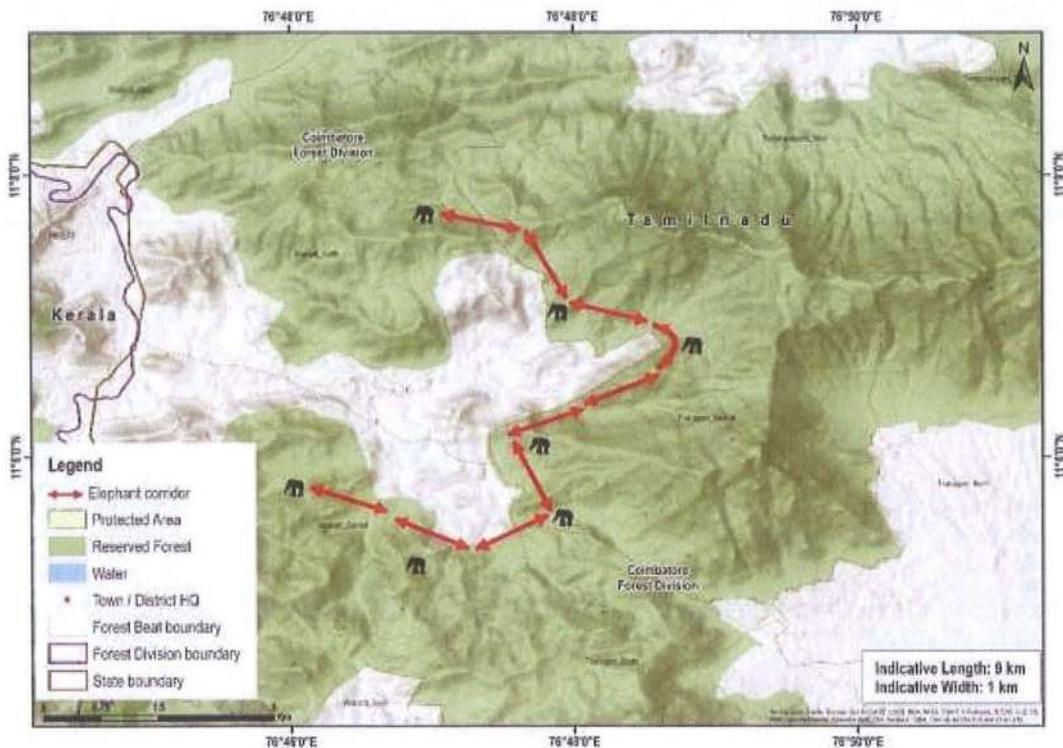
Connectivity	This corridor links the Ulandy Range to Pollachi Range
State	Tamil Nadu
Indicative length and width	Length = 46 km, width = 5 km
Geo Coordinates	N 10°27'39.85" - E 76°49'47.88", N 10°27'13.22" - E 77°0'29.79"
Forest ranges falling within corridor	Ulandy and Pollachi Ranges
Revenue villages falling within corridor	8
Ecological importance	The passage of Topslip to Navamalai acts as a crucial link connecting several contiguous protected areas of Anamalai Tiger Reserve Forest.
Habitat type	Evergreen and Dry deciduous forest
Major land use	Forests PWD leased land (for PAP canal) Revenue land of settlements and coconut farms (60.70 ha)
Elephant movement status	Regular
No. of elephants using the corridor	48
Major bottleneck	Highway road, Parambikulam-Aliyar contour canal
Linear infrastructure in the corridor	1) Around 10 km of State Highway (Aliyar – Valparai) 2) PAP Canal with concrete embankment, 15 km 3) Hanging fences around the patta land 4) Farm house in Navamalai area 5) Maitreyi Vedic village and Aliyar Arivuthirukovil
Recommendations by the forest department to improve the corridor	Purchasing of some of the revenue land by the forest dept.
Current status of the corridor	Active. Intensity of use by elephants increased.



3353

27. Anaikatti North- Anaikatti South Corridor

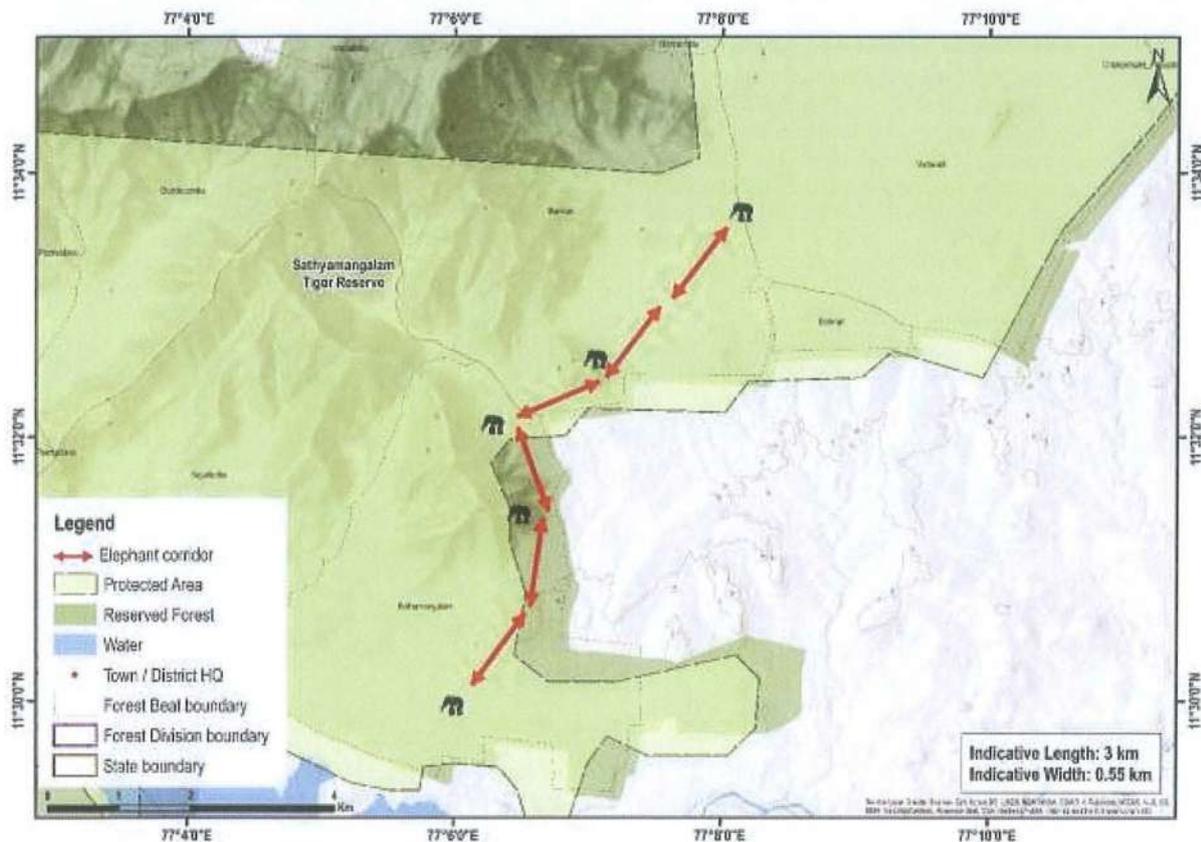
Connectivity	This corridor connects Anakatti North Reserve Forest to Anakatti South Reserve Forest
State	Tamil Nadu
Indicative length and width	Length = 9 km, Width = 1 km
Geo Coordinates	11.0856° N, 76.7750° E 11.1328° N, 76.8164° E
Forest ranges falling within corridor	Coimbatore and Periyakanpalayam Ranges of Coimbatore Forest Division
Revenue villages falling within corridor	0
Ecological importance	Facilitates elephant movement from Mannarkad Forest Division of Kerala into undulating terrain of Coimbatore Forest Division which is functionally connected landscape with Sathymangalam Tiger Reserve.
Habitat type	Tropical thorn and deciduous forest.
Major land use	Forest (8 sq.km), Agriculture, settlements, Institutions, holiday homes, resorts, brick kiln industries, revenue lands and roads. Except 74.6 acres of land that has been individual to secure the corridor, the rest of it is under Reserve Forest.
Elephant movement status	Regular
No. of elephants using the corridor	NA
Major bottleneck	SACON entrance, Kandivazhi tribal settlement and Panapally village
Linear infrastructure in the corridor	1) Coimbatore - Anaikatti State Highway, 3.9 km 2) Brick kilns 3) Establishments like Salim Ali Center for Ornithology and Natural History, Karl Kubel Institute, PSG Institution and Swami Dayanand Saraswati Ashram, and numerous resorts along the forest fringes.
Recommendations by the forest department to improve the corridor	1) About 25.7 acres of private land and 48.94 acres of revenue lands (identified in the Right of passage book by Wildlife Trust of India) have to be acquired to increase the width of the elephant corridor 2) The landscape section between Anaikatti Reserve Forest and Gopanari reserve Forest with a width of about 1km between Melbavivillage and Gopanari villages through which a road passes connecting Velliangadu and Anaikatti has to be included as corridor. 3) Proposing a new corridor named "Bolampatti Block 2 and Bolampatti Block 3" near the area Vallkarudu at the juncture of Devarayapuram and Vellimalai Pattinam revenue villages.
Current status of the corridor	Active. Intensity of use by elephants stable.



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28. Talamalai – Guthiyalathur Corridor

Connectivity	This corridor connects Talamalai Reserve Forest (in the upper plateau) to the Guthiyalathur Reserve Forest (in the lower plateau) located near 1 st bend of the National Highway 209 from Bannari to Chamrajnagar.
State	Tamil Nadu
Indicative length and width	Length = 3 km, width = 0.5 km
Geo Coordinates	N 11°30'31" - E 77°5'4" N 11°33'37" - E 77°8'26"
Forest ranges falling within corridor	Sathyamangalam, Bhavani Sagar, and Talamalai Ranges
Ecological importance	This is a very important corridor used by large number of elephants and other wildlife including tigers (<i>Panthera tigris</i>). The corridor is located along the foothills of the Talamalai hills, where the habitat is narrow and surrounded by agricultural areas. Elephant movement from Bhavanisagar range into Sathyamangalam range is particularly facilitated by this corridor.
Habitat type	Tropical thorn and deciduous forest
Major land use	Forest
Elephant movement status	Regular, movement is high during October to December
No. of elephants using the corridor	Around 770 elephants occur in the park and many of them use this corridor
Major bottleneck	The shooting range of STF near Puthubeerkadavu and few resorts and ashrams located near the forest boundary.
Linear infrastructure in the corridor	Sathyamangalam Chamrajnagar National Highway (NH 209)
Recommendations by the forest department to improve the corridor	Taking over the ashram land near Puthubeerkadavu and increasing the width of the natural habitats.
Current status of the corridor	Active. Intensity of use by elephants stable.

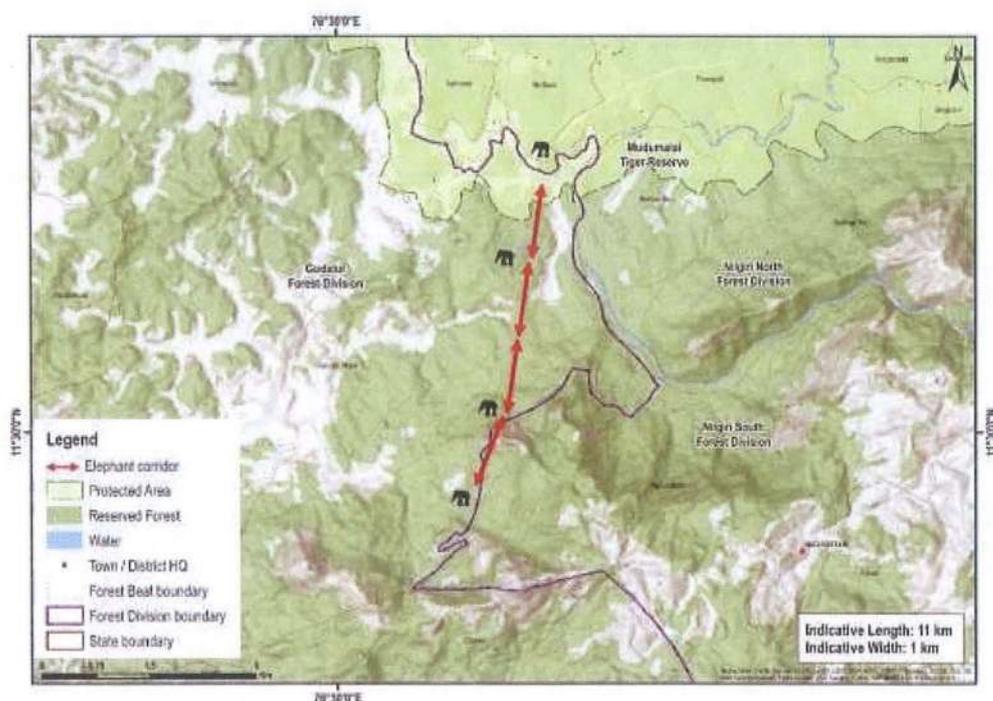


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29. Mudumalai - Mukuruthi Corridor

Connectivity	This corridor connects Mudumalai Tiger Reserve to Mukuruthi National Park
State	Tamil Nadu
Indicative length and width	Length = 11 km, width = 1 km
Geo Coordinates	76 31' 31.07 E, 11 31' 32.04 N 76 30' 59.73 E, 11 29' 34.25 N
Forest ranges falling within corridor	Gudalur, Naduvattam and Northern Hay Ranges
Revenue villages falling within corridor	7
Ecological importance	This corridor connects Mudumalai Tiger Reserve and Mukuruthi National Park providing permeability for elephants to move from dry thorn and dry deciduous habitats to evergreen and <i>shola</i> habitats of the upper Nilgiris.
Habitat type	Moist deciduous, Semi-evergreen, Shola and Grasslands and Monoculture plantations.
Major land use	Forest and associated natural habitats, tea and coffee plantation and human settlements.
Elephant movement status	Seasonal, movement is high in months of August to November.
No. of elephants using the corridor	60- 80
Major bottleneck	1) In lower elevation Deivamalai village and the Silver Cloud estate. 2) In between upper elevation (TANTEA) and lower elevation (Silver cloud estate) only 300 m length of forests are available. 3) In upper elevation only 200m forest area is available between Royal valley and Outcherlony estates. 4) National Highway 67, Silver cloud tea factory.
Linear infrastructure in the corridor	1) National Highway 67 and associated high traffic 2) State Highway (Gundalpet - Coimbatore). 3) 40 km of High tension power line (11,000 KV)
Recommendations by the forest department to improve the corridor	1) Immediate taking over possession of the large tract of Janmam lands from the plantations, whose lease period has expired long back and notifying these private lands as Reserved Forests for corridor protection in Gudalur Division. 2) Regulation for land use and land cover changes in private lands also needed. 3) Schools and Colleges which are located in the peripheral areas should be targeted for awareness education 4) Corridor needs to be notified to check the rapid developments in the corridor. 5) The corridor is newly identified; hence need more detailed study/ground truth information in future for more scientific information.
Current status of the corridor	Active. Intensity of use by elephants stable.

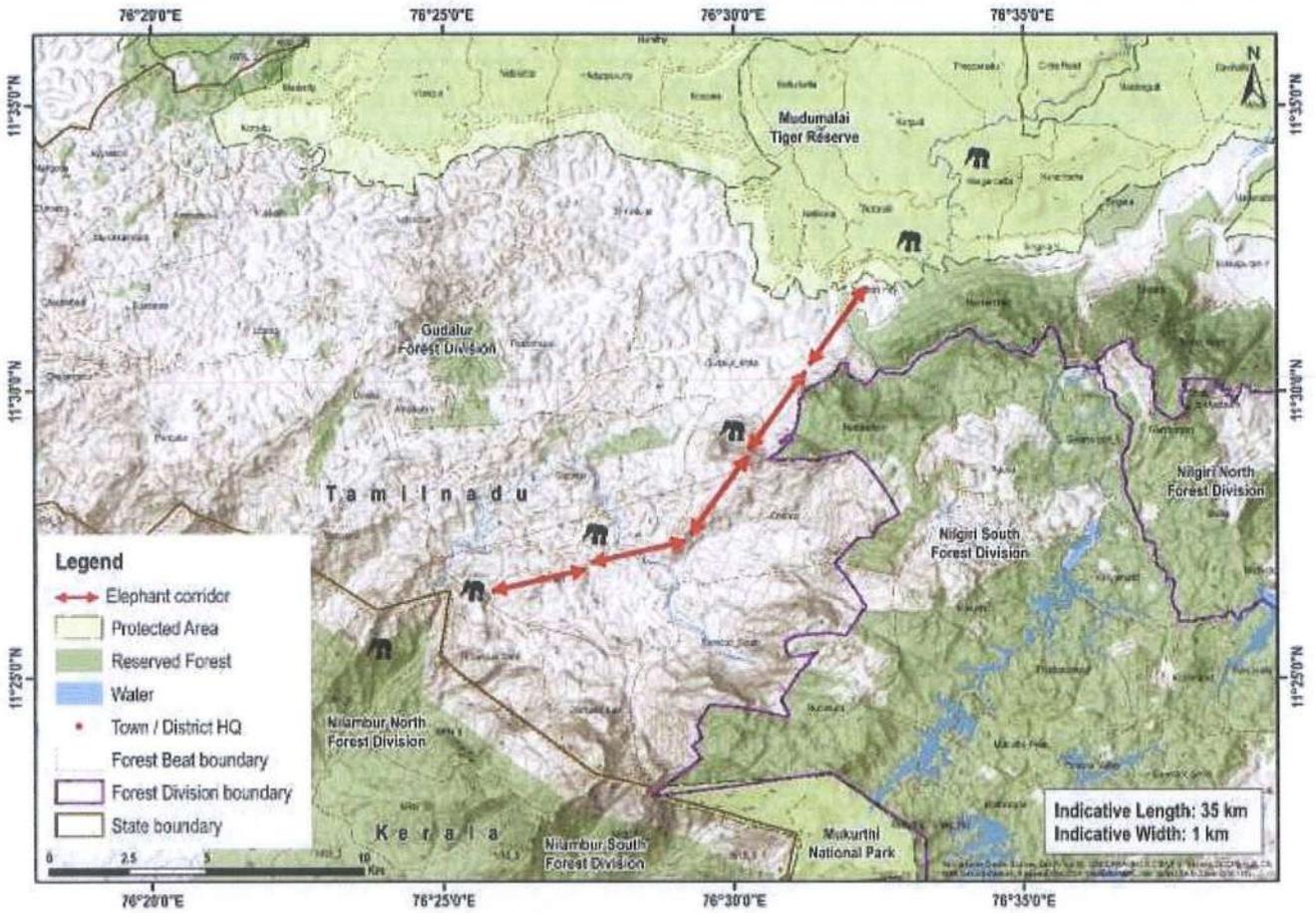


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30. Mudumalai- Nilambur via O' Valley Corridor (Interstate corridor)

Connectivity	This corridor connects Mudumalai Tiger Reserve of Tamil Nadu to Nilambur North Forest Division in Kerala via Gudalur Forest Division in Tamil Nadu.
State	Tamil Nadu and Kerala
Indicative length and width	Length = 35 km, width = 1 km
Geo Coordinates	76 31' 47.725 E, 11 32' 53.874 N 76 24' 34.841 E, 11 25' 30.235 N
Forest ranges falling within corridor	Gudalur, Naduvattam and O Valley Ranges
Revenue villages falling within corridor	31
Ecological importance	This corridor is the major connectivity between Mudumalai Tiger Reserve and Nilambur Forest Division elephant population.
Habitat type	Moist deciduous and semi-evergreen forests
Major land use	Forest = 5209 ha Agriculture/estates = 3408 ha Habitation = 1311 ha
Elephant movement status	Regular but peak during south west monsoon season
No. of elephants using the corridor	Around 60
Major bottleneck	1) National Highway 67 2) Silver cloud tea factory 3) 27th mile village 4) Labour lines of Manjushree Estate, O'Valley.
Linear infrastructure in the corridor	1) National Highway 67 and associated high vehicular traffic 2) State Highway (Gundalpet - Coimbatore) and Gudalur to Nilambur via Nadugani, Manjeri and associated high vehicular traffic 3) High tension power line (11,000 Kv), 40 kms 4) Working Manjushree Factory (Smokehouse) at Guind, Silver cloud tea factory and Periyashola tea factory 5) Non-working factories like Bharathinagar Factory and Seaforth factory. 6) Government offices like Municipality and Panchayat offices, Police station
Recommendations by the forest department to improve the corridor	1) Relocation of public from fragmented areas of O'Valley range through proper schemes. 2) Immediate taking over possession of the large tract of Janmam lands from the plantations, whose lease period has expired long back and notifying these private lands as Reserved Forests for corridor protection. 3) As a short-term remedy, Elephant Proof Trench (EPT) and other preventive methods can be resorted to this may provide some immediate relief. 4) Regulation for land use and land cover changes in private lands also needed. 5) Schools and Colleges which are located in the peripheral areas should be concentrated on for awareness education in order to develop green and animal lovers for future generations. 6) More importantly the corridor needs to be notified and should have guidelines to check the rapid developments in the corridor.
Current status of the corridor	Active. Intensity of use by elephants increased.

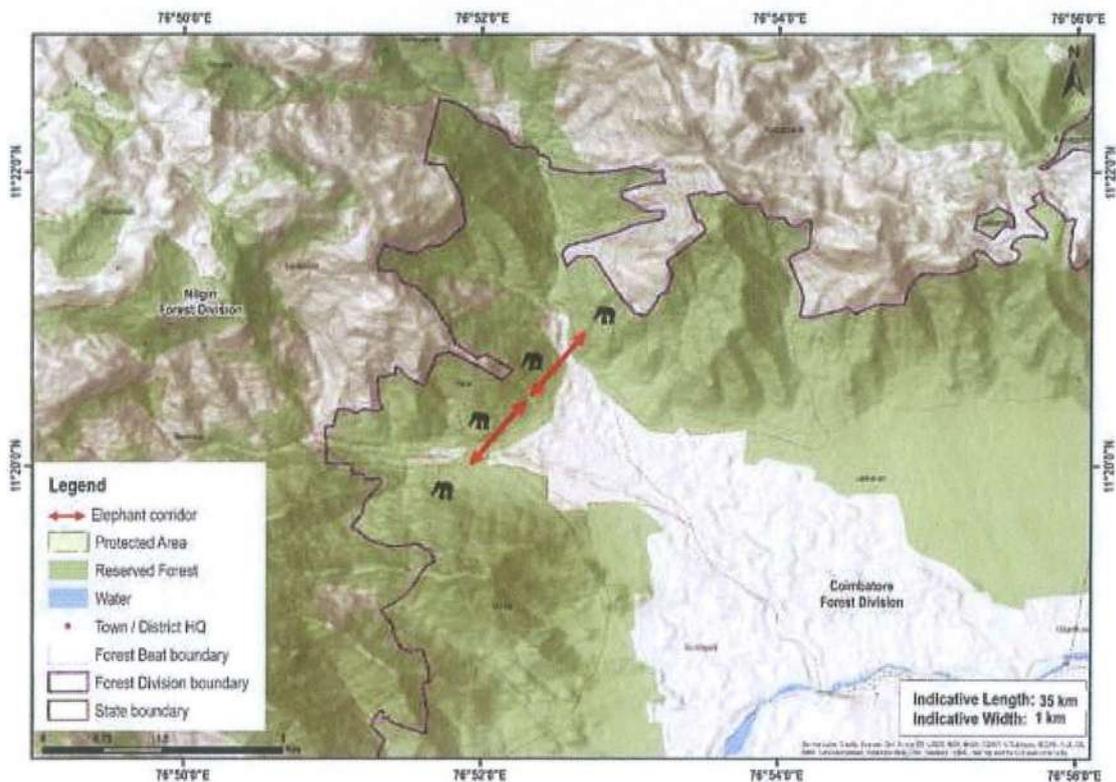
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31. Jaccanaire Slope - Hulikal Durgam - Nellithurai – Koothamandi south (Kallar corridor)

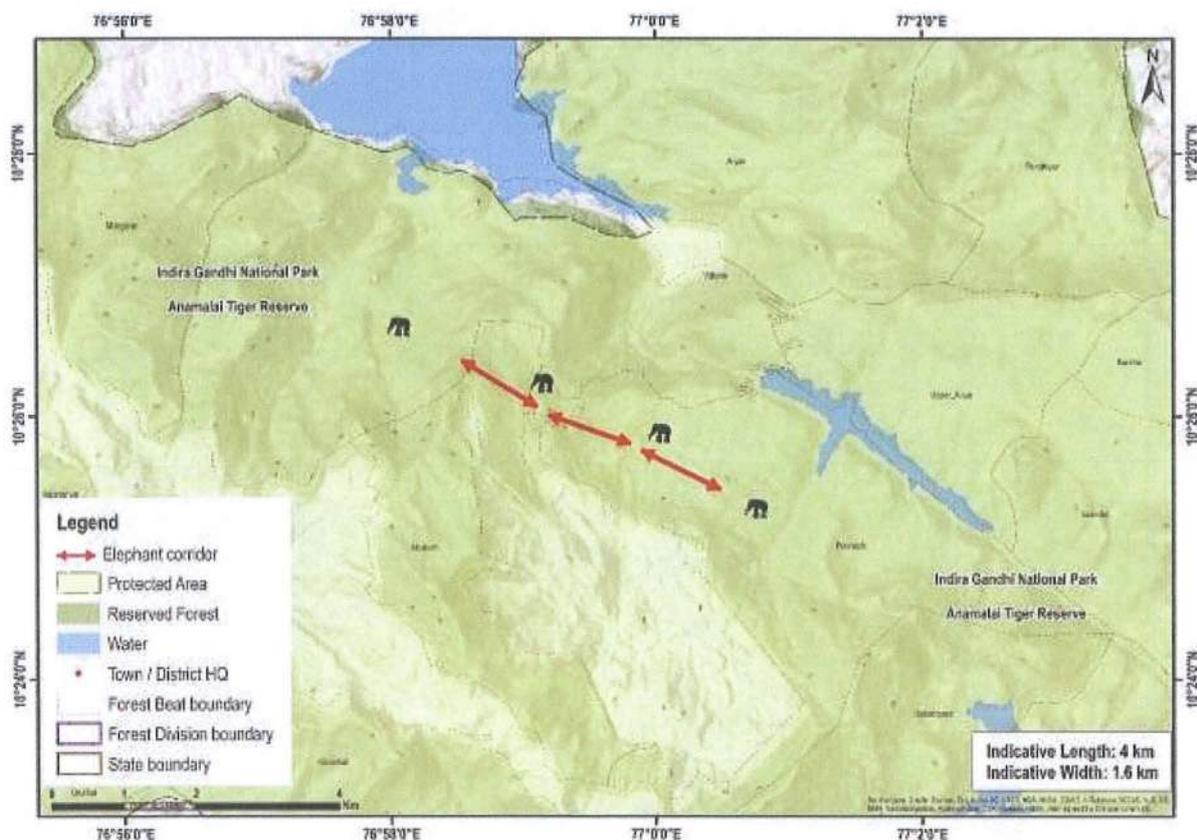
Connectivity	Sathyamangalam Tiger Reserve and south of Coimbatore FD/ Attapadi (through Mettupalayam and Sirumugai Forest Ranges; Nellithurai, Nellimalai, Hulikal, Jacanare, Odanthurai reserve forests)
State	Tamil Nadu
Indicative length and width	Length = 35 km, width = 1 km
Geo Coordinates	11° 19' 30"- 11° 21' 26" N / 76° 50' 52"- 76° 54' 12" E
Forest ranges falling within corridor	Mettupalayam and Sirumugai Forest Ranges
Revenue villages falling within corridor	6
Ecological importance	It is the only link between Sathyamangalam Tiger Reserve and southern Coimbatore elephant populations.
Habitat type	Dry thorn, Dry and moist deciduous forest types
Major land use	Forests, Agricultural land, Settlements and River
Elephant movement status	Regular
No. of elephants using the corridor	100- 150
Major bottleneck	1) Between Kallar first hairpin bend and Dhooripalam (Private lands), 2) Swamy Sachidananda Jyothi Niketan School, 3) Forest College and Research Institute, 4) Alur Vayal.
Linear infrastructure in the corridor	1) National Highway 181, 5 km and State Highway – Mettupalayam to Kotagiri, 2 km 2) Mountain train track, 5 km; 3) High-tension power line; 4) Elephant Proof Trench along the forest boundary, 30 km; 5) FCRI fence and EPT, 6 km; 6) Kallar Horticultural Garden electric fence, 2 km; 7) Private lands erected electric fence., 27 km; 8) Compound wall by Black thunder and Sachidanandha school, 2.2 km
Recommendations by the forest department to improve the corridor	1) Over pass have to be constructed in National Highway – 181 and State Highway (Mettupalayam – Kotagiri Road) 2) Acquisition of private lands to the south of NH - 181, between Forest check-post & First hairpin bend (app. 30 acres) or easement agreement with private land owners 3) Acquisition of private lands at Alur vayal or removal of power fences in the corridor or easement agreement with land owners. 4) Reduce the FCRI boundary by amending the lease agreement 5) Regulate the land use within the corridor area
Current status of the corridor	Active. Intensity of use by elephants not available



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32. Anamalai at Punachi Corridor

Connectivity	Punachi Reserve Forest with Anamalai Reserve Forest of Anamalai Tiger Reserve
State	Tamil Nadu
Indicative length and width	Length = 4 km, width = 1.6 km
Geo Coordinates	10° 25' 3"- 10° 26' 42" N 76° 58' 34"- 77° 0' 46" E
Forest ranges falling within corridor	Valparai
Revenue villages falling within corridor	1
Ecological importance	The corridor used to connect Punachi Reserve Forest and Anamalai Reserve Forest within Anamalai Tiger Reserve.
Habitat type	Tropical moist deciduous forest
Major land use	Forest
Elephant movement status	None
No. of elephants using the corridor	None
Linear infrastructure in the corridor	State Highway 78 and associated traffic
Conservation Recommendations by the forest department	1) The corridor should be notified and legally protected by the state forest department under an appropriate law, and action should be taken to prevent developmental activities hindering elephant movement. 2. Vehicular speed should be regulated on the Valparai ghat road and visitors prevented from stopping. Suitable signage could also be placed to create awareness about the corridor and its importance
Status of the corridor	Impaired



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Summary

As of 2023, through the collaborative efforts between the Project Elephant of the MoEFCC and the State Forest Departments of the elephant range states, a total of 150 elephant corridors had been ground-validated across 15 states in the four elephant-bearing regions across India. The region-specific and state-specific list of corridors have been included in Annexure-1 of the report. The State of West Bengal had the highest number of elephant corridors, with 26 identified in both northern West Bengal (part of the North-eastern regional elephant population) and southern West Bengal (part of the east-central regional elephant population).

In addition to the 15 elephant range states where elephant corridors have been identified and ground-validated as on 2023, there are also states in which elephants have recently expanded their ranges. This includes the Vidharba region in Maharashtra adjoining Chhattisgarh, southern Maharashtra adjoining Karnataka, Madhya Pradesh, where elephants presently occur in Bandhavgarh and Sanjay Tiger Reserves and northern Andhra Pradesh, where elephants move in from Odisha. In these states, long-term viability of habitats to support elephant populations, followed by data-driven approach in identifying corridors would be pertinent. Similarly, data on elephant movement remains sketchy in many north eastern states that harbour relatively small population of elephants. It is hoped that through the collaborative efforts of the State Forest Departments and Project Elephant in the coming years so that the status of corridors can become clear in these areas.

Region-wise corridors

Among the four elephant bearing regions, the East-Central region has reported the highest number of elephant corridors ($n = 52$) followed by North-east region ($n = 48$), and Southern region ($n = 32$). The Northern region had the least number of elephant corridors ($n = 18$) (Figure-1).

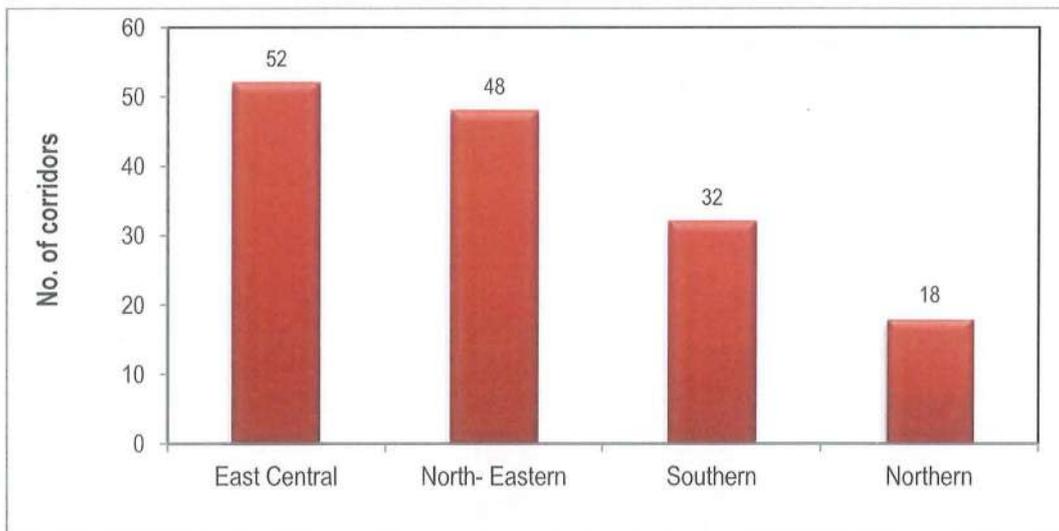


Figure-1. Region-wise elephant corridors across India

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Within state, interstate and transnational elephant corridors

Among the 150 reported elephant corridors in India, 126 occurred within the political boundary of a State. Nineteen corridors were located across two states. There were six transnational corridors between India and Nepal, majorly in the State of Uttar Pradesh (Figure-2).

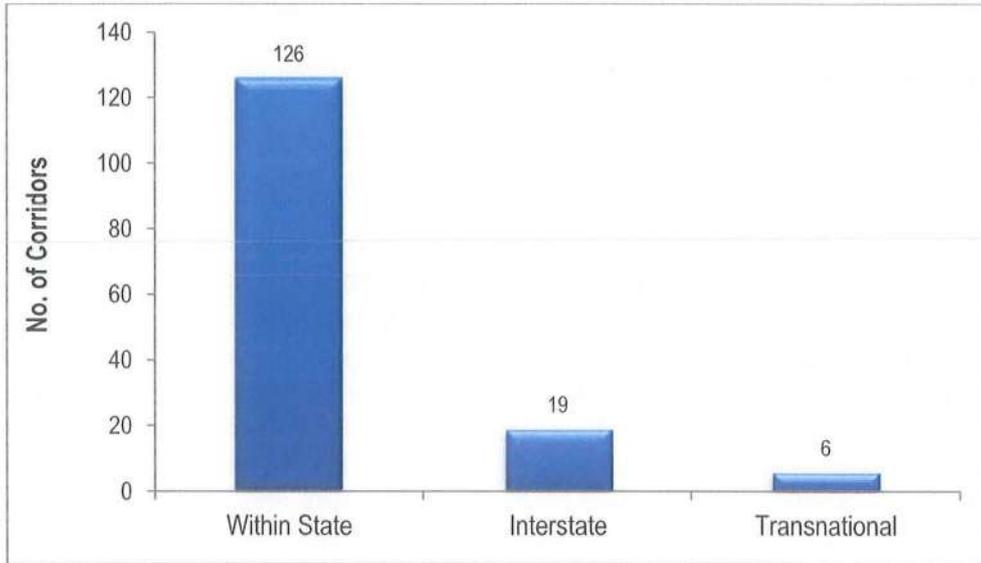


Figure-2. Within state, interstate and transnational elephant corridors across India

Current status of corridors

Of the 150 elephant corridors that were reported in India as on 2023, in 40% (n = 59) of elephant corridors, the intensity of use by elephants has reportedly increased (Figure-3). In 19% (n = 29) of elephant corridors, the intensity of use by elephants had remained stable over time. In another 19% (n = 29) of elephant corridors, the intensity of use by elephants had decreased. A total of 15 elephant corridors have been impaired and would require restoration efforts to render the corridors functional. For 18 corridors, information on the current use by elephants was not available (Figure-3).

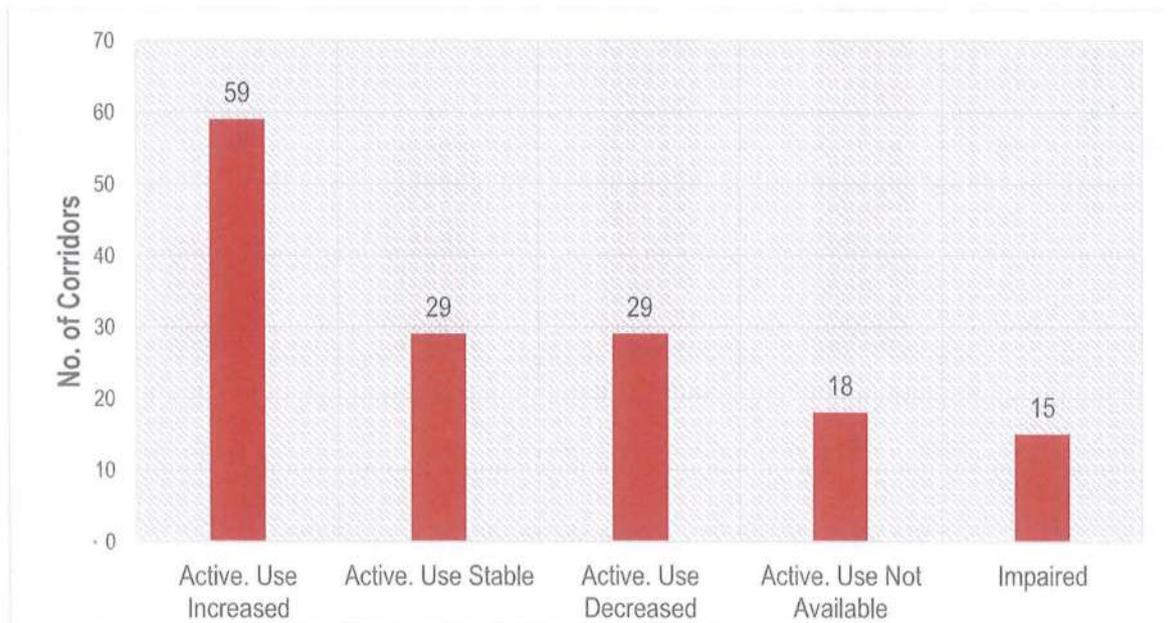


Figure-3. The current status of elephant corridors across India

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Annexure - I

List of Elephant Corridors

S No	Elephant Corridor	Region	States	Type
1	Basanta	Northern	Uttar Pradesh	Transnational
2	Laljhadi		Uttar Pradesh	Transnational
3	Chhedia		Uttar Pradesh	Transnational
4	Dudhwa-Katarniaghat		Uttar Pradesh	Within State
5	Khata		Uttar Pradesh	Transnational
6	Laggabagga-Tatarganj-Shukhlaphanta		Uttar Pradesh	Transnational
7	Shiwalik		Uttar Pradesh	Interstate
8	Rawasan-Sonanadi via Bijnor		Uttarakhand and Uttar Pradesh	Interstate
9	Kansrau – Barkote		Uttarakhand	Within State
10	Motichur – Barkote (Teenpani)		Uttarakhand	Within State
11	Motichur – Gohri		Uttarakhand	Within State
12	Chilla – Motichur		Uttarakhand	Within State
13	Rawasan – Sonanadhi (Upper arm)		Uttarakhand	Within State
14	Malani – Kota: Kosi		Uttarakhand	Within State
15	Chilkiya – Kota: Kosi near Sundarkhal		Uttarakhand	Within State
16	Fatehpur – Gadgadia (Nihal – Bhakra)		Uttarakhand	Within State
17	Kilpura – Khatima		Uttarakhand and Uttar Pradesh	Interstate and Transnational
18	Gorai Tanda (Gola)	Uttarakhand	Within State	
19	Pakke-Doimara at Dedzelling	North-Eastern	Arunachal Pradesh	Within State
20	Dulung- Subansiri		Arunachal Pradesh	Within State
21	Dering- Mebo (Sigar nalla)		Arunachal Pradesh	Within State
22	Pakke- Papum at Langka nalla		Arunachal Pradesh	Within State
23	Pakke- papum at Seijosa nalla		Arunachal Pradesh	Within State
24	Pakke doimara at Tippi		Arunachal Pradesh	Within State
25	Durpong-Doimukh at Khundakuwa		Arunachal Pradesh	Within State
26	D'ering - Mebo at Kongkul		Arunachal Pradesh	Within State
27	Deosur		Assam	Within State
28	Bogapani - Upper Dihing East- Upper Dihing West Block		Assam	Within State
29	Panbari		Assam	Within State
30	Kotha Buridehing		Assam	Within State
31	Kanchanjuri		Assam	Within State
32	Hatidandi		Assam	Within State
33	Haldhibari		Assam	Within State
34	Golai- Pawai - Upper Dihing East- Upper Dihing West Block		Assam	Within State
35	Kukurakata-Bagser at Amguri		Assam	Within State
36	Singri Hill		Assam	Within State
37	D'ering- Dibru Saikhowa		Assam and Arunachal Pradesh	Interstate

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S No	Elephant Corridor	Region	States	Type
38	Kalapahar- Doigrung	North- Eastern	Assam and Arunachal Pradesh	Interstate
39	Rewak- Emangre		Meghalaya	Within State
40	Nokrek- Emangre		Meghalaya	Within State
41	Siju- Rewak		Meghalaya	Within State
42	Balpakram- Baghmara		Meghalaya	Within State
43	Ranggira- Nokrek		Meghalaya	Within State
44	Saipung- Narpuh		Meghalaya	Within State
45	Geleki- Sitap		Nagaland	Within State
46	Abhaypur- Singphan		Nagaland	Within State
47	Hollongapar- Longtho		Nagaland	Within State
48	Daldali- Dimapur		Nagaland	Within State
49	Geleki- Tuli		Nagaland	Within State
50	Desoi- Changdang		Nagaland	Within State
51	Tirutilip- Longchem		Nagaland	Within State
52	Titi- Dumchi - Reti		West Bengal	Within State
53	Titi- Reti		West Bengal	Within State
54	Apalchand- Mahananda		West Bengal	Within State
55	Apalchand- Gorumara		West Bengal	Within State
56	Apalchand- Klimpong at Mal block (via Meenglass)		West Bengal	Within State
57	Apalchand- Klimpong at Mal block (via Sylee)		West Bengal	Within State
58	Nimati- Chilpata (Buxa- Chilpata)		West Bengal	Within State
59	Buxa- Titi (via Beech and Bharnobari Tea Garden)		West Bengal	Within State
60	Buxa- Titi (via Torsha)		West Bengal	Within State
61	Buxa- Ripu at Sankosh		West Bengal	Within State
62	Mahananda- Kolabari- Tukriajhar		West Bengal	Within State
63	Chapramari - Kalimpong		West Bengal	Within State
64	Moraghat-Central Daina		West Bengal	Within State
65	Reti-Central Daina	West Bengal	Within State	
66	Moraghat- Reti	West Bengal	Within State	
67	Jamui- Jhajha- Chakayi	East- central	Bihar	Within State
68	Charmar- jingol		Chhattisgarh	Within State
69	Nagdhara-Baraud		Chhattisgarh	Within State
70	Hati-Kudmura		Chhattisgarh	Within State
71	Chaal - Kartala		Chhattisgarh	Within State
72	Korondha - Rupunga		Chhattisgarh	Within State
73	Balco-Etma Nagar		Chhattisgarh	Within State
74	Balco-Katghora		Chhattisgarh	Within State
75	Khod-Rihand		Chhattisgarh	Within State
76	Ghat Pendari-Pakni		Chhattisgarh	Within State
77	Bhagabilla- Ratnasai		Jharkhand	Within State
78	Jampani- Bhagabilla		Jharkhand	Within State

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S No	Elephant Corridor	Region	States	Type
79	Sangajata- Haldipokhar	East-central	Jharkhand	Within State
80	Lepang- Dumuria		Jharkhand	Within State
81	Ankua- Ambia		Jharkhand	Within State
82	Raibera- Pulbaburu		Jharkhand	Within State
83	Dalapani - Suklara		Jharkhand	Within State
84	Dalma – Chandil		Jharkhand	Within State
85	Dumariya - Nayagram		Jharkhand	Within State
86	Silli - Angara		Jharkhand	Within State
87	Bharno – Bero - Kara / Sisai- Karra		Jharkhand	Within State
88	Dalma- Asanbani		Jharkhand	Within State
89	Dalma - Rugai		Jharkhand	Within State
90	Siyaljora - Dhobadhobin		Jharkhand	Within State
91	Dalapani - Kankrajhor		Jharkhand and West Bengal	Interstate
92	Anjadbera-Bichaburu		Jharkhand	Within State
93	Dumriya-Kundaluka and Murakanjia		Jharkhand	Within State
94	Telkoi - Pallahada		Odisha	Within State
95	Karo - Karampada	Odisha	Interstate	
96	Deuli - Suliapada	Odisha and West Bengal	Interstate	
97	Simlipal - Hadagarh - Kuldih (Simlipal- Satkosia) (Baula- kuldih)	Odisha	Within State	
98	Maulabhanja - Jiridamali - Anantapur	Odisha	Within State	
99	Kanheijena - Anantapur	Odisha	Within State	
100	Nuagaon - Baruni	Odisha	Within State	
101	Buguda - Central RF	Odisha	Within State	
102	Tal - Kholgarh	Odisha	Within State	
103	Barapahad - Tarva - Kantamal	Odisha	Within State	
104	Kotagarh - Chandrapur	Odisha	Within State	
105	Kartapat - Urladani	Odisha	Within State	
106	Badampahar - Dhobadhobin	Odisha and Jharkhand	Interstate	
107	Badampahar - Karida East	Odisha	Interstate	
108	Kalikunda-Chandra through Manikpara	West Bengal	Within State	
109	Nayagram-- Jamboni through keshorrekha	West Bengal	Within State	
110	Chandabila Tapoban- Dhumsi through Keshorrekha	West Bengal	Within State	
111	Kalaikunda- Chandra through Satpadi ghat	West Bengal	Within State	
112	Gidhni- Jamboni	West Bengal	Within State	
113	Chandua- Joka	West Bengal	Within State	
114	Kankrajhore- Lalgarh	West Bengal	Within State	
115	Mahilong- Kalimati	West Bengal	Within State	
116	Jhalda- Baghmundi	West Bengal	Within State	

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S No	Elephant Corridor	Region	States	Type
117	Chandil- Matha	East-central	West Bengal and Jharkhand	Interstate
118	Gobarghusi- Jhunjhaka- Banduan		West Bengal and Jharkhand	Interstate
119	Tri-Junction	Southern	Andhra Pradesh	Within State
120	Rayala ER		Andhra Pradesh	Within State
121	Kaniyanpura - Moyar		Karnataka	Within State
122	Begur - Brahmagiri		Karnataka and Kerala	Interstate
123	Edayarahalli - Doddasampige		Karnataka	Within State
124	Edayarahalli - Guthiyalathur		Karnataka	Within State
125	Talamalai - Chamrajnagar (Pununjur)		Karnataka	Interstate
126	Karadikkal - Madeshwara		Karnataka	Within State
127	Talamalai - Chamrajnagar (Muddahalli) (Talavadi-mudahalli)		Karnataka and Tamil Nadu	Interstate
128	Kudrakote- Thirunelly		Kerala	Within State
129	Kottiyur- Peria		Kerala	Within State
130	Peria- Pannippad (Peria at Pakranthalam)		Kerala	Within State
131	Nilambur- Appankappu		Kerala	Within State
132	Nilambur Kovilakam- New Amarambalam		Kerala and Tamil Nadu	Interstate
133	Srivilliputtur-Saptur		Tamil Nadu	Within State
134	Kallhatti – Sigur at Glencorin		Tamil Nadu	Within State
135	Avarahalla at Sigur		Tamil Nadu	Within State
136	Kalmalai – Singara and Avarahalla,		Tamil Nadu	Within State
137	Moyar – Avarahalla		Tamil Nadu	Within State
138	Siluvaimedu - Kadamparai		Tamil Nadu	Within State
139	Anamalai at Waterfalls estate		Tamil Nadu	Within State
140	Sholayar Dam (Vazhachal – Anaimalai via Sholayar)		Tamil Nadu	Within State
141	Topslip to Navamalai		Tamil Nadu	Within State
142	TANTEA (Vazhachal – Anaimalai via Ryan)		Tamil Nadu	Within State
143	Talamalai – Guttialattur		Tamil Nadu	Within State
144	Mukurthi – Mudumalai		Tamil Nadu	Within State
145	Anaikatti North – Anaikatti South		Tamil Nadu	Within State
146	Anamalai at Punachi		Tamil Nadu	Within State
147	Kallar at Gandhapallayam (Jaccanaire Slope - Hulikal Durgam)		Tamil Nadu	Within State
148	Thalli- Bilikal		Tamil Nadu and Karnataka	Interstate
149	Bilikal- Jawalagiri		Tamil Nadu and Karnataka	Interstate
150	Mudumalai – Nilambur via O' Valley		Tamil Nadu and Kerala	Interstate

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Annexure - II

Teams that carried out ground-truthing of elephant corridors

S. No.	State	Teams	Month
1.	Andhra Pradesh	Dr. Lakshminarayanan, Project Scientist, WII Shri. Rakesh Kalva, Consultant: Andhra Pradesh Forest Department	May 2023
2.	Arunachal Pradesh	Dr. Anil Singh, Team Leader, Terai Landscape, WWF - India Dr. Prajna Panda, (former) National Coordinator, Elephant Cell, WII	May 2022
3.	Assam	Dr. Anil Singh, Team Leader, Terai Landscape, WWF - India Dr. Prajna Panda, (former) National Coordinator, Elephant Cell, WII Dr. Bibhuti lahkar, Scientist, Aranyak	February 2022
4.	Bihar	Dr. Anil Singh, Team Leader, Terai Landscape, WWF - India	May 2023
5.	Chhattisgarh	Dr. Lakshminarayanan, Project Scientist, WII	October 2022
6.	Jharkhand	Shri Aditya Bisht, Consultant-B, MoEF&CC Shri Aakriti Singh, SRF, WII	April 2023
7.	West Bengal	Shri Aditya Bisht, Consultant-B, MoEF&CC Shri Aakriti Singh, SRF, WII	March 2023
8.	Odisha	Dr. K.M. Selvan, Scientist E, MoEF&CC Dr. Lakshminarayanan, Project Scientist, WII Shri Aditya Bisht, Consultant-B, MoEF&CC Shri Udhayaraj, GIS Specialist, WII Ms. Aakriti Singh, SRF, WII	June 2023
9.	Kerala	Dr. K.M. Selvan, Scientist E, MoEF&CC	April 2023
10.	Meghalaya	Shri Aditya Bisht, Consultant-B, MoEF&CC Shri Udhayaraj, GIS Specialist, WII	April 2023
11.	Nagaland	Dr. K.M. Selvan, Scientist E, MoEF&CC Sh. Imnawapang Jamir, Ph. D. Scholar, Department of Forestry, Mizoram University	April 2023
12.	Uttar Pradesh	Dr. Prajna Panda, (former) National Coordinator, Elephant Cell, WII	December 2021- January 2022
13.	Uttarakhand	Dr. Anil Singh, Team Leader, Terai Landscape, WWF - India Shri Aditya Bisht, Consultant-B, MoEF&CC Dr. Lakshminarayanan, Project Scientist, WII	January-March, 2023
14.	Karnataka	Dr. Lakshminarayanan, Project Scientist, WII Shri. R. Raghuram, Himagiri Wildlife Trust	June 2023
15.	Tamil Nadu	Dr. Prajna Panda, (former) National Coordinator, Elephant Cell, WII Dr. Boominathan, WWF-India Dr. Lakshminarayanan, Project Scientist, WII	June 2022

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Annexure – III

Corridor data sheet

1. Name of the Corridor:.....
2. FD/PA/District:.....
3. Connecting (Ranges/FDs/RFs/PAs):to
4. Geographical coordinates:
5. Area and dimension: Length..... Width (minimum and maximum):.....Total Area:.....Sq. km
6. What was the corridor boundary delineated based on? (Was the boundary of the corridor identified based on published research/ observations/ strong barriers on either side/ anecdotal evidence/ etc.):.....
7. Critical area/ bottleneck in corridor:.....
8. If there is bottleneck, mention the major reasons of constriction/ bottleneck:
9. Altitude (Minimum and Maximum):.....
10. Map of the corridor (Attach a map):
11. Importance of the corridor at a landscape scale:

Status of structural connectivity:

12. Demarcation of corridor (Mention Compartment/ Block/Range/FD and its area in corridor):
13. Major Land use: Forest/Agriculture/ plantation (Tea/ Coffee/ any other plantation)/ settlement/ river:
14. Habitat type/ Forest type/ Vegetation:
15. Status of corridor forest (Intact/ Degraded):.....
16. Nearest PA:
17. Legal Status of the corridor (PA/ RF/ Revenue land/ community forest/private forest/private land):.....
18. Total areas under different categories:.....

Land use	Area (In ha.)
Forest	
Agriculture	
Habitation	

Elephant Movement Status/ corridor use:

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19. Status of elephant movement (Regular/ Seasonal/ Occasional):.....
20. If seasonal or occasional, specify season and month when elephant usage the corridor area:.....
21. Specify the usages (Used by Loners/ elephant herd or Both):.....
22. Group size:.....
23. Specify the period (season/ month) used by loner and herd:.....
Loners:
Herd:
24. Probable reasons of elephant visit/ usage of corridor areas:.....
25. For how long elephants are using the corridor area (No. of years):.....
26. Current status of elephant movement (Increased/ decreased, compared to 10 years ago):.....
27. Possible reasons of increase/ decrease in elephant movement:.....
28. No. of elephant reported from corridor areas during last elephant population estimation (Mention year of population estimation exercise and number of elephant):.....
29. No. of elephant movement reported by publish report/ paper based on corridor monitoring/ study undertaken by any institute/ organization (Provide reference of Report/ Paper):.....
30. If any elephant photograph captured during AITE/ Tiger monitoring from the corridor area (Provide detail about number of elephant captured, date etc.):.....
31. Mention other important species using this corridor:.....

Major habitations/ Settlements:

32. Number of Villages/ settlements falling within the corridor area:.....
33. Total number of HH of villages/ settlements falling within the corridor area:
34. Number of corridor dependent villages/ settlements outside the corridor area:.....
35. Total number of HH in corridor dependent villages/ settlements outside the corridor area:
36. Dependencies of community living in and around corridor areas on corridor forests/ resources (For Fuel wood, Fodder, Grazing, NTFP collection, water for irrigation etc.)

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Status of Human Elephant Conflict (HEC) in and around corridor areas:

- 37. Number of villages in and around corridor area affected due to HEC:.....
- 38. Total crop/ plantation area damaged by elephant annually:.....
- 39. Major crop/ plantation prone to damage by elephant:.....
- 40. Seasonality of crop depredation (month):.....

Type of crop	Months

- 41. Status of house/ property damage (Number of house/ properties damaged by elephants in villages/ settlements in and around corridor area- In last five years):.....
- 42. Seasonality of house/ property damage (Month).....
- 43. Status of human casualties (Number of human death/ injuries reported due to human elephant conflict from villages/ settlements in and around corridor area- In last five years):.....
- 44. Status of elephant death due to conflict (Number of elephant death reported due to human elephant conflict in and around corridor area- In last five years):
.....

Threats to the corridor:

- 45. Presence of linear infrastructure in the corridor area (Road, Railway track, canal, Power line etc.):
 - A. Mention about road, if any (National Highway/ State highway):.....
 - a. Total length of road through corridor area:.....
 - b. Status of vehicular traffic (Based on survey undertaken, if any):.....
 - c. Wildlife mortality information, if any (For last one year):.....
 - d. Mitigation measures (overpass/ underpass) undertaken to facilitate elephant movement in corridor area, if any:.....
 - B. Railway track (Broad/ meter gauge, single/ double track, electrified/ non-electrified):.....
 - a. Length of the railway track through corridor area and daily rail traffic:.....
 - b. Wildlife death due to train hits, if any (For last one year):.....

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- C. Canal (Irrigation/power):.....
 - a. Length of canal through corridor area:.....
 - b. Type of embankment (earthen/ concrete) and slope:
 - c. Is there any impact of canal on elephant movement?:.....
 - d. Any bridge or underpass on canal in the corridor area which is being used by elephant:.....
- D. Detail of high-tension power line through corridor area (Voltage and Length through corridor area):
- 46. Are there fences/ trench/ wall in the corridor? (Yes/No).....
- 47. If yes, total length of power fence/ trench/ wall in corridor area:.....
- 48. Impact of existing fence/ trench/ wall on elephant movement, if any:.....
- 49. Are there other threats in the corridor? (eg. Poaching, logging, over-extraction of resources):.....
- 50. Presence of industry/ Industrial area inside or near the corridor (Yes/No):.....
- 51. If Yes, total area of the industry and total work force:.....
- 52. Is there any impact of industry/ industrial area on elephant movement?:.....
- 53. Detail of other establishments inside or near corridor area:
- 54. Type of establishment (Institutional building/ tourism infrastructure/ government establishment or building):.....
- 55. Total area of establishment inside the corridor or impacting the corridor:.....
- 56. Impact of establishment on elephant movement, if any:.....
- 57. Year of construction/ establishment:.....
- 58. Detail of encroachment, if any inside the corridor area (If yes, mention total area and other detail):.....
- 59. Is encroachment impacting the elephant movement?.....
- 60. Suggested conservation measures/ specific recommendations:

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भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Project Elephant,
Ministry of Environment, Forest & Climate Change
6th Floor, Jal Block,
Indira Paryavaran Bhawan, Jor Bagh Road,
New Delhi 110003.

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**GOVERNMENT OF ASSAM
ENVIRONMENT & FOREST DEPARTMENT :: DISPUR**

**ORDERS BY THE GOVERNOR
NOTIFICATION**

The 17th April 2003

NO. FRW-44/2002/67. In pursuance of the guidelines of the 'Project Elephant', Government of India, and in view of the consent of the Government of India conveyed vide F. No. 7-2/2000 (PE) dated July 16, 2002, the Governor of Assam is pleased to declare the land described in the schedules below as an 'Elephant Reserve' with effect from the date of publication of this notification in the official gazette.

SCHEDULES

A. Location, Area and Name.

Districts (civil) Dibrugarh, Sivasagar and Tinsukia.
 Sub-divisions (civil) Charaidew, Dibrugarh, Margherita and Tinsukia.
 Forest Divisions Dibrugarh, Digboi, Dum Duma and Sivasagar.
 Name DIHING - PATKAI ELEPHANT RESERVE
 Area 937 sq km (Block 1 = 460 sq km; Block 2 = 156 sq km;
 Block 3 = 170 sq km, and other disjunct
 pockets = 151 sq km).

B. Boundary / Area description

This 'Elephant Reserve' consists of three blocks, henceforth referred to as Block 1, 2 and 3, and eight other smaller disjunct pockets.

BLOCK - I

Reference point: The starting point is the northernmost tip of Upper Dihing (west block) RF (RF= reserve forest) near Khato Beat Office on Makum - Lakhpathar road.

North: From the northernmost tip of Upper Dihing (west block) RF on Makum - Lakhpathar road, the boundary runs eastwards along the notified northern boundary of Upper Dihing (west block) RF.

East: Along the eastern notified boundary of Upper Dihing (west block) RF, then along the eastern notified boundary of Digboi (west block) RF, then again the eastern and thence south-eastern boundary of Upper Dihing (west block) RF till it reaches the Burhi-Dihing River. Thence the boundary runs along the northern boundary of Dirak RF and Dirak proposed (1st Addition) RF till the inter-state boundary between Assam and Arunachal Pradesh.

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- South:** From the south-eastern tip of Dirak proposed (1st Addition) RF on the inter-state boundary between Assam and Arunachal Pradesh, the boundary follows the interstate boundary up to the south-western tip of Dilli RF.
- West:** Thence, from this point the boundary runs along the existing western and northern boundary of Dilli and Joypur RFs up to the Burhi-Dihing River, then it follows the existing western boundary of Upper Dihing (west block) RF up to the northernmost tip of this reserve forest near Khato Beat Office on Makum - Lakhpathar road.

BLOCK - 2

- Reference point:** The starting point is the north-western corner of Kakojan RF on the banks of the Dibru River.
- North:** From the starting point, the boundary runs eastwards along the notified north-western, northern and eastern boundaries of Kakojan RF till it reaches the northern boundary of Upper Dihing (east block) RF. Thence it runs along the northern boundary of Upper Dihing (east block) RF.
- East:** From the north-eastern corner, on the banks of the Dibru River the boundary runs along the notified eastern boundary of Upper Dihing (east block) RF.
- South:** Thence the boundary follows the notified southern boundary of Upper Dihing (east block) RF.
- West:** Thence, the boundary runs along the existing western boundary of Upper Dihing (east block) RF and also includes the areas leased out for oil mining, Digboi (east block) RF and Bogapani RF till it reaches the Dibru River near Nazirating. Then it follows the left bank of the Dibru River along the western boundary of Kakojan RF till it meets the reference point.

BLOCK - 3

- Reference point:** The starting point is the north-western corner of Namphai RF on the banks of the Burhi-Dihing River.
- North:** From the starting point, the boundary runs eastwards along the notified northern boundary of Namphai RF till it reaches the north-eastern corner of Tinkopani RF.
- East:** From the north-eastern corner of Tinkopani RF, on the banks of the Namchik River on Assam - Arunachal Pradesh interstate boundary, it runs along the notified eastern and southern boundaries of Tinkopani RF and Tirap proposed (1st Addition) RF, and eastern boundary of Tipong proposed (1st Addition) RF.

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South: Thence the boundary follows the notified southern boundaries of Tipong proposed (1st Addition) RF, Lekhapani RF, Saleki proposed RF and Makumpani RF.

West: From the south-western corner of Makumpani RF on the Assam - Arunachal Pradesh interstate boundary, it follows the existing western and northern boundaries of Makumpani RF, northern boundaries of Saleki proposed RF, Lekhapani RF, Tipong proposed (1st Addition) RF, Tipong RF, Paharpur RF, again Tipong proposed (1st Addition) RF, then Tirap proposed (1st Addition) RF, western and northern boundary of Tirap RF till the western boundary of Tinkopani RF on the banks of the Tirap River. Thence the boundary runs along the western boundary of Tinkopani RF and southern and western boundary of Namphai RF till it meets the starting point on the banks of the Burhi-Dihing River.

In addition to the areas described above, the 'DIHING-PATKAI ELEPHANT RESERVE' also includes five other smaller disjunct pockets, the largest of which is Abhoypur RF, which has contiguity with Block 1 of this reserve through forests in Nagaland and Arunachal Pradesh. Other pockets are Burhi-Dihing (north and south blocks) RFs, Duarmara RF (including Duarmara proposed 1st Addition RF), Kotha RF, Naloni RF, Phillobari RF, Tokouoni RF and Torani RF. All these as well as all the blocks have contiguity through unclassified forests, riverbeds and tea plantations.

DR ANWARUDDIN CHOUDHURY
Joint Secretary
to the Government of Assam,
Environment & Forest Dept, Dispur.

Memo No. FRW- 44/2002/67-A.

Dated Dispur, the 17th April 2003.

✓ Copy to the Director, Project Elephant, Government of India, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, Lodhi Road, New-Delhi 110 003.

2. The P.P.S. to the Chief Minister, Assam for kind information of the hon'ble Chief Minister.
3. The P.S. to the Minister of State (Ind), Forests, Assam, for kind info. of the hon'ble minister.
4. The P.S. to the Chief Secretary, Assam, for kind information of the Chief Secretary.
5. The Commissioner & Secretary, Revenue / Tourism Dept., Assam.
6. The Principal Chief Conservator of Forests, Assam, Guwahati.
7. Chief Conservator of Forests (all), Assam.
8. Deputy Commissioners concerned.
9. Conservator of Forests concerned / Divisional Forest Officers concerned.
10. The Dy. Director, Assam Govt Press, Bamunimaidam, Guwahati-21, for publication of the above notification in the Assam Gazette extra ordinary and to send 200 copies to this dept.
11. Guard file.

AUC/4-2003

DR ANWARUDDIN CHOUDHURY
Joint Secretary

[Handwritten signature]

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Annexure-R5
R.5**Elephant Corridors ground-validated**

Sl. No.	Corridors	State
1	Tri-Junction Corridor	Andhra Pradesh
2	Rayala ER	Andhra Pradesh
3	Pakke-doimara at dedzelling	Arunachal Pradesh
4	Dulung- subansiri	Arunachal Pradesh
5	Dering- mebo (sigar nalla)	Arunachal Pradesh
6	Pakke- papum longka nalla	Arunachal Pradesh
7	Pakke- papum seijosa nalla	Arunachal Pradesh
8	Pakke doimara at tippi	Arunachal Pradesh
9	Durpong-Doimukh at Khundakhuwa	Arunachal Pradesh
10	D'ering - Mebo at Kongkul	Arunachal Pradesh
11	Deosur Corridor	Assam
12	Bogapani Corridor- Upper Dihing East- Upper Dihing West Block	Assam
13	Panbari Corridor	Assam
14	Kotha Buridehing Corridor	Assam
15	Kanchanjuri Corridor	Assam
16	Hatidandi Corridor	Assam
17	Haldhibari Corridor	Assam
18	Golai- Pawai corridor- Upper Dihing East- Upper Dihing West Block Corridor	Assam
19	Kukurakata-Bagser at Amguri	Assam
20	Charduar-Singri Hill	Assam
21	D'ering- Dibru Saikhowa Corridor	Assam and Arunachal Pradesh

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22	Kalapahar- Doigrung Corridor	Assam and Arunachal Pradesh
23	Jamui- Jhajha- Chakayi	Bihar
24	Charmar- jingol	Chhattisgarh
25	Nagdhara-Baraud	Chhattisgarh
26	Hati-Kudmura	Chhattisgarh
27	Chaal - Kartala	Chhattisgarh
28	Korondha - Rupunga	Chhattisgarh
29	Balco-Etma Nagar	Chhattisgarh
30	Balco-Katghora	Chhattisgarh
31	Khod-Rihand	Chhattisgarh
32	Ghat Pendari-Pakni	Chhattisgarh
33	Bhagabilla- Ratnasai Corridor	Jharkhand
34	Jampani- Bhagabilla Corridor	Jharkhand
35	Sangajata- Haldipokhar Corridor	Jharkhand
36	Lepang- Dumuria Corridor	Jharkhand
37	Ankua- Ambia Corridor	Jharkhand
38	Raibera- Pulbaburu Corridor	Jharkhand
39	Dalapani - Suklara Corridor	Jharkhand
40	Dalma – Chandil Corridor	Jharkhand
41	Dumariya - Nayagram Corridor	Jharkhand
42	Silli - Angara	Jharkhand
43	Bharno – Bero - Kara / Sisai- Karra	Jharkhand
44	Dalma- asanbani	Jharkhand
45	Dalma - rugai	Jharkhand
46	Siyaljora - Dhobadhobin Corridor	Jharkhand

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47	Dalapani - Kankrajhor Corridor	Jharkhand and West Bengal
48	Anjadbera-Bichaburu	Jharkhand
49	Dumriya-Kundaluka and Murakanjia	Jharkhand
50	Kaniyanpura - Moyar	Karnataka
51	Begur - Brahmagiri	Karnataka and Kerala
52	Edayarahalli - Doddasampige	Karnataka
53	Edayarahalli - Guthiyalathur	Karnataka
54	Talamalai - Chamrajnagar (Pununjur)	Karnataka
55	Karadikkal - Madeshwara	Karnataka
56	Talamalai - Chamrajnagar (Muddahalli) (Talavadi- mudahalli)	Karnataka and Tamil Nadu
57	Kudrakote- Thirunelly	Kerala
58	Kottiyur- Peria	Kerala
59	Peria- Pannippad (Peria at Pakranthalam)	Kerala
60	Nilambur- Appankappu	Kerala
61	Nilambur Kovilakam- New Amarambalam	Kerala and Tamil Nadu
62	Rewak- Emangre Corridor	Meghalaya
63	Nokrek- Emangre Corridor	Meghalaya
64	Siju- Rewak Corridor	Meghalaya
65	Balpakram- Baghmara	Meghalaya
66	Ranggira- Nokrek Corridor	Meghalaya
67	Saipung- Narpuh Corridor	Meghalaya
68	Geleki- Sitap corridor	Nagaland
69	Abhaypur- Singphan corridor	Nagaland
70	Hollongapar- Longtho corridor	Nagaland

71	Daldali- Dimapur corridor	Nagaland
72	Geleki- Tuli corridor	Nagaland
73	Desoi- Changdang corridor	Nagaland
74	Tirutilip- Longchem corridor	Nagaland
75	Telkoi - Pallahada corridor	Odisha
76	Karo - Karampada corridor	Odisha
77	Deuli - Suliapada	Odisha and West Bengal
78	Simlipal - Hadagarh - Kuldiha (Simlipal- Satkosia) (Baula- kuldiha)	Odisha
79	Maulabhanja - Jiridamali - Anantapur	Odisha
80	Kanheijena - Anantapur	Odisha
81	Nuagaon - Baruni	Odisha
82	Buguda - Central RF	Odisha
83	Tal - Kholgarh	Odisha
84	Barapahad - Tarva - Kantamal	Odisha
85	Kotagarh - Chandrapur (Kotagarh – Pankhalgudi)	Odisha
86	Karlapat - Urandi	Odisha
87	Badampahar - Dhobadhobin	Odisha and Jharkhand
88	Badampahar - Karida East	Odisha and Jharkhand
89	Srivilliputur-Saptur	Tamil Nadu
90	Kallhatti – Sigur at Glencorin	Tamil Nadu
91	Avarahalla at sigur	Tamil Nadu
92	Kalmalai – Singara and Avarahalla,	Tamil Nadu
93	Moyar – Avarahalla	Tamil Nadu
94	Siluvaimedu - Kadamparai Corridor	Tamil Nadu

95	Anamalai at Waterfalls estate	Tamil Nadu
96	SHOLAYAR DAM (Vazhachal – Anaimalai via sholayur)	Tamil Nadu
97	Topslip to Navamalai	Tamil Nadu
98	TANTEA (Vazhachal – Anaimalai via Ryan)	Tamil Nadu
99	Talamalai – Guttiyalattur	Tamil Nadu
100	Mukurthi – Mudumalai Corridor	Tamil Nadu
101	Anaikatti North – Anaikatti South	Tamil Nadu
102	Anamalai at punachi	Tamil Nadu
103	Kallar at Gandhapallayam (Jaccanaire Slope - Hulikal Durgam)	Tamil Nadu
104	Thalli- bilikal	Tamil Nadu and Karnataka
105	Bilikal- jawalagiri	Tamil Nadu and Karnataka
106	Mudumalai – Nilambur via O' Valley	Tamil Nadu and Kerala
107	Basanta Corridor	Uttar Pradesh
108	Laljhadi corridor	Uttar Pradesh
109	Chhedia corridor	Uttar Pradesh
110	Dudhwa-Katarniaghat corridor	Uttar Pradesh
111	Khata corridor	Uttar Pradesh
112	Laggabagga-Tatarganj-Shukhlaphanta Corridor	Uttar Pradesh
113	Shiwalik	Uttar Pradesh
114	Rawasan-Sonanadi corridor ie Rajaji- Corbett Corridor	Uttar Pradesh
115	Kansrau – Barkote	Uttarakhand
116	Motichur – Barkote (Teenpani)	Uttarakhand
117	Motichur – Gohri	Uttarakhand
118	Chilla – Motichur	Uttarakhand

119	Rawasan – Sonanadhi (Upper arm)	Uttarakhand
120	Malani – Kota: Kosi corridor	Uttarakhand
121	Chilkiya – Kota: Kosi corridor near Sundarkhal	Uttarakhand
122	Fatehpur – Gadgadua (Nihal – Bhakra)	Uttarakhand
123	Kilpura – Khatima	Uttarakhand
124	Gorai Tanda (Gola)	Uttarakhand
125	Titi- Dumchi - Reti Corridor	West Bengal
126	Titi- Reti Corridor	West Bengal
127	Kalikunda-Chandra through Manikpara Corridor	West Bengal
128	Nayagram-- Jamboni through keshorrekha Corridor	West Bengal
129	Chandabila Tapoban- Dhumsi through Keshorrekha Corridor	West Bengal
130	Kalaikunda- Chandra through Satpadi ghat Corridor	West Bengal
131	Gidhni- Jamboni Corridor	West Bengal
132	Chandua- Joka Corridor	West Bengal
133	Kankrajhore- Lalgah Corridor	West Bengal
134	Apalchand- Mahananda Corridor	West Bengal
135	Apalchand- Gorumara Corridor	West Bengal
136	Apalchand- Klimpong at Mal block (via Meenglass) Corridor	West Bengal
137	Apalchand- Klimpong at Mal block (via Sylee) Corridor	West Bengal
138	Nimati- Chilpata (Buxa- Chilpata) Corridor	West Bengal
139	Buxa- Titi (via Beech and Bharnobari Tea Garden) Corridor	West Bengal
140	Buxa- Titi (via Torsha) Corridor	West Bengal
141	Buxa- Ripu at Sankosh Corridor	West Bengal
142	Mahananda- Kolabari- Tukriajhar Corridor	West Bengal
143	Mahilong- Kalimati Corridor	West Bengal
144	Jhalda- Baghmundi Corridor	West Bengal
145	Chapramari - Kalimpong Corridor	West Bengal

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146	Moraghat-Central Daina Corridor	West Bengal
147	Reti-Central Daina Corridor	West Bengal
148	Chandil- Matha Corridor	West Bengal and Jharkhand
149	Gobarghusi- Jhunjhaka- Banduan Corridor	West Bengal and Jharkhand
150	Moraghat- Reti Corridor	West Bengal

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Elephant Reserves in India

Sl. No.	Elephant Reserve (ER)	State	Total Area (Sq. Km)
1.	Mayurbhanj ER	West Bengal	414
2.	Singhbhum ER	Jharkhand	13440
3.	Mayurbhanj ER	Odisha	3214
4.	Mahanadi ER	Odisha	1038
5.	Sambalpur ER	Odisha	427
6.	Badalkhol-Tamorpingla	Chhattisgarh	1143.34
7.	Lemru Elephant Reserve	Chhattisgarh	1995.48
8.	Kameng ER	Arunachal Pradesh	1892
9.	Sonitpur ER	Assam	1420
10.	Dihing-Patkai ER	Assam	937
11.	South Arunachal ER	Arunachal Pradesh	1957.50
12.	Kaziranga - Karbi Anglong ER	Assam	3270
13.	Dhansiri-Lungding ER	Assam	2740
14.	Intanki ER	Nagaland	202
15.	Singphan ER	Nagaland	23.57
16.	Chirang-Ripu ER	Assam	2600
17.	Eastern Dooars ER	West Bengal	978
18.	Garo Hills ER	Meghalaya	3,500
19.	Mysore ER	Karnataka	8055.94
20.	Dandeli ER	Karnataka	2321.11
21.	Wayanad ER	Kerala	1200
22.	Nilgiri ER	Tamil Nadu	4663
23.	Rayala ER	Andhra Pradesh	766
24.	Nilambur ER	Kerala	1419
25.	Coimbatore ER	Tamil Nadu	566
26.	Anamalai ER	Tamil Nadu	1457
27.	Anamudi ER	Kerala	3728
28.	Agasthyamalai ER	Tamil Nadu	1197.48
29.	Periyar	Kerala	3742
30.	Srivilliputtur ER	Tamil Nadu	1249
31.	Shivalik ER	Uttarakhand	5405
32.	Uttar Pradesh ER	Uttar Pradesh	744
33.	Terai ER	Uttar Pradesh	3072.358
TOTAL			80,777.778



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ITEM NO.105

COURT NO.11

SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Civil Appeal No(s). 9710-9711/2018

COAL INDIA LIMITED

Appellant(s)

VERSUS

DR . KASHMIRA KAKATI & ORS.

Respondent(s)

IA No. 165107/2021 - PERMISSION TO FILE ADDITIONAL
DOCUMENTS/FACTS/ANNEXURES

IA No. 107966/2018 - STAY APPLICATION)

Date : 10-08-2022 These matters were called on for hearing today.

CORAM : HON'BLE MR. JUSTICE AJAY RASTOGI
HON'BLE MR. JUSTICE C.T. RAVIKUMAR

For Appellant(s) Mr. Vikramjeet Banerjee, ASG
Mr. Neeraj Kumar Gupta, AOR
Mr. Lilian Kadam, Adv.
Mr. Rahul Verma, Adv.
Mr. Ranjeet Kumar Singh, Adv.
Mr. Arti Prasad, Adv.
Mr. Abhishek Kumar, Adv.
Mr. Shivam Singhania, Adv.
Ms. Shruti Agarwal, Adv.

For Respondent(s) Mr. Sanjay Upadhyay, Adv.
Ms. Eisha K., Adv.
Ms. M. Bachani, Adv.
Ms. Mayuri Raghuvanshi, AOR

Ms. Aishwarya Bhati, ASG
Ms. Archana Pathak Dave, Adv.
Ms. Kirti Khangarot, Adv.
Mr. Ameya Mahadik, Adv.
Mr. Pashupati Nath Rajdan, Adv.
Ms. Shibashish Mishra, Adv.
Ms. Ruchi Kohli, Adv.
Mr. Gurmeet Singh Makker, AOR

Mr. Avijit Roy, AOR

M/S. Trust Legal, AOR

Mr. Shuvodeep Roy, AOR
Mr. Arnab Singh Deo, Adv.Mr. Sridhar Potaraju, Adv.
Mr. Gaichangpon Gangmei, Adv.

Signature Not Verified

Digitally signed by
Rajni Mukhi
Date: 2022.09.11
17:17:17 IST
Reason:

Ms. Shiwani Tushir, Adv.
Mr. Raghav Sethi, Adv.
Ms. Simran Gupta, Adv.

UPON hearing the counsel the Court made the following
O R D E R

We have heard learned counsel for the parties for some time.

It is brought to our notice that against the order of the National Green Tribunal dated 08.12.2017, in the first instance, there was an order of status quo which was directed to be maintained by the parties. In the meantime, by an order dated 14.09.2018 and by subsequent order dated 07.01.2022, Union of India was directed to file a current status report regarding the steps taken for implementation of the directions given by the National Green Tribunal.

Although, the status report has been filed by the Union of India but taking into consideration the material on record, we consider it appropriate to clarify and permit the Ministry of Environment and Forest (Respondent no. 2) to conduct an inquiry after taking assistance from Respondent Nos. 3 & 4. Report in compliance of the National Green Tribunal's order be furnished to this Court within a period of 08 weeks.

Advance copy of the report be made available to the respective parties and parties are at liberty to file their objections, if so advised, within two weeks thereafter.

List on 30.11.2022.

(MONIKA DEY)
COURT MASTER (NSH)

True Copy

(ASHWANI THAKUR)
ASTT. REGISTRAR-cum-PS

30000

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IN THE HON'BLE SUPREME COURT OF INDIA
Civil Appellate Jurisdiction
Civil Appeal No. 9710-9711 of 2018

IN THE MATTER OF:

Coal India Limited

...Appellant

Versus

Dr. Kashmiri Kakati & Ors.

...Respondent

INDEX

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Date:

Place:

Counsel for Respondent

3388

ORIGINAL WRIT JURISDICTION

IN

Civil Appeal No 9710-9711 of 2018

IN THE MATTER OF:

Coal India Limited **Petitioners**

VERSUS

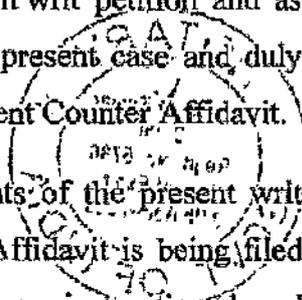
Dr. Kashmiri Kakati & Ors. **Respondents**

**COMPLIANCE AFFIDAVIT ON BEHALF OF UNION OF INDIA,
THROUGH SECRETARY MINISTRY OF ENVIRONMENT FOREST
AND CLIMATE CHANGE (RESPONDENT NO. 2)**

I, K MUTHAMIZH SELVAN, aged 38 years, having office at Ministry of Environment, Forest and Climate Change, New Delhi do hereby solemnly affirm and state as under:

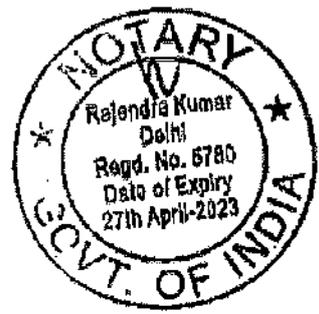
1. That I am working as Scientist 'E' in Project Elephant Division of Ministry of Environment, Forest and Climate Change, Government of India, the Respondent No.2 in the present writ petition and as such, I am conversant with the facts of the present case and duly authorized and competent to swear to the present Counter Affidavit.

That I have read and understood the contents of the present writ petition in response to which this Counter Affidavit is being filed and state that the same has been drafted under my instructions based on the records maintained by the Respondent No. 1 in its normal course of business and the same are true and correct.



3389

- 3. The Ministry has filed the reply in Civil Appeal No 9710 -9711 of 2028 and the same may be taken on record.
- 4. It is submitted that, in compliance of the Supreme Court order dated 10.08.2022 the Ministry of Environment, Forest and Climate Change has formed a Committee to inspect and conduct an inquiry after taking assistance of State Government and State Pollution Control Board (Respondent No. 3 and 4) and submit the compliance of the NGT Order dated 08.12.2017. The Office Memorandum related to constitution of said Committee is attached as ANNEXURE A.
- 5. It is submitted that the Committee inspected the site and submitted the enquiry report which is attached as ANNEXURE B.
- 6. It is submitted that Ministry is duty bound and completely dedicated for conservation of the flora and fauna of the country.
- 7. It is submitted that, before the Hon'ble Court that Ministry reserves its right to file additional affidavit as and when required till *pendent-lite*.
- 8. That in light of the aforementioned facts and circumstances, it is respectfully prayed that this Hon'ble Court may pass any order as it deem fit.



[Handwritten Signature]
 DEPONENT

(डॉ. के. मुथामिज़ सेल्वन)
 (Dr. K. MUTHAMIZH SELVAN)
 कर्मचारी 'E' / 'B' कक्षा में
 पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
 Min. of Environment, Forest and Climate Change
 भारत सरकार, नई दिल्ली
 Govt. of India, New Delhi



3390

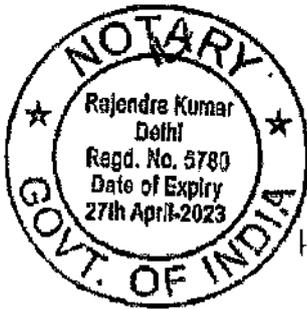
VERIFICATION

08 FEB 2023

Verified at New Delhi on this day of February, 2023 that the contents of the above affidavit are true and correct to the best of my knowledge based on the records; and no part of it is false and nothing material has been concealed therefrom.

[Handwritten Signature]
DEPONENT

(डा. के. मुथम्मिज़ सेल्वन)
(Dr. K. MUTHAMIZH SELVAN)
आरक्षण 'E' / 'Scientist E'
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Min. of Environment, Forest and Climate Change
नया दिल्ली, नई दिल्ली
Govt. of India, New Delhi



[Handwritten Signature]
BEFORE ME
RAJENDRA KUMAR
NOTARY, DELHI-R-5780
GOVERNMENT OF INDIA
SUPREME COURT OF INDIA
COMPOUND, NEW DELHI
Registrar Pg./Sl. No. *956*
Mobile No.: 9899446209
08 FEB 2023

CERTIFIED THAT THE CONTENTS EXPLAINED TO THE
DR. CHEN / EXECUTIVE WHO IS SEEMED PERFECT TO
UNDERSTAND & AFFIRMED DEPOSED BEFORE ME AT
08 FEB 2023
IDENTIFIED BY
SIGNED IN MY PRESENCE
IDENTIFIED BY
IDENTITY THE EXECUTANT / DEPONENT WHO HAS
WHO WAS SIGNED IN THE PRESENCE OF
R.K. Selvan

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743329/2022/PE

File No. 6-16/2021-PE Part(I). (Computer No. 176067)

P.No. 6-16/2021-PE-Part(I)

Government of India/ भारत सरकार

Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

(Project Elephant Division/ हाथी परियोजना विभाग)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aligarj,
New Delhi-110003

Dated 1.09.2022

OFFICE MEMORANDUM

Sub:- Civil Appeal 9710-9711 of 2018; Coal India Limited Vs. Dr Kashmiri Kakati & Ors in the Supreme Court of India - reg.

Reference is invited to the enclosed Supreme Court's order dated 10.03.22 in the Civil Appeal 9710-9711 of 2018, Coal India Limited Vs. Dr Kashmiri Kakati & Ors in the Hon'ble Supreme Court of India. The Hon'ble Supreme Court, vide the above stated order, has directed this Ministry to conduct an inquiry after taking assistance of State Government and State Pollution Control Board (respondent No. 3 and 4) and submit the compliance of the NGT order dated 08.12.2017 (Copy enclosed) in the OA No. 19 of 2014, Dr Kashmiri Kakati Vs. UoI & Ors within 8 weeks.

2. Since the matter involve issues related to Forest Conservation (FC), Impact Assessment (IA), Hazardous Substances Management (HSM), Control of Pollution (CP), Wildlife (WL) and Project Elephant (PE) divisions; in this context, a committee has been constituted to conduct the enquiry on the points raised in the above referred OA and on compliance of the Hon'ble NGT order and submit a report within 2 weeks. The composition of the committee is as follows:

S.No.	Name & Designation	
1	Shri. Preet Pal Singh DIG, Forest Conservation	Chairman
2	Shri. Sonu Singh E, Control of Pollution	Member
3	Shri. N.Subrahmanyam, Scientist D, Hazardous Substances Management (HSM)	Member
4	Shri. Munna Kumar Shah, Scientist D, IA	Member
5	Dr. K.M.Selvan, Scientist E, Project Elephant	Member convenor

These issues with the approval of the competent authority.

Encl: As above.

Rajendra Kumar
01/09/22
(Dr. Rajendra Kumar)
Scientist 'C' (Project Elephant)
Email: kumar.rajendra@nic.in
Telephone No. 011-20819306

Distribution: For information and necessary action.

- All the members of the committee.
- Addl Chief Secretary, Forests, Government of Assam.
- PCCF & HoFF, Government of Assam.
- PCCF & Chief Wildlife Wardens, Government of Assam, Guwahati.
- Member Secretary, Pollution Control Board Assam, Bamunimaidam, Guwahati.

Copy to:

- PPS to Secretary, MoEF&CC.
- PPS to DGF&SS, MoEF&CC
- PPS to ADG (FC/PT), MoEF&CC.
- PPS to ADG (Wildlife), MoEF&CC.
- PPS to Additional Secretary (NPG), MoEF&CC.
- PPS to Additional Secretary (TK), MoEF&CC.
- PPS to IGF (Wildlife), MoEF&CC.
- PS to IGF & Director (Forest Conservation/Project Elephant), MoEF&CC.

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F.No. 6-16/2021-PE-Part (1)
Government of India/ भारत सरकार
Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय
(Project Elephant Division/ हाथी परियोजना विभाग)

6th Floor, Vayu Wing,
 Indira Paryavaran Bhawan,
 Jor Bagh Road, Aliganj,
 New Delhi-110003

Dated: 4th January, 2023

To
The Inspector General of Forest and Director,
Project Elephant Division,
Ministry of Environment, Forest and Climate Change,
New Delhi-110003

Sub: Report of the Committee constituted by the Ministry of Environment, Forest and Climate Change to conduct an inquiry on the compliance of Hon'ble NGT Judgement dated 08.12.2017 in O.A. No. 19 of 2014, Dr. Kashmiri Kakati Vs. UoI & Ors-regd.

Sir,

In pursuance of the Ministry of Environment, Forest and Climate Change (MoEF&CC) vide F. No. 6-16/2021-PE-Part (1) dated 01.09.2022 to conduct an inquiry on the compliance of Hon'ble NGT Judgement dated 08.12.2017 in O.A. No. 19 of 2014, Dr. Kashmiri Kakati Vs. UoI & Ors, the Enquiry report of the Committee is submitted herewith for kind consideration.

Yours faithfully,
 Digitally signed by
K.Muthamizh Selvan
 Date: 2023.01.04
 17:10:41 +05'30'
(Dr. K. M. Selvan)
 Scientist 'B' (Project Elephant)
 (Member Convener of the Committee)
 Email: km.selvan@gov.in
 Tel: 011-20819272

Encl: Report of the Committee along with 13 annexures

Copy to:

1. Shri Preet Pal Singh, Deputy Inspector General of Forest (Forest Conservation), MoEF&CC (Chairman of the Committee)
2. Dr. Sonu Singh, Scientist E, Control of Pollution, MoEF&CC (Member)
3. Shri N. Subramanyam, Scientist D, Hazardous Substance Management (HSM), MoEF&CC (Member)
4. Shri Munna Kumar Shah, Scientist D, Impact Assessment, MoEF&CC (Member)

(Signature)

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Report of Committee Constiuted by the Ministry of Environment and Forest & Climate Change to conduct an inquiry on the compliance of Hon'ble NGT, judgment dated 08.12.2017 in the OA No 19 of 2014 Dr. Kaskmira Kakati Vs Uoi & Ors.,



Date: 4.1.2023

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1. Background

The applicant Dr. Kashmira Kakati is a wildlife conservationist who had worked extensively on elephant habitats in the State of Assam, especially in Dihing Patkai Wildlife sanctuary, Upper Dihing Reserve and Bogapani corridor. Dr. Kakati, in the petition to Hon'ble NGT in the year of 2014, raised concerns over the Elephant Reserve and elephant corridor which needs to be secured for the larger environmental good. The Hon'ble NGT, Principal Bench, vide judgment dated the 08.12.2017, directed following to be complied by the Central Government and State Government with a view to protect the elephant population and other related issues:

- 1) *The Central Government shall in exercise of the power conferred by Section 5 of the Environment Protection Act, 1986 and read with the provisions of Wildlife (Protection) Act, 1972 declare the area inhabited or used by elephants as conservation reserves.*
- 2) *We direct registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines.*
- 3) *Declare Bogapani Corridor which connects upper Dihing via Bogapani tea estates as forming part of the elephant corridor and issue notification in this regard.*
- 4) *Conduct a Survey of the elephant population in each state and consequently declare the area surrounding thereto as eco-sensitive zone.*
- 5) *Declare south Bramhaputra elephant ranges known as Dihing-Patkai Elephant Reserve established on 17th April, 2003 by Project Elephant as the elephant reserve/elephant corridor.*
- 6) *We hereby restrain the Digboi Town Municipal Corporation from dumping municipal waste and garbage in Dihing-Patkai Elephant Reserve.*
- 7) *Respondent No. 7 i.e. Oil India Limited to forthwith stop releasing of untreated oil effluent in open sludge pits and seepage areas*

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- around oil rigs in the Digboi Oil field which falls within upper Dihing RF (East Block) and the Dihing-Patkai Elephant Reserve.
- 8) We hereby direct Coal India Limited to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve.
 - 9) We direct Digboi Town Committee, Assam not to allow any construction activity in and around the Digboi reserve.
 - 10) We direct the State of Assam to work out a viable solution for handing over of the abandoned Coal mine of the Coal India Limited to the Forest Department for its proper maintenance and to prevent harm to the flora and fauna.
 - 11) We restrain permanent structure including residence in and around Golai Corridors by the Municipalities and Respondent Nos. 5, 6, 7 & 8 or private individuals.
 - 12) We direct Central Government to exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals.
 - 13) Respondent No. 1 to mandate before any proposed development within the established elephant habitat a prior wildlife clearance from the standing committee of the national board of wildlife is mandatory.
 - 14) The Respondent No. 1 shall consult Project Elephant to specially assess the impact of development as part of EIA process and ensure such assessment under Section 36 (4) of the Bio Diversity Act.
 - 15) We further direct the State Governments to constitute a State Level Committee comprising of Senior Officers headed by the Chief Conservator of Forest to conduct survey of the elephant population in each district in the State and demarcate the area of their habitation.

N. Sukhramanjan
Secretary

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- 16) *In the first instance the committee shall complete survey within a period of one year and submit the report to the Core Committee.*
- 17) *The Core Committee shall be constituted by the Central Government through Ministry of Environment, Forest & Climate Change to be headed by officer not below the rank of Additional or Joint Secretary in the Ministry who shall examine the report received from each State and to recommend declaration of area inhabited by the elephants as elephant reserve or elephant corridors by the Central Government an elephant reserve.*
- 18) *The core committee shall recommend to the Central Government further action in the matter relating to protection of elephants, declaration of elephant corridors, elephant reserves and for such other direction as may be necessary to fulfil the recommendation as contained in the Gajah (Report of the Elephant Task Force).*
- 19) *The State level Committee and Core Committee shall submit its report to the Tribunal within a period of one year from now and the Applicant will be entitled to approach this Tribunal for further direction as the circumstances may require."*

In this regard, Coal India approached the Hon'ble Supreme Court of India against the impugned Judgment dated 08.12.2017 of the Hon'ble NGT, Principal Bench in O.A. No. 19 of 2014 directing to register a separate case for Oil India Limited and Coal India Limited for further inquiry into the matter relating to adverse effects caused to the environment. The Hon'ble Supreme Court has directed MOEF&CC to file an action taken report on the directions passed by Hon'ble NGT, Principal Bench in O.A. No. 19 of 2014. The Ministry had filed the affidavit in compliance of order passed by the Hon'ble Supreme Court of India. However, in the latest order dated 10-08-2022, the Court directed the "*Ministry of Environment and Forest (Respondent no. 2) to conduct an inquiry after taking assistance from Respondent Nos. 3 & 4. Report in compliance of the National Green Tribunal's order be furnished to this Court within a period of 08 weeks*". The order enclosed as Annexure 1.

N. Subrahmanyam
Secretary

Sub
Secretary
Ministry

The issues raised by the Hon'ble NGT direction are related to Hazardous Substances Management (HSM), Control of Pollution (Water), Impact Assessment, Project Elephant and Forest Conservation Divisions of the Ministry. Therefore, as directed by the Hon'ble court, the Ministry of Environment Forest & Climate Change constituted an enquiry committee on 1st September 2022 under the chairmanship of DIG, Forest Conservation (Annexure 2). The composition of the committee is as follows:

#	Name & Designation	
1	Shri. Preet Pal Singh DIG, Forest Conservation, MoEF&CC	Chairman
2	Dr. Sonu Singh E, Control of Pollution, MoEF&CC	Member
3	Shri. N.Subrahmanyam, Scientist D, Hazardous Substances Management (HSM), MoEF&CC	Member
4	Shri Munna Kumar Shah, Scientist D, Impact Assessment, MoEF&CC	Member
5	Dr. K.M.Selvan, Scientist E, Project Elephant, MoEF&CC	Member Convener

The Committee conducted its first meeting on 1st September 2022 and discussed the directions of Hon'ble NGT and requested the State of Assam, vide letter dated 6th September 2022, to appoint a nodal person on behalf of the Principal Chief Conservator of Forest (Respondent No 3) and Pollution Control Board of Assam (Respondent No 4). Accordingly, Forest Department of Assam nominated Shri. Muthukumar Chief Conservator of Forest (CCF) and Pollution Control Board of Assam nominated Dr. Shantanu Kumar Dutta, Member Secretary, as the Nodal person for the inquiry.

N. Subrahmanyam
Munna Shah

2. Field Inspection of the Committee

The committee (except Shri N.Subrahmanyam) conducted the field inspection from 27th to 29th September 2022 in Dihing Patkai Wildlife Sanctuary and the corridors mentioned in the Hon'ble NGT order dated 08.12.2017. One member Shri N.Subrahmanyam of the committee conducted field inspection from 4th to 6th November, 2022. The committee held a meeting at Conference Hall, Makum Forest Guard School, Makum with all the concerned stakeholders i.e., representative of District Administration, Digboi Municipal Corporation, Assam Forest Department, Assam Pollution Control Board, Coal India Ltd, Oil India and Indian Oil Corporation Ltd and NHA. The participants list is enclosed at annexure 3.

The findings of the committee in respect of the directions passed by the Hon'ble NGT are as follows:

#	Directions	Findings
1	The Central Government shall in exercise of the power conferred by Section 5 of the Environment Protection Act, 1986 and read with the provisions of Wildlife (Protection) Act, 1972 declare the area inhabited or used by elephants as Conservation Reserves.	<p>The MoEF&CC has not issued any such directions under section 5 of the EPA, 1986. However, as per Sub-Section (1) of section 36A of the Wildlife (Protection) Act, 1972, "the State Government may, after having consultations with the local communities, declare any area owned by the Government, particularly the areas adjacent to National Parks and sanctuaries and those areas which link one protected area with another, as a conservation reserve for protecting landscapes, seascapes, flora and fauna and their habitat: Provided that where the conservation reserve includes any land owned by the Central Government, its prior concurrence shall be obtained before making such declaration.". Therefore, the State Government was required to declare the area inhabited or used by elephants as Conservation reserves.</p> <p>The State of Assam is yet to declare the areas inhabited or used by Elephant as Conservation Reserve.</p>
2	We direct registration of separate case against the Coal India Limited and Oil India Limited for further enquiry in the matter relating	The matter falls under the perview of the Water (Prevention and Control of Pollution) Act, 1974 and Hazardous Waste (Management and Handling) Rules, 1989, issued under the provisions of the

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 Sanku Singh
 K. S. Singh
 Anurag Singh

N. Subrahmanyam

	<p>to adverse effect caused to the environment consequent to the act of commission and omission in respect of oil extraction and coal extraction in their respective mines.</p>	<p>Environment Protection Act, 1986.</p> <p>The Pollution Control Board, Assam (PCB-A) was required to action against the said violation and conduct inquiry in the matter as per the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Hazardous Waste (Management and Handling) Rules, 1989. In this context, committee requested PCB-A to inform that whether any action or case has been registered against M/s CIL and M/s OIL. Pollution Control Board, Assam vide its email dated 29th September, 2022 submitted the reply that no case has been registered against M/s CIL and M/s OIL.</p> <p>The reply received from the Pollution Control Board, Assam is enclosed as annexure 4.</p> <p>Therefore, this direction of the NGT has not been complied with.</p>
3	<p>Declare Bogapani Corridor which connects upper Dehing via Bogapani tea estates as forming part of the elephant corridor and issue notification in this regard.</p>	<p>The Gajah Report 2010 identified the elephant corridors across the country including the Bogapani Corridor. The State of Assam was requested vide letters dated 24/08/2017, 17/11/2017 and 01/05/2018 to declare the corridors, including Bogapani corridor, identified by the said report as elephant corridor. These letters are attached as Annexure 5.</p> <p>Further, in pursuance of the landmark judgment passed by this Hon'ble Court in Civil Appeal No. 3438-3439/2020 (<i>Hospitality Association of Mudumalai Vs. In Defence of Environment and Animals & Ors</i>) the Ministry asked all elephant range states vide letter dated 14/12/2021 (Annexure 6) to implement the observation of the Hon'ble Supreme Court. In this case, the SC had observed that elephant corridors must be protected.</p> <p>Despite the directions of NGT and the Central Government, the State of Assam is yet to notify Bogapani Corridor as elephant corridor.</p>
4	<p>Conduct a Survey of the elephant population in each state and consequently declare the area surrounding thereto as eco-sensitive zone.</p>	<p>The Ministry conducts the survey of elephant population every five years in each state in the form of All India Elephant estimation.</p> <p>Significant and important elephant habitats have been notified as National Parks, Sanctuaries, Reserve Forest and Elephant Reserves. Some of the elephant habitats have also been notified as</p>






N. Subrahmanyam

		Tiger Reserves. In addition, areas, including elephant habitats, around most of the national parks and sanctuaries have also been declared as eco-sensitive zones. Proposals for use of area in National Parks, Sanctuaries, Tiger Reserves are being considered by the Standing Committee of the National Board for Wild Life as per the provisions contained in the Wild Life (Protection) Act, 1972.
5	Declare south Bramhaputra elephant ranges known as Dihing-Patkai Elephant Reserve established on 17th April, 2003 by Project Elephant as the elephant reserve/elephant corridor.	The State of Assam have notified five Elephant Reserve including Dihing- Patkai Elephant Reserve. The notification enclosed at annexure 7. However, the south Brahmaputra elephant areas have not been included in the Dihing- Patkai Elephant Reserve.
6	We hereby restrain the Digboi Town Municipal Corporation from dumping municipal waste and garbage in Dihing-Patkai Elephant Reserve.	The Digboi Town Municipal Corporation has stopped dumping the municipal waste referred to in the NGT order. However, IOCL is still dumping the municipal waste generated from IOCL and OIC India townships at the site. Further, it is the responsibility of Digboi Town Municipal to treat the legacy waste as per Solid Waste Management Rules 2016. Therefore, the problem of garbage dumping is continuing at the site.
7	Respondent No. 7 i.e. Oil India Limited to forthwith stop releasing of untreated oil effluent in open sludge pits and seepage areas around oil rigs in the Digboi Oil field which falls within upper Dihing RF (East Block) and the Dihing-Patkai Elephant Reserve.	(i) Oil is leaking from underground pipelines in the Reserve Forest. (ii) At several places, oily sludge pits of abandoned wells have been found and natural drains pass through these pits. (iii) Oil spill have been found in several oil producing wells and Crude Gathering Stations. No fencing had been provided at these well sites. (iv) More than 800 wells have been drilled since the operation of Burma Oil Company Ltd. Oil India Ltd does not even have the inventories of these abandoned oil wells, let alone treatment of these pits. (v) In the three oil sludge remediation sites visited, the remediation has not resulted in complete conversion of oily sludge into biodegradable matter. They do not even maintain the

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		<p>inventors of abandoned oil wells.</p> <p>Oil India Limited has been unable to stop the release of untreated oil effluent in open sludge pits and seepage areas around oil rigs in the Digboi Oil field.</p>
8	<p>We hereby direct Coal India Limited to prevent discharge of toxic pollutant i.e. yellowish-orange water flowing out of old mines, abandoned by it within Jeypore RF and Dihing-Patkai Elephant Reserve</p>	<p>(i) Waste water or seepage water from coal mines is in yellow colour is due to presence of Pyrite (Iron disulphide).</p> <p>(ii) Natural seepage from Tirap coal mine is entering Ledo Pani Nalla and the Nalla flows into Buri Dehing river.</p> <p>(iii) Even though wastewater collection pits, settling tanks and Effluent Treatment Plant (ETP) have been established, the said facilities are not operational.</p> <p>Coal India Limited has not taken any steps to prevent discharge of the toxic pollutant flowing out of old mines.</p>
9	<p>We direct Digboi Town Committee, Assam not to allow any construction activity in and around the Digboi reserve.</p>	<p>Despite clear directions from the NGT, the Digboi Town Committee has taken the position that the area is not under their jurisdiction. They have also not taken up the matter with other Authorities having jurisdiction over the area in question. The communication received from the Digboi Town Committee is enclosed at annexure 8.</p> <p>Therefore, action is yet to taken on this NGT direction.</p>
10	<p>We direct the State of Assam to work out a viable solution for handing over of the abandoned Coal mine of the Coal India Limited to the Forest Department for its proper maintenance and to prevent harm to the flora and fauna</p>	<p>The State Government did not furnish any record/document regarding any action being taken up to work out viable solution for handing over of abandoned mines of Coal India to Forest Department. The details requested from the state of Assam are enclosed at annexure 9.</p> <p>In several abandoned mines, the structures/houses constructed by Coal India were found intact. Further, these houses/structures are occupied. It was the responsibility of Coal India to remove these structures at their cost, restore the area to original status and physically hand over the abandoned coal mines, free of all encumbrances, to the Forest department.</p> <p>Therefore, it has been concluded that this direction of the NGT is yet to be implemented.</p>

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N. Subrahmanyam

11	We restrain permanent structure including residence in and around Golai Corridors by the Municipalities and Respondent Nos. 5, 6, 7 & 8 or private individuals	<p>The site visit revealed that Golai Corridor is no longer a viable corridor for passage of elephants. This corridor is already blocked due to construction of permanent structures. Further, no steps have been taken regarding permanent structures present in the Golai Corridor. Photographs are enclosed at annexure 10.</p> <p>The NGT direction has not been complied with.</p>
12	We direct Central Government to exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals	<p>The Gajah Elephant Task Force Report, 2010 recommended that critical elephant habitats and corridors that come under the PA network should be considered for declaration as Community and Conservation Reserves.</p> <p>The Ministry has already asked the State of Assam to notify corridors identified by the Gajah Elephant Task Force Report, 2010 including Bogopani and Golai Elephant corridors, vide letters dated 24/08/2017, 17/11/2017 and 01/05/2018. The communication details are enclosed at Annexure 11.</p> <p>Further, the MoEFCC has not issued any specific directions under section 5 of EPA, 1986 directing the state of Assam to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas. However, State is empowered to protect and declare such areas as a Protected Areas under the Wildlife (Protection) Act, 1972.</p> <p>These elephant corridors are yet to be notified by the State Government.</p>
13	Respondent No. 1 to mandate before any proposed development within the established elephant habitat a prior wildlife clearance from the standing committee of the national board of wildlife is mandatory.	<p>Significant and important elephant habitats have been notified as National Parks, Sanctuaries, Reserve Forest and Elephant Reserves. Some of the elephant habitats have also been notified as Tiger Reserves. In addition, areas around most of the national parks and sanctuaries have also been declared as eco-sensitive zones. Proposals for use of area in National Parks, Sanctuaries, Tiger Reserves are being considered by the Standing Committee of the National Board for Wild Life as per the provisions contained in the Wild Life (Protection) Act, 1972.</p> <p>Further, Inspector General of Forests and Director, Project Elephant is also a member of the Standing Committee of National Board for Wild Life (NBWL).</p>

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Suresh Singh
K. Gopinath
M. Suresh Babu

N. Subrahmanyam

14	<p>The Respondent No. 1 shall consult Project Elephant to specially assess the impact of development as part of EIA process and ensure such assessment under Section 36 (4) of the Bio Diversity Act.</p>	<p>The IA Division, MoEF&CC has reported that they have been consulting Project Elephant Division while granting EC to in Elephant Corridors, Elephant Reserves, etc.</p> <p>The Standard Terms of Reference (ToR) issued by MoEF & CC for the EIA process mentions that</p> <ul style="list-style-type: none"> (i) Status of forest clearance for the use forest land shall be submitted. (ii) Copy of the application submitted for clearance under the Wildlife Protection Act, 1972 to the Standing Committee of the national Board for Wildlife if the project site located within notified Eco Sensitive Zone, 10 km radius of National Park/Sanctuary wherein final ESZ notification is not in place as per MoEF & CC Office Memorandum dated 8/8/2019. (iii) The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco Sensitive Zone and Eco Sensitive areas, showing the distance between the project site and the said areas. (iv) Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna, if any exist in the study area. <p>One such sample ToR is annexed at annexure 12.</p> <p>From these ToRs, it is clear that assessment as mandated under section 36(4) of the Bio-diversity Act is duly carried out.</p>
15	<p>We further direct the State Governments to constitute a State Level Committee comprising of Senior Officers headed by the Chief Conservator of Forest to conduct survey of the elephant population in each district in the State and demarcate the area of their habitation.</p>	<p>All India elephant estimation is done every five years through the State Governments/ UT Administrations, by Project Elephant.</p> <p>The States are yet to constitute the committee.</p>
16	<p>In the first instance the committee shall complete</p>	

	survey within a period of one year and submit the report to the Core Committee.	
17	The Core Committee shall be constituted by the Central Government through Ministry of Environment, Forest & Climate Change to be headed by officer not below the rank of Additional or Joint Secretary in the Ministry who shall examine the report received from each State and to recommend declaration of area inhabited by the elephants as elephant reserve or elephant corridors by the Central Government an elephant reserve	<p>The Core Committee has already been constituted in the form of Steering Committee of Project Elephant. This committee is chaired by the Hon'ble Minister EF&CC. The mandate of the committee is to review the implementation of Project Elephant and provide suitable guidance from time to time for which the committee may meet as and when necessary.</p> <p>The Steering Committee is the apex committee of Project Elephant, constituted since 1995 to review the implementation of the Project Elephant Scheme and provide suitable guidance from time to time to the Ministry. Seventeen meetings have been held till dated (20.12.2022). Pursuant to decisions taken in the aforesaid committee, directions have been passed to the State Governments regarding the decision taken in the Steering Committee meeting.</p> <p>Further, the MoEF&CC has also constituted a Central Project Elephant Monitoring Committee (CPEMC), on the request of Hon'ble Supreme Court in the Writ Petition (Civil) No. 489 of 2018. The committee had its 4th meeting at Periyar Tiger Reserve, Kerala on 13th August 2022.</p> <p>The details of the Steering Committee and CPEMC are enclosed at annexure 13.</p>
18	The core committee shall recommend to the Central Government further action in the matter relating to protection of elephants, declaration of elephant corridors, elephant reserves and for such other direction as may be necessary to fulfil the recommendation as contained in the Gajah (Report of the Elephant Task Force	
19	The State Level Committee and Core Committee shall submit its report to the Tribunal within a period of one year from now and the Applicant will be entitled to approach this Tribunal for further direction as the circumstances may	<p>Vide order dated 02.05.2018, the Principal Bench, NGT in Writ Petition No. 246 of 2018 directed MoEF&CC to file compliance report in respect of directions issued by NGT in OA 19 of 2014 (Kashmira Kakati Vs Uoi & Ors).</p> <p>In compliance, the Ministry had filed the compliance report before the NGT.</p> <p>The State Level Committees are yet to be constituted.</p>

App

K. Suresh Kumar

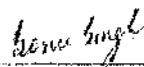
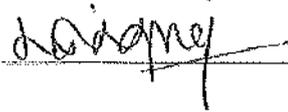
S. S. Srinivasan
Secretary

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require."	
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The committee on the view that most of the directions passed by the Hon'ble Tribunal judgement dated 08th December, 2017 in O.A. no. 19/2014 Dr. Kashmira Kakati Vs. UOI & Ors., has not been complied with the State Government of Assam. As the area adjacent to the Dihing-Patkai Elephant Reserve is very critical for elephant and other wildlife, it is important to protect these habitats with priority for long term conservation. Restoring the Golai and Bogapani elephant corridors are very crucial for movement of elephants between the habitats. IOCL Petroleum Products Disposal Terminal, hotels and number of residential building are effectively blocking the movement of elephants especially in Golai corridor. The State Government needs to address these issues on the top priority.

Signature of the committee members

1. Shri. Preet Pal Singh, DIG, MoEF & CC: 
2. Dr. Sonu Singh, Scientist E, MoEF & CC: 
3. Shri. Munna Kumar Shah, Scientist E, MoEF & CC: 
4. Shri. N.Subrahmanyam, Scientist D, MoEF&CC: 
5. Dr. K.M.Selvan, Scientist E, MoEF & CC: 

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ANNEXURE-1

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ITEM NO.105

COURT NO.11

SECTION XVII

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Civil Appeal No(s). 9710-9711/2018

COAL INDIA LIMITED

Appellant(s)

VERSUS

DR . KASHMIRA KAKATI & ORS.

Respondent(s)

IA No. 165107/2021 - PERMISSION TO FILE ADDITIONAL
DOCUMENTS/FACTS/ANNEXURES

IA No. 107966/2018 - STAY APPLICATION)

Date : 10-08-2022 These matters were called on for hearing today.

CORAM : HON'BLE MR. JUSTICE AJAY RASTOGI
HON'BLE MR. JUSTICE C.T. RAVIKUMAR

For Appellant(s)

Mr. Vikramjeet Banerjee, ASG
Mr. Neeraj Kumar Gupta, AOR
Mr. Lilian Kadam, Adv.
Mr. Rahul Verma, Adv.
Mr. Ranjeet Kumar Singh, Adv.
Mr. Arti Prasad, Adv.
Mr. Abhishek Kumar, Adv.
Mr. Shivam Singhanian, Adv.
Ms. Shruti Agarwal, Adv.

For Respondent(s)

Mr. Sanjay Upadhyay, Adv.
Ms. Eisha K., Adv.
Ms. M. Bachani, Adv.
Ms. Mayuri Raghuvanshi, AOR

Ms. Aishwarya Bhati, ASG
Ms. Archana Pathak Dave, Adv.
Ms. Kirti Khangarot, Adv.
Mr. Ameya Mahadik, Adv.
Mr. Pashupati Nath Rajdan, Adv.
Ms. Shibashish Mishra, Adv.
Ms. Ruchi Kohli, Adv.
Mr. Gurmeet Singh Makker, AOR

Mr. Avijit Roy, AOR

M/S. Trust Legal, AOR

Mr. Shuvodeep Roy, AOR
Mr. Arnab Singh Deo, Adv.

Mr. Sridhar Potaraju, Adv.
Mr. Gaichangpon Gangmei, Adv.

Ms. Shiwani Tushir, Adv.
Mr. Raghav Sethi, Adv.
Ms. Simran Gupta, Adv.

UPON hearing the counsel the Court made the following
O R D E R

We have heard learned counsel for the parties for some time.

It is brought to our notice that against the order of the National Green Tribunal dated 08.12.2017, in the first instance, there was an order of status quo which was directed to be maintained by the parties. In the meantime, by an order dated 14.09.2018 and by subsequent order dated 07.01.2022, Union of India was directed to file a current status report regarding the steps taken for implementation of the directions given by the National Green Tribunal.

Although, the status report has been filed by the Union of India but taking into consideration the material on record, we consider it appropriate to clarify and permit the Ministry of Environment and Forest(Respondent no. 2) to conduct an inquiry after taking assistance from Respondent Nos. 3 & 4. Report in compliance of the National Green Tribunal's order be furnished to this Court within a period of 08 weeks.

Advance copy of the report be made available to the respective parties and parties are at liberty to file their objections, if so advised, within two weeks thereafter.

List on 30.11.2022.

(MONIKA DEY)
COURT MASTER (NSH)

(ASHWANI THAKUR)
ASTT. REGISTRAR-cum-PS

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ANNEXURE-2

F.No. 6-16/2021-PE-Part(1)
Government of India/ भारत सरकार

Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय
(Project Elephant Division/ हाथी परियोजना विभाग)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003

Dated 1.09.2022

OFFICE MEMORANDUM

Sub:- Civil Appeal 9710-9711 of 2018, Coal India Limited Vs. Dr Kashmiri Kakati & Ors in the Supreme Court of India - reg.

Reference is invited to the enclosed Supreme Court's order dated 10.08.22 in the Civil Appeal 9710-9711 of 2018, Coal India Limited Vs. Dr Kashmiri Kakati & Ors in the Hon'ble Supreme Court of India. The Hon'ble Supreme Court, vide the above stated order, has directed this Ministry to conduct an inquiry after taking assistance of State Government and State Pollution Control Board (respondent No. 3 and 4) and submit the compliance of the NGT order dated 08.12.2017 (Copy enclosed) in the OA No. 19 of 2014, Dr Kashmiri Kakati Vs. UoI & Ors within 8 weeks.

2. Since the matter involve issues related to Forest Conservation (FC), Impact Assessment (IA), Hazardous Substances Management (HSM), Control of Pollution (CP), Wildlife (WL) and Project Elephant (PE) divisions, in this context, a committee has been constituted to conduct the enquiry on the points raised in the above referred OA and on compliance of the Hon'ble NGT order and submit report within 2 weeks. The composition of the committee is as follows:

S.No.	Name & Designation	
1	Shri. Preet Pal Singh DIG, Forest Conservation	Chairman
2	Shri. Sonu Singh E, Control of Pollution	Member
3	Shri. N.Subrahmanyam, Scientist D, Hazardous Substances Management (HSM)	Member
4	Shri. Munna Kumar Shah, Scientist D, IA	Member
5	Dr. K.M.Selvan, Scientist E, Project Elephant	Member convener

These issues with the approval of the competent authority.

Encl: As above.


(Dr. Rajendra Kumar)
Scientist 'C' (Project Elephant)
Email: kumar.rajendra@nic.in
Telephone No. 011-20819306

Distribution: For information and necessary action.

- All the members of the committee.
- Addl Chief Secretary, Forests, Government of Assam.
- PCCF&HoFF, Government of Assam.
- PCCF & Chief Wildlife Wardens, Government of Assam, Guwahati.
- Member Secretary, Pollution Control Board Assam, Bamunimaidam, Guwahati.

Copy to:

- PPS to Secretary, MoEF&CC.
- PPS to DGF&SS, MoEF&CC
- PPS to ADG (FC/PT), MoEF&CC.
- PPS to ADG (Wildlife), MoEF&CC.
- PPS to Additional Secretary (NPG), MoEF&CC.
- PPS to Additional Secretary (TK), MoEF&CC.
- PPS to IGF (Wildlife), MoEF&CC.
- PS to IGF & Director (Forest Conservation/Project Elephant), MoEF&CC.

Sl No.	Name and Designation	Phone Number	E-mail	Signature
1	Shri Preet Pal Singh, DIG Forest Conservation	9127477817	preetpal.singh @nic.in	
2	Shri Sonu Singh, E. Control of Pollution.	8527758 316	Sonu Singh @gov.in	
3	Shri Munna Kumar Shah Scientist B, IA	7012211887	Munna Shah @gov.in	
4	Dr. K. H. Selvan, Scientist H Project Elephant	8610038753	K.h.selvan@gov.in	
5	Dr. C. Muthukumaravel CCF & Nodal Officer (FC Act) Assam	9145385 00123	cmk.p.c.f. nodal@ gov.in	
6	Shri T.C. Ranjith Ram DFO Digboi Div.			
7	Shri. Sandeep B. DFO Dibrugarh Div	8486158105	sfof.dibrugarh @gov.in	
8	Kasturi P. Sule ACF Digboi Div	8097257138	kastusule@ gmail.com	
9	Shri. Saidul Alam I/C Digboi Range	94350 46475	alam9001@ gmail.com	
10	Dilip Nandi GIM (TSJHSE), IOCL-DR	94350- 23352	d.nandi@ nic.gov.in	
11	Kamal Banerjee GIM (HSE), IOCL-DIB	94350- 11980	kbanerjee@ nic.gov.in	
12	Yojeshwar Pandey Manager, (P) NHDEE	943576763	yjeshwar.pandey @gmail.com	
13	Rafiqul Islam Assistant Engineer, NHDEE	60001 79077	rafiqueulislam @gmail.com	
14	Udit Dutta Choudhury Chairman, Digboi Municipal	863865 6296	u.digboi@gov.in	
15	Pranta Pratim Patra, P.C.S. Executive Officer D.M.B.	600025- 0642	"	

15	SANTAY VERMA	9435205053	santayverma@oilindia.in	Santay V
17	Jaybansidar Basumaty	9435728155	jaybansidar@oilindia.in	Jaybansidar
18	PARASH THAKUR	7002660683	parashthakur@oilindia.in	Parash
19	G. G. RAOU	9A35719932	gvinodass@oilindia.in	G. G. Rao
20	S.P. Datta	9535110580	sp-ncc@oilindia.in	S.P. Datta
21	Naruttam Das	9531105680	naruttam.das@oilindia.in	Naruttam Das
22	Hiren Begu	9835154044	hiren@oilindia.in	Hiren
23	Tasun Sharma	9816566666	Tasun.Sharma@oilindia.in	Tasun
24	Ranjit Das	953571477	ranjitdas@oilindia.in	Ranjit
25	Mohit Arora	946514606	mohit-arora@oilindia.in	Mohit Arora 27/09/2022
26				
27				
28				
29				
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Pollution Control Board: Assam
Regional Office- Dibrugarh, P.O & Dist- Dibrugarh. Phone No-0373-2325527
E-mail:apcb@dibrugarh@gmail.com, ro_dibrugarh@pcbassam.org
Website: www.pcbassam.org

ANNEXURE-4

No. RO/DBR/T-3951/2014-15/12

Dated Dibrugarh, the 29th September 2022

To,
Dr Sonu Singh
Scientist-E(Additional Director),
Ministry of Environment, Forest & Climate Change,
Govt of India, New Delhi

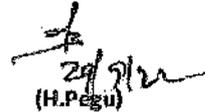
Sub: Committee visit to Assam in compliance of Hon'ble Supreme Court Order-Reg
Ref: Queries put forward by the Enquiry Committee email dated 27.09.2022

Sir,

With reference to the above subject, I have the honour to forward the reply to the Queries put forwarded by the enquiry committee vide email dated 27.09.2022 for favour of your needful

Encl: As stated

Yours faithfully


(H.Pegu)

Regional Executive Engineer

Dated Dib, the 29th Sept'2022

MEMO: NO: RO/DBR/ T-3951/2014-15/12-A

Copy to: 1) The Member Secretary, Pollution Control Board Assam, Bamunimaidam, Ghy-21 for favour of your kind information.

Yours faithfully


(H.Pegu)

Regional Executive Engineer
P.C.B.A., R.O. Dibrugarh

Head Office: Bamunimaidam, Guwahati-781021, Assam: India.
Phone: 2652774 & 2550258 : Fax : 0361-2550259; Gram: POLLUTION CONTROL
E-mail: membersecretary@pcbassam.org; Website: www.pcbassam.org
Regional Offices at: Dibrugarh, Golaghat, Sibsagar, Nawgaon, Tezpur, Guwahati, Bongaigaon & Silchar

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Query 1: The details of the case registered against Coal India and Oil India regarding the damage caused to environment during commissioning and operations. [information to be provided by Coal India, Oil India and SPCB].

Reply: Pollution Control Board Assam had not registered case against Oil India Ltd. & Coal India.

Query 2: Number and status of wells and pits for collecting effluent/sludge and there remediation and estimated cost for remediation [information to be provided by Oil India].

Query 3: Procedure followed for treatment of oil effluent from oil rigs in Digboi oil field [information to be provided by Oil India].

Query 4: Inspection report of oil effluent treatment plant and sludge pits from rigs in Digboi oil field since Hon'ble NGT directions in the matter [information to be provided by SPCB].

Reply: Inspection report not prepared. For last 20years, no drilling activity was carried out in Digboi Oil Field as per information from Oil India Limited. No Effluent treatment plant or new sludge pits were seen. Usually for drill sites, they install Mobile Effluent Treatment Plant and construct HDPE lined pits for storage of effluent and other activities.

Query 5: Inspection report of abandoned and operational mines w.r.t. discharge from mines since Hon'ble NGT directions in the matter [information to be provided by SPCB].

Reply: Inspection report not prepared .However, water and soil samples were collected from various sources of coal mining operation area on 04.01.2021, 03.03.2021 & 08.03.2021 and reports are enclosed as Annexure-A.(Coal India Ltd was non-operational for last two years. Production started again from February'2022 onwards)

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Bamini Maidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-01/21

SAMPLE INFORMATION

1. Source: Water from Tikok OCP (Mining pit/Void)
2. Location: N-27°16'48" S & E-95°43'05.7972"
3. Date & Time of Collection : 2021-01-04 at 12:50 PM
4. Date of Receipt : 2021-01-05
5. Collected By : Mr. D. Handique, SA

ANALYSED PARAMETERS:

		Discharge Standard (as per SCHEDULE VI of EP Act, 1986)
pH	4.9	5.5-9.0
Oil & Grease (O&G)	BDL mg/l	10 mg/l
Biochemical Oxygen Demand (BOD)	4.3 mg/l	30 mg/l
Chemical Oxygen Demand (COD)	15.8 mg/l	250 mg/l
Suspended Solid (SS)	72.0 mg/l	100 mg/l
Nitrate as N	9.3 mg/l	50 mg/l
Phenolic Compounds	BDL mg/l	1 mg/l
Phosphate as P	0.1 mg/l	5 mg/l
Sulphide as S	BDL mg/l	2 mg/l
Hexavalent Chromium	BDL mg/l	0.1 mg/l
Total Chromium	0.07 mg/l	2 mg/l
Lead	0.08 mg/l	0.1 mg/l
Mercury	BDL mg/l	0.01 mg/l
Zinc	0.896 mg/l	5 mg/l
Nickel	1.483 mg/l	3 mg/l
Copper	0.127 mg/l	3 mg/l
Cadmium	BDL mg/l	2 mg/l

*BDL: Below Detectable Limit

Remark: The water sample is found to be slightly acidic.

15.01.21
i/s, Laboratory
PCB, Assam

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Bamanumaidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-02/21

SAMPLE INFORMATION

1. Source: Water from Roadside drain of Tikok QCP area
2. Location: N-27°15'48.3336" & E-95°43'05.7972"
3. Date & Time of Collection : 2021-01-04 at 01:15 PM
4. Date of Receipt : 2021-01-05
5. Collected By : Mr. D. Handique SA

ANALYSED PARAMETERS:

		Discharge Standard (as per SCHEDULE VI of EP Act, 1986)
pH	5.8	5.5-9.0
Oil & Grease (O&G)	1.4 mg/l	10 mg/l
Biochemical Oxygen Demand (BOD)	12.8 mg/l	30 mg/l
Chemical Oxygen Demand (COD)	47.5 mg/l	250 mg/l
Suspended Solid (SS)	92.0 mg/l	100 mg/l
Nitrate as N	0.4 mg/l	50 mg/l
Phenolic Compounds	BDL mg/l	1 mg/l
Phosphate as P	0.2 mg/l	5 mg/l
Sulphide as S	BDL mg/l	2 mg/l
Hexavalent Chromium	BDL mg/l	0.1 mg/l
Total Chromium	0.138 mg/l	2 mg/l
Lead	0.09 mg/l	0.1 mg/l
Mercury	BDL mg/l	0.01 mg/l
Zinc	0.255 mg/l	5 mg/l
Nickel	1.115 mg/l	3 mg/l
Copper	BDL mg/l	3 mg/l
Cadmium	BDL mg/l	2 mg/l

*BDL: Below Detectable Limit

Remark: All the parameters are found to be within the Tolerance Limit.

15/02/21
i/c, Laboratory
PCB, Assam



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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Bamunmeidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-03/21

SAMPLE INFORMATION

1. Source: Water from Ledo Katcha Nallah
2. Date & Time of Collection : 2021-01-04 at 01:30 PM
3. Date of Receipt : 2021-01-05
4. Collected By : Mr. D. Handique SA

ANALYSED PARAMETERS:

		Discharge Standard (as per SCHEDULE VI of EP Act, 1986)
pH	5.7	5.5-9.0
Oil & Grease (O&G)	BDL mg/l	10 mg/l
Biochemical Oxygen Demand (BOD)	2.6 mg/l	30 mg/l
Chemical Oxygen Demand (COD)	8.8 mg/l	250 mg/l
Suspended Solid (SS)	46.0 mg/l	100 mg/l
Nitrate as N	3.4 mg/l	50 mg/l
Phenolic Compounds	BDL mg/l	1 mg/l
Phosphate as P	0.1 mg/l	5 mg/l
Sulphide as S	BDL mg/l	2 mg/l
Hexavalent Chromium	BDL mg/l	0.1 mg/l
Total Chromium	0.074 mg/l	2 mg/l
Lead	0.048 mg/l	0.1 mg/l
Mercury	BDL mg/l	0.01 mg/l
Zinc	0.116 mg/l	5 mg/l
Nickel	0.943 mg/l	3 mg/l
Copper	BDL mg/l	3 mg/l
Cadmium	BDL mg/l	2 mg/l

*BDL: Below Detectable Limit

Remark: All the parameters are found to be within the Tolerance Limit.

15/01/21
i/c, Laboratory
PCB, Assam

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam

Bamunimaidan, Guwahati-781021, Assam

website: www.pcbassam.org

ANALYSIS REPORT OF TC-07/21

SAMPLE INFORMATION

1. Source: Stagnated water of Trap OCP
2. Date & Time of Collection : 2021-03-03 at 12:30 PM
3. Date of Receipt : 2021-03-04
4. Collected By : Mr. D. Handique, SA

ANALYSED PARAMETERS:

		Discharge Standard (as per SCHEDULE VI of EP Act, 1986)
pH	4.3	5.5-9.0
Oil & Grease (O&G)	BDL mg/l	10 mg/l
Biochemical Oxygen Demand (BOD)	2.1 mg/l	30 mg/l
Chemical Oxygen Demand (COD)	6.2 mg/l	250 mg/l
Suspended Solid (SS)	44.0 mg/l	100 mg/l
Nitrate as N	1.5 mg/l	50 mg/l
Phenolic Compounds	BDL mg/l	1 mg/l
Phosphate as P	0.1 mg/l	5 mg/l
Sulphide as S	BDL mg/l	2 mg/l
Hexavalent Chromium	BDL mg/l	0.1 mg/l
Total Chromium	0.082 mg/l	2 mg/l
Lead	0.073 mg/l	0.1 mg/l
Mercury	BDL mg/l	0.01 mg/l
Zinc	0.659 mg/l	5 mg/l
Nickel	1.079 mg/l	3 mg/l
Copper	0.001 mg/l	3 mg/l
Cadmium	BDL mg/l	2 mg/l

*BDL: Below Detectable Limit

Remark: The water sample is found to be acidic.

15.07.21
I/c, Laboratory
PCE, Assam

3417



অসম প্রদূষণ নিয়ন্ত্রন পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Baminumaldan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-08/21

SAMPLE INFORMATION

1. Source: Water from Samukjan Nuliah
2. Date & Time of Collection : 2021-03-03 at 12:50 PM
3. Date of Receipt : 2021-03-04
4. Collected By : Mr. D. Handique, SA

ANALYSED PARAMETERS:

		Discharge Standard (as per SCHEDULE VI of EP Act, 1986)
pH	5.8	5.5-9.0
Oil & Grease (O&G)	BDL mg/l	10 mg/l
Biochemical Oxygen Demand (BOD)	1.8 mg/l	30 mg/l
Chemical Oxygen Demand (COD)	4.6 mg/l	250 mg/l
Suspended Solid (SS)	42.0 mg/l	100 mg/l
Nitrate as N	0.1 mg/l	50 mg/l
Phenolic Compounds	BDL mg/l	1 mg/l
Phosphate as P	0.1 mg/l	5 mg/l
Sulphide as S	BDL mg/l	2 mg/l
Hexavalent Chromium	BDL mg/l	0.1 mg/l
Total Chromium	BDL mg/l	2 mg/l
Lead	0.085 mg/l	0.1 mg/l
Mercury	BDL mg/l	0.01 mg/l
Zinc	0.076 mg/l	5 mg/l
Nickel	0.086 mg/l	3 mg/l
Copper	BDL mg/l	3 mg/l
Cadmium	BDL mg/l	2 mg/l

*BDL: Below Detectable Limit

Remark: All the parameters are found to be within the Tolerance Limit.

15.03.21
I/c, Laboratory
PCB, Assam

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ
POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Baminumaidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-09/21

SAMPLE INFORMATION

1. Source: Soil Sample from paddy field of Leda gaon
2. Date & Time of Collection : 2021-03-08 at 01:00 PM
3. Date of Receipt : 2021-03-09
4. Collected By : Mr. M. D. Handique, SA EE8

ANALYSED PARAMETERS:

pH (1:5)	5.7
Oil & Grease (O&G)	BDL mg/kg
Ignitibility	Non-ignitible
Chromium (T)	0.144 mg/kg
Lead as Pb	0.92 mg/kg
Zinc as Zn	1.428 mg/kg
Copper as Cu	0.284 mg/kg
Nickel as Ni	1.246 mg/kg
Cadmium as Cd	BDL mg/kg
Mercury as Hg	BDL mg/kg

BDL: Below Detectable Limit

15-03-21
i/c, Laboratory
PCB, Assam



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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ
POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Bamini Maidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-10/21

SAMPLE INFORMATION

1. Source: Soil Sample from paddy field of Cipe gaon.
2. Date & Time of Collection : 2021-03-06 at 01:15 PM
3. Date of Receipt : 2021-03-09
4. Collected By : Mr D Handique SA

ANALYSED PARAMETERS:

pH (1:5)	5.6
Oil & Grease (O&G)	BDL mg/kg
Ignitibility	Non-Ignitable
Chromium (T)	0.176 mg/kg
Lead as Pb	0.364 mg/kg
Zinc as Zn	1.028 mg/kg
Copper as Cu	0.288 mg/kg
Nickel as Ni	1.286 mg/kg
Cadmium as Cd	BDL mg/kg
Mercury as Hg	BDL mg/kg

BDL: Below Detectable Limit

15.03.21
i/c, Laboratory
PCB, Assam

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ
POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Baminumsidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-11/21

SAMPLE INFORMATION

1. Source: Soil Sample from paddy field of Samukjan gaon.
2. Date & Time of Collection: 2021-03-08 at 01:35 PM
3. Date of Receipt: 2021-03-10
4. Collected By: Mr. D. Handique SA

ANALYSED PARAMETERS:

pH (1.5)	5.9
Oil & Grease (O&G)	BDL mg/kg
Ignitibility	Non-ignitable
Chromium (T)	0.244 mg/kg
Lead as Pb	0.064 mg/kg
Zinc as Zn	1.250 mg/kg
Copper as Cu	0.232 mg/kg
Nickel as Ni	1.155 mg/kg
Cadmium as Cd	BDL mg/kg
Mercury as Hg	BDL mg/kg

BDL: Below Detectable Limit

15.03.21

i/c, Laboratory
PCB, Assam

[Handwritten signature]

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ
POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests, Government of Assam
Bamunimaidan, Guwahati-781021, Assam
website www.pcbassam.org

ANALYSIS REPORT OF TC-13/21

SAMPLE INFORMATION

1. Source: Soil Sample from paddy field of Lado Coal para gaon.
2. Date & Time of Collection: 2021-03-08 at 02:20 PM
3. Date of Receipt: 2021-03-09
4. Collected By: Mr. D. Handique, SA

ANALYSED PARAMETERS:

pH (1:5)	5.7
Oil & Grease (O&G)	BDL mg/kg
Ignitibility	Non-ignitible
Chromium (T)	0.147 mg/kg
Lead as Pb	0.055 mg/kg
Zinc as Zn	1.051 mg/kg
Copper as Cu	0.174 mg/kg
Nickel as Ni	1.104 mg/kg
Cadmium as Cd	BDL mg/kg
Mercury as Hg	BDL mg/kg

BDL: Below Detectable Limit

15/03/21
Vc, Laboratory
PCB, Assam

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অসম প্ৰদূষণ নিয়ন্ত্ৰণ পৰিষদ POLLUTION CONTROL BOARD, ASSAM

Department of Environment and Forests Government of Assam
Bamunimaidan, Guwahati-781021, Assam
website: www.pcbassam.org

ANALYSIS REPORT OF TC-12/21

SAMPLE INFORMATION

1. Source: Soil Sample from paddy field of Rod gaon.
2. Date & Time of Collection : 2021-03-08 at 01:50 PM
3. Date of Receipt : 2021-03-09
4. Collected By : Mr. D. Handique, SA

ANALYSED PARAMETERS:

pH (1:5)	5.8
Oil & Grease (O&G)	BDL mg/kg
Ignitibility	Non-ignitable
Chromium (T)	0.193 mg/kg
Lead as Pb	0.055 mg/kg
Zinc as Zn	0.862 mg/kg
Copper as Cu	0.202 mg/kg
Nickel as Ni	0.315 mg/kg
Cadmium as Cd	BDL mg/kg
Mercury as Hg	BDL mg/kgkg

BDL: Below Detectable Limit

15-03-21
i/c, Laboratory
PCB, Assam

SUPREME COURT MATTER
TIME BOUND**F.No.6-15/2017 PE**

Government of India

Ministry of Environment, Forest and Climate Change
Project Elephant DivisionIndira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003

Date: 24 August, 2017

**Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ
Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs.
Union of India Ors.**

Sir,

Kindly find enclosed the order of the Hon'ble Supreme Court order dt. 04-08-2017 Writ Petition (C) no. 275 of 2015, wherein the Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, you are requested to assess the feasibility of protecting these corridors in your respective state and if any, land acquisition is to be done, make it expeditiously.

If any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is further requested to furnish an action taken report within 60 days for filing of the affidavit in Hon'ble Supreme Court.

Yours faithfully,


24.8.17**(R.K. Srivastava)**
Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695292
E-mail: igpo-mef@nic.in

Encl: As above

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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WP(C) No. 275/15

ITEM NO. 6

COURT NO. I

SECTION PIL-W

SUPREME COURT OF INDIA
RECORD OF PROCEEDINGS

Writ Petition(s) (Civil) No(s) 275/2015

VIDYA ATEREYA & ANR.

Petitioner(s)

VERSUS

UNION OF INDIA . & ORS.

Respondent(s)

Date : 04-08-2017 This petition was called on for hearing today.

CORAM :

HON'BLE THE CHIEF JUSTICE
HON'BLE DR. JUSTICE D.Y. CHANDRACHUD

For Petitioner(s) Mr. Shyam Divan, Sr. Adv.
Mr. P. K. Manohar, AOR

For Respondent(s) Ms. Finky Anand, ASG
Mr. Wasim Qadri, Adv.
Mr. Deepak Goel, Adv.
Ms. Sonya Rathore, Adv.
Mr. Gurmeet Singh Makker, AOR

Mr. S. K. Mishra, Adv. Genl.
Mr. Pawan Upadhyay, Adv.
Mr. Sarvjit Pratap Singh, Adv.
Ms. Sharmila Upadhyay, AOR

Mr. Amit Sharma, Adv.
Mr. P. K. Mullick, Adv.
Mr. A. G. Pradhan, Adv.
Mrs. Neha Nagpal, Adv.
Mr. Raj Bahadur, Adv.

Mr. Joseph Aristotle S., Adv.
Mrs. Priya Aristotle, Adv.
Mr. Ashish Yadav, Adv.
Ms. Romsha Raj, Adv.

Mr. Debajit Borkakati, Adv.
Ms. Diksha Rai, AOR

Mr. Deepak Goel, Adv.
Mr. Milind Kumar, Adv.

Mr. S. Udaya Kumar Sagar, Adv.
Mr. Mrityunjai Singh, Adv.

Ms. Hemantika Wahi, Adv.
Ms. Jessal Wahi, Adv.



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Ms. Puja Singh, Adv.
Ms. Shodhika Sharma, Adv.

Mr. G. Prakash, Adv.
Mr. Jishnu M.L., Adv.
Mrs. Priyanka Prakash, Adv.
Mrs. Beena Prakash, Adv.

Mr. Mahaling Pandarge, Adv.
Mr. Nishant Kateshwarkar, Adv.

UPON hearing the counsel the Court made the following
O R D E R

1. Even though this Court, by its motion bench order dated 21.03.2017, required respondent Nos.1 and 3 to file counter affidavits, the same are not forthcoming. Ms. Pinky Anand, learned Additional Solicitor General, seeks a short adjournment, so as to enable her instructing counsel, to file counter affidavits on behalf of respondent Nos.1 and 3.
2. Mr. Shyan Divan, learned senior counsel appearing on behalf of the petitioner has handed over to us in Court today, some suggestions on behalf of the petitioner. The suggestions are taken on record, and marked as 'Annexure-A'. A copy thereof has been handed over to the learned Additional Solicitor General.
3. The learned Additional Solicitor General undertakes to take into consideration the suggestions of the petitioner, while filing the counter affidavits on behalf of respondent Nos.1 and 3.
4. Prayer is allowed.
5. Counter affidavits on behalf of respondent Nos.1 and 3 be positively filed within three months.
6. List on 21.11.2017.

(SATISH KUMAR YADAV)
AR-CUM-ES

(RENUKA SADANA)
ASST. REGISTRAR

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REMINDER
SUPREME COURT MATTER

F.No.6-15/2017 PE
Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

6

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003
Date: 17th November, 2017

Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India & Ors.

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.



(Royal Thomas)
Deputy Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695323
E-mail: projectelephant.moef@gmail.com

Each: Copy of the letter dated 24-08-2017

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website : moef.nic.in

F.No. 6-3/2010-PE (Vol. I)

Dated 1st May, 2018

Sub: Order of the Hon'ble Supreme Court dated 23.04.2018 in Writ Petition (c) no. 897 of 1996 titled A. Rangarajan & Ors. Vs. Union of India & Ors. filed in the Hon'ble Supreme Court _reg

Ref: Order of the Hon'ble Supreme Court dated 04.08.2017 in Writ petition (c) no.275 of 2015 titled Vidya Atherya & Anr. Vs Union of India.

Kind attention is invited to the subject. Please find enclosed the order of the Hon'ble Supreme Court dated 23.04.2018 in the matter for securing the critical high priority elephant corridors to minimise the human- elephant conflicts. It is requested to kindly provide the response of the states on critical elephant corridors as sought by this Ministry and furnish an action taken report of the same within three weeks to this ministry.

In this regard, attention is also invited to this Ministry vide letter mentioned under reference requesting the Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective states. inspite of the reminder on 17.11.2017, the response from the respective states to this Ministry is still awaited and the order of Hon'ble Supreme Court may also be perused in this context.

Hence, it is once again requested to send the responses immediately to this ministry for finalizing the view of this Ministry on the matter.

This may be treated on top priority.

Encls: as above.

Yours faithfully,

(Noyal Thomas)

IGF & Director (Project Elephant)

Telephone No. 011-24695249

Email: noyalifs1963@gmail.com

Distribution for kind information and necessary action :

1. The Chief Wildlife Warden, Government of Uttarakhand.
2. The Chief Wildlife Warden, Government of Odisha.
3. The Chief Wildlife Warden, Government of West Bengal.
4. The Chief Wildlife Warden, Government of Assam.
5. The Chief Wildlife Warden, Government of Arunachal Pradesh.
6. The Chief Wildlife Warden, Government of Meghalaya.
7. The Chief Wildlife Warden, Government of Karnataka.
8. The Chief Wildlife Warden, Government of Tamil Nadu.
9. The Chief Wildlife Warden, Government of Kerala.



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10. The Chief Wildlife Warden, Government of Andhra Pradesh.
11. The Chief Wildlife Warden, Government of Tripura.
12. The Chief Wildlife Warden, Government of Nagaland.
13. The Chief Wildlife Warden, Government of Uttar Pradesh.
14. The Chief Wildlife Warden, Government of Bihar.
15. The Chief Wildlife Warden, Government of Jharkhand.
16. The Chief Wildlife Warden, Government of Chhattisgarh.
17. The Chief Wildlife Warden, Government of Rajasthan.
18. The Chief Wildlife Warden, Government of Manipur.
19. The Chief Wildlife Warden, Government of Madhya Pradesh.
20. The Chief Wildlife Warden, Government of Haryana.
21. The Chief Wildlife Warden, Government of Gujarat.
22. The Chief Wildlife Warden, Government of Andaman and Nicobar.

Copy to: Shri A. N. S. Nadkarni, Senior Addl. Government Advocate, Supreme Court of India for kind information and necessary action



(Noyal Thomas)
IGF & Director (Project Elephant)
Telephone No. 011-24695249
Email: noyalifs1963@gmail.com

3429

REMINDER
SUPREME COURT MATTER

F.No.6-15/2017 PE
Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aligarj
New Delhi-110003
Date: 17th November, 2017

Subj: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India & Ors.

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.


(Noyal Thomas)

Deputy Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695323
E-mail: projectelephant.moeff@gmail.com

Encl: Copy of the letter dated 24-08-2017

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttrakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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ITEM NO.3

COURT NO.4

SECTION PIL-W

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Writ Petition(s)(Civil) No(s).897/1996

A. RANGARAJAN & ORS.

Petitioner(s)

VERSUS

UNION OF INDIA
MINISTRY OF ENVIRONMENT AND FOREST & ORS.

Respondent(s)

WITH

SLP(C) No. 5178/2012 (XII)
SLP(C) No. 2666/2012 (XII)
SLP(C) No. 7619/2012 (XII)
S.L.P.(C)...CC No. 5161/2012 (XII)
SLP(C) No. 20154/2011 (XII)
SLP(C) No. 37332/2013 (XII)
S.L.P.(C)...CC No. 9201/2012 (XII)
SLP(C) No. 21460/2011 (XII)
SLP(C) No. 17313-17314/2011 (XII)
SLP(C) No. 21463-21464/2011 (XII)
SLP(C) No. 21461/2011 (XII)
SLP(C) No. 16568/2011 (XII)
SLP(C) No. 17160/2011 (XII)
SLP(C) No. 17155-17156/2011 (XII)
SLP(C) No. 17150-17151/2011 (XII)
SLP(C) No. 21480/2011 (XII)
SLP(C) No. 21467/2011 (XII)
SLP(C) No. 21472/2011 (XII)
SLP(C) No. 21477/2011 (XII)
SLP(C) No. 21478/2011 (XII)
SLP(C) No. 21470/2011 (XII)
SLP(C) No. 21468/2011 (XII)
SLP(C) No. 21469/2011 (XII)
SLP(C) No. 24826/2011 (XII)
SLP(C) No. 19112/2011 (XII)
SLP(C) No. 25010/2011 (XII)
SLP(C) No. 31581/2011 (XII)
SLP(C) No. 35559/2013 (XII)
SLP(C) No. 30535/2011 (XII)
SLP(C) No. 35644/2013 (XII)
SLP(C) No. 30536/2011 (XII)
SLP(C) No. 9305/2012 (XII)
S.L.P.(C)...CC No. 5278/2012 (XII)
S.L.P.(C)...CC No. 5312/2012 (XII)
Diary No(s). 16319/2017 (XII)

Date : 23-04-2018 These matters were called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE DEEPAK GUPTA

Mr. Harish N. Salve, Sr. Adv. (A.C.) (NP)

Ms. Aparajita Singh, Adv. (A.C.)

Mr. A.D.N. Rao, Adv. (A.C.)

Mr. Sudipto Sircar, Adv.

Ms. Tulika Chikker, Adv.

Mr. Siddhartha Chowdhury, Adv. (A.C.)

For Petitioner(s)

Mr. Salman Khurshid, Sr. Adv.

Ms. Madhavi Divan, Adv.

Mr. Manan Verma, Adv.

Ms. Palak Mahajan, Adv.

Ms. Kanika Saran, Adv.

Ms. Diksha Rai, AOR

Mr. Rahul Shyam Bhandari, Adv.

Mr. Vinodh Kanna B., AOR

Mr. Sudarsh Menon, AOR

Mr. K. V. Mohan, AOR

Mr. K.V. Balakrishnan, Adv.

Mr. Nikhil Nayyar, AOR

Mr. S. Ravi Shankar, AOR

Yamunah Nachiar, Adv.

Ms. Priyanka Das, Adv.

Mr. Avishkar Singhvi, Adv.

Mr. Abhimanyu Bhandari, Adv.

Ms. Roohina Dua, Adv.

Mr. Naveen Kumar, AOR

Mr. Sridhar Potaraju, AOR

Mr. Prabhat Kumar, Adv.

Mr. Uday Khanna, Adv.

Ms. Ankita Sharma, Adv.

Mrs. Lalita Kaushik, AOR

Mr. Sanjay Upadhyay, Adv.

Ms. S. Shukla, Adv.

Ms. Eisha Krishen, Adv.

Mr. Shakil Ahmed Syed, AOR

Mohd. Parvez Dabas, Adv.

Mr. Uzmi Jameel Husain, Adv.
Mr. Pulkit Chandra, Adv.

Mr. R. Anand Padmanabhan, Adv.
Ananya Mukherjee, Adv.
Mr. Romil Pathak, Adv.
Mr. Shashi Bhushan Kumar, AOR

Mr. Kaustubh Shukla, AOR
Mr. Ankur Kashyap, Adv.

Mr. V. Balachandran, AOR
Mr. Siddharth Naidu, Adv.

Mr. Vikas Mehta, AOR
Ms. Anushree Menon, Adv.

Mr. K.N. Balgopal, Sr. Adv.
Mr. L. C. Agrawala, AOR
Mr. A.P. Mukundan, Adv.
Ms. Nitya Nambiar, Adv.

Ms. Rukhsana Choudhury, AOR

Mr. Gopal Shankara Narayanan, Adv.
Mr. Senthil Jagadeesan, AOR
Ms. Shruti Iyer, Adv.
Ms. Sonakshi Malhan, Adv.
Ms. Suriti Chowdhary, Adv.
Mr. Shrutanjaya Bhardwaj, Adv.

Mr. P. K. Manohar, AOR

Mr. Manoj V. George, Adv.
Mr. Zulfiker Ali P. S, AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

**For Respondent(s)/
applicant(s)**

Mr. Atmaram N.S. Nadkarni, ASG
Mr. S. Wasim A. Qadri, Adv.
Mr. D.L. Chidanand, Adv.
Mr. Ritesh Kumar, Adv.
Mr. Gurmeet Singh Makker, AOR
Mr. B. Krishna Prasad, AOR

Tamil Nadu

Mr. Subramonium Prasad, Sr. Adv.
Mr. M. Yogesh Kanna, AOR
Ms. Sujatha Bagadhi, Adv.
Ms. Maha Lakshmi, Adv.
Ms. Nithya, Adv.

Kerala

Mr. G. Prakash, Adv.

Ms. Aparna Bhat, AOR
Ms. Joshita Pai, Adv.

Ms. Anitha Shenoy, AOR

Mr. Sridhar Potaraju, AOR

Caveator-in-person

Mr. K. V. Vijayakumar, AOR

Mr. Vinodh Kanna B., AOR
Mr. A. Sriram, Adv.
Mr. Manikandan, Adv.

Mr. B. Krishna Prasad, AOR

Mr. Manoj V. George, Adv.
Mr. Zulfiker Ali P. S, AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

Mr. B. Balaji, AOR

Mr. Annam D. N. Rao, AOR

Mr. P. A. Noor Muhamed, AOR
Ms. Giffara S., Adv.

Mr. Parijat Sinha, AOR

Mr. M. A. Krishna Moorthy, AOR

Assam

Mr. Shuvodeep Roy, AOR
Mr. Sayooj Mohandas N., Adv.
Mr. Naman Kamboj, Adv.

Tripura

Mr. Shuvodeep Roy, AOR
Mr. Rituraj Biswas, Adv.

Mr. Anil Shrivastav, AOR

Bihar

Mr. Gopal Singh, AOR

Mr. Manish Kumar, Adv.

Mr. R. N. Keswani, AOR

Meghalaya

Mr. Ranjan Mukherjee, AOR

Mr. S. Bhowmick, Adv.

Mr. Daniel Stone Lyngdoh, Adv.

Mr. Edward Belho, AAG

Ms. K. Enatoli Sema, Adv.

Mr. Amit Kumar Singh, Adv.

Mr. K. Luikang Michael, Adv.

UPON hearing the counsel the Court made the following
O R D E R

Learned Additional Solicitor General has submitted that the Project Elephant Scheme is being implemented in 22 States.

Letters have been written to all these 22 States on 24th August, 2017 and 17th November, 2017. In the letter dated 24th August, 2017, an Action Taken Report within 60 days had been sought. While in the letter dated 17th November, 2017 the States have been informed to take up the matter on top priority.

In spite of the aforesaid letters and time bound requirements given by the Union of India, only three States, i.e., Kerala, Meghalaya and West Bengal have responded. The following States have not given any response to the Union of India:

1. Andhra Pradesh
2. Arunachal Pradesh
3. Assam
4. Chhattisgarh
5. Jharkhand

6. Karnataka
7. Maharashtra
8. Nagaland
9. Odisha
10. Tamil Nadu
11. Uttar Pradesh
12. Uttarakhand
13. Tripura
14. Rajasthan
15. Andaman & Nicobar Islands
16. Bihar
17. Punjab
18. Gujarat
19. Haryana (Where an elephant rescue centre has been set up supported by Project Elephant)

Response should be given by the aforesaid States within four weeks from today positively.

Learned counsel appearing in Writ Petition (C) No.275 of 2015 (Vidya Athreya & Anr. Vs. Union of India & Ors.) says that he will not press the issue of elephant corridor in the aforesaid case.

List the matter on 12th July, 2018.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
COURT MASTER

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File No.6-3/2010-PE(Vol.I)

ANNEXURE-6

F. No. 6-3/2010-PE
Government of India
Ministry of Environment, Forest & Climate Change
(Project Elephant Division)

Indira Paryavan Bhawan,
Jor Bagh Road, Aliganj
New Delhi- 110003
Date: 14.12.2021

To,

Principal Chief Conservator of Forests &
Chief Wildlife Warden
All PE range States/UTs

Sub: Civil Appeal No. 3438-3439/2020, in the matter of Hospitality Association of
Mudumalai Vs. In Defence of Environment and Animals & Ors.- reg.

Sir,

The undersigned is hereby directed to bring to your notice that the Petitioners, in the above-cited subject matter had challenged the judgment of the Hon'ble High Court of Madras for upholding the validity of the Tamil Nadu Government Notification G.O.(Ms.) No. 125, dated 31.08.2010 (Annexure- I), which had notified an 'Elephant Corridor' in the Sigur Plateau of Nilgiris District. Following the passing of said Notification, the resort owners and other private land owners were directed to vacate the lands falling within the notified elephant corridor to the District Collector, Nilgiris within three months from the date of the judgment.

Hon'ble Supreme Court, vide its judgment dated 14.10.2020, while upholding the order of the Hon'ble High Court of Madras, recognized the importance of elephant corridors for protection and preservation of elephant species and stated:

"... As forest lands continue to be lost, these relatively narrow and linear patches of vegetation form vital natural habitat linkages between larger forest patches. They allow elephants to move between secure habitat freely, without being

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ANNEXURE-6

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File No.6-3/2010-PE(Vol.I)

disturbed by humans."

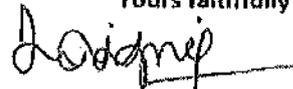
The Hon'ble Supreme Court further observed the following:-

"Elephant corridors allow elephants to continue their nomadic mode of survival, despite shrinking forest cover, by facilitating travel between distinct forest habitats. Corridors are narrow and linear patches of forest which establish and facilitate connectivity across habitats. In the context of today's world, where habitat fragmentation has become increasingly common, these corridors play a crucial role in sustaining wildlife by reducing the impact of habitat isolations. In their absence, elephants would be unable to move freely, which would in turn affect many other animal species and the ecosystem balance of several wild habitats would be unalterably upset. It would also eventually lead to the local extinction of elephants, a species which is wildly revered in our country and across the world. To secure wild elephants' future, it is essential that we ensure their uninterrupted movement between different forest habitats. For this, elephant corridors must be protected."

In view of the above stated observations iterated by the Hon'ble Supreme Court of India, the copy of the judgment is herewith attached (Annexure- II) along with this communication and submitted for your information and needful please.

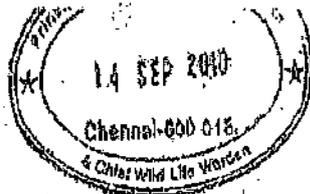
Encl: As above

Yours faithfully



(Dr. K. Muthamizh Selvan)
Scientist 'D' (Project Elephant)
Email Id: km.selvan@gov.in
Telephone No.- 011-24695067

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ABSTRACT

Wildlife - Formation of Elephant Corridor as per the direction of the High Court dated 3.12.2009 and 1.3.2010 in W.P. No.10098/2008 filed by Elephant Rajendran - Representations / objections filed by the petitioners against the formation of elephant corridor - Rejected - Confirmation for the safe and undisturbed passage of elephant Elephant Corridor as per the direction of High Court - Orders - Issued.

ENVIRONMENT AND FORESTS (FR.5) DEPARTMENT

G.O.(Ms.) No.125

Dated: 31.08.2010

Read:

1. High Court, Madras order dated 30.9.2008 in W.P. No.10098 of 2009.
2. High Court, Madras order dated 3.12.2009 in W.P. No.10098 of 2009 and 2762
3. Government letter No.2805./FR.5/2009-15, dated 4.1.2010.
4. High Court, Madras order dated 11.1.2010.
5. High Court, Madras order dated 1.3.2010 in W.P. No.10098 of 2008.
6. From the Principal Chief Conservator of Forests letter No.WL5/24778/08, dated 28.05.2010.

ORDER:

This Elephant G. Rajendran has filed a W.P. No.10098/2008 before the Hon'ble High Court, Madras. In abidance with the High Court order fourth and fifth cited read above, the Principal Chief Conservator of Forests in the letter 6th read above has sent the proposal to the Government for passing final orders.

2. The elephant is a free and long ranging animal. On an average it may travel up to 20-40 kilometers in a day and, therefore, may require vast forested habitats having optimum habitat conditions to move and survive. The purpose of migrations is in search of food, water, seasonally compulsions and physical requirements. The elephants show strong fidelity to the routes used during their movements. Habitat fragmentation is one of the major threats to migratory mammals like Asian elephants, which with vast resource requirements, are among the worst affected. An elephant corridor is roughly defined as a narrow strip of land (having optimal tree cover and basic habitat requirements for elephants) of any length that stretch of forested (or otherwise) land that connects larger habitats (with elephant populations) and forms a conduit for animal movement between habitats. This movement helps to enhance species survival and birth rate. Elephants are known to stick to their migratory routes between their seasonal ranges through these corridors, which some times may be highly constricted. Any loss of area in the known

P.T.O.

319925/2020/PE

corridors or other man made disturbances such as buildings, construction of new roads, changed agricultural practices and other disturbances will in all likelihood increase man-elephant conflicts, restrict the movements of elephants, which will be biologically and ecologically fatal to them. The loss of corridor will lead to greater conflicts and also cause the stress to the affected elephant populations. Due to alarming situations arising out of threats to corridors across the country due to rampant and unplanned development around the elephant regions, the Government of India (GOI) have been continuously pursuing with the States that all the identified elephant corridors in the States, inter-State and international elephant corridors between India and other geographically contiguous countries must be protected with a long term view to conserve the elephants in all the regions, where elephants are found. In the letter of 2009 addressed to all States the GOI had communicated a tentative list of identified 138 State corridors, 28 interstate corridors and 17 international corridors and asked the States to identify all elephant corridors in their respective States and take urgent steps to notify them under appropriate Acts. This also implied that the State Government is fully empowered to declare an Elephant Corridor and manage it as per the existing laws and regulations.

3. During the years 2008-2009 few Writ Petitions were filed in the Hon'ble High Court of Madras, (W.P.No.10098/2008 by one Thiru. Rajendran) seeking directions from the Hon'ble High Court to remove all encroachments, illegal constructions to restrain the local communities from practicing activities including agriculture along migratory routes that are harmful to the elephants, and notify the identified elephant corridors in the Sigur plateau of the Nilgiris District. The petitions also pleaded the Hon'ble Court to restrain man made disturbances such as agriculture, cattle rearing, grass cultivation, collection and transportation of minor forest produces in the villages abutting or in those that fall in the corridors.

4. In pursuance of the petitions the Hon'ble Court (October 2009), directed the State Government to constitute a team of experts from Environment and Forests Department with a mandate to study the Elephant Corridors in the said area vis-à-vis the following reports published on the subject of elephant corridors in the Nilgiris District, namely:-

- a) Ecology of the Asian Elephant.
- b) The Asian Elephant in Southern India.
- c) A brief documentation of Elephant Corridors in South India.

5. Accordingly a committee was constituted comprising noted forestry and wildlife experts from the Forest Department including Principal Chief Conservator of Forests and Chief Wild Life Warden, Chief Conservator of Forests (TAP), Conservator of Forests, Coimbatore Circle, Conservator of Forests and Field Director, Mudumalai Tiger Reserve, Ooty, and the District Forest Officer, Nilgiris North, Ooty to assess the extent and vitality of the corridors and prepare a map on scientific lines.

6. The Committee in consultation with various elephant experts, NGOs, scientists, experienced retired senior forest officials, tribals and local communities in the field prepared a detailed map using latest GIS technology with adequate ground truthing in the field and proposed a single consolidated corridor and submitted to the Hon'ble Court.

7. The Court observed that the Government needed to make suitable intervention to ensure a disturbance free corridor for movements of elephants. However, in view of the representations made by different land holders and property owners in the region, the Hon'ble High Court in its order dated 3.12.2009 have issued the following directions:-

- (i) The State Government will have to decide as to which Elephant Corridor has to be identified.
- (ii) The publication of such map showing the Elephant Corridor should be made through the Forest Department in two local Newspapers one in English and another in vernacular Tamil giving the details of Survey Nos. of private lands which are falling within the proposed Elephant Corridors. The persons may be asked to submit their objections within the time frame of one month.
- (iii) The intimation of such proposed Elephant Corridor along with a copy of the report of the Expert Committee should be also forwarded to each local Panchayat falling within the proposed Elephant Corridor so that the local persons can have the knowledge of the corridor on their own.
- (iv) No separate individual hearing is required to be given to any person. Though a mass hearing may be given as generally given in the Land Acquisition cases and on hearing such objections, the proposed Elephant Corridor including the map containing different Survey Nos. should be finalized and published within a period of six months.
- (v) No individual or any Association should intervene in the case. If they have any objection they may raise before the authorities concerned.
- (vi) On finalization of the Elephant Corridor it will be open for the State to decide whether the private lands falling within the Elephant Corridor that do not belong to Scheduled Tribes and other Traditional Forest Dwellers and who have a right under the provisions of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be acquired. If the decision is taken to acquire the lands regular procedure as laid down under the Land Acquisition Act has to be followed.
- (vii) If the State Government in the meantime want to take over the Management of the Private Forests it may do so in terms of Section 3 of the Tamil Nadu Private Forests (Assumption of Management) Act of 1961 so as to enable the elephants to pass through the Corridor without any hindrance till the lands are acquired.
- (viii) This Interim Order to remove unauthorized solar fencing will equally be applicable to the Tribals and other Traditional Forest Dwellers.

- (ix) As per the High Court Order dated 1.12.2009 in Writ Petition Nos. 32747/2007 and 28693/2008, all unauthorized constructions made on the private lands, private forest lands, etc., will be removed by the District Collector, The Nilgiris. Further if there is any unauthorized commercial buildings including resorts some of which are also used for commercial purposes which had been given electricity connection as residential houses, the Tamil Nadu Electricity Board will ensure disconnection of power supply to such premises.

8. Accordingly, a public notice was issued on 7.1.2010 along with the maps of proposed corridor and relevant documents in all 4 villages, e.g., Sholur, Masinagudi, Hullaithi and Kadanadu that were likely to be affected by the proposed corridor. In response to the public notice issued petitions were received.

9. The notice was published by the District Forest Officer, Nilgiris North Division, Cooty with all due procedures and the guidelines have been meticulously followed. The public notice was displayed on public places along with the map and other documents that were given to the panchayats of the 4 villages in question. Public hearings were held on 8.2.2010 at 9.30 A.M. at Forest Anti poaching camp near Segur Bridge, Kalhatti Masinagudi Road for Sholur village on 8.2.2010 at 11.30 A.M. at Forest Rest House (log House) Masinagudi for Masinagudi Village and on 8.2.2010 at 2.30 P.M. at Forest Rest House. The PCCF and CWW constituted a Petitions Committee of experienced and competent officials to examine 640 petitions, received at the public hearing and the through mail. The Committee went through each and every petition and listed out the major objections raised in each of them.

10. All the objections were examined, thoroughly. It has been ensured that the intention of the Government is to notify the corridor for a safe and undisturbed passage of elephants so that their genetic dispersal could be ensured for long survival. The Elephant Corridor has to be necessarily notified as a management activity on the part of Forest Department without infringing on the Rights of the people living in the Corridor. Further as per the instruction of the Government of India to identify, demarcate and protect and conserve the elephant corridors in each and every State, concerted action has to be taken to notify the elephant corridor. The Hon'ble High Court has also issued directions to consider the representations and objections filed by the Public and pass appropriate orders in accordance with Law.

11. The Government have carefully and independently examined all the representations and objections made by the public along with the Expert Committee Report and the original records with the relevant Act and Rules in detail and considered that all the representations and objections made by the applicants are without merit. (Annexure-I). The Government therefore reject the petitions and objections made by the public against the formation of elephant corridor.

12. The Government also confirm the elephant corridor map published in the two local dailies one in English (i.e.) "The Hindu" and the other in vernacular (i.e.) Tamil "Dina Thanhi" respectively on 6.1.2010 and 7.1.2010 in compliance with the orders of the Hon'ble High Court, Chennai dated 3.12.2009 in W.P. No. 10098/2008. The boundary description of the elephant corridor is furnished in Annexure.II. The lands falling within the boundary description form the elephant corridor. The list of the survey numbers falling within the elephant corridor is in Annexure.III.

13. The Government direct the Principal Chief Conservator of Forests to publish the final elephant corridor in the cadastral map prepared by the Expert Committee along with the Survey numbers of private lands which are falling within the proposed elephant corridor. The Principal Chief Conservator of Forests is also directed to communicate the Government order to all the petitioners.

(BY ORDER OF THE GOVERNOR)

DEBENDRANATH SARANGI
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

To
The Principal Chief Conservator of Forests, Chennai-15
The Principal Chief Conservator of Forests and Chief Wildlife Warden, Chennai-15
The District Collector, The Nilgiris District.
The Secretary to Government, Law Department, Chennai-9
The Principal Secretary to Government, Finance Department, Chennai - 9.
The Principal Secretary to Government, Revenue department, Chennai - 9.
The Special Government Pleader, High Court, Chennai.
The Legal Officer, O/o. the Principal Chief Conservator of Forests, Chennai-15.
The Private Secretary to Additional Chief Secretary to Government, Environment and Forests Department, Chennai-9
SF/SCs.

FORWARDED BY ORDER


SECTION OFFICER

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REPORTABLE

IN THE SUPREME COURT OF INDIA

CIVIL APPELLATE JURISDICTION

CIVIL APPEAL NOS.3438-3439 OF 2020

(Arising out of S.L.P. (C) Nos.17313-17314 of 2011)

HOSPITALITY ASSOCIATION OF MUDUMALAI APPELLANT(S)

VERSUS

IN DEFENCE OF ENVIRONMENT AND
ANIMALS AND ORS. ETC.

.....RESPONDENT(S)

WITH

Civil Appeal No.3437 of 2020
SLP (C) No. 20154 of 2011

Civil Appeal No.3440 of 2020
SLP (C) No. 21460 of 2011

Civil Appeal Nos.3442-3443 of 2020
SLP (C) Nos. 21463-21464 of 2011

Civil Appeal No.3444 of 2020
SLP (C) No. 21461 of 2011

Civil Appeal No.3445 of 2020
SLP (C) No. 16668 of 2011

Civil Appeal No.3447 of 2020
SLP (C) No. 17160 of 2011

Civil Appeal Nos.3448-3449 of 2020
SLP (C) Nos. 17155-17156 of 2011

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Civil Appeal Nos.3450-51 of 2020
SLP (C) Nos. 17150-17151 of 2011

Civil Appeal No.3446 of 2020
SLP (C) No. 21480 of 2011

Civil Appeal No.3452 of 2020
SLP (C) No. 21467 of 2011

Civil Appeal No.3453 of 2020
SLP (C) No. 21472 of 2011

Civil Appeal No.3454 of 2020
SLP (C) No. 21477 of 2011

Civil Appeal No.3455 of 2020
SLP (C) No. 21478 of 2011

Civil Appeal No.3456 of 2020
SLP (C) No. 21470 of 2011

Civil Appeal No.3457 of 2020
SLP (C) No. 21468 of 2011

Civil Appeal No.3458 of 2020
SLP (C) No. 21469 of 2011

Civil Appeal No.3459 of 2020
SLP (C) No. 24826 of 2011

Civil Appeal No.3460 of 2020
SLP (C) No. 19112 of 2011

Civil Appeal No.3461 of 2020
SLP (C) No. 25010 of 2011

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Civil Appeal No.3462 of 2020
SLP (C) No. 31581 of 2011

Civil Appeal No.3463 of 2020
SLP (C) No. 35559 of 2013

Civil Appeal No.3464 of 2020
SLP (C) No. 30535 of 2011

Civil Appeal No.3465 of 2020
SLP (C) No. 35644 of 2013

Civil Appeal No.3466 of 2020
SLP (C) No. 30536 of 2011

Civil Appeal No.3467 of 2020
SLP (C) No. 9305 of 2012

Civil Appeal No.3468 of 2020
SLP (C) No(s).12388 of 2020
(arising out of SLP(C)...CC No. 5278 of 2012)

Civil Appeal No.3469 of 2020
SLP (C) No(s).12389 of 2020
(arising out of SLP (C)...CC No. 5312 of 2012)

Civil Appeal No.3476 of 2020
SLP (C) No. 5176 of 2012

Civil Appeal No.3477 of 2020
SLP (C) No. 2666 of 2012

Civil Appeal No.3470 of 2020
SLP (C) No. 7619 of 2012

Civil Appeal No.3471-3472 of 2020
SLP (C) No(s).21390-21391 of 2020
(arising out of SLP(C)...CC No.5161 of 2012)

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Civil Appeal No.3473 of 2020
SLP (C) No. 37332 of 2013

Civil Appeal Nos.3475 of 2020
SLP (C) No(s).12393 of 2020
(arising out of SLP(C)....Diary No. 16319 of 2017)

Civil Appeal No.3474 of 2020
SLP (C) No(s).12392 of 2020
(arising out of SLP(C).... CC No.9201 of 2012)

J U D G M E N T

S. ABDUL NAZEER, J.

1. Leave granted.
2. The appellants in these appeals have assailed the final judgment and order dated 07.04.2011 of the High Court of Judicature at Madras, passed in Writ Petition (PIL) No. 10098 of 2008 along with several other writ petitions including Review Application No. 131 of 2010 and Writ Petition No. 23939 of 2010 filed by the Hospitality Association of Mudumalai. The High Court by the impugned judgment has upheld the validity of the Tamil Nadu Government Notification G.O.(Ms.) No. 125, dated

31.08.2010 which had notified an 'Elephant Corridor' in the Sigur Plateau of Nilgiris District and has further directed resort owners and other private land owners to vacate and hand over the vacant possession of the lands falling within the notified elephant corridor to the District Collector, Nilgiris within three months from the date of the judgment.

3. The appellant in Civil Appeal Nos.3438-3439 of 2020 (arising out of SLP (C) Nos.17313-17314 of 2011), is the Hospitality Association of Mudumalai, registered under the Tamil Nadu Societies Registration Act, 1975, situated in the Nilgiris District of Tamil Nadu. The members of this association have established resorts/guest houses in the Nilgiris forest area. The other appellants are either the owners of the resorts/guest houses or the owners of the lands in and around the Nilgiris forest area. Some of them have built dwelling houses on their lands, some of them have encroached upon government lands and put up constructions thereon and some of them are cultivating the said lands.

4. Before referring to the proceedings before the High Court and this Court, as well as the submissions made by the learned

counsel for the parties, it would be helpful to refer to the background facts and the prevailing ecological context in which the impugned G.O. was notified.

A. BACKGROUND

5. Despite being a figure of traditional cultural reverence, today the elephant species is severally threatened in India. The crux of the problem is one that affects all wildlife in the country: land. As India's human population has grown exponentially in the past several decades, so has its demand for resources. At its essence, that demand boils down to the requirement for more land - for agriculture to grow more food and for construction of roads, dams, mines, railways and housing. This demand for land has led to the degradation and fragmentation of the country's forest cover. The elephant, being a large agrarian animal, may weigh up to 4-5 tons and requires about 200-300 kgs. of fodder comprising of various plant species daily. It, therefore, needs large areas, which it uses by rotation, so that it may not overgraze an area and in the process destruct it altogether. This allows the natural vegetation of the habitats a chance to re-generate.

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6. However, the ever-growing need for land, infrastructure and energy requirements of our large population have slowly fragmented the elephant's natural spaces which are now surrounded by human habitation, agriculture, mining, roads and railways. The more forest habitat is fragmented, the farther an elephant herd has to roam in search of food and water. Increasingly, elephants have to move farther and farther afield, even from one forest area to another, often through small patches of forests called corridors. As forest lands continue to be lost, these relatively narrow and linear patches of vegetation form vital natural habitat linkages between larger forest patches. They allow elephants to move between secure habitats freely, without being disturbed by humans. Further, elephants are genetically programmed by nature to never inbreed within their birth family and thus need to move around between gene pools to reproduce. These corridors aid this process by helping different elephant populations to intermingle, which is essential for retaining the vigour of the species and ensuring its long-term survival. By

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identifying and nurturing such corridors, deadly confrontations between humans and elephants can be avoided, in addition to safeguarding the welfare of the wildlife. Unfortunately, in most areas, the existing corridors are repeatedly being destroyed which will block migration routes of the elephants and would result in the fragmentation of the habitats as well as increased human-elephant conflict.

7. To prevent such conflict and protect elephants, the Government of India through the then Ministry of Environment and Forests launched a centrally sponsored scheme 'Project Elephant' to provide financial and technical support to the wildlife management efforts by States for their free ranging populations of wild elephants. The 'Project Elephant' document was released in the year 1993. It admits that elephants are facing serious threat due to large scale destruction and fragmentation of their habitat due to increase in human and cattle populations, felling of natural forest and replacing them with single species, commercial plantation, excessive grazing, forest fires and shifting cultivation, destruction or capture for crop raiding, human killings,

encroachments and man-made barriers/destructions such as roads, railway lines, dams, canals, tea gardens, agriculture and industry etc. The 'Project Elephant' was to provide financial and technical support to major elephant bearing States in the country. The project aims to ensure long term survival of viable conservation reliant population of elephants in their natural habitats by protecting the elephants, their habitats and migration corridors. Other goals of the 'Project Elephant' are addressing issues of human-animal conflict and providing for welfare of captive elephants. The main activities under this project include the following:

1. Ecological restoration of existing natural habitats and migratory routes of elephants;
2. Development of scientific management planning for conservation of elephant habitats and viable elephant populations in India;
3. Promotion of measures for mitigation of human-elephant conflict in crucial habitats;

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4. Moderating impact of human and domestic livestock activities in crucial elephant habitats;
5. Strengthening of measures for protection of wild elephants from poachers and unnatural causes of death;
6. Research on elephant management related issues;
7. Public conservation education and awareness programmes about elephants;
8. Eco-development of elephant habitats; and
9. Provision of improved veterinary care for elephants.

8. Specifically in the context of elephant preservation in Tamil Nadu, on 14.06.2006, the State's Principal Chief Conservator of Forests and Chief Wildlife Warden ('**PCCF**') had requested that the private/patta lands forming the traditional movement corridors of elephants between the Mudumalai Wildlife Sanctuary and National Park to other parts and also between Eastern and Western Ghats be brought under the control of the Forest Department, by acquiring the lands after paying compensation to the owners. The PCCF had highlighted the use of these patches of private forest land, which serve as vital migratory routes, for non-

forestry use as a serious threat to free movement of elephants. The PCCF addressed another letter dated 6.11.2006 to the State Government, proposing the Survey Nos. of the patta land to be acquired for the purpose of the elephant corridors. Similarly, the Ministry of Environment and Forests, Government of India, by its letter dated 11.08.2006 to the State Government of Tamil Nadu had noted that 88 elephant corridors had been identified by the Wildlife Trust of India's book titled "Right of Passage – Elephant Corridors of India" and requested that necessary action be taken for notification and protection of the elephant corridors situated in Tamil Nadu, as identified in the aforesaid publication.

9. Pursuant to this communication, the Government of Tamil Nadu issued a Government Order dated 21.08.2007, appointing an Exploratory Committee with Collector of Nilgiris as the Chairman and four other members consisting of District Forest Officer, Nilgiris North Division, Wildlife Warden, Ooty, Officer of the Revenue Department, Ooty and the concerned Tehsildar. This Committee was constituted for exploring the possibility of acquiring the patta lands with the willingness of farmers who could spare their lands for acquisition for elephant corridors.

B. Proceedings before the Madras High Court

10. During this period, an organization called 'In Defence of Environment and Animals', represented by its Managing Trustee 'Elephant' G. Rajendran, filed Writ Petition No. 10098 of 2008 before the Madras High Court seeking issuance of a Writ of Mandamus directing the official respondents therein to keep the elephant corridors free from encroachment and to prevent any other disturbances to the free movement of elephants and other animals. It was the specific case of the petitioner therein that the elephant corridor was being disturbed by some encroachers and builders. Due to mushrooming of resorts, elephant corridors were either closed or becoming narrow. It was further contended that the Forest Department had not taken any stringent action to evict the encroachers from the elephant corridor. On 02.02.2009, the High Court passed an interim direction to the District Collector, Nilgiris to file a status report showing the steps taken to remove the encroachers from the lands falling under the elephant corridor.

11. Certain other writ petitions were filed by the Schedule Tribes and other Traditional Forest Dwellers contending that they were

not encroachers and that they had a right to occupy the land in question under the Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. It was further contended that on the strength of the order dated 02.02.2009 in Writ Petition No.10098 of 2008, the District Collector had directed them to stop the cultivation of these lands and that they were being prevented from collection of minor forest produce and grazing their cattle. These writ petitions were clubbed together for hearing before the Madras High Court.

12. At this stage, Hospitality Association of Mudumalai, the appellant herein, filed an impleadment application in the said case. It was contended that this association consisted of residents of the Masingudi Bokkapuram area and that they had been providing hospitality services to tourists who visit the area to see the wildlife and that there was a misguided sense of hostility towards the people who own and run guest houses in this area from the authorities and self-proclaimed environmentalists dwelling outside the area. It was also contended that the members of the said association had been living in the said area

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for more than 50-60 years and that there had been virtually no human-animal conflict in the area since there is little to no agriculture and the elephants can freely move around throughout the area.

13. During the course of hearing, the District Forest Officer of Nilgiris North Division made a presentation before the High Court to highlight the importance of the forests and corridors in the region. The District Collector, Nilgiris also appeared before the High Court and showed certain slides on his computer depicting a map of the corridor of elephants. He stated that to allow the elephants to pass through the corridor, the unauthorized occupants had to be evicted. Similarly, the State's PCCF also made submissions before the High Court to highlight the necessity of preservation of the elephant corridor by acquisition of patta lands. Considering the rival contentions of the parties, on 30.09.2008, the High Court issued the following directions:

"(i) forest department, which has the knowledge of movement of elephant in the corridor, may identify and inform the same;

- (ii) *the State Government may publish the information regarding the elephant corridor and the area, in leading newspapers and also by drum beating/tom tom, calling for objections of locals, if any, in the area in question;*
- (iii) *after hearing the locals, particularly those who may be affected, they may finalize the elephant corridor from which unauthorized occupants are to be evicted;*
- (iv) *to ensure that schedule tribes and other forest traditional dwellers are not affected, it is required to identify the other traditional forest dwellers in terms with Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Tribes) Rules, 2007;*
- (v) *only after the recommendation and recording their names in the appropriate register, they may proceed with eviction, by giving notice in the newspaper, by drum beating/tom tom and by giving individual notice to the unauthorised occupants.*

(vi) *So far as the acquisition of the land is concerned, if any private land is required to be acquired, they will have to follow the procedure under the Land Acquisition Act. Prima facie, as the tribals and other forest dwellers cannot be evicted from the unauthorized lands, their lands need not required to be acquired, if it is a forest land. Learned counsel for the parties are requested to give further suggestion in the matter, in the interest of public and elephants."*

14. Since there was opposition to the map prepared by the District Collector by the contesting parties, the Court felt it necessary that a team of experts of the Environment and Forest Department be constituted to identify the elephant corridor and submit a report after taking into consideration different books published with regard to elephant corridors.

15. In pursuance of the directions of the High Court, an Expert Committee was constituted by the Government. The Expert Committee visited the elephant corridor area in the Nilgiris twice, enquired with the field officers and tribals of the area and

obtained opinions from experts before submitting its report on 04.11.2009. A map of the elephant corridor in the Sigur Plateau in Nilgiris region was also filed by the said expert Committee before the High Court. Noting that the State Government was responsible for notifying elephant corridors within its territory, the High Court on 01.12.2009 directed the State Government to choose one of the maps for the elephant corridor out of either the one identified by the Expert Committee or the one identified by the Wildlife Trust of India's publication "Right of Passage - Elephant Corridors of India", which was referred to in the Central Government's abovementioned letter dated 11.08.2006. This order also directed the State Government to file an affidavit disclosing the actions it intends to take against resort owners and residents of the elephant corridor. In accordance with the High Court's directions, the State Government came forward with a decision that it will ensure that no illegal construction takes place in the area shown as 'elephant corridor' in the report of the Expert Committee and that no person will be allowed to put up fresh solar/electrical fencing within the proposed area of the elephant corridor. Taking

into account the materials on record, the High Court passed a fresh order dated 03.12.2009 as under:

"(i) The State Government will have to decide as to which Elephant Corridor has to be identified, i.e. corridor identified by the Central Government in the letter dated 11.08.2006, with the help of the State Forest Department and NGOs, or the proposed Elephant Corridor as identified by the Expert Committee in the present cases, preferably within one month.

(ii) The publication of such map showing the Elephant Corridor, should be made by the State through the Forest Department, in two local newspapers, one in English and another in vernacular Tamil, giving the details of Survey Numbers of private lands which are falling within the proposed Elephant Corridor. The persons may be asked to submit their objections within a time frame, say one month.

(iii) The intimation of such proposed Elephant Corridor along with a copy of the report of the Expert Committee, should be also forwarded to each local Panchayats, which fall within the proposed Elephant Corridor, so that the local persons can have the knowledge of the corridor of their own, if they so choose.

(iv) No separate individual hearing is required to be given to any person, though a mass hearing may be given as generally given in the "Land Acquisition" cases and on hearing such objections, the proposed Elephant Corridor including the map containing the different Survey Numbers should be finalized and be also published at an early date, say maximum within six months.

(v) No individual or any Association generally should intervene in the case. If they have any objection, they may raise before the authorities concerned.

23. On such finalization, it will be open for the State to decide:

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- (a) *Whether the private lands which are falling within the Elephant Corridor, do not belong to Schedule Tribe and other traditional forest dwellers, who have a right under the provisions of the Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, and whether such lands should be acquired. If the decision is taken to acquire the lands, they will follow the regular procedures as laid down under the provisions of the Land Acquisition Act.*
- (b) *If the State Government, in the meantime, wants to take over the management of the private forest, it may do so in terms of Section 3 of the Tamil Nadu Private Forest (Assumption of Management) Act (LV of 1961), so as to enable the elephants to pass through the corridor without any hindrance till the lands are acquired."*

16. Here, it may be noted that the aforesaid order of 03.12.2009 passed by the High Court was challenged before this Court through Special Leave Petition (Civil) Nos. 14416-14422 of 2010 which was disposed vide order dated 30.04.2010 in the following terms:

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"Permission to file special leave petitions is granted.

Delay condoned.

Heard learned counsel for the petitioner and learned counsel for respondent no.1.

The learned counsel for the petitioner contends that if proposed Elephant Corridors established, the petitioner would be seriously effected as his land falls in that area.

The petitioner would be at liberty to approach the Committee which is likely to finalize the Elephant Corridors and also would be at liberty to approach the High Court and seek intervention proceedings though the division Bench has already indicated under other proceeding that no intervention is allowed.

With the above directions, the special leave petitions are disposed of."

17. In pursuance of the directions of the High Court, the State Forest Department issued a public notice dated 07.01.2010,

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thereby publishing a proposed elephant corridor, as identified by the Expert Committee, and requiring the persons whose private lands are falling within the proposed corridor to submit objections. Public hearings were also held by the authorities concerned and the objections raised by various persons were rejected. Thereafter, the State Government issued the impugned G.O., thereby confirming the elephant corridor map as published on 07.01.2010 and also specifying the boundaries of the elephant corridor and the Survey Nos. falling within the said corridor.

18. Several writ petitions were filed before the High Court challenging the impugned G.O. These were clubbed with the other pending writ petitions and PIL and came to be decided by the High Court's impugned order dated 07.04.2011.

19. The High Court rejected the appellant's contentions regarding the propriety of constitution of the Expert Committee given that the Wildlife (Protection) Act, 1972 ('**Wildlife Act**') does not envisage the same and rather provides for constitution of State and National Boards for Wildlife. It was held that the Expert Committee's mandate did not impinge upon that of the Boards

under the Wildlife Act. The High Court also did not find merit in the appellant's contention that the State Government lacked the power to notify an elephant corridor. For this, the High Court relied upon Entries 17A 'Forest' and 17B 'Protection of wild animals and birds' in the concurrent list and the power of the State Government to notify Sanctuaries, National Parks, Conservation Reserves and Community Reserves under Chapter IV of the Wildlife Act.

20. Before the High Court, the appellant had also contended that the impugned G.O. sought to create an "artificial corridor" in an area through which elephants do not traditionally pass. In rejecting this contention, the High Court held that the material on record clinchingly showed that the animals were already moving through the said area. The High Court observed that the appellant and others have constructed holiday resorts and are carrying on commercial activities in the area despite only holding permissions for construction of dwelling houses. The mushrooming of such resorts, which were bounded by electric fencing and barbed wires, had severally restricted the movement of elephants and caused an increase in incidents of human-elephant conflict. Accordingly,

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the High Court passed the following directions which are under challenge before us:

"The resort owners and other private land owners are directed to vacate and hand over the vacant possession of the lands falling within the notified 'elephant corridor' to the District Collector, Nilgiris within three months from today. In the meanwhile, the Government of Tamil Nadu is permitted to go on with the implementation of the project as has been notified in G.O.M.s. No. 125, dated 31.08.2010, in the best interest of the wildlife, particularly elephants so as to notify and improve the elephant corridor."

21. The High Court also directed the State to strictly adhere with the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 and in case any forest dwellers are evicted from the elephant corridor, they be provided alternate accommodation or compensation as per the procedure contemplated under law.

22. A Review Application No. 157 of 2011 was filed against the above decision of the High Court. The same was dismissed by the

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High Court vide its order dated 16.11.2011 on the ground that the impugned judgement was a reasoned order which did not suffer from any error apparent on the face of the record.

C. Proceedings before this Court

23. During the pendency of the present appeals, this Court was informed that large scale construction was underway in the elephant corridor in Tamil Nadu. In its order dated 12.07.2018, this Court had made it clear that no construction is allowed in the elephant corridor in Tamil Nadu and directed District Collector, Nilgiris to prepare and present a plan of action on how to identify the constructions that have been made, when they have been made and for what purpose the constructions are being utilized. This plan of action was to be with respect to the elephant corridors as mentioned in the Report of the Elephant Task Force titled "Gajah" as well as the elephant corridor as notified by the impugned G.O.

24. In compliance with this order, the District Collector, Nilgiris filed a Plan of Acton Report which identified the following constructions in the elephant corridor areas:

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Sl. No.	Nature of the construction	Total number of constructions
01.	Total No. of Buildings within Resort Complexes (numbering 39)	309
02.	Houses	390
03.	Other Common Buildings (Schools, Water Tank, Community Halls, Temple, Public Toilet etc.)	27
04.	No. of Estates/Plantations	9
05.	No. of Cultivation Fields	77
06.	Other Constructions	9
Total		821

Specifically in respect of the resorts, the District Collector submitted that all 39 of them were operating illegally as 27 of them had obtained approvals only for residential purpose whereas 12 of them had not obtained any approval at all.

25. At the next hearing on 09.08.2018, this Court noted that only advocates on behalf 12 out of the 39 resorts were present before the Court and thus deemed that the remaining 27 resorts had accepted the Collector's above-mentioned report. Accordingly, this Court directed that these 27 resorts be closed down/sealed by the Collector and granted 48 hours to the other 12 resorts to produce documents showing approvals and title for running of

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their resorts before the Collector. If the Collector were to find the documentation incomplete, she was directed to immediately close down/seal the premises. Further, the non-resort dwellers who were identified by the Collector's report to be occupying land in the corridor area, were granted a period of 2 months to produce necessary documents for verification before the Collector.

26. Thereafter, the District Collector, Nilgiris filed an Action Taken Report dated 23.10.2018 stating that 27 resorts had been sealed as per this Court's above direction and documents were received from the other 12 resorts. The Collector submitted that out of these 12 resorts, only 1 resort owner could show proof of use of his premises for residential purpose while the remaining 11 resort owners did not have valid documents. Accordingly, these 11 resorts were also sealed by the Collector in accordance with the above order of this Court. In this Report, the Collector additionally highlighted that the Forest Department had directed the sealed resorts to remove solar, electric and barbed wire fences erected around their premises as the same hinder the free movement of elephants in the corridor. However, only a few of the

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resort owners had complied with the Forest Department's directive. In this connection, on 24.10.2018, this Court directed that electric fences and barbed wire, wherever installed by the resort owners, should be removed immediately. The District Collector, Nilgiris filed another Action Taken Report dated 29.11.2018 reporting that she had ensured removal of electric fences and barbed wire from the premises of the aforesaid resorts in the corridor area.

27. During this time, in addition to the 12 resorts which were initially represented before this Court, several other owners of resorts/guest houses as well as the owners of cultivated lands, dwelling houses and other constructions in and around the elephant corridor area have sought to be impleaded before us, being aggrieved by the actions of the District Collector, Nilgiris and also the impugned High Court decision.

D. Contentions of the Parties

28. Appearing for the appellants, Shri Salman Khurshid, learned Senior Counsel argues that the appellants' lands do not fall within an elephant corridor and that the area notified under the

impugned G.O. does not fall within any scientifically recognized elephant corridor and seeks to cover areas which are not traversed by elephants. It is further contended that the identification of elephant corridors is a scientific process and that the impugned G.O., which was issued in pursuance of the recommendations of the Expert Committee appointed by the High Court, was erroneous and untenable in law. The resort owners claim that they run small resorts which are compatible with the environment and are essentially for tourists who want to be close to nature and wildlife. It is also asserted that these resorts help tourists acquire sensitivity towards animals and the environment, while preventing any exploitation or damage by their presence. Some of the other appellants have also contended that their lands do not fall within the elephant corridor from which the removal of encroachment was sought.

29. It is further argued that the areas which have been notified as elephant corridor by the State Government through the impugned G.O., are in variance with all authoritative studies on historic elephant corridors in Sigur Plateau from 1972 till date. It is

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also submitted that there is a variance in acreage between the recommendations of the Expert Committee formed by the High Court and the impugned G.O. issued by the State Government. It is contended that the unilateral addition and deletion of private/Government lands in the said G.O. is arbitrary and illegal. The expansion of the corridor areas under the G.O. amounts to creation of a new elephant corridor which does not presently exist and the same is unlawful.

30. Learned counsel for some of the other appellants have made similar submissions. It was argued that the lands of the appellants do not fall within the elephant corridor. It was also argued that the Plan of Action Report filed by the District Collector, Nilgiris before this Court is clearly fallacious and the actions of the District Collector in pursuance thereof are illegal. Some of the appellants have further alleged that the District Collector, Nilgiris has illegally removed fencing from establishments outside the notified elephant corridor area as well.

31. On the other hand, learned advocate appearing for the contesting respondents, has sought to justify the impugned

judgment of the High Court, so also the Plan of Action Report and Action Taken Reports filed by the District Collector, Nilgiris.

32. Learned advocate appearing as Amicus Curiae has supported the submissions of the contesting respondents and the Reports submitted by the District Collector, Nilgiris.

E. Our Analysis

33. We have carefully considered the submissions of the learned counsel made at the Bar and perused the materials on record.

34. At the very outset, it must be noted that the Wildlife Trust of India terms elephants as a “keystone species” because their nomadic behavior is immensely important to the environment. Herds of roaming elephants play several important roles in the ecosystem:

- (i) Landscape architects: Elephants create clearings in the forest as they move about, preventing the overgrowth of certain plant species and allowing space for the regeneration of others, which in turn provide sustenance to other herbivorous animals.

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- (ii) Seed dispersal: Elephants eat plants, fruits and seeds, releasing the seeds when they defecate in other places as they travel. This allows for the distribution of various plant species, which benefits biodiversity.
- (iii) Nutrition: Elephant dung provides nourishment to plants and animals and acts as a breeding ground for insects.
- (iv) Food chain: Apex predators like tigers will sometimes hunt young elephants. Further, elephant carcasses provide food for other animals.
- (v) The umbrella effect: By preserving a large area for elephants to roam freely, one provides a suitable habitat for many other animal and plant species of an ecosystem.

Elephant corridors allow elephants to continue their nomadic mode of survival, despite shrinking forest cover, by facilitating travel between distinct forest habitats. Corridors are narrow and linear patches of forest which establish and facilitate connectivity across habitats. In the context of today's world, where habitat fragmentation has become increasingly common, these corridors

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play a crucial role in sustaining wildlife by reducing the impact of habitat isolations. In their absence, elephants would be unable to move freely, which would in turn affect many other animal species and the ecosystem balance of several wild habitats would be unalterably upset. It would also eventually lead to the local extinction of elephants, a species which is widely revered in our country and across the world. To secure wild elephants' future, it is essential that we ensure their uninterrupted movement between different forest habitats. For this, elephant corridors must be protected.

35. Legal intervention in preservation of these corridors has been necessitated because wildlife corridors are threatened by various social, economic and anthropogenic factors, as noted above. Commercial activities such as running of private resorts and construction of new buildings with barbed and electric fences within elephant corridors pose a serious threat of fragmentation and destruction of habitats. The long-term survival of the species depends on maintaining viable habitats and connecting corridors which maintain variance in the species' gene pool and avoid other

risks associated with habitat fragmentation and isolation of species.

36. Overtime, several environmental legislations including the Indian Forest Act, 1927 and the Wildlife Act have been enacted to provide for the protection of forests and wild animals, with a view to ensuring ecological balance and preserving natural habitats including such corridors. The object of the Wildlife Act was interpreted emphatically by this Court in ***State of Bihar v. Murad Ali Khan***¹ in the following terms:

"8. ... The policy and object of the Wild Life laws have a long history and are the result of an increasing awareness of the compelling need to restore the serious ecological-imbalance introduced by the depredations inflicted on nature by man. The state to which the ecological imbalances and the consequent environmental damage have reached is so alarming that unless immediate, determined and effective steps were taken, the damage might become irreversible.

¹ 1988 (4) SCC 655

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The preservation of the fauna and flora some species of which are getting extinct at an alarming rate, has been a great and urgent necessity for the survival of humanity and these laws reflect a last-ditch battle for the restoration, in part at least, a grave situation emerging from a long history of callous insensitiveness to the enormity of the risks to mankind that go with the deterioration of environment.

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10. ... *Environmentalists' conception of the ecological balance in nature is based on the fundamental concept that nature is "a series of complex biotic communities of which a man is an inter-dependant part" and that it should not be given to a part to trespass and diminish the whole. The largest single factor in the depletion of the wealth of animal life in nature has been the "civilized man" operating directly through excessive commercial hunting or, more disastrously, indirectly through invading or destroying natural habitats."*

37. Specifically in issue before us, is the corridor in the Sigur Plateau of Tamil Nadu. It connects the Western and the Eastern

Ghats and sustains elephant populations and their genetic diversity. The Sigur Plateau has the Nilgiri Hills on its south-western side and the Moyar River Valley on its north-eastern side. Depending on the monsoon, the elephants migrate in search of food and water and during the course of their migration, they have to cross the Sigur Plateau. This migratory path is considered to be very crucial as it connects several contiguous forest areas forming the Nilgiri Biosphere Reserve in the states of Tamil Nadu, Karnataka and Kerala, the largest protected forest area in India.

38. Conflicting maps of this corridor were presented before the Madras High Court, which thus directed the State Government to choose between: (i) the elephant corridors identified in the Wildlife Trust of India's book titled "Right of Passage - Elephant Corridors of India" which were referred to by the Central Government in its letter dated 11.08.2006 to the State Government; or (ii) the single elephant corridor identified by the Expert Committee appointed by the High Court. As per the aforesaid book titled "Right of Passage", the following 4 corridors lie in the Sigur Plateau region: (i) Avarahalla - Sigur, (ii) Kalhatti -

Sigur at Glencorin, (iii) Moyar - Avarahalla and (iv) Kalmalai - Singara and Avarahalla. The Expert Committee examined all the elephant corridors in the area and identified a single elephant corridor comprising of various elephant corridors in the Sigur Plateau region. The State Government, vide the impugned G.O., notified this single elephant corridor, along the lines of the recommendations made by the Expert Committee.

39. The first limb of the appellants' contentions before us is that there is no statutory power for creating/recognition of new corridors by the State Government. We do not find merit in this argument and, in principle, are in agreement with the findings of the High Court regarding the power of the State Government to take measures, including issuance of the impugned G.O., for protection of wildlife in Tamil Nadu. It is undeniable that the State Government is empowered to take measures to protect forests and wildlife falling within its territory in light of Entries 17A 'Forest' and 17B 'Protection of wild animals and birds' in the concurrent list and the power of the State Government under the Wildlife Act to notify Sanctuaries and other protected areas. It is an admitted position that the land of the appellants has also been

notified as private forest in 1991 under the Tamil Nadu Preservation of Private Forests Act, 1949, which prohibits cutting of trees in private forests. Our attention has also been drawn to the decision of this Court in ***T.N. Godavaraman Thirumulkpad v. Union of India***² wherein felling of trees in the state of Tamil Nadu was prohibited in all forests, including forests situated in privately owned lands. The contesting respondents have argued that the construction of the appellants' resorts must have necessarily run afoul of the above decision of this Court. Without commenting on the factual accuracy of this assertion, given that the classification of the appellants' land as private forest land is not in dispute here, we find no difficulty in holding that the State Government was empowered to protect the habitats situated on the appellants' land by notifying an elephant corridor thereupon.

40. Furthermore, since the impugned decision of the High Court, the Ministry of Environment, Forest and Climate Change vide its Notification S.O. 4498(E) dated 13.12.2019 has declared the entire area in question and adjoining areas around the Mudumalai Tiger Reserve as an Eco-Sensitive Zone. Under this Notification,

² 1997 (2) SCC 267

the State Government of Tamil Nadu has been expressly directed to regulate land use generally, as well commercial establishment of hotels/resorts specifically, in the Eco-Sensitive Zone so established. As was held by this Court in ***M.C. Mehta v. Union of India and Ors.***³ the "Precautionary Principle" has been accepted as a part of the law of our land. Articles 21, 47, 48A and 51A(g) of the Constitution of India give a clear mandate to the State to protect and improve the environment and to safeguard the forests and wild life of the country. It is the duty of every citizen of India to protect and improve the natural environment including forests and wild life and to have compassion for living creatures. The Precautionary Principle makes it mandatory for the State Government to anticipate, prevent and attack the causes of environmental degradation. In this light, we have no hesitation in holding that in order to protect the elephant population in the Sigur Plateau region, it was necessary and appropriate for the State Government to limit commercial activity in the areas falling within the elephant corridor.

³ 1997 (3) SCC 715

41. The second limb of the appellants' submissions comprises of questions about the scientific accuracy of the Expert Committee's Report and contentions that the dimensions as well as the location of the single corridor identified therein are at odds with authoritative scientific publications. It has been argued by the appellants that their resorts and other establishments do not fall within the historic corridors identified in these publications. These assertions were dealt with by the High Court which held that there was material on record to show presence of elephants as well as a past incident of human-elephant conflict, which resulted in the death of a French tourist, in the region where the appellants' resorts are located. The High Court also held that any absence of elephants from the areas surrounding the appellants' resorts was, in fact, due to the construction activities of the appellants whereby access of the elephants has been restricted through erection of electric fencing. We see no reason to interfere with the above factual findings of the High Court and also do not find fault in the State Government's adoption of the recommendations of the High Court-appointed Expert Committee, through the impugned G.O.

42. This brings us to the last limb of the submissions of the appellants, which is comprised of factual objections to the acreage of the elephant corridor as notified by the impugned G.O. and the actions taken by the District Collector, Nilgiris in pursuance thereof. The appellants have contended that there has been substantial variance between the acreage recommended for acquisition by the Expert Committee Report and the acreage in the impugned G.O. It is further alleged that the acreage in the newspaper advertisement by the State Government inviting objections to notification of the corridor is also different from the acreage in the impugned G.O. As all the objections received pursuant to the said newspaper advertisement were rejected by the State Government and since the impugned G.O. purported to adopt the recommendations of the Expert Committee, the appellants allege that the said variance in acreage is arbitrary and unreasonable. It has also been alleged that the District Collector, Nilgiris has acted arbitrarily in sealing their resorts after rejecting the documents submitted by the appellant resorts purporting to show approvals and title. Similarly, it has been

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alleged that the District Collector went beyond the scope of this Court's order dated 24.12.2018 wherein immediate removal of electric fences and barbed wire was directed. It is the appellants' case that non-electric fences as well as fences beyond the notified elephant corridor area were removed by the District Collector. We are of the view that it is just and proper to hold an inquiry to establish the veracity of the above factual objections of the appellants.

43. Therefore, we appoint a 3-member Inquiry Committee consisting of: (i) Hon'ble Mr. Justice K. Venkatraman, Former Judge of the Madras High Court (Chairman); (ii) Mr. Ajay Desai, Consultant to World Wide Fund for Nature-India and Member of the Technical Committee to come up with a National Elephant Action Plan (NEAP), constituted by the Union Ministry of Environment, Forest and Climate Change (MOEF&CC); and (iii) Mr. Praveen Bhargava, Trustee of Wildlife First and Former Member of National Board for Wildlife to decide the individual objections of the appellants and any other persons claiming to be aggrieved by the actions of the District Collector, Nilgiris pursuant to the impugned G.O. and as recorded before us through her Plan of

Action Report and her twin Action Taken Reports, as also the allegations regarding arbitrary variance in acreage of the elephant corridor under the impugned G.O. The State Government is directed to consult the Chairman of the Inquiry Committee and pay remuneration to him and the other Members of the Inquiry Committee. Further, we direct the State Government to provide appropriate secretarial assistance and logistical support to the Inquiry Committee for holding the inquiry within four weeks from today.

44. We leave it to the discretion of the Inquiry Committee to decide the location for its inquiry proceedings. We also authorize the Inquiry Committee to appoint requisite staff on temporary basis to assist the Committee in the inquiry and to fix their salaries. The State Government is directed to pay their salaries. The State Government and the district level authorities are directed to provide their full cooperation and produce any and all files/documents required by the Inquiry Committee to address the grievances of the appellants and any other persons claiming to be similarly aggrieved. The appellants and other persons claiming to be aggrieved by the plan of action/actions of the District Collector,

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Nilgiris pursuant to the impugned G.O. and the allegations regarding variance in acreage under the impugned G.O, are permitted to file objections containing their grievances before the Inquiry Committee within a period of four months from today. The Inquiry Committee is directed to consider the objections filed before it and pass appropriate orders thereon after granting the parties a reasonable opportunity of being heard. The parties are also permitted to file documents in support of their respective contentions before the Inquiry Committee.

45. The present appeals are disposed of in the aforesaid terms, leaving the parties to bear their own costs. All pending applications shall stand disposed of.

.....CJI.
(S. A. BOBDE)

.....J.
(S. ABDUL NAZEER)

.....J.
(SANJIV KHANNA)

**New Delhi;
October 14, 2020.**

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ANNEXURE-7

GOVERNMENT OF ASSAM
ENVIRONMENT & FOREST DEPARTMENT : : DISPUR

ORDERS BY THE GOVERNOR
NOTIFICATION

The 17th April 2003

NO. FRW-44/2002/67. In pursuance of the guidelines of the 'Project Elephant', Government of India, and in view of the consent of the Government of India conveyed vide F. No. 7-2/2000 (PE) dated July 16, 2002, the Governor of Assam is pleased to declare the land described in the schedules below as an 'Elephant Reserve' with effect from the date of publication of this notification in the official gazette.

SCHEDULES

A. Location, Area and Name.

Districts (civil) Dibrugarh, Sivasagar and Tinsukia.
Sub-divisions (civil) Charaidew, Dibrugarh, Margherita and Tinsukia.
Forest Divisions Dibrugarh, Digboi, Dum Duma and Sivasagar.
Name DIHING-PATKAI ELEPHANT RESERVE
Area 937 sq km (Block 1 - 460 sq km; Block 2 - 156 sq km;
Block 3 - 170 sq km, and other disjunct
pockets - 151 sq km).

B. Boundary / Area description

This 'Elephant Reserve' consists of three blocks, henceforth referred to as Block 1, 2 and 3, and eight other smaller disjunct pockets.

BLOCK - 1

Reference point: The starting point is the northernmost tip of Upper Dihing (west block) RF (RF= reserve forest) near Khato Beat Office on Makum - Lakhpathar road.

North: From the northernmost tip of Upper Dihing (west block) RF on Makum - Lakhpathar road, the boundary runs eastwards along the notified northern boundary of Upper Dihing (west block) RF.

East: Along the eastern notified boundary of Upper Dihing (west block) RF, then along the eastern notified boundary of Digboi (west block) RF, then again the eastern and thence south-eastern boundary of Upper Dihing (west block) RF till it reaches the Burhi-Dihing River. Thence the boundary runs along the northern boundary of Dirak RF and Dirak proposed (1st Addition) RF till the inter-state boundary between Assam and Arunachal Pradesh.

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- South: From the south-eastern tip of Dirak proposed (1st Addition) RF on the inter-state boundary between Assam and Arunachal Pradesh, the boundary follows the interstate boundary up to the south-western tip of Dilli RF.
- West: Thence, from this point the boundary runs along the existing western and northern boundary of Dilli and Joypur RFs up to the Burhi-Dihing River, then it follows the existing western boundary of Upper Dihing (west block) RF up to the northernmost tip of this reserve forest near Khato Beat Office on Makum - Lakhpathar road.

BLOCK - 2

- Reference point: The starting point is the north-western corner of Kakojan RF on the banks of the Dibru River.
- North: From the starting point, the boundary runs eastwards along the notified north-western, northern and eastern boundaries of Kakojan RF till it reaches the northern boundary of Upper Dihing (east block) RF. Thence it runs along the northern boundary of Upper Dihing (east block) RF.
- East: From the north-eastern corner, on the banks of the Dibru River the boundary runs along the notified eastern boundary of Upper Dihing (east block) RF.
- South: Thence the boundary follows the notified southern boundary of Upper Dihing (east block) RF.
- West: Thence, the boundary runs along the existing western boundary of Upper Dihing (east block) RF and also includes the areas leased out for oil mining, Digboi (east block) RF and Bogapani RF till it reaches the Dibru River near Nazirating. Then it follows the left bank of the Dibru River along the western boundary of Kakojan RF till it meets the reference point.

BLOCK - 3

- Reference point: The starting point is the north-western corner of Namphai RF on the banks of the Burhi-Dihing River.
- North: From the starting point, the boundary runs eastwards along the notified northern boundary of Namphai RF till it reaches the north-eastern corner of Tinkopani RF.
- East: From the north-eastern corner of Tinkopani RF, on the banks of the Namchik River on Assam - Arunachal Pradesh interstate boundary, it runs along the notified eastern and southern boundaries of Tinkopani RF and Tirap proposed (1st Addition) RF, and eastern boundary of Tipong proposed (1st Addition) RF.

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- South:** Thence the boundary follows the notified southern boundaries of Tipong proposed (1st Addition) RF, Lekhapani RF, Saleki proposed RF and Makumpani RF.
- West:** From the south-western corner of Makumpani RF on the Assam - Arunachal Pradesh interstate boundary, it follows the existing western and northern boundaries of Makumpani RF, northern boundaries of Saleki proposed RF, Lekhapani RF, Tipong proposed (1st Addition) RF, Tipong RF, Paharpur RF, again Tipong proposed (1st Addition) RF, then Tirap proposed (1st Addition) RF, western and northern boundary of Tirap RF till the western boundary of Tinkopani RF on the banks of the Tirap River. Thence the boundary runs along the western boundary of Tinkopani RF and southern and western boundary of Namphai RF till it meets the starting point on the banks of the Burhi-Dihing River.

In addition to the areas described above, the 'DIHING-PATKAI ELEPHANT RESERVE' also includes five other smaller disjunct pockets, the largest of which is Abhoypur RF, which has contiguity with Block 1 of this reserve through forests in Nagaland and Arunachal Pradesh. Other pockets are Burhi-Dihing (north and south blocks) RFs, Duarmara RF (including Duarmara proposed 1st Addition RF), Kotha RF, Naloni RF, Phillobari RF, Tokouoni RF and Torani RF. All these as well as all the blocks have contiguity through unclassed forests, riverbeds and tea plantations.

DR ANWARUDDIN CHOUDHURY
Joint Secretary
to the Government of Assam,
Environment & Forest Dept, Dispur.

Memo No. FRW- 44/2002/67-A.

Dated Dispur, the 17th April 2003.

✓ Copy to the Director, Project Elephant, Government of India, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi 110 003.

2. The P.P.S. to the Chief Minister, Assam for kind information of the hon'ble Chief Minister.
3. The P.S. to the Minister of State (ind), Forests, Assam, for kind info. of the hon'ble minister.
4. The P.S. to the Chief Secretary, Assam, for kind information of the Chief Secretary.
5. The Commissioner & Secretary, Revenue / Tourism Dept., Assam.
6. The Principal Chief Conservator of Forests, Assam, Guwahati.
7. Chief Conservator of Forests (all), Assam.
8. Deputy Commissioners concerned.
9. Conservator of Forests concerned / Divisional Forest Officers concerned.
10. The Dy. Director, Assam Govt Press, Bamunimaidam, Guwahati-21, for publication of the above notification in the Assam Gazette extra ordinary and to send 200 copies to this dept.
11. Guard file.

AUC/4-2003

DR ANWARUDDIN CHOUDHURY
Joint Secretary

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ANNEXURE-8



GOVERNMENT OF ASSAM
OFFICE OF THE DIGBOI MUNICIPAL BOARD::DIGBOI
Dist. - Tinsukhi (Assam), Pin - 786171

NO.DIG.MB/1-4(NGT)/1071

Dated Digboi the 27/9/2022



To

The Divisional Forest Officer,
Digboi Division,
Digboi

Sub: - Action taken report regarding Civil Appeal No. WL/EG/Civil Appeal No. (S) 9710-9711/2018.
Ref.: - Your letter No.B/NGT/2022/2322-29, dtd. 26-09-2022.

Respected Sir,

With all due respect, and with reference to the subject cited above, I would hereby like to bring to your kind notice that Digboi Municipal Board has taken appropriate action in its capacity to fulfil the direction of the Hon'ble National Green Tribunal (NGT).

The following are the point-wise action taken:

1. Hon'ble NGT, in its judgement under point no. 6, directed Digboi Municipal Board to restrain from dumping Municipal waste and garbage in Dehing-Patkai Elephant reserve.

In this regard, Digboi Municipal Board has acquired Govt. land and has prepared a new Solid Waste Management and dumping site at 5 no Golai Gaon under Makum Mouza of Margherita Revenue Circle. We have already started disposal of waste in our new dumping site.

2. As per point no. 9 of the judgement Digboi Municipal Board was directed not to allow any construction activity in and around the Digboi reserve.

In this context, it is to be noted that Digboi Municipal Board area does not share any boundary with Digboi reserve. Thus condition of granting permission for construction activity from Digboi Municipal Board does not arise.

I hereby submit the Action Taken Report of Hon'ble NGT, for favour of your necessary action.


Chairman

Digboi Municipal Board
DIGBOI MUNICIPAL BOARD
DIGBOI


Executive Officer

Digboi Municipal Board
EXECUTIVE OFFICER
DIGBOI MUNICIPAL BOARD
DIGBOI

606

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ANNEXURE-9

F.No. 6-16/2021-PE-Part(1)
Government of India/ भारतसरकार
Ministry of Environment, Forests & Climate Change/पर्यावरण,
वनऔरजलवायुपरिवर्तनमंत्रालय
(Project Elephant Division/हाथीपरियोजनाविभाग)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003

Dated 03.10.2022

To,
The Secretary
Ministry of Geology and Mining
Government of Assam,

Sub:- Civil Appeal 9710-9711 of 2018, Coal India Limited Vs. Dr Kashmira kakati &Ors in the Supreme Court of India – reg.

Sir,

With reference to the Order dated 10.08.22 in Civil Appeal 9710-9711 of 2018, Coal India Limited Vs Dr Kashmira Kakati & Ors, the Supreme Court of India had asked the Ministry of Environment, Forest and Climate Change to conduct an inquiry after taking assistance from Respondent no 3 (State of Assam through its chief Secretary) and 4 (Principal Chief Conservator of Forest and Chief Wild Life Warden District – Assam) in compliance of the National Green Tribunal's order dated 18.12.17 in the matter of Dr Kashmira Kakati vs Union of India (O.A 19 of 2014) to be furnished within 8 weeks.

In the aforesaid context, please furnish information on the following aspects:

- a) Number of Meetings conducted with Coal India Ltd for taking over the abandoned coal mining area along the Minutes of the Meetings.

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- b) Information on mining areas in revenue lands and/or forest lands inside the elephant reserves as the format given in Annexure I (the map of the elephant reserves is enclosed as Annexure II for reference).
- c) Map showing mining lease (whether handed over or not/ whether expired or not) as per information given in para (b) above.
- d) Details (name of the mining lease, location, number of buildings, area covered by buildings) that were constructed for office/staff for mining or otherwise by the mining lease holder
- e) Whether the buildings/offices mentioned in para (d) were handed over by the mining lease holder to the Mining and Geology Department or not - if handed over, then copy of handing over/ taking over report may be furnished along with status of current usage of building.

Encl: as above

Yours faithfully,



DR. K. Muthamizh Selvan)
Scientist 'E' (Project
Elephant)

Email id: km.selvan@gov.in
Telephone No. 011-
24695067

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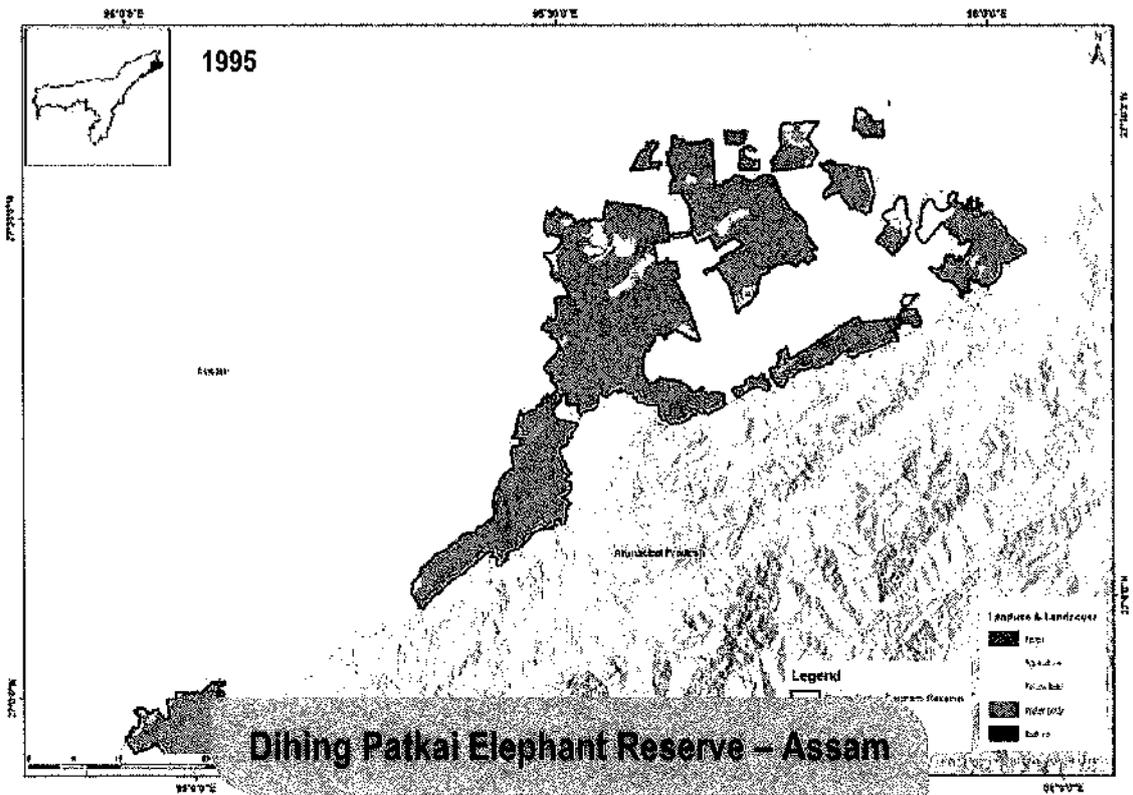
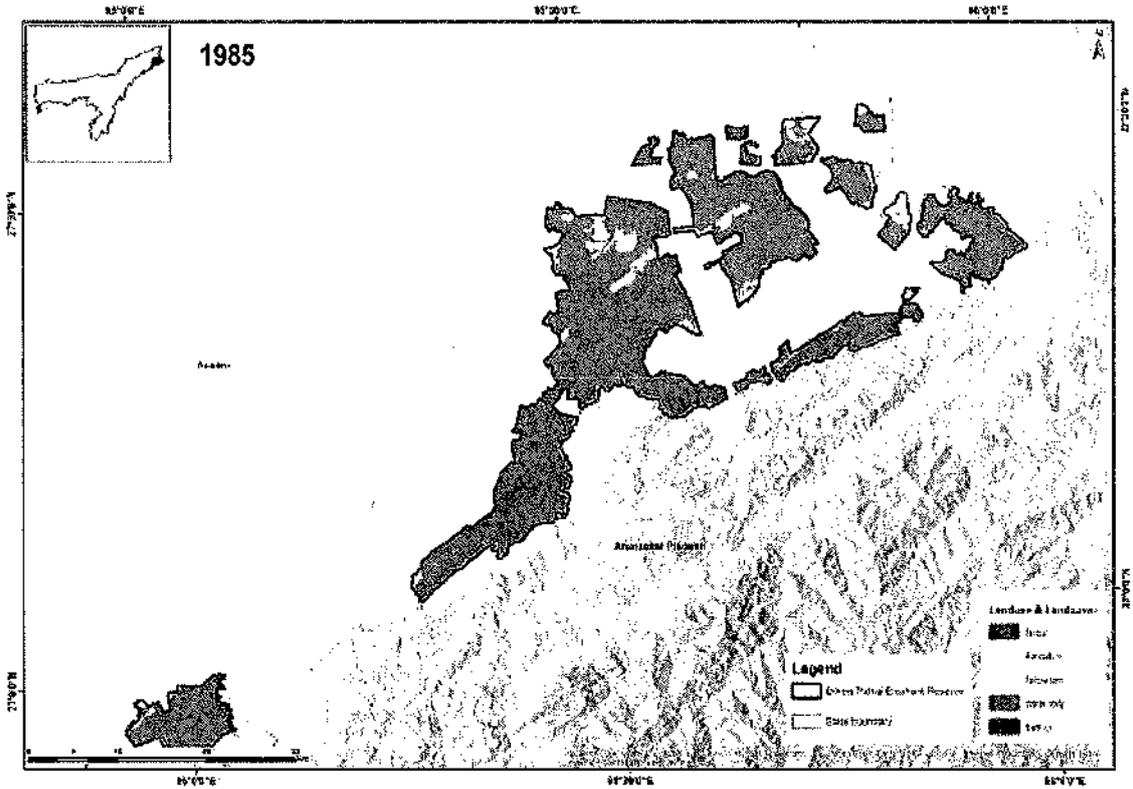
ANNEXURE

S.no	Name of the Mine	Location of the mine with geo coordinates	Area of the mining lease	Year In which abandoned	Status of the mining lease – whether the lease is in force or expired	If the mining lease has expired, the handing over/ taking over report.

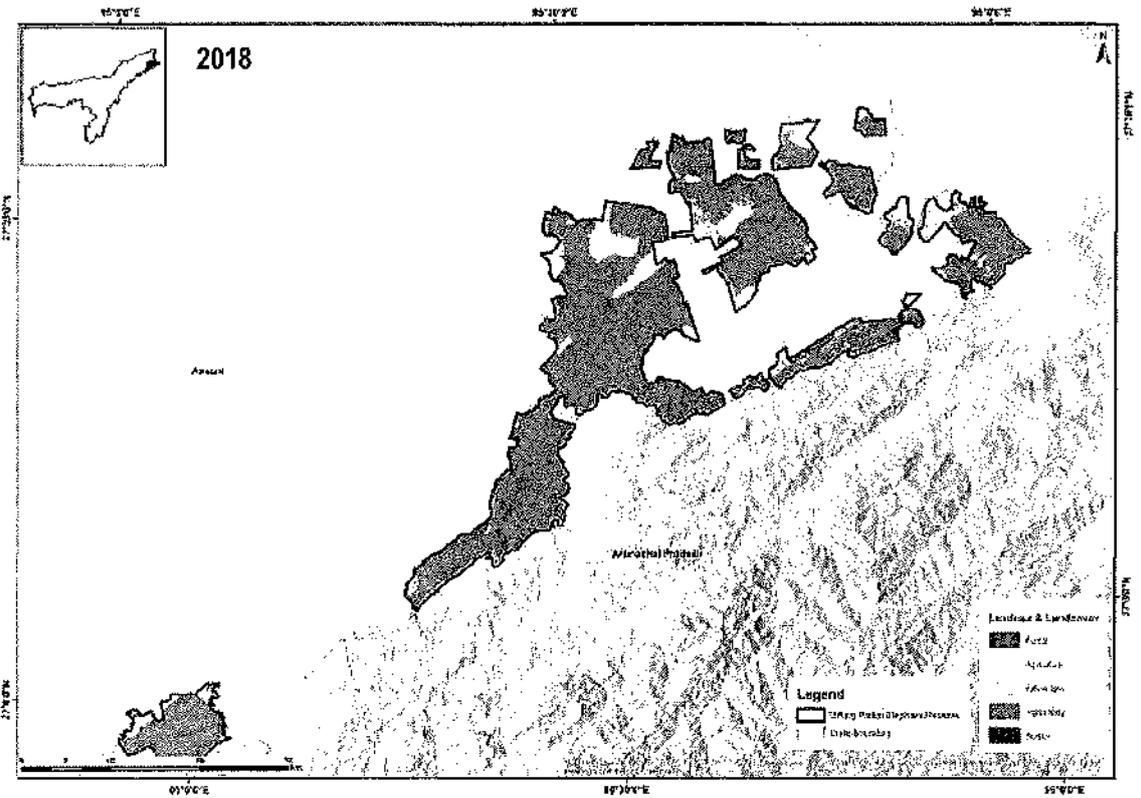
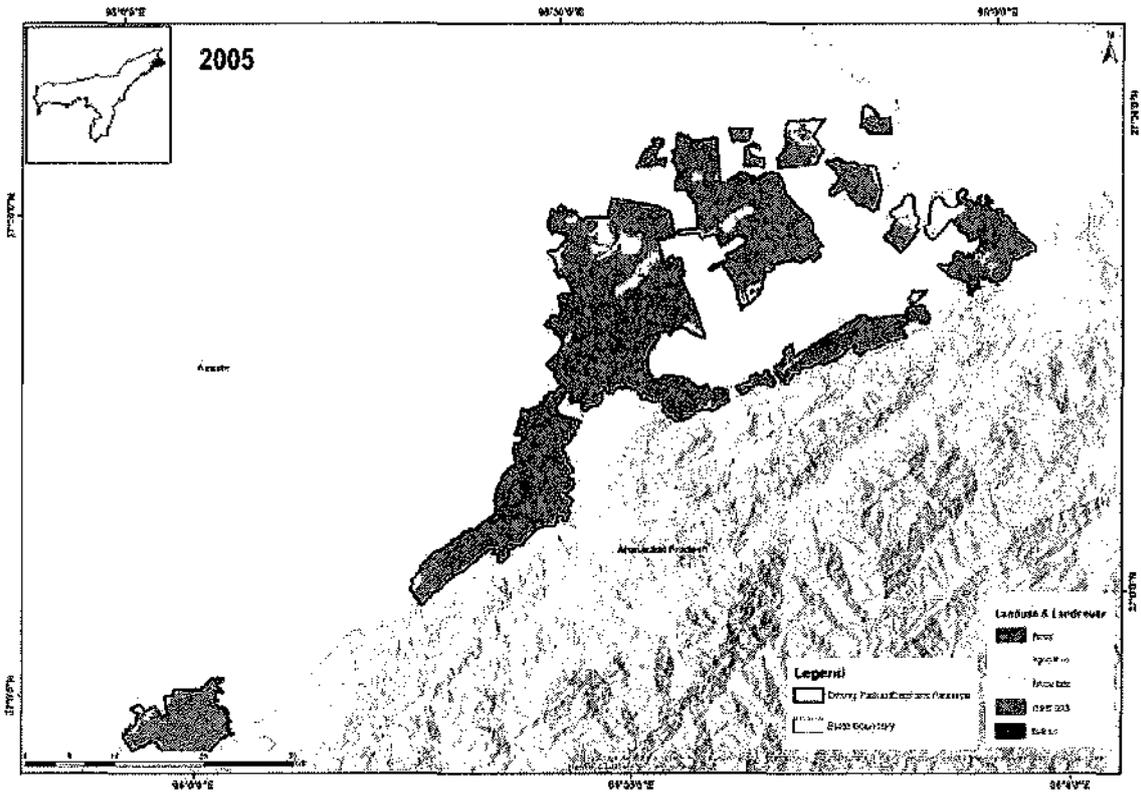
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ANNEXURE-10



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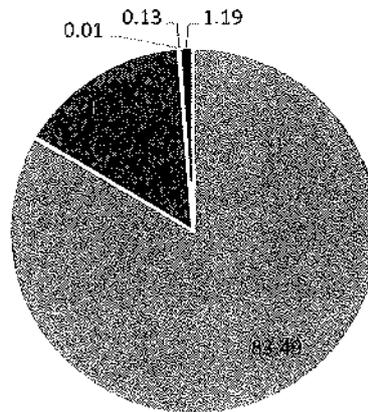


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LULC of Dihing Patkai ER for four based on the years 1985, 1995, 2005 and 2018

S.no	Type	1985 (%)	1995 (%)	2005 (%)	2018 (%)
1	Forest	91.25	89.84	89.72	83.49
2	Agriculture	7.40	8.78	8.90	15.18
3	Fallow land	0.14	0.14	0.15	0.01
4	Built up	0.13	0.17	0.25	0.13
5	Water body	1.07	1.07	0.98	1.19



■ Forest ■ Agriculture ■ Fallow land ■ Built up ■ Water body

LULC of Dihing Patkai ER for the year 2018

About 83.5 % of Dihing Patkai ER under forests. Decrease in forest cover is evident between 1985 and 1995. Similarly, a decline in the forest cover was observed between 2005 and 2018 (Table-9). However, the resolution of the layers 2005 and 2018 are not comparable.

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Google image of Bogapani and Golai Elephant corridors

Bogapani corridor in 2017



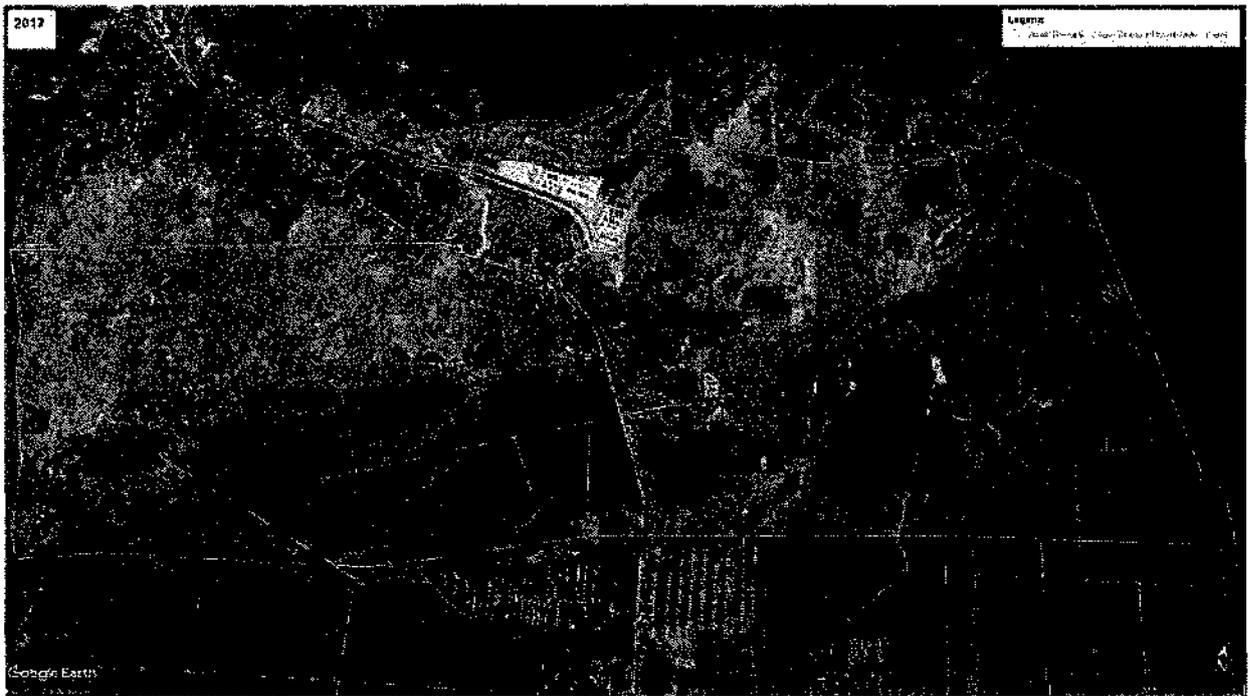
Bogapani corridor in 2022.



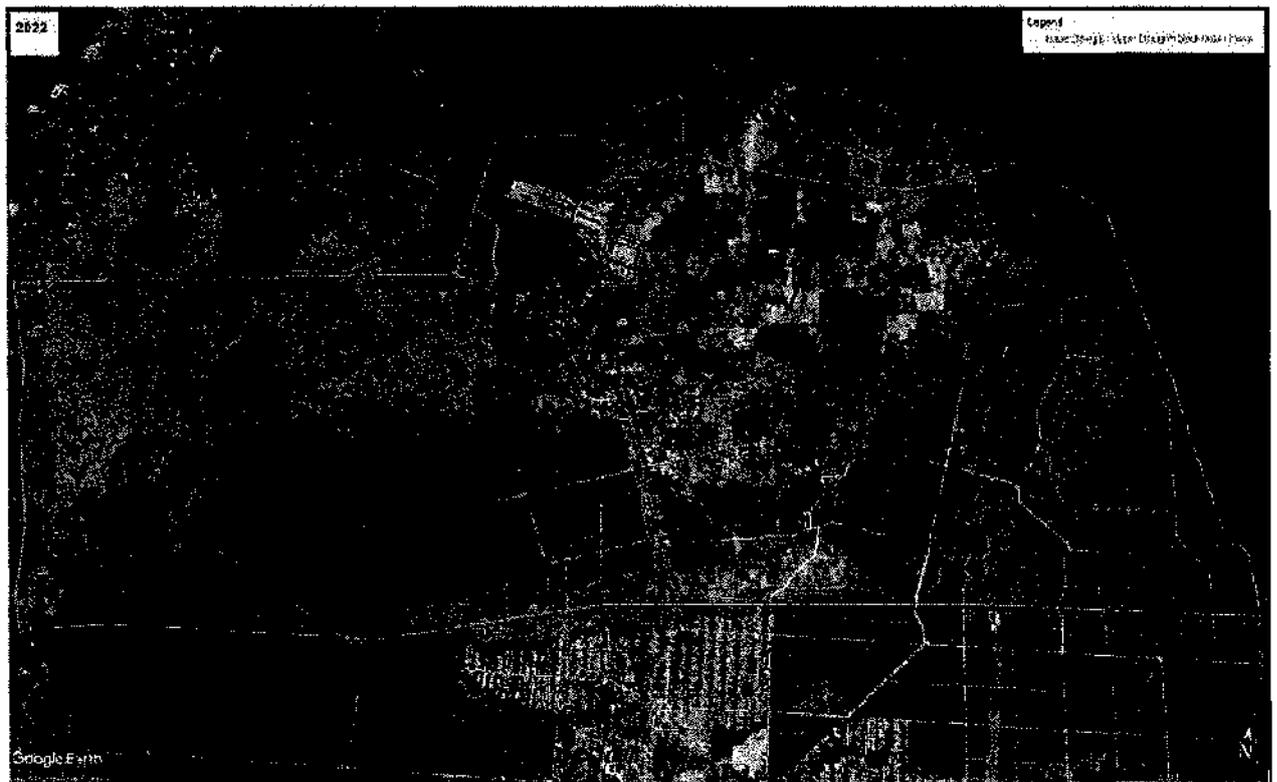
4/3

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Golai Elephant corridor in 2017



Golai Elephant corridor in



4/4

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ANNEXURE-11

SUPREME COURT MATTER
TIME BOUND

F.No.6-15/2017 PE

Government of India

Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003

Date: 24 August, 2017

**Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ
Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs.
Union of India Ors.**

Sir,

Kindly find enclosed the order of the Hon'ble Supreme Court order
dt. 04-08-2017 Writ Petition (C) no. 275 of 2015, wherein the Hon'ble
Supreme Court has directed the MoEF&CC to consider protection of 27
high priority elephant corridors in nine States by acquiring land, if
necessary.

In this regard, you are requested to assess the feasibility of
protecting these corridors in your respective state and if any, land
acquisition is to be done, make it expeditiously.

If any financial assistance is required for this task, the Ministry may
consider funding it, subject to budgetary restraints.

It is further requested to furnish an action taken report within 60
days for filing of the affidavit in Hon'ble Supreme Court.

Yours faithfully,


24.8.17

(R.K. Srivastava)

Inspector General of Forests &

Director, Project Elephant

Telefax: 011-24695292

E-mail: igre-mef@nic.in

Encl: As above

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden, Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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WP(C) No. 275/15

ITEM NO. 6

COURT NO. 1

SECTION FILE-W

SUPREME COURT OF INDIA
RECORD OF PROCEEDINGS
Writ Petition(s) (Civil) No(s) 275/2015

VIDYA ATRREYA & ANR.

Petitioner(s)

VERSUS

UNION OF INDIA . & ORS.

Respondent(s)

Date : 04-08-2017 This petition was called on for hearing today.

CORAM :

HON'BLE THE CHIEF JUSTICE
HON'BLE DR. JUSTICE D. Y. CHANDRACHUD

For Petitioner(s) Mr. Shyam Divan, Sr. Adv.
Mr. P. K. Manchhar, AOR

For Respondent(s) Ms. Pinky Anand, ASG
Mr. Wasim Qadri, Adv.
Mr. Deepak Goel, Adv.
Ms. Sonya Rathore, Adv.
Mr. Gurneet Singh Makker, AOR

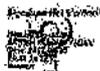
Mr. S. K. Mishra, Adv. Genl.
Mr. Pawan Upadhyay, Adv.
Mr. Sarojit Pratap Singh, Adv.
Ms. Sharmila Upadhyay, AOR

Mr. Amit Sharma, Adv.
Mr. P. K. Mallik, Adv.
Mr. A. C. Pradhan, Adv.
Mrs. Neha Nagpal, Adv.
Mr. Raj Bahadur, Adv.

Mr. Joseph Aristotle S., Adv.
Mrs. Priya Aristotle, Adv.
Mr. Ashish Yadav, Adv.
Ms. Romsha Raj, Adv.

Mr. Debojit Borkakati, Adv.
Ms. Diksha Rai, AOR

Mr. Deepak Goel, Adv.
Mr. Milind Kumar, Adv.



Mr. S. Udaya Kumar Sagar, Adv.
Mr. Mrityunjai Singh, Adv.

Ms. Hemantika Wahi, Adv.
Ms. Jesal Wahi, Adv.

3503

WP(C) No. 2737/16

2

Ms. Puja Singh, Adv.
Ms. Shobhika Sharma, Adv.

Mr. G. Prakash, Adv.
Mr. Jishnu M.L., Adv.
Mrs. Priyanka Prakash, Adv.
Mrs. Beena Prakash, Adv.

Mr. Mahaling Pandarge, Adv.
Mr. Nishant Kameshwarkar, Adv.

UPON hearing the counsel the Court made the following
O R D E R

1. Even though this Court, by its motion bench order dated 21.03.2017, required respondent Nos.1 and 3 to file counter affidavits, the same are not forthcoming. Ms. Pinky Anand, learned Additional Solicitor General, seeks a short adjournment, so as to enable her instructing counsel, to file counter affidavits on behalf of respondent Nos.1 and 3.
2. Mr. Shyam Divan, learned senior counsel appearing on behalf of the petitioner has handed over to us in Court today, some suggestions on behalf of the petitioner. The suggestions are taken on record, and marked as 'Annexure-A'. A copy thereof has been handed over to the learned Additional Solicitor General.
3. The learned Additional Solicitor General undertakes to take into consideration the suggestions of the petitioner, while filing the counter affidavits on behalf of respondent Nos.1 and 3.
4. Prayer is allowed.
5. Counter affidavits on behalf of respondent Nos.1 and 3 be positively filed within three months.
6. List on 21.11.2017.

(SANTOSH KUMAR YADAV)
AR-CUM-PS

(RENUKA SADANA)
ASST. REGISTRAR

4/7

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REMINDER
SUPREME COURT MATTER

F.No.6-15/2017 PE
Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aliganj
New Delhi-110003
Date: 17th November, 2017

Sub: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs. Union of India & Ors.

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.


(Noyal Thomas)
Deputy Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695323
E-mail: projectelephant.moef@gmail.com

Encl: Copy of the letter dated 24-08-2017

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website : moef.nic.in

F.No. 6-3/2010-PE (Vol. I)

Dated 1st May, 2018

Sub: Order of the Hon'ble Supreme Court dated 23.04.2018 in Writ Petition (c) no. 897 of 1996 titled A. Rangarajan & Ors. Vs. Union of India & Ors. filed in the Hon'ble Supreme Court _reg

Ref: Order of the Hon'ble Supreme Court dated 04.08.2017 in Writ petition (c) no.275 of 2015 titled Vidya Atherya & Anr. Vs Union of India.

Kind attention is invited to the subject. Please find enclosed the order of the Hon'ble Supreme Court dated 23.04.2018 in the matter for securing the critical high priority elephant corridors to minimise the human- elephant conflicts. It is requested to kindly provide the response of the states on critical elephant corridors as sought by this Ministry and furnish an action taken report of the same within three weeks to this ministry.

In this regard, attention is also invited to this Ministry vide letter mentioned under reference requesting the Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective states. In spite of the reminder on 17.11.2017, the response from the respective states to this Ministry is still awaited and the order of Hon'ble Supreme Court may also be perused in this context.

Hence, it is once again requested to send the responses immediately to this ministry for finalizing the view of this Ministry on the matter.

This may be treated on top priority.

Encls: as above.

Yours faithfully,

(Noyal Thomas)

IGF & Director (Project Elephant)

Telephone No. 011-24695249

Email: noyalifs1963@gmail.com

Distribution for kind information and necessary action :

1. The Chief Wildlife Warden, Government of Uttarakhand.
2. The Chief Wildlife Warden, Government of Odisha.
3. The Chief Wildlife Warden, Government of West Bengal.
4. The Chief Wildlife Warden, Government of Assam.
5. The Chief Wildlife Warden, Government of Arunachal Pradesh.
6. The Chief Wildlife Warden, Government of Meghalaya.
7. The Chief Wildlife Warden, Government of Karnataka.
8. The Chief Wildlife Warden, Government of Tamil Nadu.
9. The Chief Wildlife Warden, Government of Kerala.



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10. The Chief Wildlife Warden, Government of Andhra Pradesh.
11. The Chief Wildlife Warden, Government of Tripura.
12. The Chief Wildlife Warden, Government of Nagaland.
13. The Chief Wildlife Warden, Government of Uttar Pradesh.
14. The Chief Wildlife Warden, Government of Bihar.
15. The Chief Wildlife Warden, Government of Jharkhand.
16. The Chief Wildlife Warden, Government of Chhattisgarh.
17. The Chief Wildlife Warden, Government of Rajasthan.
18. The Chief Wildlife Warden, Government of Manipur.
19. The Chief Wildlife Warden, Government of Madhya Pradesh.
20. The Chief Wildlife Warden, Government of Haryana.
21. The Chief Wildlife Warden, Government of Gujarat.
22. The Chief Wildlife Warden, Government of Andaman and Nicobar.

Copy to: Shri A. N. S. Nadkarni, Senior Addl. Government Advocate, Supreme Court of India for kind information and necessary action


(Noyal Thomas)

IGF & Director (Project Elephant)

Telephone No. 011-24695249

Email: noyalifs1963@gmail.com

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REMINDER
SUPREME COURT MATTER

F.No.6-15/2017 PE

Government of India
Ministry of Environment, Forest and Climate Change
Project Elephant Division

Indira Paryavaran Bhawan
Vayu Wing, Jor Bagh Road, Aligarj
New Delhi-110003

Date: 17th November, 2017

**Subj: Order of the Hon'ble Supreme Court dated 04-08-2017 in Writ
Petition (C) no. 275 of 2015 titled Vidya Athreya & Anr. Vs.
Union of India & Ors.**

The undersigned is directed to refer this Ministry's letter dated 24-08-2017 on the above cited subject. The Hon'ble Supreme Court has directed the MoEF&CC to consider protection of 27 high priority elephant corridors in nine States by acquiring land, if necessary.

In this regard, this Ministry requested Chief Wildlife Wardens to assess the feasibility of protecting these corridors in your respective States and land acquisition if any, is to be done and if any financial assistance is required for this task, the Ministry may consider funding it, subject to budgetary restraints.

It is to inform that reply from your State is still awaited. Therefore, it is once again requested to kindly consider the suggestion of the Hon'ble Supreme Court and furnish an action taken report on the same at the earliest for filing of affidavit in the Hon'ble Supreme Court of India.

The matter may please be granted top priority.


(Noyal Thomas)

Deputy Inspector General of Forests &
Director, Project Elephant
Telefax: 011-24695323
E-mail: projectelephant.moe@gmail.com

Encl: Copy of the letter dated 24-08-2017

Copy for kind information and necessary action to :

1. The Chief Wild Life Warden , Government of Uttarakhand.
2. The Chief Wild Life Warden, Government of Odisha.
3. The Chief Wild Life Warden, Government of West Bengal.
4. The Chief Wild Life Warden, Government of Assam.
5. The Chief Wild Life Warden, Government of Arunachal Pradesh.
6. The Chief Wild Life Warden, Government of Meghalaya.
7. The Chief Wild Life Warden, Government of Karnataka.
8. The Chief Wild Life Warden, Government of Tamilnadu.
9. The Chief Wild Life Warden, Government of Kerala.

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I

ITEM NO.3

COURT NO.4

SECTION PIL-W

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Writ Petition(s)(Civil) No(s).897/1996

A. RANGARAJAN & ORS.

Petitioner(s)

VERSUS

UNION OF INDIA
MINISTRY OF ENVIRONMENT AND FOREST & ORS.

Respondent(s)

WITH

SLP(C) No. 5176/2012 (XII)
SLP(C) No. 2666/2012 (XII)
SLP(C) No. 7619/2012 (XII)
S.L.P.(C)...CC No. 5161/2012 (XII)
SLP(C) No. 20154/2011 (XII)
SLP(C) No. 37332/2013 (XII)
S.L.P.(C)...CC No. 9201/2012 (XII)
SLP(C) No. 21460/2011 (XII)
SLP(C) No. 17313-17314/2011 (XII)
SLP(C) No. 21463-21464/2011 (XII)
SLP(C) No. 21461/2011 (XII)
SLP(C) No. 16668/2011 (XII)
SLP(C) No. 17160/2011 (XII)
SLP(C) No. 17155-17156/2011 (XII)
SLP(C) No. 17150-17151/2011 (XII)
SLP(C) No. 21480/2011 (XII)
SLP(C) No. 21467/2011 (XII)
SLP(C) No. 21472/2011 (XII)
SLP(C) No. 21477/2011 (XII)
SLP(C) No. 21478/2011 (XII)
SLP(C) No. 21470/2011 (XII)
SLP(C) No. 21468/2011 (XII)
SLP(C) No. 21469/2011 (XII)
SLP(C) No. 24826/2011 (XII)
SLP(C) No. 19112/2011 (XII)
SLP(C) No. 25010/2011 (XII)
SLP(C) No. 31581/2011 (XII)
SLP(C) No. 35559/2013 (XII)
SLP(C) No. 30535/2011 (XII)
SLP(C) No. 35644/2013 (XII)
SLP(C) No. 30536/2011 (XII)
SLP(C) No. 9395/2012 (XII)
S.L.P.(C)...CC No. 5278/2012 (XII)
S.L.P.(C)...CC No. 5312/2012 (XII)
Diary No(s). 16319/2017 (XII)

Date : 23-04-2018 These matters were called on for hearing today.

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CORAM :

HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE DEEPAK GUPTA

Mr. Harish N. Salve, Sr. Adv. (A.C.) (NP)

Ms. Aparajita Singh, Adv. (A.C.)

Mr. A.D.N. Rao, Adv. (A.C.)

Mr. Sudipto Sircar, Adv.

Ms. Tulika Chikker, Adv.

Mr. Siddhartha Chowdhury, Adv. (A.C.)

For Petitioner(s)

Mr. Salman Khurshid, Sr. Adv.

Ms. Madhavi Divan, Adv.

Mr. Manan Verma, Adv.

Ms. Palak Mahajan, Adv.

Ms. Kanika Saran, Adv.

Ms. Diksha Rai, AOR

Mr. Rahul Shyam Bhandari, Adv.

Mr. Vinodh Kanna B., AOR

Mr. Sudarsh Menon, AOR

Mr. K. V. Mohan, AOR

Mr. K.V. Balakrishnan, Adv.

Mr. Nikhil Nayyar, AOR

Mr. S. Ravi Shankar, AOR

Yamunah Nachiar, Adv.

Ms. Priyanka Das, Adv.

Mr. Avishkar Singhvi, Adv.

Mr. Abhimanyu Bhandari, Adv.

Ms. Roohina Dua, Adv.

Mr. Naveen Kumar, AOR

Mr. Sridhar Potaraju, AOR

Mr. Prabhat Kumar, Adv.

Mr. Uday Khanna, Adv.

Ms. Ankita Sharma, Adv.

Mrs. Lalita Kaushik, AOR

Mr. Sanjay Upadhyay, Adv.

Ms. S. Shukla, Adv.

Ms. Eisha Krishen, Adv.

Mr. Shakil Ahmed Syed, AOR

Mohd. Parvez Dabas, Adv.

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Mr. Uzmi Jameel Husain, Adv.
Mr. Pulkit Chandra, Adv.

Mr. R. Anand Padmanabhan, Adv.
Ananya Mukherjee, Adv.
Mr. Romil Pathak, Adv.
Mr. Shashi Bhushan Kumar, AOR

Mr. Kaustubh Shukla, AOR
Mr. Ankur Kashyap, Adv.

Mr. V. Balachandran, AOR
Mr. Siddharth Naidu, Adv.

Mr. Vikas Mehta, AOR
Ms. Anushree Menon, Adv.

Mr. K.N. Balgopal, Sr. Adv.
Mr. L. C. Agrawala, AOR
Mr. A.P. Mukundan, Adv.
Ms. Nitya Nambiar, Adv.

Ms. Rukhsana Choudhury, AOR

Mr. Gopal Shankara Narayanan, Adv.
Mr. Senthil Jagadeesan, AOR
Ms. Shruti Iyer, Adv.
Ms. Sonakshi Malhan, Adv.
Ms. Suriti Chowdhary, Adv.
Mr. Shrutanjaya Bhardwaj, Adv.

Mr. P. K. Manohar, AOR

Mr. Manoj V. George, Adv.
Mr. Zuifiker Ali P. S, AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

**For Respondent(s)/
applicant(s)**

Mr. Atmaram N.S. Nadkarni, ASG
Mr. S. Wasim A. Qadri, Adv.
Mr. D.L. Chidanand, Adv.
Mr. Ritesh Kumar, Adv.
Mr. Gurmeet Singh Makker, AOR
Mr. B. Krishna Prasad, AOR

Tamil Nadu

Mr. Subramonium Prasad, Sr. Adv.
Mr. M. Yogesh Kanna, AOR
Ms. Sujatha Bagadhi, Adv.
Ms. Maha Lakshmi, Adv.
Ms. Nithya, Adv.

Kerala

Mr. G. Prakash, Adv.

Ms. Aparna Bhat, AOR
Ms. Joshita Pai, Adv.

Ms. Anitha Shenoy, AOR

Mr. Sridhar Potaraju, AOR

Caveator-in-person

Mr. K. V. Vijayakumar, AOR

Mr. Vinodh Kanna B., AOR
Mr. A. Sriram, Adv.
Mr. Manikandan, Adv.

Mr. B. Krishna Prasad, AOR

Mr. Manoj V. George, Adv.
Mr. Zulfiker Ali P. S, AOR
Ms. Shilpa Liza George, Adv.
Mr. Faisal M. Aboobaker, Adv.
Ms. Lakshmi Sree Puthenpurackal, Adv.

Mr. B. Balaji, AOR

Mr. Annam D. N. Rao, AOR

Mr. P. A. Noor Muhamed, AOR
Ms. Giffara S., Adv.

Mr. Parijat Sinha, AOR

Mr. M. A. Krishna Moorthy, AOR

Assam

Mr. Shuvodeep Roy, AOR
Mr. Sayooj Mohandas N., Adv.
Mr. Naman Kamboj, Adv.

Tripura

Mr. Shuvodeep Roy, AOR
Mr. Rituraj Biswas, Adv.

Mr. Anil Shrivastav, AOR

Bihar

Mr. Gopal Singh, AOR

Meghalaya

Mr. Manish Kumar, Adv.
 Mr. R. N. Keswani, AOR
 Mr. Ranjan Mukherjee, AOR
 Mr. S. Bhowmick, Adv.
 Mr. Daniel Stone Lyngdoh, Adv.
 Mr. Edward Belho, AAG
 Ms. K. Enatoli Sema, Adv.
 Mr. Amit Kumar Singh, Adv.
 Mr. K. Luikang Michael, Adv.

UPON hearing the counsel the Court made the following
 O R D E R

Learned Additional Solicitor General has submitted that the Project Elephant Scheme is being implemented in 22 States.

Letters have been written to all these 22 States on 24th August, 2017 and 17th November, 2017. In the letter dated 24th August, 2017, an Action Taken Report within 60 days had been sought. While in the letter dated 17th November, 2017 the States have been informed to take up the matter on top priority.

In spite of the aforesaid letters and time bound requirements given by the Union of India, only three States, i.e., Kerala, Meghalaya and West Bengal have responded. The following States have not given any response to the Union of India:

1. Andhra Pradesh
2. Arunachal Pradesh
3. Assam
4. Chhattisgarh
5. Jharkhand

6. Karnataka
7. Maharashtra
8. Nagaland
9. Odisha
10. Tamil Nadu
11. Uttar Pradesh
12. Uttarakhand
13. Tripura
14. Rajasthan
15. Andaman & Nicobar Islands
16. Bihar
17. Punjab
18. Gujarat
19. Haryana (Where an elephant rescue centre has been set up supported by Project Elephant)

Response should be given by the aforesaid States within four weeks from today positively.

Learned counsel appearing in Writ Petition (C) No.275 of 2015 (Vidya Athreya & Anr. Vs. Union of India & Ors.) says that he will not press the issue of elephant corridor in the aforesaid case.

List the matter on 12th July, 2018.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
COURT MASTER

**STANDARD TERMS OF REFERENCE (TOR) FOR EIA/EMP REPORT FOR
PROJECTS/ACTIVITIES REQUIRING ENVIRONMENT CLEARANCE**

- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RP / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

**STANDARD TERMS OF REFERENCE (TOR) FOR EIA/EMP REPORT FOR PROJECTS/
ACTIVITIES REQUIRING ENVIRONMENT CLEARANCE**

- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered

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**STANDARD TERMS OF REFERENCE (TOR) FOR EIA/EMP REPORT FOR
PROJECTS/ACTIVITIES REQUIRING ENVIRONMENT CLEARANCE**

under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

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**STANDARD TERMS OF REFERENCE (TOR) FOR EIA/EMP REPORT FOR PROJECTS/
ACTIVITIES REQUIRING ENVIRONMENT CLEARANCE**

- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
- a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(1) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II(1) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
 - i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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ACTIVITY 3(b)- CEMENT PLANTS

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR CEMENT PLANTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

GENERAL CONDITION-

1. Introduction

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

2. Project description

Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
 - ii. Site accessibility
 - iii. Adigital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
 - iv. Latest High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100m all around the project location.
 - v. Environment settings of the site and its surrounding along with map.
 - vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
 - vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
 - viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
 - ix. Type of land, land use of the project site.
 - x. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
 - xi. Engineering layout of the area with dimensions depicting existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- ##### 3. Forest and wildlife related issues (if applicable):
- i. Status of Forest Clearance for the use of forest land shall be submitted.

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- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna, if any exists in the study area.

4. Salient features of the project

- i. Products with capacities in Tons per Annum for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. Brief on present status of compliance (Expansion/modernization proposals)
 - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
 - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
 - c. Copy of all the Environment Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided.
 - d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the Regional Office of the SPCB shall be submitted.

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5. Description of the Environment

i. Study period

ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
Air Environment			
Micro-Meteorological Wind speed (Hourly) Wind direction Dry bulb temperature Wet bulb temperature Relative humidity Rainfall Solar radiation Cloud cover Environmental Lapse Rate	Minimum 1 site in the project impact area	hourly continuous	IS 5182 Part 1-20 Site specific primary data is essential Secondary data from IMD, New Delhi CPCB guidelines to be considered.
Pollutants PM _{2.5} PM ₁₀ SO ₂ NO _x CO HC Other parameters relevant to the project and topography of the area	at least 8-12 locations	as per national Ambient Air Quality Standards, CPCB notification.	Sampling as per CPCB guidelines Collection of AAQ data (except in monsoon season) Locations of various stations for different parameters should be related to the characteristic properties of the parameters. The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in

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Attributes	Sampling		Remarks
	Network	Frequency	
			the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
Noise			
Hourly equivalent noise levels	least 8-12 locations	8 per CPCB norms	
Water			
Parameters for water quality pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity Total nitrogen, total phosphorus, DO, BOD, COD, Phenol Heavy metals Total coliforms, faecal coliforms Phyto plankton Zoo plankton	Samples for water quality should be collected and analyzed as per: IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
for River Bodies Total Carbon pH Dissolved Oxygen Biological Oxygen Demand Free NH4 Boron Sodium Absorption Ratio Electrical Conductivity	Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies		Yield of water sources to be measured during critical season Standard methodology for collection of surface water (BIS standards)

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Attributes	Sampling		Remarks
	Network	Frequency	
Ground Water			Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.
Traffic Study			
Type of vehicles Frequency of vehicles for transportation of materials Additional traffic due to proposed project Parking arrangement			
Land Environment			
Soil Particle size distribution Texture pH Electrical conductivity Cation exchange capacity Alkali metals Sodium Absorption Ratio (SAR) Permeability Water holding capacity Porosity			Soil samples be collected as per BIS specifications
Land use/Landscape Location code Total project area Topography Drainage (natural) Cultivated, forest, plantations, water bodies, roads and settlements			
Biological Environment			
Aquatic			Detailed description of flora and fauna (terrestrial and

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Attributes	Sampling		Remarks
	Network	Frequency	
Primary productivity Aquatic weeds Enumeration of phyto plankton, zoo plankton and benthos Fisheries Diversity indices Trophic levels Rare and endangered species Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) terrestrial Vegetation-species list. economic importance, forest produce, medicinal value Importance value index (IVI) of trees Fauna Avi fauna Rare and endangered species Sanctuaries / National park / Biosphere reserve Migratory routes			aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. For forest studies, direction of wind should be considered while selecting forests. Secondary data to collect from Government offices, NGOs, published literature.
socio-economic Demographic structure Infrastructure resource base Economic resource base Health status: Morbidity pattern Cultural and aesthetic attributes			Socio-economic survey is based on proportionate, stratified and random sampling method. Primary data collection through questionnaire Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

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Attributes	Sampling		Remarks
	Network	Frequency	
Education			

- iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:
 - Ambient air quality
 - Ambient Noise quality
 - Surface water quality
 - Ground water quality
 - Soil quality
 - Biological Environment
 - Land use
 - Socio-economic environment

6. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

- i. Identification of potential impacts in the form of a matrix for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

- ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - Details of stack emissions from the existing as well as proposed activity.
 - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
 - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
- iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

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- a. Construction phase
 - b. Operation phase
 - vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
7. **Analysis of Alternatives (Technology & Site)**
- i. No project scenario
 - ii. Site alternative
 - iii. Technical and social concerns
 - iv. Conclusion
8. **Environmental Monitoring Program**
- i. Details of the Environment Management Cell
 - ii. Performance monitoring schedule for all pollution control devices shall be furnished.
 - iii. Corporate Environment Policy
 - a. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
 - c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.

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- d. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

iv. Action plan for post-project environment monitoring matrix:

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

9. Additional Studies

- i. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- ii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

- iii. Risk assessment
- Methodology
 - Hazard identification
 - Frequency analysis
 - Consequence analysis
 - Risk assessment outcome
- iv. Emergency response and preparedness plan

10. Project Benefits

- i. Environment benefits
- ii. Social infrastructure
- iii. Employment and business opportunity
- iv. Other tangible benefits

11. Environment Cost Benefit Analysis

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

12. Environment Management Plan (Construction and Operation phase)

- i. Air quality management plan
- ii. Noise quality management plan

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- iii. Solid and hazardous waste management plan
- iv. Effluent management plan
- v. Storm water management plan
- vi. Rain water harvesting plan
- vii. Occupational health and safety management plan
- viii. Green belt development plan
- ix. Socio-economic management plan
- x. Wildlife conservation plan (In case of presence of schedule I species)
- xi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

13. Conclusion of the EIA study

14. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

SPECIAL CONDITONS-

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016.

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ANNEXURE-13

F.No. 2-7/1998- PE (Vol.I)
Government of India
Ministry of Environment, Forests & Climate Change
(Project Elephant Division)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003

Dated 28th March, 2022

OFFICE MEMORANDUM

Sub: Re- Constitution of the Steering Committee of Project Elephant-reg.

In supersession of this Ministry's Office Memorandum No. 2-7/1998-PE (Vol.I) dated 4th September, 2017 the Steering Committee of Project Elephant is reconstituted as under:

- | | |
|---|------------------|
| 1. Minister of Environment, Forests & Climate Change | Chairperson |
| 2. Minister of State, Environment, Forests & Climate Change | Vice Chairman |
| 3. Secretary, Environment, Forests & Climate Change | Member |
| 4. Director General of Forests & Special Secretary | Member |
| 5. Additional Director General of Forests (Wildlife) | Member |
| 6. Additional Director General of Forests (Forest Conservation) | Member |
| 7. Additional Secretary & Financial Advisor | Member |
| 8. Dr. K. K. Sarma, Senior Veterinarian, Guwahati Veterinary College, Assam (Padamshri Awardee 2020). | Member |
| 9. Shri P. C. Tyagi, IFS (Retd), Dehradun | Member |
| 10. Sh. Manoj Ram Phookun, Assam | Member |
| 11. Sh. B S Bonal, IFS (Retd), Assam. | Member |
| 12. Sh. Kumika Gam Singpho, Arunachal Pradesh | Member |
| 13. Dr. Sandeep Kumar Tiwari, WTI, New Delhi | Member |
| 14. Dr. Dipankar Ghose, WWF-India, New Delhi | Member |
| 15. Dr. Bibhuti Prasad Lahkar, Aaranyak, Guwahati | Member |
| 16. Inspector General of Forests & Director (Project Elephant), MoEF&CC. | Member Secretary |

2. In addition to above, the Director, Wildlife Institute of India; Director, Zoological Survey of India; Director, Botanical Survey of India; Commissioner, Animal Husbandry, Department of Animal Husbandry & Dairying ; ADG (PT)/MS, NTCA; Additional Director, Wildlife Crime Control Bureau (WCCB); Representative from Ministry of Agriculture and Farmer Welfare; Representative from Ministry of Power; Representative from Ministry of Railways (Joint Secretary level or above) and Chief Wildlife Wardens of States having Project Elephant scheme would be permanent invitees for meeting.

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3. The term of the Steering Committee of the Project Elephant will be for duration of three years from the date of issuance of this Office Memorandum, subject to modifications, if any, in the composition and functions of the committee, with the approval of competent authority.
4. The committee will review the implementation of Project Elephant and provide suitable guidance from time to time for which the committee may meet as and when necessary.
5. Travelling Allowance and Daily Allowance will be payable to non-official members of the Committee as admissible to Grade I officers of the Government of India.



(Dr. K. Muthamizh Selvan)
Scientist 'D' (Project Elephant)
Email id: kn.selvan@gov.in
Telephone No. 011-24695067

Distribution:

1. PS to Hon'ble Minister, Environment Forests & Climate Change.
2. PS to Hon'ble Minister of State, Environment Forests & Climate Change.
3. PPS to Secretary, Ministry of Environment Forests & Climate Change.
4. PPS to DGF&SS, Ministry of Environment Forests & Climate Change.
5. PSO to Addl. DGF (WL)/PPS to AGF (FC)/PPS to IGF(Wildlife) PS to JD (WL), EF&CC
6. All Members of the Steering Committee (Non-official)

Copy to:

1. The Chief Secretaries and Forest Secretaries of all the State Governments/UTs.
2. The Advisor, Forest and Wildlife, Planning Commission.
3. PAO, Ministry of Environment Forests & Climate Change.
4. Director, Public Relations, Ministry of Environment Forests & Climate Change.
5. Principal Chief Conservator of Forests (HoFF) of all States and UTs.
6. Chief Wildlife Warden of all the concerned States.

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F. No. 14-1/2018- PE

Government of India/ भारत सरकार

Ministry of Environment, Forests & Climate Change/ पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

(Project Elephant Division/हाथी परियोजना प्रभाग)

6th Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi-110003

Dated: 27th July, 2022

OFFICE MEMORANDUM

Sub: Re-Constitution of the Central Project Elephant Monitoring Committee (CPEMC) for monitoring and implementation of directions/instructions/guidelines of the Ministry and Court's direction related to conservation and protection of elephants-regarding

In supersession of this Ministry's Office Memorandum No. 6-3/2018 -PE dated 28th December, 2018, the Central Project Elephant Monitoring Committee (CPEMC) is reconstituted as under:

- | | | |
|----|---|--------------------------------|
| 1 | Additional Director General of Forests (Project Tiger) | : Ex-Officio, Chairman |
| 2 | Director, Wildlife Institute of India | : Ex-Officio, Member |
| 3 | Inspector General of Forests (Wildlife) | : Ex-Officio, Member |
| 4 | PCCF(WL) of two range states (On rotation basis), PCCFs of Assam and Kerala | : Member |
| 5 | Shri Surendra Kumar, IFS (Retd.) Ex PCCF (WL), Kerala | : Member |
| 6 | Dr. Digvijay Singh Khati, IFS (Retd.) Ex PCCF & HoFF, Uttarakhand. | : Member |
| 7 | Shri. Kishore Kumar Bisen, IFS (Retd.) Ex CCF Chhattisgarh. | : Member |
| 8 | Shri. Ranjan Kumar Das, IFS (Retd.) Ex CCF Assam. | : Member |
| 9 | Dr. P Pramod, Senior Principal Scientist, SACON. | : Member |
| 10 | Shri. Vivek Menon, Executive Director, WTI. | : Member |
| 11 | Dr. Anamitra Anurag, WWF -India, West Bengal | : Member |
| 12 | IGF & Director, Project Elephant | : Ex-Officio, Member Secretary |

2. The Committee shall have the following Terms of Reference:

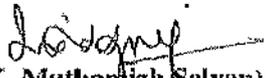
- i. Regular monitoring of various directions/instructions/guidelines issued by the Ministry and directions from the Courts regarding conservation and protection of Indian elephants within the country including implementation of the measures taken to avoid the violence against the elephants.
- ii. The field visits to the states for examination of emergent human -elephant conflict situation on the advice of the Government of India and to submit the report to the Government of India/Steering Committee of Project Elephant.

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- iii. To review in general human – elephant conflict situation in the country and suggest the measures to deal with conflicts effectively.
- iv. Monitoring the implementation of the works under “Project Elephant” component of Centrally Sponsored scheme, Integrated Development of Wildlife Habitats” (IDWH) as and when advised by the MoEF&CC/Steering Committee
- v. Any other work assigned by the Ministry related to elephant conservation.

3. The Committee shall have the following other Terms and Conditions:

- i. The Committee shall meet at least twice in a year. In addition to this meeting, Committee can hold any meetings or organize visit to HEC area on advice of the Ministry.
- ii. The Committee will be at liberty to constitute a sub-committee out of its members for emergent visits to HEC areas to deal with emergent HEC situation.
- iii. Terms of members other than ex-officio members shall be two years and extendable by one year.
- iv. The TA/DA and sitting fees (Rs.4000/- per member) to Non-Official Members are to be paid by the Ministry through RTGS after submission of original bills of Airlines, Taxi etc. As per the Government of India Instructions non official members will, have book the ticket thorough Government approved agents.


(Dr. K. Muthaiah Selvan)
Scientist 'D' (Project Elephant)
Email id: km.selvan@gov.in
Telephone No. 011-24695067

Distribution:

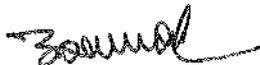
1. All the members of the Committee.
2. The Principal Chief Conservator of Forests & Chief Wildlife Wardens, All Elephant Range States/UT's.

Copy to:

- PS to Hon'ble Minister, EF&CC.
- PS to Hon'ble MoS, EF&CC.
- PPS to Secretary, MoEF&CC.
- PPS to DGF&SS, MoEF&CC.
- PPS to Addl. DGF (WL), MoEF&CC.

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3532 Annexure-R.8
भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110003
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website: moef.nic.in

F. No. 4-3/2014-PE

Dated: 10th October, 2025

Sub: Hon'ble NGT matter in OA No. 19/2014-reg.

Ref: MoEFCC's letter Nos. 6-15/2017-PE dated 24.08.2017 and 17.11.20217 and 6-3/2010-PE (Vol. 1) dated 01.05.2018.

In pursuance to the subject cited above, it is informed that the Ministry vide letters under reference had asked the States to take action with regard to the protection of various elephant corridors. Further, the Hon'ble NGT vide order dated 08.12.2017 in OA No. 19/2014 has inter-alia passed the following directions:

"12) We direct Central Government to exercise its power under Section 5 of the Environment Protection Act, 1986 and Wildlife Protection Act, 1972 to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals."

2. Further, the Hon'ble NGT in its order dated 16.04.2025 (copy enclosed) has inter-alia directed as under:

- i. Tribunal in paragraph 50 (12) of the order dated 08.12.2017 passed in OA No.19/2014 had directed Central Government to exercise its power under Section 5 of the Environment (Protection) Act, 1986 (EP Act, 1986) and Wildlife (Protection) Act, 1972 (WP Act, 1972) to give legal recognition and status to the elephant corridors at Golai and Bogapani and other areas to ensure free passage of the endangered wildlife animals.
- ii. No such material has been placed on record indicating the exercise of power by Government under the EP Act, 1986 or WP Act, 1972.
- iii. Learned Counsel representing the MoEF&CC submits that power under the WP Act, 1972 is to be exercised by State of Assam. But even the power under Section 5 of the EP Act, 1986 has not been exercised by Central Government in terms of the direction of 50(12). Hence, we require respondent no.1-Union of India through Secretary, MoEF&CC and respondent no.2-State of Assam through Chief Secretary to file their compliance reports disclosing compliance of the direction contained in paragraph 50 (12) of the order noted above.

3. It is pertinent to mention here that the land is a state subject and the action for the notification of areas as Conservation/Community Reserves/Wildlife Sanctuaries and National Park under Wildlife Protection Act, 1972 is within the purview of State Government.

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4. Keeping above in view, the State Government is again requested to take necessary measures for the protection of the above said corridors as per the provisions of the Wildlife Protection Act, 1972.

This may be treated on top priority.

Sincerely yours.



(Dr. Rajendra Kumar)
Scientist 'D'

Encls: as above.

To:

The Chief Wildlife Warden,
Government of Assam, Guwahati.

Copy to:

PPS to DGF&SS/PPS to ADG(PE).

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Annexure-R.9.

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भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
/IRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110003
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD,
NEW DELHI-110 003

F. No. 4-3/2014-PE

Dated: 21-10-2025

Sub: Directions of Hon'ble NGT vide order dated 08.12.2017 and order dated 16.04.2025 in OA No. 19/2014.-reg.

Ref: i. MoEFCC's letter No. 4-3/2014-PE dated 10.10.2025.

In pursuance to the subject cited above, it is stated that the matter was discussed in a meeting held on 10.10.2025 chaired by IGF(PT&E) along-with all concerned Divisions of the Ministry regarding the exercise of powers under Section 5 of the Environment Protection Act, 1986 to give legal recognition and status to Golai and Bogapani elephant corridors in Assam along with other areas as per the orders of NGT. Based upon the deliberations in the meeting, the comments were sought from the concerned Divisions, wherein the ESZ Division of this ministry has informed that the directions under Section 5 can be issued by the Ministry after a comprehensive environmental assessment. Further, it has been mentioned that a detailed proposal from the State Government of Assam may be requested on the following aspects covering but not limited to:

- i. Details of the boundaries, geo-coordinates, habitat connectivity, elephant movement patterns in the region, habitat quality and relevant map.
- ii. Legal status of land falling in the corridor and other areas to be protected.
- iii. Decadal data of human-elephant/WL conflict in the region, impact assessment of linear infrastructure such as highways, railways, power/pipe lines or other barriers, if any.
- iv. Encroachments or permanent or temporary structures, settlements, plantations and details of existing industrial units and proposed within the areas which are required to be protected as per the order of NGT.
- v. Measures taken by the State for habitat restoration, human-elephant conflict mitigation like early warning systems, fencing and compensation mechanisms, if any.

2. It is, therefore, requested to submit a detailed proposal to this Ministry in this regard. This may be treated as most urgent.

Encls: as above.

Digitally signed by
Suneet Bhardwaj
Date: 21-10-2025
16:43:27

(Suneet Bhardwaj)
AIGF (PT &E)

To:

The Chief Wildlife Warden, Government of Assam, Guwahati.

A-118

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Copy to:

Scientist 'G', ESZ Division

Copy also to:

1. PPCF, Govt of Assam, Guwahati
2. PPS to AADG(PT&E)/IGF(PT&E)/AIG(PT&E).

True copy

Sealed

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Sadhu Kumar Yadav <sadhukumaryadav4516@gmail.com>

ADDITIONAL- AFFIDAVIT in OA No. 19 of 2014 DR. KASHMIRA KAKATI VS THE UNION OF INDIA & ORS.

1 message

Sadhu Kumar Yadav <sadhukumaryadav4516@gmail.com>

Wed, Nov 12, 2025 at 2:06 PM

To: petalchandhok@trustlegal.in, sanjay@eldfindia.com, sridhar@sreeran.com, "rajnishprasadadvocate@gmail.com" <rajnishprasadadvocate@gmail.com>, "avijitroy.aor@gmail.com" <avijitroy.aor@gmail.com>, "berimanu@gmail.com" <berimanu@gmail.com>

Cc: shariqcounsel2005@gmail.com



Dr. Kashmira Kakati (2).pdf

Dear sir / Madam,

Please find enclosed herewith the Additional affidavit of union of india (Ministry of Environment Forest and Climate Change) in OA No. 19 of 2014 dr. Kashmira kakati vs the Union of India & Ors.

Thanks & regards.

Court Clerk

Sadhu Sharan Yadav

For M/s Ahmadi Law Offices

Office:

D-864, LGF New Friends Colony,

New Delhi - 110025

(Mobile) + 8298248843